ADAPTATION FUND

PORTFOLIO MONITORING MISSION REPORT

BUILDING CLIMATE AND DISASTER RESILIENCE CAPACITIES OF VULNERABLE SMALL TOWNS IN LAO PDR

CONTENTS



PROJECT INFORMATION

Project Title	**Building climate and disaster resilience capacities of vulnerable small towns in Lao PDR**
Country	**Lao PDR**
Sector	**Disaster Risk Reduction**
Implementing Entity (name and type)	**UN-Habitat** (Multilateral Implementing Entity)
Executing Entity(ies)	**Ministry of Public Works and Transport, Ministry of Natural Resources and Environment, Provincial Department of Public Works and Transport in Savannakhet Province, Department of Natural Resources and Environment in Savannakhet Province**
Funding Amount	**US$ 5.5 million**
Project start date	**06/05/2020**
Project completion date	**06/04/2026**
Portfolio Monitoring Mission Date	**March 24 – 28, 2025**

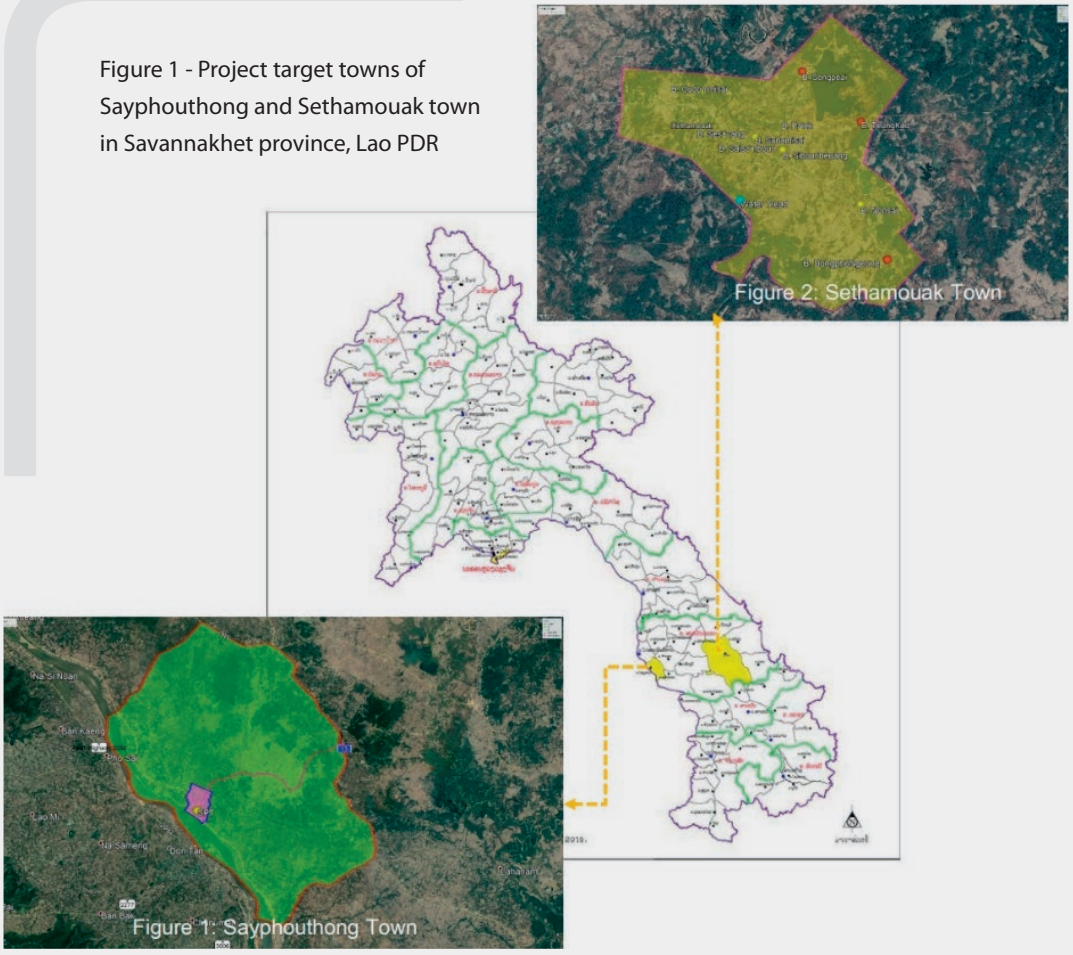

Figure 1 - Project target towns of Sayphouthong and Sethamouak town in Savannakhet province, Lao PDR

PROJECT BACKGROUND AND OBJECTIVES

The Lao People's Democratic Republic (Lao PDR) has made significant progress over the past two decades, having met key thresholds on income, human assets, and economic resilience. The country is currently on track to graduate from Least Developed Country (LDC) status by 2026. However, despite this progress, the country remains highly vulnerable to climate shocks, particularly in the water sector. With more than 70 percent of the population relying on climate sensitive sectors, such as agriculture (Laos Agriculture Census, 2020), the increasing unpredictability of rainfall, rising frequency of floods, and prolonged drought are placing immense pressure on water resources. In recent years, extreme heat and shifting seasonal patterns have also led to recurring service disruptions in small towns, further exacerbating existing water infrastructure.

The country's reliance on the Mekong River system, already affected by upstream hydropower development and changing precipitation patterns, has led to significant variability in river flow and water quality. In Savannakhet Province, where water-related risks intersect with high poverty levels and limited basic services, communities are increasingly vulnerable to drinking water shortages and food insecurity. In this context, the Adaptation Fund (AF) project titled "Building climate and disaster resilience capacities of vulnerable small towns in Lao PDR" targets Sayphouthong and Sethamouak, two towns along the east-west economic corridor. These towns (Figure 1) were selected due to their acute vulnerability to climate risks and limited water infrastructure. Their selection also supports the government's broader goals of fostering economic growth and infrastructure

development in emerging and small towns along the economic corridors of Lao PDR. The project aims to strengthen resilience by investing in climate-resilient water infrastructure and integrating climate risk considerations into local planning to ensure that development progress is protected against worsening climate impacts.

The project was designed and implemented using an evidence-driven and community-participatory approach to ensure that the plans were rooted in scientific data and tailored to the local context. To achieve this, a rapid vulnerability assessment was carried out in each of the target towns, which formed the development of community-specific action plans. This assessment also contributed to the creation of urban resilience master plans, designed to guide current and future infrastructure development while considering various climate scenarios. As a result, the project has successfully developed climate-integrated master plans for Sayphouthong and Sethamouak towns and has begun constructing two climate-resilient water supply systems. These systems include riverbank protection, a raw water intake, a distribution network, and household water connections.

The planning and design of these systems have been carried out with active participation from the local communities, empowering them in the process. This approach ensures that the impact of the project will endure, enabling the communities to benefit and maintain the built water systems long after completion. The project is set to benefit 57,144 people, including 30,572 women, and will provide 10,598 households with a reliable 24/7 water supply.

PROJECT COMPONENTS

The project has three components:

1. Town level master plans and capacity building for climate-resilient infrastructure planning, maintenance, and management.
2. Socially inclusive infrastructure which includes the development and construction of climate resilient water supply systems built in target towns.
3. Knowledge and awareness ensuring sustainability and potentially leading to policy changes at the national level.

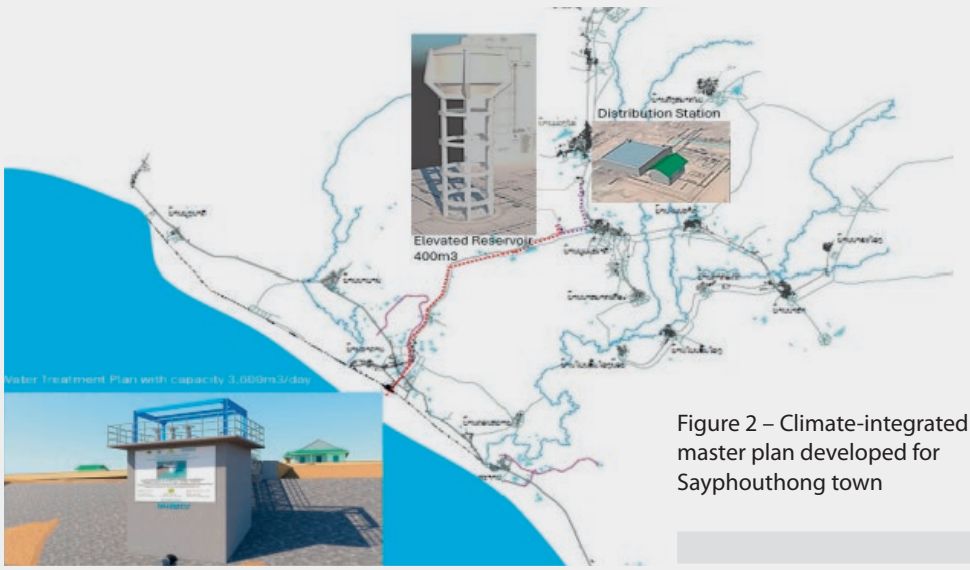

Figure 2 – Climate-integrated master plan developed for Sayphouthong town

Figure 3 – Intake structure for water treatment plant (WTP) in Sayphouthong

PROJECT RESULTS & OUTCOMES

- Two town-level master plans in Sayphouthong and Sethamouak were developed, incorporating climate change adaptation strategies. The two master plans have been adopted by the Provincial Assembly.
- Two new resilient water infrastructure projects are under construction in two towns.

The first facility, a water treatment plant (WTP) in Sayphouthong with a capacity of 3,600 m^3/day, is expected to benefit 48,200 people.

- **Phase 1:** Water Intake Construction – Completed
- **Phase 2:** Water Treatment Plant – 97 percent completed
- **Phase 3:** (final phase): Laying Main Pipe and Sub pipes - in the bidding process

The second WTP in Sethamouak, with a capacity of 1,200 m^3/day, is expected to benefit 8,944 people.

- **Phase 1:** Water Intake Construction – Completed
- **Phase 2:** Water Treatment Plant – 81.5 percent completed
- **Phase 3:** (final phase): Laying Main Pipe and Sub pipes - in the preparation process

Positive impacts from the project are already anticipated at the community level, particularly in areas that have historically faced water shortages. Local authorities have acknowledged that the project will not only meet urgent water needs but also lay the foundation for long-term development. Davone Xaisoulian, the District Governor of Sayphouthong stated,

"We have received such an impactful project. During the dry season, some villages do not have water to use. It will build resilience and foster development by addressing a fundamental need. Half of the population's livelihood in our district will be improved! Honestly, this project will bring joy and happiness to our people, who have been waiting so long for a reliable water supply!"

Local authorities also emphasized the project's potential broader socio-economic benefits, including improved public health, increased tourism potential, and the overall development of Savannakhet province. These results mark a significant step towards achieving more resilient, sustainable, and prosperous growth in the region.

KEY FEATURES OF THE PROJECT

Sustainability of the project beyond AF funding timeline

Creating community ownership

One of the strongest foundations of this project's success and potential sustainability has been the active involvement of local communities. From day one, communities were shaping what was built and how it was built. Individuals contributing included village elders, town planners, and young residents. By listening first and planning second, the project created solutions that fit the needs of each town. According to a female leader in one of the communities, the community members helped identify which areas were most vulnerable to flooding or water shortages, and their input directly shaped the design and location of water supply systems. According to the Department of Public Works and Transport (DPWT) in Savannakhet Province, these engagements weren't just about gathering feedback, but also served to build lasting trust, encourage local leadership, and to make beneficiaries feel invested in the outcomes.

Figure 4 - Davone Xaisoulian, District Governor of Sayphouthong, enthusiastically shares the expected benefits of the project during her visit to the water treatment plant.

The district Governor stated,

> ***"Local residents now understand how these systems matter, and what it takes to keep them running. With continued support and collaboration between communities, local authorities, and government partners, the project will be well maintained to inspire similar efforts across Lao PDR."***

Sustaining impacts through integrated planning and skills development

Looking ahead, the sustainability of this project lies in its ability to embed climate resilience into the core functions of local governance. Through the active engagement of relevant local decision makers, planners, and technical officers from district to national levels, the project has planted seeds for long term change. District, provincial, and national government staff received comprehensive training (Figure 5) covering urban and small-town planning, resilient infrastructure design, GIS-based mapping, and disaster risk and flood vulnerability assessments. These skills are already being applied in town councils across Lao PDR, shaping decisions on land use, water systems, and disaster risk management in tangible ways. These stakeholders have now taken on active roles, equipped with the skills to support resilient urban development from within their institutions.

Figure 5 - Government staff participation during -the-on-the-job training on "Climate-mainstreamed urban planning"

The project lead from UN-Habit noted,

> ***"The goal is not about providing one-off support -- rather, to build a momentum through local ownership and technical capacity by laying the foundation for a culture of resilience where climate smart planning becomes routine practice, not a project driven exception. As more towns become aware of the risk and vulnerability hotspots, have the competent officer to plan and execute actions based on the training provided, the project's legacy will endure well beyond the funding cycle."***

Strategic knowledge dissemination

The PMM mission highlighted the project's strong emphasis on knowledge management, supported by a well-structured and publicly accessible resource hub. To date, the project has generated over 44 knowledge products including evaluation reports, town-level master plans, technical guidelines, brochures, and news articles with each product averaging over 1,800 downloads. This reflects strong interest and the practical value of the project outputs among diverse audiences.

The project's findings and impact stories have gained significant visibility through national and local media coverage, often featured on front pages. This exposure has played a vital role in raising public awareness and deepening understanding of climate-integrated town planning and infrastructure solutions. Additionally, strategic use of social media has broadened engagement by delivering real-time updates, showcasing results in accessible formats, and offering on-the-ground insights that resonate with wider audiences.

Beyond communication, the project's knowledge-sharing efforts have reinforced evidence-based policymaking. Notably, vulnerability assessments are conducted through the project informed town-level action plans, which contribute to national climate resilience planning. This provides the government with a stronger foundation for integrating adaptation strategies into infrastructure development beyond the immediate project areas.

Effective decentralization as a catalyst for cost efficiency

The project's decentralized delivery model has proven to be a major factor in achieving high-cost efficiency. The Mid-Term Evaluation Report of the project confirms that the project delivered water and sanitation infrastructure at significantly lower costs: between 130 percent and 343 percent more efficient, when compared to similar interventions led by other development partners. This was made possible through strong collaboration with government institutions at all levels and active support from local communities. Decentralizing implementation allowed the project to effectively leverage existing institutional capacity, local expertise, and in-kind contributions such as labor, materials, and technical

input. This reduced the need for external contractors and minimized administrative overheads. By integrating implementation within local structures and fostering close coordination with relevant institutions, the project was able to streamline processes, avoid duplication, and deliver quality infrastructure more efficiently. This approach not only improved value for money but also enhanced sustainability by strengthening local ownership and capacity.

Enhancing climate resilience through innovative, data-driven planning

The project adopted an innovative and integrated approach that combined data-driven analysis with participatory action. By leveraging both quantitative and qualitative data collection, vulnerability assessments identified the environmental, physical, and social risks unique to each settlement, forming a robust evidence base for action planning. What set this approach apart was its strong community engagement: residents played a central role in identifying priorities and shaping solutions, ensuring the interventions were relevant and sustainable. Innovation was also embedded in the project's monitoring systems. Tools like the Community Project Performance Monitoring and Evaluation (CPPME) framework introduced real-time tracking and adaptive management, enabling swift corrective actions even during disruptions such as the COVID-19 pandemic. Coupled with targeted, capacity building for local governments and communities, the project created a replicable, forward-thinking model for climate-resilient infrastructure development.

Actively engaging women, youth, and marginalized groups through participatory planning

The project has placed a strong emphasis on social inclusion, ensuring that the voices and needs of vulnerable groups are integrated at every stage, from planning and design to implementation and monitoring. A participatory approach ensured the active involvement of local organizations such as the Lao Women's Union (LWU), the Lao Youth Union (LYU), and the Lao National Front for Construction. These partnerships were instrumental in facilitating inclusive engagement and amplifying the perspectives of women, youth, and ethnic minorities. Their input helped shape infrastructure design and site selection in ways that uphold community interests and social equity. By embedding gender and inclusion principles into its core processes, the project contributed not only to climate resilience but also to greater empowerment and equity across participating communities.

Proactive safeguards in infrastructure planning mitigate risks and protect vulnerable communities

Environmental and social safeguards were central to the project's design and implementation strategy. Town-level master plans were developed with full consideration of minimizing potential adverse impacts on land, water resources, and surrounding communities. The project made a clear commitment to avoiding physical relocation of households. Core infrastructure components such as water intake facilities and treatment plants were strategically sited on public land, while pipelines were routed along existing roadways to minimize disruption. Employment opportunities were also extended to local unskilled laborers, promoting economic inclusion, while deliberately avoiding reliance on migrant labor. Further, mechanisms have been put in place to monitor and prevent discrimination based on ethnicity or social status. Village authorities have established channels for reporting inappropriate behavior, reinforcing a culture of equity and accountability. These safeguard measures have helped build trust, enhance social cohesion, and ensure that the project was implemented responsibly and sustainably.

Figure 6 - Empowering communities through engagement ensures climate solutions reflect local priorities

KEY INSIGHTS FROM THE PROJECT

While still in progress, the project has already demonstrated the potential for integrating water infrastructure as a foundational, climate-resilient urban development component. The ongoing construction of water supply systems in Sayphouthong and Sethamouak is expected to significantly improve access to basic services, reduce vulnerability to climate stress, and enable future growth in these emerging towns. Although the full impact will only be evident over time, early indications suggest that reliable water infrastructure can act as a catalyst for multiple development benefits, from improved public health and reduced water insecurity to enhanced local livelihoods and stronger preparedness for climate shocks. As implementation continues, it will be critical to monitor and document the broader socio-economic impacts of the project. These insights can inform future planning and investment, particularly in other fast-urbanizing towns along Lao PDR's economic corridors ensuring that lessons from this model are applied to strengthen resilience and guide inclusive development in similar contexts.

CONCLUSION

The success of the project in just two climate-vulnerable districts in Savannakhet Province will yield measurable socio-economic benefits, including improved public health, reduced water insecurity, and enhanced livelihoods, particularly for women and marginalized groups. These outcomes, coupled with the project's high cost-efficiency, make a compelling case for expanding this model to other climate-vulnerable towns. The success of the town-level master planning approach will also demonstrate the value of data-driven, climate-integrated urban development in small and emerging towns across Lao PDR, many of which still lack formal development plans. Replicating this planning methodology can support the Government's broader goals of fostering climate resilience, managing urban growth, and reducing vulnerability in rural and peri-urban areas.

Scaling up these efforts will require strategic investment, continued capacity building, and coordination with national planning frameworks. However, the foundations laid by this project provide a strong platform to guide future interventions in other districts and provinces.

SEE MORE ABOUT THE PROJECT HERE

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