

Report and Recommendation of the President to the Board of Directors

Project Number: 45301-003 Loan and Grant Numbers: 3041-LAO and 0363-LAO August 2018

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

Distribution of this document is restricted until it has been approved by the Board of Directors. Following such approval, ADB will disclose the document to the public in accordance with ADB's Public Communication Policy 2011.

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 17 July 2018)

Currency unit		-	kip (KN)
KN	1.00	=	\$0.0001190
\$	1.00	=	KN8,405
			ABBREVIATIONS
ADB		Acia	an Development Bank
	_		
DED	—		ailed engineering design
DWS	-	Dep	artment of Water Supply
HH	_	hou	sehold
IEE	_	initia	al environmental examination
km	_	kilor	neter
Lao PDR	_	Lao	People's Democratic Republic
MPWT	_	Mini	istry of Public Works and Transport
NRW	_	non	revenue water

provincial *nam papa* (provincial water utility) village environmental improvement water supply and sanitation VEI -WSS _

—

PNP

NOTE

In this report, "\$" refers to United States dollars.

Vice-President Director General Directors	Stephen Groff, Vice President (Operations 2) Ramesh Subramaniam, Southeast Asia Department (SERD) Vijay Padmanabhan, Urban Development and Water Division, SERD Yasushi Negishi, Lao PDR Resident Mission, SERD
Team leader	Javier Coloma Brotons, Urban Development Specialist (Water Supply and Sanitation), SERD
Team members	Linda Adams, Senior Social Development Specialist, SERD Eugenio Antonio Dig, Operations Assistant, SERD Baurzhan Konysbayev, Principal Counsel, Office of the General Counsel Rose Fatima Luistro, Associate Project Analyst, SERD Genevieve O'Farrell, Environment Specialist (Safeguards), SERD Melody Ovenden, Social Development Specialist (Resettlement), SERD Vongphet Soukhavongsa, Safeguards Officer, SERD Stella Tansengco-Schapero, Senior Financing Partnership Specialist, Office of Cofinancing Operations Phoxay Xayyavong, Senior Social Sector Officer (Health), SERD
Peer reviewer	Marko Davila, Urban Development Specialist, Central and West Asia Department

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

CONTENTS

PROJECT AT A GLANCE

I.	THE PROPOSAL	
II.	THE PROJECT	1
	 A. Rationale B. Impact and Outcome C. Outputs D. Investment and Financing Plans E. Implementation Arrangements 	1 3 3 5 6
III.	DUE DILIGENCE	7
	 A. Technical B. Economic and Financial C. Governance D. Poverty and Social E. Safeguards F. Risks and Mitigating Measures 	7 7 8 8 8 10
IV.	ASSURANCES	10
V.	RECOMMENDATION	10
APP	ENDIXES	
1.	Revised Design and Monitoring Framework	
2.	List of Linked Documents	16

Page

PROJECT AT A GLANCE

1.	Basic Data			Project Number	r: 45301-003
	Project Name	Water Supply and Sanitation Sector	Department	SERD/SEUW	
	-	Project (Additional Financing)	/Division		
	Country Borrower	Lao People's Democratic Republic Lao People's Democratic Republic	Executing Agency	Transport	
	Sector	Subsector(s)		ADB Financin	
1	Water and other urban infrastructure and services	Urban policy, institutional and capacity	development		6.13
	Intrastructure and services	Urban sanitation			1.87
		Urban water supply	_		22.50
			То	tal	30.50
3.	Strategic Agenda	Subcomponents	Climate Change In	nformation	
	Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made	Adaptation (\$ millio		7.36
	Environmentally sustainable growth (ESG)	more inclusive Global and regional transboundary environmental concerns Urban environmental improvement	Climate Change im Project	pact on the	Medium
4.	Drivers of Change	Components	Gender Equity an	d Mainstreaming	
	Governance and capacity	Institutional development	Effective gender m	ainstreaming	1
	development (GCD) Partnerships (PAR)	Civil society organizations Implementation	(EGM)		
5.	Poverty and SDG Targeting		Location Impact		
	Geographic Targeting Household Targeting SDG Targeting SDG Goals	No No Yes SDG6, SDG9	Urban		High
6.	Risk Categorization:	Low			
7.	Safeguard Categorization	Environment: B Involuntary Re	settlement: B Indig	enous Peoples: C	
8.	Financing				
	Modality and Sources		A	Mount (\$ million)	
	ADB				30.50
	Sovereign Project grant: A	Asian Development Fund			23.14
	Sovereign Project grant: ADF Disaster Risk Reduction Fund				7.36
	Cofinancing				0.00
	None				0.00
	Counterpart				5.43
	Beneficiaries				0.63
	Government				3.38
	Participating nam papas				1.42
	Total 35.93			35.93	



18-0930 17 LAO ABV

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed grant to the Lao People's Democratic Republic (Lao PDR) for the additional financing of the Water Supply and Sanitation Sector Project.

2. Recognizing the importance of provincial water utilities, or provincial *nam papas* (PNPs), in providing sustainable water supply and sanitation (WSS) services, the Asian Development Bank (ADB), on 9 October 2013, approved a loan amounting to \$35 million from ADB's Special Fund and a grant totaling \$6 million from Phu Bia Mining Limited, to be administered by ADB, for the Water Supply and Sanitation Sector Project (current project) to the Lao PDR.¹

3. Since its approval in 2013, the current project has helped improve the performance of PNPs and expand access to better WSS services for urban residents in select small towns of the Lao PDR. Given the current project's good performance and achievements, the additional financing will continue to strengthen PNPs and expand access to more efficient, and climate- and disaster-resilient WSS services for urban residents in small towns. It will support the implementation of subprojects in six new towns, in addition to those ongoing in nine towns.

4. With the additional financing, the overall project will (i) expand access to high-quality and reliable piped water supply services for the urban population, (ii) strengthen the PNPs' capacity to manage water supply systems in a resilient manner, and (iii) support government and community efforts to deliver urban WSS. The inclusion of women and poor people will remain a priority. The current project's approach and structure will apply under the additional financing.

II. THE PROJECT

A. Rationale

5. **Sector constraints and opportunities.** The population of the Lao PDR in 2017 is estimated at 6.69 million, of whom a third reside in five large urban centers and 150 small towns in 144 districts. The gross domestic product was estimated at \$2,408 per capita in 2016 and \$2,550 in 2017.² The poverty rate declined to 23.2% in 2013 and is projected to fall by 1 percentage point per annum.

6. WSS is a basic urban service which contributes to the economic growth of towns. Access to piped water supply is still low in the Lao PDR—only 64% of urban residents had it in 2015. However, access to improved sanitation is high, covering 94% of the population in 2015. Increasing water supply coverage and quantity, improving its quality, and ensuring service continuity will help improve urban residents' health condition and accelerate poverty reduction. Further, the urban WSS systems in the Lao PDR are exposed to disaster and climate change risks that may impact water reservoirs, treatment plant structures, and distribution networks. The urban WSS systems in the Lao PDR require careful designing to incorporate resilient features based on the principles of water safety planning.³

¹ ADB. 2013. Report and Recommendation of the President to the Board of Directors: Proposed Loan and Administration of Grant to the Lao People's Democratic Republic: Water Supply and Sanitation Sector Project. Manila.

² Country Economic Indicators (accessible from the list of linked documents in Appendix 2).

³ ADB and World Health Organization. 2017. *Water Safety Planning for Urban Water Utilities: Practical Guide for ADB Staff.* Manila.

7. **The current project.** The current project supports the government's urban sector targets—90% coverage for piped water supply and 100% coverage for sanitation by 2030—and its expected outcome is stronger performance of participating PNPs in delivering sustainable water supply to 155,500 urban residents and sanitation services to 163,000 urban residents in 11 towns in six provinces. The project is being executed by the Department of Water Supply (DWS), which was established in 2015 in the Ministry of Public Works and Transport (MPWT).

8. **Implementation progress.** The current project started slowly due to the implementation assistance consultant late recruitment and subsequent delays in subprojects' design and procurement. It also suffered from grant funds loss as Phu Bia Mining Limited withdrew in December 2016; it did so primarily because of the project's slow start and because its ownership changed and its priorities shifted to dealing with the mining global decline and price erosion.

9. **Achievements to date.** After the change in financing plan and project scope, the current project's implementation significantly accelerated. It is rated *on track*, with cumulative contract awards of \$22.29 million equivalent (69% of the loan amount) and cumulative disbursement of \$7.06 million equivalent (21% of the loan amount). To date, the following results have been achieved:

- (i) Institutional reform successfully yielded a new and dedicated DWS (also covering sanitation), reflecting the growing importance of the sector within the MPWT.⁴ In addition, corporate plans were developed for six subprojects by four PNPs, two of which have secured approval.
- (ii) The project (categorized as *effective gender mainstreaming*) greatly contributed to strengthening women's roles by achieving the targets for the number of female staff in local government and project-related committees.
- (iii) Community consultation meetings and workshops were delivered to 7,390 persons, of which 45% are women.
- (iv) Having a dedicated DWS also allowed the staff to focus on project administration and improve project performance.⁵

10. **Rationale for additional financing.** Phu Bia Mining Limited's withdrawal resulted in a \$6 million funding shortfall and reduced project benefits, accordingly. Having overcome the slow start and having strengthened the sector's oversight through the DWS, the government was keen to ramp up its efforts and therefore requested additional financing of \$30.50 million to expand WSS coverage and improve PNPs' performance. Helped by an experienced DWS, project management staff, and consultants, the government is fitted to using funds successfully to achieve its 2030 WSS targets. With the additional financing, the current project will be almost doubled. Based on the DWS performance for the last six months,⁶ the government is confident of implementing the overall project successfully.

11. **Strategic alignment.** The current project is *on track*, maintaining both a satisfactory implementation pace and compliance with ADB policies. It has shown compliance with its loan covenants, particularly on project implementation, contract awards, safeguards reporting requirements, updated WSS sector policies, and grievance redress mechanism, and has partially

⁴ Water supply and sanitation were previously the responsibility of the Department of Housing and Urban Planning.

⁵ Summary of Project Performance (accessible from the list of linked documents in Appendix 2).

⁶ The EA's performance has significantly improved in terms of overseeing design and procurement. The average number of days from advertisement to final bid evaluation report was 102 days for the bids invited in July–November 2016 while it was 64 days for the bids invited in October–November 2017.

complied covenants on tariff increases and gender. It has, however, not complied with its covenant on outstanding water bills because the actual institutional setup in the Lao PDR is more complicated than it was considered during project conceptualization and further work is required on supporting the reform process. The project meets the eligibility criteria for additional financing, such as overall development objectives, being consistent and being strategically aligned with ADB's country partnership strategy for Lao PDR, 2017–2020, and is included in ADB's country operations business plan for Lao PDR, 2018–2020.⁷ The additional financing modality is appropriate because the current project is performing well and exhibits a high degree of project readiness in design, implementation capacity, and safeguards. It will continue to contribute to the government's efforts to achieve its urban sector targets by 2030.

12. **Development coordination.** Development coordination supports capacity development to achieve policy reforms. The Norwegian Agency for Development Cooperation supported corporate plans for those PNPs included in the Small Towns Water Supply and Sanitation Sector Project. It supported 5 years of capacity development technical assistance to improve PNPs management capabilities, on which the additional financing will build to deliver a comprehensive corporate plan.

13. **Lessons learned.** Lessons learned from the implementation of the current project include PNP's poor capacity on operation and maintenance (O&M) and budget management, poor water conservation practices, and lack of disaster risk awareness. To address these issues, the additional financing will (i) provide training for PNP staff on O&M, budget preparation and execution, accounting, cash planning, and performance measurement; (ii) conduct awareness programs for village communities on water conservation to cope with urbanization and reduced dry season river flows caused by deforestation; (iii) use robust equipment to reduce O&M; and (iv) provide easy access to units within facilities for easy O&M.

14. **ADB's value addition.** ADB's value addition lies in supporting the government through a sector reform process by providing both lending and non-lending support and helping improve the PNPs' performance in the delivery of urban WSS services. Through the overall project and ongoing activities under the Greater Mekong Subregion Corridor Towns Development projects, ADB's support will allow the government to expand its sanitation mandate and help achieve its 2030 WSS targets, and address improved health and hygiene conditions in urban areas.

B. Impact and Outcome

15. 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 WSS improved. In terms of beneficiaries, the number of urban residents 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. The overall project is expected to cover eight PNPs and improve WSS in 15 towns.

C. Outputs

16. **Output 1: Sector coordination and policy implementation improved.** Output 1 will continue the reforms introduced under previous projects and implement additional policy reforms,

⁷ ADB. 2017. Country Partnership Strategy: Lao People's Democratic Republic, 2017–2020—Fostering Inclusive and Sustainable Economic Growth. Manila; and ADB. 2017. Country Operations Business Plan: Lao People's Democratic Republic, 2018–2020. Manila.

improving the performance in six PNPs under the current project to eight PNPs under the overall project. These activities entail (i) service agreements between PNPs and provincial governments; PNPs training on corporate planning and financial management, tariff adjustments, issuance of district sanitation regulations, use of simplified corporate plans, and integration of 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 nonrevenue water (NRW) management, asset management, and water safety plans; and (iii) capacity development, including safeguards training and the introduction of O&M service contracts for participating PNPs (e.g., administration support, PNP leak-detection equipment) for two additional PNPs under the additional financing.

17. **Output 2: NRW management and water supply development improved.** Output 2 will integrate a comprehensive program to reduce NRW in the existing system and expand water supply to areas not yet covered, lowering average NRW levels to 20%. The current project covers three towns, and the additional financing will cover three towns thereby covering six towns in total. The overall project will expand water supply distribution pipelines to 250 kilometers (km): 150 km under the current project and 100 km under the additional financing.

18. **Output 3: New water supply systems in small towns developed.** 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 free metered connections to households (HHs), provided they have sanitation facilities installed. Special attention will be paid to ensure that the infrastructure is in the least-risk area and the proposed structures are built to withstand floods and geophysical hazards. The current project covers six towns, and the additional financing will add three towns. The overall project will construct 150 km of new water distribution systems: 100 km under the current project and 50 km under the additional financing.

19. **Output 4: Community action in water supply and sanitation enhanced.** It will widen the benefits from investing in water supply systems to 15 small towns (nine towns under the current project and six under the additional financing) through sanitation and awareness activities. These involve (i) VEI grants⁸, such as drainage improvements and village access roads for core villages according to agreed eligibility criteria; (ii) HH sanitation grants for the poor⁹ without a sanitary private latrine (construct a new or upgrade existing) to improve HH sanitation; (iii) new or rehabilitated public sanitation facilities, for which O&M can be contracted to a business or social entity, and 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, whereby beneficiaries finance their own units to become eligible for water supply connections. Output 4 will also strengthen communities capacity to understand the factors contributing to disaster and climate risks through improvements on community-level infrastructure.¹⁰ The community engagement process will allow identifying and

⁸ The project will contribute up to 80% of the cost of improvements (\$10–\$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.

⁹ 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.

¹⁰ 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.

prioritizing resilient community infrastructures that can be funded through the small-grants provided through the overall project.

20. **Output 5: Capacity for project implementation and O&M strengthened.** Output 5 will be delivered through capacity development programs that include safeguards training; O&M training for the participating PNPs; and financial, auditing, and improved administration support. Regular ADB review missions confirm that established financial, administrative, procurement, and reporting systems are effective and therefore will be continued.

D. Investment and Financing Plans

21. The project is estimated to cost \$35.93 million (Table 1).

Table 1: Project Investment Plan (\$ million)				
Item	Current Amount ^a	Additional Financing ^b	Total	
A. Base Cost ^c				
1. Output 1: Sector coordination and policy implementation improved	0.20	0.21	0.41	
2. Output 2: Nonrevenue water management and water supply development improved	12.85	18.55	31.40	
3. Output 3: New water supply systems in small towns developed	6.28	2.65	8.93	
4. Output 4: Community action in water supply and sanitation enhanced	2.58	2.41	4.99	
5. Output 5: Capacity for project implementation, operation, and maintenance strengthened	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 The original project amount was \$46.55 million, including \$6 million from PBM. With the withdrawal of PBM from the original project, the current project amount was reduced to \$40.62 million.

^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 are not exempted. Such amount does not represent an excessive share of the project cost.

° 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.

22. The government has requested a grant not exceeding \$30.50 million from ADB's Special Funds resources (Asian Development Fund) to help finance the project. The financing plan is in Table 2, of which, climate adaptation is estimated at \$7.36 million and will be fully financed by ADB through a grant from the Asian Development Fund 12 Disaster Risk Reduction funding.

Table 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						
Village environmental improvements ^c	0.09	0.2	0.09	0.2	0.18	0.2
Household sanitation ^d	1.26	3.1	0.54	1.5	1.80	2.3
Participating nam papas	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

 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 the Asian Development Bank through a grant from the Asian Development Fund 12 Disaster Risk Reduction funding.
 through a grant from the Asian Development Fund 12 Disaster Risk Reduction funding.

^b The 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 toward the village environmental improvements, such as public toilets in markets, road enhancements, and drainage in critical flooded places.

^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.

E. Implementation Arrangements

23. The implementation arrangements are summarized in Table 3 and described in detail in the Project Administration Manual.¹¹

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		e e e e e e e e e e e e e e e e e e e				
(i) Project steering	Vice minister, MPWT (chair); representatives	from MOF, MPI, MONRE	, and DHUP;			
committee and	PCU director and deputy director; Lao Wome	en's Union (members). Th	e subcommittee			
subcommittee on	will include director general, MPWT (chair); o	leputy director general, M	PWT; PCU			
corporatization	project director (Secretariat); and representa	tives from NCBD (PMO) a	and the			
	Department of State-Owned Enterprise and	Financial Management (M	IOF)			
(ii) Project coordination	Project director, deputy project directors, sen					
unit	safeguards specialist, procurement specialist	, HRD specialist, chief acc	ountant; and			
	support staff					
(iii) Executing agency	MPWT/DWS					
(iv) Provincial project	Vice provincial governor (chair); district gove					
steering committee	PIUs, DPWT, PNP, DOF, DPI, DONRE, and	provincial Lao women's u	inion (members)			
(v) Key implementing	DPWT and PNPs					
agencies						
(vi) Project	The PCU, with 20 staff, will be under DWS and PIUs, under provincial Departments					
implementation unit	of Public Works and Transport DPWT, with 110 staff.					
(vii) Village development	Village development committees will facilita		y be assigned			
committees	to work specifically on water and sanitation		A 1 - A A 111			
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	616 person-months	\$5.57 million			
	consultant contract for project	(165 international and				
	management and capacity building	451 national)				
	Financial project audit (State Audit		\$0.03 million			
	Office)	4 years				
	Independent PNP audit (CQS, biodata		\$0.61 million			
	proposal)	Accounting firm				
Advance contracting	Advance actions include negotiating with the PIA consultant a contract variation for					
	additional scope to cover works planned under the additional financing.					
Disbursement						
	Handbook (2017, as amended from time to time) and detailed arrangements agreed					
	upon between the government and ADB.					

Table 3: Implementation Arrangements

ADB = Asian Development Bank, CQS = consultant qualification selection, DHUP = Department of Housing and Urban Planning, DOF = Department of Finance, DONRE = Department of Natural Resources and Environment, DPI = Department of Planning and Investment, DPWT = Department of Public Works and Transport, DWS = Department of Water Supply, HRD = human resource development, MOF = Ministry of Finance, MONRE = Ministry of Natural Resources and Environment, MPI = Ministry of Planning and Investment, MPWT = Ministry of Public Works and Transport, NCBD = National Committee Business Development, PAM = project administration manual, PCU = project coordination unit, PIA = project implementation assistance, PIU = project implementation unit, PMO = Prime Minister's Office, PNP = provincial *nam papa* (provincial water utility). Sources: Asian Development Bank and Ministry of Public Works and Transport.

¹¹ Project Administration Manual (accessible from the list of linked documents in Appendix 2).

24. **Project readiness.** Recruitment of a new project implementation assistance consultant is not required; a contract variation will be prepared to extend the contract of the current consultant. As for the six towns under the additional financing, feasibility studies are available for four of them and DEDs for two. It is expected that contracts amounting to 50% of the additional financing amount will be awarded by end Q1 2019. The market assessment of construction contractors indicates availability of a small pool of firms eligible to undertake WSS works. Consequently, bid evaluations will carefully consider bidders' personnel and financial capacity to undertake more works of similar nature and size before awarding contracts.

III. DUE DILIGENCE

A. Technical

25. Location and design features of water treatment plant facilities will factor in disaster and climate risk considerations and, where relevant to the lifespan of the infrastructure, future changes in the frequency and/or intensity of extreme events as well as long-term changes in average disaster, climate, and geophysical risks. These designs have proven to be robust, durable, technically viable, and disaster risk measures were well received by the PNPs. Subproject selection will be based on criteria such as population density, poverty incidence, and existing WSS coverage. Feasibility studies and DEDs for the sample subprojects in Sopbao and Xam-Nua towns, which are representative of subprojects under the additional financing, have all factored in lessons from the current project.

B. Economic and Financial

26. **Economic analysis**. It was conducted for two water-supply sample subprojects, Sopbao and Xam-Nua, following ADB guidelines. Benefits considered are (i) resource cost savings associated with the replacement of non-incremental water consumed and previously obtained from alternative sources; and (ii) consumer surplus, reflected in the incremental water consumed. The estimated economic internal rates of return are 16.03% for Sopbao and 18.63% for Xam-Nua, higher than the economic opportunity cost of capital assumed at 9.00%, indicating significant economic returns. Sensitivity analysis for various scenarios revealed that the proposed components are most sensitive to a project delay and a decrease in subproject benefits but remain above the economic opportunity cost of capital.¹²

27. **Financial analysis.** It was assumed that the government would extend subloans to the Houaphan PNP for implementing the Sopbao and Xam-Nua subprojects (and all those considered for additional financing) on the same terms as for the subprojects under the current project (i.e., of the total subproject cost, 70% will be granted and 30% will be on-lent at 6.40% per annum with a 6-year grace period). The financial internal rate of return is 12.43% for Xam-Nua and 8.63% for Sopbao, exceeding the weighted average cost of capital of 7.18%. The sensitivity analysis indicates that the subprojects are most sensitive to a project delay and a decrease in revenues but remain well above the weighted average cost of capital. The PNPs' sustainability depends heavily on the implementation of tariff revisions, and participating PNPs will conduct a tariff review every 3 years and adjust levels to meet the government's cost-recovery objectives on sustainability as well as ADB's loan and grant covenants.

¹² Economic Analysis (available from the list of linked documents in Appendix 2).

C. Governance

The pre-mitigation financial management risk is moderate. Project fund utilization is in 28. accordance with the original expenditure category, but funds needed to be reallocated to align the financing plan with actual conditions. Procurement oversight by the government has improved since the establishment of the DWS under the MPWT in 2015. To ensure good governance, conditions precedent for contract award include (i) submission of corporate plans, and (ii) subsidiary loan agreements executed. The institutional capacity of the State Audit Office has improved with support from ADB and other development partners. Financial management solutions such as building the accounting capacity of PNP staff are being considered, and an independent auditing company, complying with international standards, is also being recruited. Additional measures will be taken to enhance financial management, such as (i) updating the PNPs financial reporting systems to comply with international accounting standards, and (ii) PNPs capacity building. No complaints were recorded, nor any incidence of corruption; and compliance with ADB's Anticorruption Policy has been satisfactory. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government. The specific policy requirements and supplementary measures are described in the project administration manual.¹³

D. Poverty and Social

29. **Poverty reduction and social impacts.** The additional financing will directly benefit about 19,760 HHs in the six towns with access to reliable piped water supply, and 491 of them with access to improved sanitation facilities. It eliminates barriers to access for the urban poor and prioritizes poor districts. Health benefits will be derived through access to improved drinking water; greater water availability for sanitation and personal hygiene; and better access to improved sanitation. The additional financing will provide VEI grants to enhance community involvement in sanitation and environmental improvements, targeted latrine subsidies for poor HHs, and free water connections for poor HHs.

30. **Gender.** The current project is categorized *effective gender mainstreaming*, and the additional financing will align with this. The gender action plan builds on current project implementation experiences. Gender benefits for women will result from greater convenience, less physical strain, and time savings in water collection; stronger family health; more privacy and dignity when tending to sanitation needs; and improved facilities specific to women's health and menstrual hygiene. It supports gender equity in decision-making on, and water and sanitation issues management. Strategic measures include (i) gender-sensitive targets in the PNPs' corporate action plans, (ii) targets for female PNP staff members in the asset management task forces, (ii) a target of 20%–30% of village development committee subcommittee members (depending upon VEI size) responsible for planning and managing VEIs being women; and (iii) a minimum of 30% women staff in the project coordination unit and project implementation units.

E. Safeguards

31. In compliance with ADB's Safeguard Policy Statement (2009), the project's safeguard categories are detailed below.¹⁴ Any subprojects classified as category A will be excluded from the overall project. Public consultations were carried out to inform stakeholders and affected persons about the overall project design and will continue during implementation. A project safeguard grievance redress mechanism will facilitate the resolution of complaints.

¹³ Project Administration Manual (accessible from the list of linked documents in Appendix 2).

¹⁴ ADB. Safeguard Categories. https://www.adb.org/site/safeguards/safeguard-categories.

32. **Environment (category B).** Two initial environmental examination (IEE) reports and environmental management plans were prepared for representative subprojects, Sopbao and Xam-Nua, in Houaphan province. Environmental management plans include identified impacts mitigation and monitoring measures, enforced by grant covenants, with adequate implementation budget. The updated environmental assessment and review framework provides subprojects guidance on the selection, screening, assessment, and implementation that will be prepared after grant approval. Draft IEEs, environmental assessment and review framework were disclosed on ADB website on 13 April 2018.¹⁵ Final IEEs will be updated once DEDs are completed.

33. The subprojects in Sopbao and Xam-Nua will provide safer, cleaner, and more reliable water supply to beneficiaries in 17 villages within the two towns. Identified subprojects will have localized, short-term impacts during construction. Further studies are proposed during DED preparation in respect of raw water quality and downstream fish conservation zones. Construction and operational environmental impacts can be prevented or minimized to an acceptable level through effective implementation of mitigation and monitoring measures specified in the environmental management plans. The proposed capacity building for O&M will include raw water quality monitoring, treatment process, management and risks associated with sludge disposal.

34. **Resettlement (category B).** Due diligence conducted on four subprojects implemented under the current project indicates that impacts during construction are temporary in nature. Safeguard monitoring reports were submitted regularly and disclosed on the ADB website. It also confirms that HHs were compensated as prescribed in the land acquisition and compensation plan of each subproject and that no voluntary donation mechanisms were utilized to acquire land. Overall, the additional financing will adhere to methods used for the current project, but the land acquisition and compensation framework was revised and updated to remove voluntary donation mechanisms in relation to the water supply component of the project.

35. The two sample subprojects in Sopbao and Xam-Nua will not severely affect any individual or have significant impacts. No land acquisition is required in Sopbao, and only 284 square meters of land will be acquired from two HHs in Xam-Nua, but the impacts are not significant in nature, representing only 2.94% and 1% of these households' total land holdings. Temporary or minor impacts on driveways, fences, and walls, with no loss of income, shall occur; the contractor will restore these to pre-project conditions. A loss of fruit-bearing trees will also occur, but the loss of income—at an average of 2% of HH income—is not significant in nature. Households shall be compensated for their losses at replacement cost. Initial screening was undertaken for four other subprojects already identified but indicated neither land acquisition nor resettlement needs. To mitigate and manage any impacts, two land acquisition and compensation plans were developed in line with the updated land acquisition and compensation framework and disclosed on the ADB website on 26 April 2018.¹⁶ The final plans will be updated and disclosed in English and Lao once DEDs are completed. No physical or economic displacement will occur until full replacement cost compensation and assistance in accordance with the plans has been paid.

36. **Indigenous peoples (category C).** The additional financing is category C for indigenous peoples. The poverty and social assessment confirmed that the project will not affect ethnic groups' traditional sociocultural or belief practices, customary livelihoods, or ancestral domains.

¹⁵ IEE, Environmental Assessment and Review Framework (available from the list of linked documents in Appendix 2).

¹⁶ Land Acquisition and Compensation Plan, and Land Acquisition and Compensation Framework (available from the list of linked documents in Appendix 2).

F. Risks and Mitigating Measures

37. The overall risk assessment is low, and the integrated benefits and impacts are expected to outweigh the costs. Major risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.¹⁷

Risks	Mitigating Measures			
Government and service providers do not	Adoption of sector reforms form part of the subproject selection criteria			
adopt sector policy reforms.	and support investment sustainability. Delays should not affect regular			
	tariff adjustments.			
Slow disbursement as a result of low	The executing agency has prepared several detailed engineering			
readiness and slow procurement	designs that can proceed to procurement. Procurement support will be			
	provided, so contracts can be awarded shortly after ADB approval of			
	the additional financing.			
Weak project financial management	ADB, the World Bank, and other development partners continue to			
system, particularly for accounting,	support ongoing efforts to strengthen public financial management			
budget preparation and execution, cash	arrangements, through technical assistance and lending.			
planning, and performance measurement				
Shortage of PCU and PNP staff skills in	The existing PCU under the current project, whose staff have been			
financial management, including financial	trained in ADB project accounting and reporting requirements, will			
analysis, management accounting,	continue to be used. Support will also be provided through a financial			
financial reporting, and audit	management consultant from among the PIA consultants.			
Arrangements for O&M of subproject	The project supports the provincial water utilities in updating and			
assets are not implemented	improving O&M plans, and in developing new approaches for			
successfully. NRW reduction measures	continuous nonrevenue water reduction and asset management.			
are unsustainable.				

Table 4: Summary of Risks and Mitigating Measures

ADB = Asian Development Bank, NRW = nonrevenue water, O&M = operation and maintenance, PCU = project coordination unit, PIA = project implementation assistance.

Source: Asian Development Bank.

IV. ASSURANCES

38. The government and the MPWT have assured ADB that implementation of the project shall conform to all applicable ADB policies, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the project administration manual and grant documents.

39. The government and the MPWT have agreed with ADB on the covenants for the project, which are set forth in the grant agreement.

V. RECOMMENDATION

40. I am satisfied that the proposed grant would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the grant not exceeding \$30,500,000 to the Lao People's Democratic Republic from ADB's Special Funds resources (Asian Development Fund) for the additional financing of the Water Supply and Sanitation Sector Project, on terms and conditions that are substantially in accordance with those set forth in the draft grant agreement presented to the Board.

Takehiko Nakao President

22 August 2018

¹⁷ Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

	is Aligned with ality and reliable piped water supply and sanitation nomic Development Plan, 2016–2020).		t improved (Eighth
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
Outcome Current project Performance of participating PNPs in delivering sustainable water supply and sanitation services increased	Current project By 2021: a. About 110,000 urban residents in 9 towns with access to reliable piped water supply meeting appropriate drinking water quality standards (2013 baseline: 50,000 residents) b. About 115,000 urban residents in 9 towns with access to improved sanitation facilities (2013 baseline: 89,000 residents) c. NRW in about three provincial capital water supply systems reduced to 20% or less when pressurized d. All participating PNPs achieved full cost recovery and maintained arrears at less than 90 days (2013 baseline: one of six PNPs) e. At least one of six participating PNPs able to access other external financing as a result of improved areditworthinges.	a–e. Annual reports by MPWT, monitoring reports, ADB loan missions, project completion report	Government and service providers do not adopt sector policy reforms.
Overall project Expanded	of improved creditworthiness Overall project By 2023: a. About 200,000 urban residents in about 15 towns with access to reliable piped water supply meeting appropriate drinking water quality standards (2013 baseline: 100,000 residents) b. About 210,000 urban residents in about 15 towns with access to improved sanitation facilities (2013 baseline: 170,000 residents) c. NRW in about six provincial capital water supply systems reduced to 20% or less when pressurized d. All participating PNPs achieved full cost recovery and maintained arrears at less than 90 days (2013 baseline: one of six PNPs) e. At least three of eight participating PNPs able to access other external financing as a result of improved creditworthiness.		
Output 1 Current project Sector coordination and policy implementation improved Overall project Unchanged	By 2021: 1a. Current project At least five joint subsector reviews held. At least three hygiene promotion events held about WASH and gender (2013 baseline: 0) Overall project Unchanged 1b. Current project	1a–1e. Project progress and annual PPME reports	PNPs are not yet in a position to develop and prepare corporate plans independently.

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
	The sector's professional women's group participating in at least two job fairs annually (2013 baseline: 0) Overall project Unchanged 1c. Current project Water safety plans prepared and implemented for each project-support system by participating PNPs. An asset register prepared by participating PNPs (2013 baseline: 0) Overall project Unchanged 1d. Current project Participating PNPs updating their corporate plans annually and including sex- disaggregated information (2013: one PNP) Overall project	Mechanishis	
	Unchanged 1e. Current project One service contract signed for each new or expanded system (2013 baseline: 0) Overall project Unchanged		
Output 2 Current project NRW management and water supply development improved Overall project Expanded	By 2021: 2a. Current project At least three systems expanded in provincial capitals (2013 baseline: 0) Overall project At least six systems expanded in provincial capitals (2013 baseline: 0) 2b. Current project 150 kilometers of water supply distribution pipelines installed (baseline 2013: 0) NRW programs completed in at least five participating PNPs (2013 baseline: 0) Overall project 250 kilometers of water supply distribution pipelines installed (2013 baseline: 0) NRW programs completed in at least six participating PNPs (2013 baseline: 0) NRW programs completed in at least six participating PNPs (2013 baseline: 0)	2a–2b. PNP corporate plans, WSRC annual performance reports, project progress reports, annual PPME reports	Arrangements for O&M of subproject assets are not implemented successfully. NRW reduction measures are unsustainable.

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
Output 3			
Current project New water supply systems in small towns developed Overall project Expanded	By 2021: 3a. Current project At least six new systems constructed (2013 baseline: 0) Overall project At least nine new systems constructed (2013 baseline: 0)	3a–3b. PNP corporate plans, WSRC annual performance reports, project progress reports, annual PPME reports	Slow disbursement because of low readiness and slow procurement.
	 3b. Current project 100 kilometers of water supply distribution pipelines installed (2013 baseline: 0) Overall project 150 kilometers of water supply distribution pipelines installed (2013 baseline: 0) 		
Output 4			
Current project Community action in urban water supply and sanitation enhanced Overall project Expanded	 By 2021: 4a. Current project At least 30% of VDC members assigned to manage VEIs are women Overall project Unchanged 4b. Current project Awareness of health, hygiene, and sanitation increased by at least 30% in about 88 project villages Overall project Unchanged 4c. Current project 100% of improved public toilet facilities conducive to proper menstrual hygiene Overall project 	4a–4f. Project progress and project completion reports, community participation plans, village proposals and agreements for VEIs, construction records	
	 Unchanged 4d. Current project At least 2,000 meters of roads with drainage improved in project villages Overall project At least 3,000 meters of roads with drainage improved in project villages 4e. Current project Each participating district town approved a sanitation regulation Overall project Each participating district town approved a sanitation regulation and confirms that HHs with improved sanitation systems receive piped water supply connections 4f. Current project Water conservation programs adopted in		
	project villages Overall project Unchanged		

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
Output 5			
Current project Capacity for project implementation and O&M strengthened Overall project Unchanged	By 2021: 5a. Current project An O&M plan is prepared for each VEI Overall project Unchanged 5b. Current project At least 30% of project training opportunities, professional exchanges, and peer study tours and study trips for qualified women Overall project Unchanged	5a–5d. Project progress and completion reports, community participation plans, village proposals and agreements for VEIs, construction records	Shortage of skills in financial management, including financial analysis, management accounting, financial reporting, and audit.
	5c. Current project 100% of female staff from participating PNPs receiving training in a job-related subject of their choice Overall project Unchanged		
Key Activities with	5d. Current project At least 30% of staff in project coordination and implementation units are women Overall project Unchanged		
 1.1 Convene meetin group on water 1.2 Convene WASI 1.3 Participating PN 1.4 Include drinking available resou 1.5 Implement hygid 1.6 PNPs adopt a N 1.7 PNPs adopt as 2. NWR manager 2016–Q3 2019 2.1 Confirm screeni 2.2 Update and pre 2018). 2.3 Establish and tr Q4 2019). 2.4 Bid, evaluate, a 2.5 Undertake NRW 2.6 Survey and des 2.7 Update and app subsidiary loan 2.8 Bid, evaluate, a 2.9 Implement land 	nation and policy implementation improved hgs of the technical working group subgroup on ur and sanitation twice a year (Q2 and Q3 annually). H sector professional women's group meetings (Q NPs adopt a free connection policy (Q3 2013–onv g water quality parameters in PNP corporate plan rces (Q3 2013–onward). ene promotion events about WASH and gender (2 NRW management approach (Q3 2013–onward). sets management approach (Q3 2013–onward). sets management approach (Q3 2013–onward). ment and water supply development improved ; phase 3: Q4 2017–Q3 2021; and phase 4: Q1 2 ng criteria before feasibility study preparation and u epare feasibility study and subproject appraisal re rain NRW units in each PNP, undertake NRW sur and award NRW contracts (Q2 2019-onward). V program (Q3 2018–onward). sign expansion and rehabilitation works (Q4 2014 prove corporate plans; adjust tariffs; and sign servi agreements (Q3 2015–Q3 2019). and award main construction civil works contracts acquisition and resettlement (Q3 2016–Q3 2020	Q3 2014–onward). ward). s and select indicators to r 014, 2016, 2018). I (Phase 1: Q3 2015–Q4 2 019–Q1 2022). update (Q3 2018). port for government and A rveys and designs, and pro Q4 2018). ce contracts, sanitation reg (Q4 2016–Q4 2019).	monitor regularly using 2017; phase 2: Q1 NDB approval (Q3–Q4 epare contracts (Q3–
2.10 Construct and 3. New water sup	commission new systems (Q1 2017–Q1 2022). oply systems in small towns developed (Phase is 3: Q4 2017–Q4 2021).	,	nase 2: Q1 2016–Q3
 3.1 Confirm screening criteria before feasibility study preparation and update (Q1 2018). 3.2 Update and prepare feasibility study and subproject appraisal reports for government and ADB approval (Q3 2015-Q42019). 			

Key Activities with Milestones				
-				
3.3 Survey and design water supply system works (Q4 2015–Q3 2019).				
3.4 Update and approve corporate plans; adjust tariffs; and sign service contracts, sanitation regulations, and				
subsidiary loan agreements (Q3 2015–Q3 2019, with activity 2.7).				
	5 Bid, evaluate, and award construction civil works contracts (Q4 2016–Q4 2019).			
	6 Implement land acquisition and resettlement activities (Q3 2016–Q3 2020).			
	7 Construct and commission new water supply systems (Q1 2017–Q1 2022). Community action in urban water supply and sanitation enhanced			
-				
 Prepare stakeholder consultation and participation plan (Q4 2015–Q1 2019). Hold community planning and prioritization meetings (Q1 2016–Q2 2020). 				
I.3 District authorities implement sanitation and hygiene activities (Q4 2015–Q1 2021).				
	in respective subproject feasibility studies and subproject appraisal reports (with			
activities 2.2 and 3.2).				
4.5 Identify VEIs, poor HHs for latrine grants, and location of public latrines; prepare safeguard and O&M plans (Q				
2019).	is grand, and location of public latimos, propuls baloguard and bath plane (a r			
	4.6 Bid, evaluate, and award contracts for VEIs and public latrines (Q3–Q4 2019).			
	4.7 Implement land acquisition and resettlement activities (Q3 2016–Q3 2020).			
4.8 Implement VEIs and construct public latrines (Q3 2017–Q2 2022).				
	ntation and O&M strengthened			
5.1 Hold PCU and PIU project orien	tation meetings (Q2 2016-Q1 2019).			
	ndicators by sex, income, and ethnicity (Q3 2015).			
5.3 Review and update capacity development plan (Q3 2014–onward).				
	in each corporate plan (with activities 2.7 and 3.4).			
5.5 Implement water safety plans within corporate plans (with activities 2.6 and 3.4).				
	ementation assistance (Q3 2015–onward).			
5.7 Manage and administer the project (Q3 2013–onward).				
	b O&M training for each participating PNP (Q3–Q4 2017, with activities 2.10 and			
3.7). Inputs				
Asian Development Bank: Loan	\$35,000,000 (current);			
Asian Development Dank. Loan	\$0 (additional);			
	\$35,000,000 (overall)			
Grant	\$0 (current);			
	\$30,500,00 (additional);			
	\$30,500,000 (overall)			
Government	\$4,270,000 (current);			
	\$3,380,000 (additional);			
	\$7,650,000 (overall)			
Beneficiaries of VEIs	\$90,000 (current);			
	\$90,000 (additional);			
	\$180,000 (overall)			
Beneficiaries of sanitation	\$1,259,000 (current);			
	\$543,000 (additional);			
	\$1,803,000 (overall)			
PNPs	\$0 (current);			
	\$1,420,000 (additional);			
	\$1,420,000 (overall)			
Assumptions for Partner Financin				

Not applicable

Note: Where a baseline is not indicated, the baseline is zero; costing figures may not total due to rounding.

ADB = Asian Development Bank; MPWT = Ministry of Public Works and Transport; NRW = nonrevenue water; O&M = operation and maintenance; PCU = project coordination unit; PIU = project implementation unit; PNP = provincial *nam papa* (provincial water utility); PPME = project performance monitoring and evaluation; PPMS = project performance monitoring system; Q = quarter; VDC = village development committee; VEI = village environmental improvement; WASH = water, sanitation, and hygiene; WSRC = Water Supply Regulatory Committee.

Sources: Asian Development Bank; Ministry of Public Works and Transport; Joint Monitoring Programme for Water and Sanitation. 2013. *Progress on Sanitation and Drinking Water: 2013 Update*. New York: United Nations Children's Fund and World Health Organization.

LIST OF LINKED DOCUMENTS http://www.adb.org/Documents/RRPs/?id=45301-003-2

- 1. Grant Agreement
- 2. Sector Assessment (Summary): Water and Other Urban Infrastructure and Services
- 3. Project Administration Manual
- 4. Summary of Project Performance
- 5. Contribution to the ADB Results Framework
- 6. Development Coordination
- 7. Financial Analysis
- 8. Economic Analysis
- 9. Country Economic Indicators
- 10. Summary Poverty Reduction and Social Strategy
- 11. Gender Action Plan
- 12. Initial Environmental Examination: Sopbao
- 13. Initial Environmental Examination: Xam-Nua
- 14. Environmental Assessment and Review Framework
- 15. Updated Land Acquisition and Compensation Plan: Sopbao
- 16. Updated Land Acquisition and Compensation Plan: Xam-Nua
- 17. Updated Land Acquisition and Compensation Framework
- 18. Risk Assessment and Risk Management Plan
- 19. Project Climate and Disaster Risk Assessment

Supplementary Documents

- 20. Stakeholder Communication Strategy
- 21. Financial Management Assessment
- 22. Loan Covenants Compliance Summary for the Current Project
- 23. Financing Gap by Financier Against Original Scope