

Supporting utility	Saitama City Waterworks Bureau (SCWB)		Case No.	3
About recipient utility			Data from	2018
Recipient utility	Three leading Water Supply State Enterprises of Lao PDR			
Cooperation year	1992 to present			
Service area	Vientiane Capital, Luang Prabang Province, and Khammouane Province			
Service population	Urban area: 767,000 Rural area: - Total: 767,000	Service coverage	Urban area: 70.4% Rural area: -	
Water distribution	204,000 m³/d	Maximum water distribution	402,000 m³/d (32.9+5.5+1.8) (facility capacity)	
Water consumption per capita	135-200 L/person/d¹	NRW	32.15%	
Water source	Rivers	Pipe length	2,998 km (2,404+409+185)	
No. of WTP²	25 (12+9+4)	No. of Employees	1,051 (688+156+207)	
Water treatment	Coagulation + Sedimentation + Rapid filtration + Chlorine Disinfection			
Water rates	2.07 USD (17,690 LAK)³			
About technical cooperation				
Background	<p>The Saitama City Waterworks Bureau (SCWB) has provided technical cooperation primarily to the Vientiane Capital Water Supply State Enterprise (NPNL⁴) that services Vientiane Capital in Laos. NPNL’s service coverage is 69% and its population served accounts for 40% of the whole population. For comparison, the average service coverage in Laos is 21%. As the largest state enterprise of water supply, NPNL is expected to be a role model for other water utilities and support their activities.</p> <p>In addition to NPNL, SCWB is currently working with two other water supply state enterprises, the Luang Prabang Province Water Supply State</p>			

¹ Based on 2015 statistics

² WTP = Water Treatment Plant

³ 1LAK = 0.0001117 USD (as of April 1, 2019) Basis for calculation: [1,300 (LAK/m³, 1-10 m³) x 10 m³ + 3,900 (LAK/maintenance fees /month/φ15 mm)] Calculated according to the water rates in Vientiane Capital

⁴ The acrynoms for the three leadning utilities of Laos (NPNL, NPLB, and NPKM) are all based on the Laos language. For example, NPNL stands for "NamPapa Nakhong Luang" in Laos language, which means "Vientiane Capital Water Supply State Enterprise" in English. NamPapa means "water supply utility" and Nakhong Luang means "Capital".

	<p>Enterprise (NPLB) and the Khammouane Province Water Supply State Enterprise (NPKM). NPLB and NPKM respectively provide water service in Luang Prabang Province in the country's north and Khammouane Province in the country's south. The working relation between SCWB and NPPL, NPLB and NPKM is part of a technical cooperation project managed by the Japan International Cooperation Agency (JICA). The three utilities were selected as pilot areas of this project, whose purpose is to expand areas of JICA's assistance outside Vientiane Capital. At the moment, SCWB is also working with the three utilities in a JICA grass-roots technical cooperation which started in June 2018.</p> <ul style="list-style-type: none"> • 2002 – 2005: JICA technical cooperation project: Capacity development of water supply system • 2006 – 2008: JICA grass-roots technical cooperation: Improvement of pipe maintenance and management • 2010 – 2011: Twinning program between SCWB and NPPL • 2012 – 2017: JICA technical cooperation project: Capacity Development Project for Improvement of Management ability of Water Supply Authority (MaWaSU project)⁵ • December 2016: SCWB signed a Memorandum of Understanding (MOU) with NPPL, NPLB, and NPKM on cooperation to enhance Laos water supply sector • 2018 – 2023: JICA project for Improvement of Management Capacity of Water Supply sector (MaWaSU2 project)⁶ • 2018 – 2021: JICA grass-roots technical cooperation for Improvement of Pipeline Management and Maintenance in water supply state enterprise of Laos
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⁵ About MaWaSU project:

In 1999, the Prime Minister of Laos issued an ordinance aiming to provide safe and reliable water supply for 24 hours a day to 80% of the urban population by 2020. As of 2010, service coverage in the urban areas is 55%. To achieve the target, it is necessary to make further investments and save finances where possible by improving service efficiency. The MaWaSU project was initiated in 2012 with a five-year implementation period in order to help all water supply state enterprises in Laos to make proper facility enhancement and renewal as well as to achieve stable water supply based on mid to long term service plans. For this project, the Water Supply Division of the Ministry of Public Works and Transport plays a central management role, and three leading utilities, NPPL, NPLB and NPKM were selected as pilot utilities.

Source: JICA (<https://www.jica.go.jp/project/laos/012/index.html>)

⁶ About MaWaSU2 project:

Even after the completion of MaWaSU, the operational foundations are still weak in most of the water supply state enterprises, including the three utilities, and their capital investments and renewals are heavily dependent on funds from donors and private investments. In recent years, the number of private companies involved in the development and operation of facilities has been increasing, but the legal system for the supervision of these private companies and the approval of related projects has not been fully developed, resulting in the lack of an environment required for the proper operation of water supply by the public and private sectors. In light of this situation, the Laos government requested the implementation of the technical cooperation project (Phase 2), and the MaWaSU 2 project started in May 2018 for a five-year period. MaWaSU 2 aims to address the remaining challenges of MaWaSU: strengthen the service management capacity in the water sector and enhance related capabilities of nation-wide water supply state enterprises, with the main target being NPPL, NPLB and NPKM.

Source: JICA (<https://www.jica.go.jp/project/laos/023/index.html>)

Cooperative scheme	<ul style="list-style-type: none"> • Relevant authority in Laos: Water Supply Division of the Ministry of Public Works and Transport • Recipient utility: NPNL, NPLB and NPKM
Recipient utilities' challenges	<p>Water supply in Laos is not in pace with its rapidly growing population and water demand. Countries including Japan and China have provided support to enhance water supply capacity and construct new water treatment plants, but it has not been sufficient to meet the growing demand.</p> <p>Another challenge is a self-governance in water supply. Due to a prime minister's ordinance, Laos has now in place a legal framework that requires utilities to provide water services based on mid to long term planning as well as conduct proper performance monitoring. However, the effectiveness of this new requirement is rather skeptical at the moment because the country has long depended on assistance from other countries to improve water supply service, and thus it was not easy for the utilities to become sufficiently self-reliant in the service management and objective settings. Under these circumstances, the MaWaSU project enhanced the capacity of the three utilities to develop service management plans and they acquired basic capabilities for managing services based on those plans. However, the operational foundations are still fragile and the environment for effective public-private partnerships for service management is not yet in place.</p>
Technical cooperation provided	<p>The technical cooperation started in 1994 when the predecessor of SCWB sent its employees to Laos for the first time. Since then, SCWB has assisted with the country's pipeline management and human resources development.</p> <p>The MaWaSU project was conducted to enhance the service planning and monitoring capabilities of the related utilities in Laos. The subsequent MaWaSu2 project has aimed to further enhance management structures and operational foundations of nation-wide utilities, mostly targeting NPNL, NPLB, and NPKM. Both MaWaSU and MaWaSU2 have been implemented in collaboration with three water utilities in Japan from Saitama Prefecture, Kawasaki City, and Yokohama City. Also, in response to the high demand in Laos for reducing non-revenue water, the ongoing JICA grass-roots technical cooperation has been providing assistance in improving the construction management and establishing construction standards for distribution pipes and service lines, as well as in selecting and managing proper pipe materials.</p>
Future plans and prospects	<p>The scope of the projects cover every state enterprise of water supply in Laos. As part of the implementation, NPNL, NPLB and NPKM are providing various lectures for other utilities in Laos. These three utilities are expected to play a leading role in supporting other utilities after the end of the projects. Thus, the three utilities are required to further develop their leadership and overall management capabilities. For this reason, future technical cooperation by Japanese water utilities would need to be more extensive and advanced in terms of human resources development as well as to encourage more voluntary, self-regulated service management on the part of NPNL, NPLB and NPKM.</p>

Photos



▲ JICA MaWaSU2 project
(Suggestion for Laos members in
meeting)



▲ JICA Grass-roots technical
cooperation (Coaching for
method of pipe installation)