



Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 09-Aug-2018 | Report No: PIDISDSC25374

**BASIC INFORMATION****A. Basic Project Data**

Country Lao People's Democratic Republic	Project ID P164901	Parent Project ID (if any)	Project Name Water Supply and Sanitation Project (P164901)
Region EAST ASIA AND PACIFIC	Estimated Appraisal Date Sep 14, 2018	Estimated Board Date Dec 14, 2018	Practice Area (Lead) Water
Financing Instrument Investment Project Financing	Borrower(s) Lao People's Democratic Republic	Implementing Agency The Ministry of Public Works and Transport	

Proposed Development Objective(s)

To provide access to improved water supply, sanitation and hygiene services in selected areas, and strengthen capacity of select institutions to improve service delivery.

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	25.00
Total Financing	25.00
of which IBRD/IDA	24.50
Financing Gap	0.00

DETAILS**World Bank Group Financing**

International Development Association (IDA)	24.50
IDA Credit	24.50

Non-World Bank Group Financing

Counterpart Funding	0.50
Borrower	0.50



Environmental Assessment Category

B - Partial Assessment

Concept Review Decision

Track II-The review did authorize the preparation to continue

B. Introduction and Context

Country Context

1. **Despite impressive growth in the economy in Lao PDR, gains have not been inclusive.** Lao PDR is a landlocked country of 6.76 million people¹, making it the smallest among its neighbors China and Myanmar to the north, Thailand to the west, Vietnam to the east, and Cambodia to the south. Sixty percent of the population lives in rural areas. The country has achieved growth rates averaging 7.1 percent from 1989 to 2015, largely driven by the natural resource sector. In 2015 Lao PDR was designated a lower middle-income country, with a Gross Domestic Product (GDP) per capita of US\$1,818 and a Gross National Income per capita of US\$5,380.² Poverty reduction was less responsive to growth and inequality widened over the last decade. The poverty rate fell from 46 percent in 1992-93 to 23.2 percent in 2012-13, leaving most of the country's poor in rural areas. Significant gains in water and sanitation access have left the poor behind. Lao PDR made impressive gains in water and sanitation access during its commitment to the Millennium Development Goals (MDG). From 1995 to 2015, total improved water supply access increased from 40 percent to 76 percent, and improved sanitation access increased from 21 percent to 74 percent.³ The overall gains in access belie the persistent inequalities that disproportionately affect the poor and the rural population (particularly areas without road access). Almost two thirds of the urban population have access to piped water on premises, and only 6 percent in rural areas. In the poorest quintile, 58 percent have access to improved water supply, compared with 90 percent in the wealthiest. The difference is even more pronounced for sanitation access, where 13 percent of the poorest quintile have access to sanitation, against 99 percent of households belonging to the richest quintile. Eighty-two percent of the poorest continue to defecate in the open⁴. Institutional water supply and sanitation coverage remains low. Only 53 percent of primary schools have access to drinking water and 42% to adequate sanitation facilities⁵. A quarter of health facilities across the country do not have access to safe drinking water and sanitation facilities⁶.

2. **Poor water supply, sanitation and hygiene has a significant impact on the health of the population, particularly children.** Waterborne diseases like diarrhea, hepatitis A, typhoid fever, dengue fever and malaria remain common and widespread. Poor sanitation and hygiene cause at least three million disease episodes and 6,000 premature deaths annually, with associated annual economic losses estimated at 5.6 percent of GDP, equivalent to 5 trillion Kip (US\$620 million) per year.⁷ About 44 percent of children under five in Lao PDR are estimated to be stunted, among the highest in the world. In recognition of the multifactorial nature of childhood undernutrition, the Government of Lao's **National**

¹ World Bank Data, <http://data.worldbank.org/country/lao-pdr>

² World Bank Data, <http://data.worldbank.org/country/lao-pdr>

³ WHO/UNICEF JMP, 2015

⁴ Lao Social Indicator Survey (LSIS), 2011-2012

⁵ UNICEF EMIS data, 2015

⁶ WHO/UNICEF WASH FIT, 2017

⁷ Water and Sanitation Program, Economic Impacts of Sanitation in Lao PDR, Research Report, May 2009



Nutrition Strategy to 2025 and Plan of Action 2016-2020 has set a target to reduce stunting from current levels to 25 percent by 2025, by focusing on the principle of multi-sectoral nutrition prioritization and convergence in all villages of targeted vulnerable districts. The Action Plan consists of 22 key interventions which combine “nutrition-specific” interventions (those which address undernutrition directly) with “nutrition-sensitive” interventions (which operate primarily outside of the health sector, including water supply, sanitation and hygiene) to address the underlying determinants of undernutrition.

Sectoral and Institutional Context

3. **The National Growth and Poverty Eradication Strategy (NGPES) identifies water supply, sanitation and hygiene as one of four priority sectors**, and gives priority to piped water and individual on-site sanitation. It sets out government policy for consumers to be metered and pay tariffs that recover costs, within an affordability range of 3-5 percent of monthly income, and water utilities to operate as financially autonomous corporations. It describes an implementation process that focuses on community participation and dialogue, enabling communities to propose their needs for supply, use, ownership and maintenance of services. Water and sanitation targets are included in Outcome 2, Output 4 of the 8th five-year National Socio-Economic Development Plans (NSEDP): Universal Access to Quality Health Care Services: 90 percent of the population use clean water, and 75 percent of the population use latrines, by 2020.

4. **Rural water supply and sanitation service levels remain low, with only six percent of people in rural areas having piped water on their premises.** Currently villages receiving water services are required to setup village water and sanitation committees that are appointed and headed by the village chief, or directly elected by the communities. These committees are responsible for operating and maintaining the rural water supply system. Tariffs are agreed between the committees and the beneficiaries and no fee is charged for connections. Tariff collection is not widespread, and in many cases, money is collected when there is a need for major repairs. In general, capacity is low with no technical support provided after commissioning. Water point functionality is not routinely monitored so accurate data are not available, but a survey of two districts in Savannakhet Province in the south of Lao PDR found that 35 percent of systems were not working, and 48 percent were partially working, resulting in people relying on unimproved sources.⁸ The major reasons identified were: (i) unavailability of spare parts; (ii) limited local technical knowledge and skills; and (iii) limited community management, willingness to pay and financial management. In many areas wells dry up seasonally. Current domestic government resources for rural sanitation promotion, CLTS, behavior change communications, capacity building and monitoring are limited, and mostly reliant on financial support from development partners and NGOs.

5. **There are currently no large-scale sewerage systems in Lao PDR, although there is near-universal use of flush toilets in urban areas, which discharge into an on-site septic tank, storage tank or pit.** On-site services are generally viable due to relatively low urban population densities, but remain a potential source for surface and groundwater contamination, and the risk of health and environmental impacts arise from poor design, poor construction, combined with a lack of maintenance. While septic tank emptying services are available through private operators these services are unregulated, contributing to the potential environmental and health consequences. Costs for sanitation are incurred by households.

6. **The Department of Hygiene and Health Promotion is responsible for developing the national strategy, policies and regulations in the field of environmental health, including rural water supply, sanitation and hygiene.** These include regulation of quality standards for drinking water and household water supply, and dissemination of hygiene and environmental health information to villagers throughout the country. Nam Saat is a center placed under the Department of Hygiene and Health Promotion that is responsible for development of water supply and sanitation in rural areas. Staffing

⁸ SNV Technical Report. Technical Assessment of Rural Water Supply in Atsaphone and Phin Districts, Savannakhet Province, Lao PDR. June 2015



levels are low, with only seven to ten staff deployed to implement all health-related programs, including water supply and sanitation, in each province, and an average of 1.4 health staff at the district level to serve an average of 61 villages⁹.

7. **Ministry of Public Works and Transport (MPWT) is responsible for the development and management of water supply in urban areas, and wastewater systems in urban and rural areas.**¹⁰ The Water Supply Department, which was established in 2015, oversees 17 provincial water utilities, or Nam Papa State Enterprises (NPSEs). Overall urban water supply coverage by NPSEs is 71%. A survey of NPSEs in four of the most developed provinces¹¹ in 2017 found that:¹²(i) employees per 1,000 connections varied from 5 to 19 (ii) all covered operational costs from sales; (iii) three had negative cash flows, largely driven by the difficulty to collect water bills from government institutions; and (iv) non-revenue water varied from 21 percent to 35percent. Tariffs are approved by the provincial governor and in the major provinces varies from 2,000 to 5,000 kip/m³ (about US\$0.24 to US\$0.6).

Relationship to CPF

8. **The World Bank's Country Partnership Framework¹³ (CPF) FY 17-21 (Report No. 110813-LA), approved in March 2, 2017, recognizes that chronic malnutrition in children is a human development area that continues to lag in Lao PDR.** The project contributes to the World Bank Group's twin goals by targeting inequalities in water supply and sanitation access, and supporting nutrition-sensitive interventions in communities where stunting levels are high, poverty levels are high, and there are significant proportions of ethnic minority groups. The CPF facilitates a multi-sector strategy to support the government through activities that seek to reduce the direct and indirect determinants of undernutrition and stunting. The World Bank's Multi-Sector Nutrition Engagement Framework for Lao PDR spans multiple sectors, including agriculture, social protection, health, water supply and sanitation, and education. Nutrition-sensitive and nutrition specific interventions in these sectors in Lao PDR are expected to coordinate in the following ways: (i) geographic convergence of nutrition-specific and nutrition-sensitive interventions in the same communities to the same households, (ii) use of a common Nutrition Social Behavioral Change and Communication Strategy and Action plan and tools to ensure consistency in messaging and approach, (iii) leveraging each other's delivery platforms, for example pre-established community structures; and (iv) combined monitoring and evaluation framework. Under Objective 2.1 of the CPF, 'Reducing the prevalence of malnutrition', the World Bank proposed a new operation to support water supply and sanitation.

9. **The World Bank is supporting multi-sector convergence that is aligned with the National Nutrition Strategy and Action Plan.** Currently, the World Bank has supported multi-sector convergence between the water supply and sanitation, and nutrition sectors, under the Health Governance and Nutrition Development project (HGNDP) (P151425) and the Poverty Reduction Fund II (P157963). Both projects include sanitation (CLTS) and hygiene behavior change elements, as well as support to supply side actors, with a geographic focus in 12 districts across the four provinces of HGNDP's community intervention. The proposed flagship Reducing Rural Poverty and Malnutrition Project (US\$25 million, under preparation) aims to supplement the provision of nutrition services by HGNDP with nutrition-sensitive demand-side interventions, including cash transfers to households with pregnant women and children aged 0-2. Both the Water Supply and Sanitation Project and the Reducing Rural Poverty and Malnutrition Project will be implemented in the four provinces where HGNDP is being implemented. The Water Supply and Sanitation Project will specifically contribute to the Nutrition-

⁹ WSP Report on 'Rural Sanitation Sector Capacity Needs Assessment, Capacity Building Strategy and Plan', Lao PDR, 2014

¹⁰ Decision 37/PM of 30 September 1999 on Management and Development of the Water Supply Sector

¹¹ Vientiane Capital, Luang Prabang, Khammouane, Champasak

¹² JICA. The Data Collection Survey on Water Supply Sector in Lao PDR. February 2017

¹³ Report No. 110813-LA



Sensitive Sector Goal of interrupted fecal-oral routes of transmission among infants and young children 0-24 months through the following actions:

- i. Promote village-wide use of improved sanitation facilities
- ii. Promote proper waste disposal, including septage management and safe disposal of child and animal feces
- iii. Enhance water quality monitoring at water supply system level Promotion of hand-washing facilities as part of water supply and sanitation interventions
- iv. Promote household level treatment of water before use, for example chlorination or boiling
- v. Promote hand-washing with soap for all household members at critical times, i.e. before preparation of food, before feeding of infant/young child, after cleaning of floors, after use of latrine

C. Proposed Development Objective(s)

To provide access to improved water supply, sanitation and hygiene services in selected areas, and strengthen capacity of select institutions to improve service delivery.

Key Results (From PCN)

- i. People provided with access to improved water sources (number), of which percentage poor
- ii. People provided with access to improved sanitation services (number), of which percentage poor
- iii. Handwashing with soap after using the latrine (percentage)¹⁴
- iv. Schools and health centers with improved water and sanitation facilities (number)
- v. Water and Sanitation Sustainability Index¹⁵
- vi. Institutional development plans approved and implemented (number)

D. Concept Description

10. **Lessons learned:** The project incorporates lessons from the Bank's global experience in water supply and sanitation, including (i) monitoring and evaluation methodologies adopted in results based operations¹⁶; (ii) the use of the supported community driven development approach to ensure sustainable service provision;¹⁷ (iii) delivering water supply and sanitation delivered using community driven development approaches to scale;¹⁸ (iv) introduction of citywide

¹⁴ Handwashing with soap will be measured using the 'sticker diary' method. The sticker diary is a survey methodology developed by Unilever and London School of Hygiene and Tropical Medicine where respondents are given a set of pictorial representations of common daily activities and are asked to create a "diary" of daily behaviors using a set of pictorial representations of common daily activities under the guidance of the enumerator. The method has been applied in India and Vietnam and has shown to reduce over-reporting of handwashing behaviors, while being less costly than traditional "observation" methods.

¹⁵ The Water and Sanitation Performance Index will be further developed during preparation and will be an aggregate measure of sustainability that includes performance measures for water services, sanitation and hygiene services, institutional mechanisms, and technical assistance provision.

¹⁶ Vietnam Results-Based Scaling-up Rural Sanitation and Water Supply Program (P152693)

¹⁷ World Bank Group. 2017. Sustainability Assessment of Rural Water Service Delivery Models: Findings of a Multi-Country Review. World Bank, Washington, DC. © World Bank. <https://openknowledge.worldbank.org/handle/10986/27988> License: CC BY 3.0 IGO. Nicaragua Sustainable Rural Water Supply and Sanitation Sector Project (P147006). Vietnam Results-Based Rural Water Supply and Sanitation under the National Target Program (P147435). Association of community-based service providers (SISAR) Brazil. eThekwini Water and Sanitation South Africa.

¹⁸ Indonesia National Rural Water Supply and Sanitation Project (PAMSIMAS)(P154780). Maharashtra Rural Water Supply and



inclusive sanitation;¹⁹ (v) Multi-sectoral Approaches to Improving Nutrition: Water, Sanitation, and Hygiene.²⁰ Small scale implementation of Community-Led Total Sanitation (CLTS) in Lao PDR has shown successful results.²¹ Since 2009, the Water and Sanitation Program provided technical assistance to GoL to pilot and support the implementation of CLTS. It was implemented in 266 villages in two provinces, and resulted in a 32 percent increase in sanitation access in triggered villages from July 2014 to February 2016, an annual rate of change eight times faster than the national average of 2.6 percent/year. A total of 113 villages (43 percent) were declared Open Defecation Free and almost 40,000 people gained access.²²

11. The project is designed around the following key principles: (i)
 - i. **Geographic convergence:** The project will support convergence with HGNDP and the Reducing Rural Poverty and Malnutrition Project, and target the same twelve districts in four provinces Xiengkhouan, Houaphan, Oudomxay, and Phongsaly. These provinces are not only among those with the highest stunting prevalence, but they are also among the poorest. These districts house a population of 352,421 in 881 villages, sixty percent of which are considered poor, and contain predominantly ethnic minority groups. The rate of stunted children in the four provinces averages 57 percent.
 - ii. **Behavior change and communications.** Sustained hygiene behavior change will be key to maintaining health outcomes and the health of newborns. Using the Nutrition Social Behavioral Change and Communication Strategy and Action plan and tools, developed through the support from HGNDP, as a base, the project will support the use of child-centered WASH behavior change, such as infant and child handwashing, safe disposal of animal and child feces, cleanliness of the child's play environment and play objects, safe storage and treatment of drinking water, especially water used for preparation of weaning foods, among others.
 - iii. **Sustained water supply and sanitation service delivery.** Development of institutional mechanisms to ensure continued and technically-sound operations and maintenance support, especially in more remote rural areas, to ensure safe and sustainable water supply and sanitation services. This is particularly significant in the context of

Sanitation Program(P126325). Rural Water Supply and Sanitation Project for Low Income States(P132173). Punjab Rural Water and Sanitation Sector Improvement Project (P150520)

¹⁹ Driven by experiences in South Africa and the Latin America region that integrate a variety of service delivery models along the sanitation value chain

²⁰ Water and Sanitation Program, February 2016. Multi-sectoral Approaches to Improving Nutrition: Water, Sanitation, and Hygiene. World Bank Report 100531 Water, Sanitation, Hygiene, and Nutrition in Bangladesh Can Building Toilets Affect Children's Growth? <http://www.worldbank.org/en/topic/water/publication/wash-poverty-diagnostic> (See especially: World Bank. 2017. Improving Service Levels and Impact on the Poor: A Diagnostic of Water Supply, Sanitation, Hygiene, and Poverty in Indonesia. WASH Poverty)

²¹ CLTS is an approach of facilitating a process of inspiring and empowering the local communities to analyze their own sanitation situation including the extent of open defecation, spread of fecal-oral contaminations that affects all people in the community and initiating collective community action to stop open defecation. CLTS approach ignites a sense of disgust and shame amongst the communities who collectively realizes the terrible impact of open defecation and the cruel fact of ingesting one another's "shit" so long open defecation continues. If facilitated properly, CLTS triggers community led local action towards stopping open defecation totally. Once ignited, the CLTS triggers almost immediate local action and communities start constructing simple pit latrines. Almost every family in the community start making toilets within their means and capacity or share toilets to achieve 100% open defecation free village. Once ODF verified, the community together with district health offices declare their village open defecation free and set up a mechanism to monitor that no one in their village defecates in the open.

²² The World Bank. Lao People's Democratic Republic Sanitation Marketing in Lao PDR Synthesis Report on Technical Assistance: Sanitation Marketing in Lao PDR (P132368) and Supporting Scaling Up Rural Sanitation Through the Community-Led Total Sanitation (P132453). Report No: ACS17598. March 2017.



achieving health outcomes, which require sustained access to safe water, sanitation, and sustained hygiene behavior change.

- iv. **Monitoring and evaluation.** Development of a sector wide water supply and sanitation monitoring framework that is harmonized with health sector monitoring system to track nutrition outcomes.
- v. **Gender and Inclusion.** SDG Target 6.2 set out to achieve access to adequate and equitable sanitation and hygiene, and specifically refers to paying special attention to the needs of women and girls and those in vulnerable situations. Attention will be given to the needs of women and girls in high-use settings such as schools, and high-risk settings such as health care facilities. A gender analysis²³ will be conducted for the project (i) to identify gender gaps relevant for the project, (ii) to propose actions (or activities) to mitigate these gaps, and (iii) monitoring indicators to measure the outcome towards narrowing the gaps. Citizen Engagement activities will be further explored, including field surveys and consultations with local communities and the affected population, reviewing of outstanding complaint and developing innovative technologies to enhance citizen voice and stakeholder engagement during project implementation.

12. **Financing instrument:** The project will be financed as Investment Project Financing (IPF). Due to the nascent nature of the sector, the evolving government programs and institutional responsibilities, and the limited government resources relative to the size of the IDA credit, the use of IPF is the World Bank's best financing instrument. An IPF provides the opportunity to establish the sector, develop the program, and expand institutional capacities to facilitate results based financing in the future.

13. **Project Cycle.** The project will adopt a community driven development approach that will integrate (i) water supply delivery; (ii) water safety planning; (iii) CLTS and behavior change communication (BCC) to promote sanitation and hygiene; and (iv) nutrition messaging. These will be integrated into one project cycle with distinct, pre-defined pre-planning, planning, implementation and operations phases. Upfront agreement from the beneficiary communities will be required to: (i) establish a water and sanitation committee;²⁴ (ii) install meters; (iii) provide upfront capital and/or labor contributions; (iv) pay tariffs; (v) stop the practice of open defecation. The implementation of the project cycle is expected to be about 9-12 months, and will include baseline data collection and community needs assessment, establishment of a water and sanitation committee, discussion about project alternatives and corresponding tariffs and O&M requirements, informed decision making by the community, design of works, contracting of works and supervision, and implementation of the works. Thereafter post works support and follow up data collection will take place. The project will adopt a district-wide approach for coverage of water supply services, delivery of sanitation interventions, hygiene and nutrition behavior change communications, and target the reduction of open defecation at village level. The project will extend coverage to schools and health centers in the targeted districts.

Component 1: Water Supply Service Delivery

Component 1 (a): Water supply infrastructure

14. The project will finance new water supply systems, rehabilitation of non-functioning systems, and improvement of existing systems to improve performance. Guidelines will be developed to integrate the service ladder indicators and

²³ Preliminary gaps include employment opportunities for women and men, for example labor force participation and wage gaps. Gender related activities related to institutional strengthening and sector reform may include: active participation of women in water and sanitation committees, ensure that a gender sensitive lens is applied in trainings, and promotion of female entrepreneurs.

²⁴ Project will promote committees to include at least 50% of women in their composition and for women to be included in leadership positions.



definitions of the SDGs into approaches and guidelines that can be applied sector-wide. This will allow for the option of a phased increase of service levels. For example, drinking water treatment systems could be added or upgraded in a second phase beyond the basic service, piped schemes with neighborhood tap points could be upgraded later to household connections, or the number of wells that serve a community could be gradually increased. Depending on future financial and human resource levels, different alternative strategies can be developed to work towards the SDG targets.

Typical gravity fed piped water supply systems from rivers consist of a protected water intake and a basic filter, gravity pipeline of approximately 3-5km, reservoirs of 8-10m³, and distribution networks of about 1km, stand post / house connections

15. Service delivery models will be considered based on the local context. The primary mechanism for service delivery in rural areas will be a supported community management model, where communities manage the everyday operation and maintenance (either through representative committees or operators). Community management will be enhanced by creating capacity for technical and administrative support at the decentralized level in the Nam Papa State Enterprises (NPSEs). NPSEs will be responsible for the technical design, contracting and supervision of water supply works. The professionalization of community management model will be further developed, including developing an enabling environment for private sector participation. For peri-urban and denser rural populations, including large villages, groups of villages and emerging towns, options for integration into the NPSE service areas will be explored. For remote rural populations, self-supply options by individual water points or shared by households, will be included, including development of accredited self-supply solutions, communication campaigns for household water treatment and storage, rainwater harvesting programs, technical advisory services, and water quality monitoring.

16. Water supply to address the needs of emerging town areas, large villages, and groups of villages could be supported from one bulk water source, or from the urban water supply system managed by the NPSE where there are urban-rural economies of scale, availability of water and technical feasibility of supply. The project will finance the feasibility studies and detailed design for infrastructure investments like small scale expansion of existing water treatment plants, new and rehabilitation of distribution systems; pump stations and primary, secondary and tertiary supply pipelines.

17. A water resources assessment will be carried out to ensure water resource availability and quality. Risks to water supply will be assessed as part of the planning process and design of infrastructure, including changes in supply side factors like land use, deforestation, and increasing climatic variability, and demand side factors like population changes. Temperature increase coupled with lack of rain due to droughts will increase the stress on the water resources, and water supply services. To ensure that the infrastructures built under the project respond to the climate change effects, the technical design of the schemes will be done taking into consideration the effects of prolonged lack of rain, such as the water quantity and quality at the sources, and plan for larger water retention structures and regular water quality monitoring to ensure good water service provision. The project area is also affected by heavy and continued rains during the wet season, and the design of new water schemes or extension of the existing schemes will consider installation of higher risk infrastructure components at higher levels to avoid flooding and disruption of water supply service.

Component 1 (b): Institutional strengthening for sustainable water supply services

18. The project will support the establishment of support units within the NPSEs to enable them to fulfil their roles for planning, asset management, monitoring and regulation. These units will provide decentralized technical support at the provincial and district levels. Technical, administrative, and institutional support will be provided to NPSEs and other service providers. The role of NPSEs will include technical assistance to rural communities, regulation of rural services and service providers with performance mechanisms appropriate for small rural operators. Policy and guidelines for water supply will be expanded to enable NPSEs to extend services, including the development of service mandates for rural areas



(either for the provision of technical assistance for water systems managed by the villages committees or for directly operating larger rural water schemes), potential incentives to facilitate expansion, extending billing and collection services to new service areas, monitoring in remote areas, and asset management. Engineering capacity for water supply will be developed, with linkages to the national training center and civil engineering institute. The impact on the financial position of the NPSE will be quantified in the financial analysis for appraisal.

19. Facilitators and engineering consultants will be engaged to provide support services to NPSEs, water and sanitation committees and village communities. Training will be provided to water and sanitation committees for operation and maintenance and billing, tariff collection and accounting. Training will be given for the development of small water supply systems. Training plans will be developed for water and sanitation committees as part of the community engagement process. Capacity assessments and human resource plans will be carried out for implementing agencies. Assessments will be linked to the roadmap for achieving national targets and a long-term human resources and capacity development plan will be developed. Capacity building will include water supply, sanitation and hygiene behavior change guidelines and service delivery models, monitoring, planning, implementation and oversight, climate change, citizen engagement and inclusiveness. The project will enhance the service delivery capacity of the implementing agency at the national and sub-national levels.

Component 2: Sanitation and Hygiene

Component 2 (a): Institutional Strengthening for Sanitation and Hygiene Behavior Change, including Nutrition Messaging

20. This component will scale up CLTS in the targeted districts under Component 1 (a) as part of the integrated community engagement process that will include water supply, sanitation, hygiene and nutrition behavior change. The following key behaviors will be targeted: (i) use of toilets; (ii) handwashing with soap: after defecation, after cleaning children, before preparing food, and before eating; (iii) water treatment and safe handling practices, along with child-centered WASH behaviors, such as infant and child handwashing, safe disposal of animal and child feces, cleanliness of the child's play environment and play objects, safe storage and treatment of drinking water, especially water used for preparation of weaning foods, among others. This component will include scale up of the Nutrition Social Behavioral Change and Communication Strategy and Action plan and tools to ensure consistency in messaging and approach. Interventions will also include the strengthening of sanitation supply chains. Households will continue to be the predominant source of capital financing for rural toilets, and the potential for targeted partial subsidies for the poorest households and/or households with pregnant women or children under five will be further explored. For schools, WHO²⁵ guidelines recommend one toilet for female staff, one toilet for male staff, one toilet per 25 female pupils, one toilet and one urinal per 50 male pupils. This component will support sanitation coverage in schools and health centers in selected areas, as well as upgrading existing facilities. The project will support and promote the use of on-site sanitation facilities. Given the exposure to heavy rains, different technologies will be explored under the project to prevent overflow and flooding the on-site facilities.

21. Since 2009 the Water and Sanitation Program has provided technical assistance to GoL to pilot and support the implementation of CLTS. This included the participation of government officials in regional learning events, implementation of CLTS in existing World Bank operations²⁶, establishment of a pool of CLTS resource persons at the national level, and development of CLTS training materials. Demand, finance, and supply chain elements will be integrated

²⁵ Water, Sanitation and Hygiene. Standards for Schools in Low-cost Settings, WHO 2009

²⁶ Health Governance and Nutrition Development Project (HGND, P151425, US\$26.4 million IDA) and Poverty Reduction Fund Projects (PRF-AF 2, P157963, US\$11.6 million IDA).



to facilitate rapid scale up, including smart subsidies targeting the poorest households. Further involvement of the private sector will be investigated for introducing appropriate, convenient, affordable and safe sanitation technologies in locations where markets and opportunities for economies of scale exist.

22. Activities will include the training of staff and training of master trainers for facilitation at provincial level for sanitation and hygiene behavior change, including development of curriculum for public health in schools. Capacity assessments and human resource plans will be carried out for implementing agencies. Assessments will be linked to the roadmap for achieving national targets and a long-term human resources and capacity development plan will be developed. Capacity building will include water supply, sanitation and hygiene behavior change guidelines and service delivery models, monitoring, planning, implementation and oversight, climate change, citizen engagement and inclusiveness. The project will enhance the service delivery capacity of the implementing agency at the national and sub-national levels.

Component 2 (b) Wastewater management in emerging town areas

23. Untreated wastewater from households, schools, health centers and markets in emerging town areas is being discharged directly to open drains and rivers, creating a public health hazard. Fecal waste needs to be managed safely throughout the sanitation service chain, from safe on-site containment all the way to safe disposal or safe reuse of the human fecal waste. Private sector actors can potentially invest in the development of affordable fecal sludge management service chains. The project will finance demonstrative investments in selected locations for improvements in drainage and collection systems, decentralized wastewater treatment systems and fecal sludge treatment facilities. The project will finance the establishment of a district level sanitation unit to oversee sanitation services, and provide technical assistance for the creation of an enabling environment for private contractors for sludge emptying services.

Component 3: Implementation Support and Sector Capacity Building

Component 3 (a): Implementation support.

24. This component provides implementation support to strengthen the capacity of staff of the Project Management Unit (PMU), provincial and local level government agencies. This will include the hiring of National Management Consultants and Technical Management Consultants to support project implementation.

Component 3 (b): Monitoring and evaluation.

25. The project will support development of a comprehensive sector-wide monitoring system that includes data collection, quality assurance and quality control, data reporting and use. The institutional structure for monitoring will incorporate positive incentives and accountability mechanisms at central, provincial and district levels, as well as harmonization with health / nutrition monitoring to enable cross-tabulation of access to WASH services and health and nutrition outcomes. The monitoring system will be used to facilitate scale up of learning and propagation of good practices across implementing agencies and communities, and be used to track sustainability of interventions. Annual reports on sector performance will be published. Monitoring service delivery and sustainability with systems that track indicators of functionality, performance, and service levels. Learning and adaptive management supported at national and decentralized levels to enable the sector to adapt based on experience. Existing sector rural WSS information systems, such as the Rural Water and Sanitation Information System (SIASAR) currently in use in 11 countries in Latin America; and the PAMSIMAS information system, currently in use in Indonesia, both developed and supported by the World Bank, will be reviewed and explored to be adapted to support the Rural WSS sector in Lao.

Component 3 (c): Communications, advocacy and coordination.



26. This component provides for strengthened sector coordination mechanisms dedicated to water and sanitation where government, donors, development partners, and private sector meet on a regular basis to consolidate and streamline planning and sector oversight, harmonize approaches and review and learn about innovations. Advocacy activities will include gender sensitive hygiene promotion and behavior change communication interventions in existing health delivery systems and school curriculums, as well as nationwide campaigns to improve individual behavior and household practices aimed at reducing child fecal-oral exposures, including management of fecal waste and wastewater management, household level drinking water treatment and safe storage practices, and handwashing with water and soap.

SAFEGUARDS

A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The project will target twelve districts in four provinces Xiengkhouan, Houaphan, Oudomxay, and Phongsaly. These provinces are not only among those with the highest stunting prevalence, but they are also among the poorest, hosting a population of 352,421 in 881 villages, sixty percent of which are considered poor, and contain predominantly ethnic minority groups. The Water Supply and Sanitation Project will adopt a district-wide approach for coverage of water supply, sanitation, hygiene behavior change and target the reduction of open defecation at village level.

B. Borrower’s Institutional Capacity for Safeguard Policies

The Ministry of Public Works and Transport (MPWT) will be the lead project implementing agency responsible for the overall supervision, execution, and management of the project. The project will further explore the potential for implementation through MPWT organizational structure and its institutional arrangements by harmonizing the World Bank implementation arrangements with the Bank financed Lao Road Sector Project 2 (P158504) which will also be implemented in the same project provinces of Phongsaly, Houaphan, Oudomxay, Xiengkhouang, (in addition to Xayabouly and Bolikhamxay). This will allow the project to leverage the existing capacity of the MPWT in the implementation of the World Bank's environment and social safeguards.

C. Environmental and Social Safeguards Specialists on the Team

Martin Fodor, Environmental Safeguards Specialist
Martin Henry Lenihan, Social Safeguards Specialist

D. Policies that might apply

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	Water supply infrastructure in rural areas will be spring protection structures, water supply pipes, groundwater recharge structures, groundwater wells, pumps and pump stations. Water supply to address the needs of emerging town areas, large villages, and



groups of villages could be supported from one bulk water source, or from the urban water supply system managed by the Nam Papa State Enterprises (NPSE) where there are urban-rural economies of scale, availability of water and technical feasibility of supply. The project will finance the feasibility studies and detailed design for infrastructure investments like small scale expansion of existing water treatment plants, new and rehabilitation of distribution systems; pump stations and primary, secondary and tertiary supply pipelines. The project will finance demonstrative investments in selected locations for improvements in drainage and collection systems, decentralized wastewater treatment systems and fecal sludge treatment facilities.

Potential environmental impacts resulting from project activities include soil erosion during construction of intake structures, pipe installation, construction of water distribution and sanitary systems, and pollution of surface and ground water. Given the small-scale nature of planned water supply and sanitation infrastructure, environmental impacts are expected to be minor, temporary, and site specific and can be managed through implementation of appropriate mitigation measures. The project is proposed as a Category B for which known effective mitigation measures and monitoring actions will be implemented to avoid and minimize possible impacts of civil works. As sub-projects will be identified during project implementation, an environmental and social management framework (ESMF) will be prepared to ensure that environmental and social impacts are properly addressed in compliance with both national laws and regulations, and World Bank Safeguard Policies. The ESMF, including Environmental Code of Practice (ECOPs) for construction and rehabilitation of water supply and sanitation systems, will be prepared and disclosed prior to project appraisal. The client will hire an environmental assessment consultant to prepare the ESMF and will assign a safeguard focal point during project preparation and throughout project implementation to support safeguard document preparation and supervise safeguard implementation. The ESMF will be prepared, disclosed and consulted prior to appraisal.



		Interim Guidelines on the Application of safeguard Policies to Technical Assistance (TA) Activities in Bank-Financed Projects and Trust Funds Administered by the Bank will be applied for the feasibility studies and designed under the project.
Performance Standards for Private Sector Activities OP/BP 4.03	No	
Natural Habitats OP/BP 4.04	No	Due to its small scale, the construction of new water supply and sanitation systems and implementations of Community Led Total Sanitation (CLTS) will not significantly affect natural habitats in rural areas. The hot spot of natural habitats will be identified during project preparation and will be put in the negative checklist of ESMF to ensure that the project activities will not be allowed in the red list area
Forests OP/BP 4.36	No	The installation of piping system to distribute water supply from gravity-fed water supply and civil works such as well digging, water supply storage will not pose significant impact to the forest in rural area due to its small scale. Mitigation measures will be proposed in ESMF to ensure no significant impact from project activities to forest area.
Pest Management OP 4.09	No	The project activities will not involve or support purchasing of pesticide. Therefore, this policy is not triggered.
Physical Cultural Resources OP/BP 4.11	Yes	As project will finance rural water supply and sanitation infrastructure which may impact unknown, physical cultural resources as defined by OP/BP 4.11. Therefore, Physical Cultural Resources policy should be triggered as a precaution. A chance find procedure of physical cultural resources will be integrated as part of ESMF.
Indigenous Peoples OP/BP 4.10	Yes	District level data from the census on ethnicity confirms the presence of ethnic groups in the project target areas. Therefore, the World Bank's Indigenous People's Policy is triggered. Potential adverse impacts on ethnic communities are expected to be limited as the activities planned under components 1, 2, and 3, and will primarily involve communication and behavior change activities, as well as the expansion or rehabilitation of existing infrastructure. Because the overwhelming majority (73%) of beneficiaries will be ethnic people, the elements of an ethnic group development plan will be integrated into the design of the project, rather than preparing a standalone instrument. A social assessment will be undertaken



within the target communities, along with a community based consultation process in order to inform project design. Furthermore, the ESMF will include the results of the social assessment, along with a community engagement framework that provides details on implementing the policy requirements for social assessment and establishing broad community through a process of free, prior and informed consultation at the sub-project level. The ESMF will also include a summary of the results of the proposed gender study.

Involuntary Resettlement OP/BP 4.12

Yes

While component 1a, will finance spring protection structures, water supply pipes, groundwater recharge structures, groundwater wells, pumps and pump stations, and component 2b will finance demonstrative investments in for improvements in drainage and collection systems, decentralized wastewater treatment systems and fecal sludge treatment facilities, it is not expected that these investments will result in significant land acquisition. Because the exact locations of these activities will not be known until implementation a resettlement policy framework will be prepared and disclosed prior to appraisal. Also, component 1a will finance the design of new water schemes or extension of the existing schemes. Any technical assistance provided under this or other components of the project will be required to take into account the requirements of the World Bank's policy on involuntary resettlement in the terms of reference.

Safety of Dams OP/BP 4.37

No

The project will not support construction or rehabilitation of dams nor will support other investments that rely on the services of existing dams. Therefore, this policy is not triggered.

Projects on International Waterways
OP/BP 7.50

TBD

It is unlikely that project activities will involve in international waterways unless the project will finance the construction of gravity-fed water supply systems, toilets and wastewater treatment system that take water from, or discharge wastewater into rivers that are direct or indirect tributaries of Mekong, an international waterway. This will be confirmed during the project preparation if this policy is triggered. And if the policy is triggered, riparian countries (China, Cambodia, Thailand, Vietnam) will be notified prior to appraisal.

Projects in Disputed Areas OP/BP 7.60

No

No project activities are involved in disputed areas.



E. Safeguard Preparation Plan

Tentative target date for preparing the Appraisal Stage PID/ISDS

Jul 31, 2018

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

Target date for the Quality Enhancement Review (QER), at which time the appraisal stage ISDS would be prepared: May 30, 2018. Time frame for launching and completing that may be needed. The specific safeguard-related studies and their timing will be specified in the PAD-stage ISDS: Preparation of the ESMF will begin March 30, 2018 and planned to be ready for disclosure by July 31, 2018.

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APPROVAL

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