



## Facts at a Glance

### LOCATION OF IMPLEMENTATION

Region: Asia

Countries: Lao PDR

### DURATION OF THE PROJECT

Start date: 07-2019

End date: 12-2025

### TOTAL AWARDED

USD 6,500,000

### PROJECT PARTICIPANTS

- 76 Schools, 3 villages and 3 fresh markets in Vientiane Capital,
- Community Representatives and local village members,
- Vientiane Capital and Pakse City government officials,
- Private Sector Operators involved in waste and sanitation services.

### RESOURCE PARTNERS

- Korea International Cooperation Agency (KOICA)

### GOVERNMENT PARTNERS

- Ministry of Public Works and Transport (MPWT)
- Vientiane City Office for Management and Service (VCOMS)
- Champasack Province
- Pakse City Administration

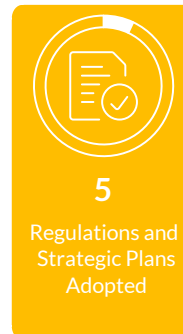


Introducing Waste Separation Practice at Local Market.  
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## LA09

# Wastewater and Solid Waste Treatment Capacity Building for City Environment Improvement in Lao PDR, Phase I

## IMPACTS AT A GLANCE



## PROJECT SUMMARY

The Wastewater and Solid Waste Treatment Capacity Building project in Lao PDR was led by the Ministry of Public Works and Transport (MPWT) and funded by the Korea International Cooperation Agency (KOICA). The project aimed to enhance urban basic services in Vientiane Capital and Pakse City of Champasak Province by delivering integrated policy frameworks, strategic planning, and sustainable infrastructure. For the infrastructure component, the project prioritized decentralized, low-tech solutions including an integrated resource recovery center (IRRC), waste recycling banks, decentralized solid waste collection systems, decentralized wastewater treatment systems (DEWATS) and a fecal sludge treatment plant (FSTP) the initiative strengthens municipal waste and wastewater management systems while fostering community-led behavioral shifts toward a circular economy.

## CONTEXT & BACKGROUND

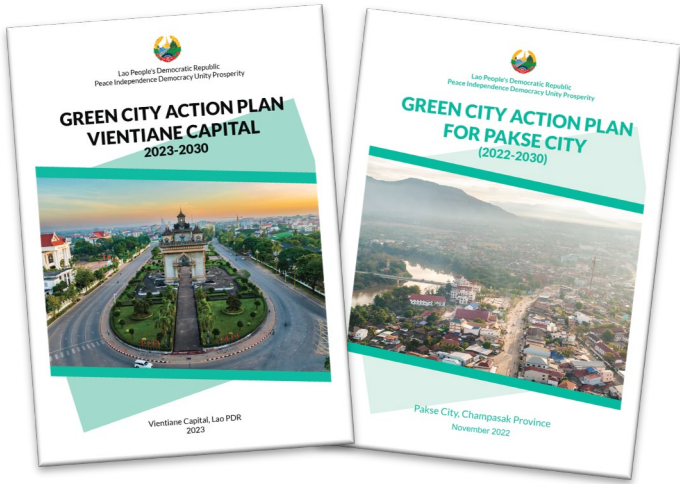
Lao PDR is experiencing rapid urbanization, which has increased the volume of municipal solid waste and wastewater. In Vientiane Capital and Pakse City, historical gaps in collection and treatment infrastructure have led to environmental challenges. To address this, the Ministry of Public Works and Transport has prioritized green city development, transforming waste management from a disposal-based model into a resource-recovery system that protects public health and local ecosystems and wastewater to be treated before disposal.

## PROJECT OBJECTIVE

- **Enhance Institutional Capacity:** Strengthening the ability of national and local authorities to regulate and manage green city initiatives.
- **Expand Solid Waste Access:** Improving access to sustainable collection and treatment services with a focus on waste-to-resource recovery.
- **Improve Sanitation Services:** Increasing access to decentralized wastewater treatment and fecal sludge management to reduce environmental contamination.



# GREEN CITY ACTION PLANS



The project supported the development of the Green City Action Plans (GCAP) for Vientiane Capital and Pakse City of Champasak Province. Both GCAPs outlined the green city visions with clear goals, appropriate projects and action points to guide green urban development. They also closely align with Lao PDR's key national policies and global commitment, contributing to national goals for sustainable development and climate action at the sub-national level.

## IMPACT STORY



Waste Recycling Bank School Campaign  
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## Turning Waste into Opportunity for Schools

The project successfully established a sustainable **"waste-to-resource"** model through **school-based Waste Recycling Banks**. By incentivizing students to bring inorganic recyclables (plastics, glass, and aluminum) from home, schools now generate revenue through private-sector recycling partnerships. These proceeds are reinvested into essential supplies and drinking water, proving the economic value of circularity while fostering sustainable habits in the next generation.

## NEXT STEPS

GGGI, with KOICA, is improving urban environmental services in Lao PDR. Phase II (2024-2029), "Scaling Out Sustainable Solid Waste and Wastewater Management," will expand successful initiatives and strengthen local capacity.

## PROJECT RESULTS

In Vientiane Capital:

1 strategy, 1 plan and 1 regulation adopted for improved urban environmental management



1 integrated resource recovery center designed, built and operated



76 waste recycling banks installed in schools and 24,000 students with increased environmental awareness



7,000 residents across 3 villages receiving waste collection and separate collection services



3 fresh produce markets provided with organic waste collection services



In Pakse City:

2 plans adopted and 1 regulation developed for improved urban environmental management



1 fecal sludge treatment plant designed, built and operated, servicing 90,000 residents



4 decentralized wastewater treatment systems designed, built and operated



9,600 residents across 4 villages benefitted from wastewater management services



Fecal Sludge Treatment Plant at Pakse City with the storage capacity of 25 cubic meters/day.  
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The Integrated Resource Recovery Center (IRRC) in Vientiane Capital has the capacity to process approximately 2,000 tons of organic waste annually.  
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