

GRET

## **WISE Project**

# Sanitation and integrated management of urban hydrosystems in Luang Prabang

#### Context

In Laos, Luang Prabang wetlands are a network of ponds that meanders through the city. The urban ponds are one of the pillars of the city's classification as a UNESCO world heritage and are strictly protected. They provide important environmental services to the city and its population: hydraulic regulation and flood control, aquaculture, fish farming and also participate to the treatment of domestic wastewater.

There is no sewerage network in the city and the population uses on-site sanitation systems with septic tanks of varying quality. The wastewater is discharged directly into the ponds, canals, streams, contributing to water quality degradation and potential impact on public health conditions.

Wastewater pollution and land pressure constitute important threats on the wetlands. In 1999, the Department of World Heritage has inventoried 183 ponds. 20 years later, there are only about 80 ponds left in Luang Prabang city. Ponds lose value in the eyes of the population, which accelerates the phenomenon. Also, the consequences of increased flood risk, exacerbated by climate change in urban areas are very significant.

Ponds are playing an important role for the city, particularly in view of the challenges of climate change and the increased risk of flooding in urban areas.

The need to restore and preserve these ponds is therefore of paramount importance. To address this raising issue, the urban service office the municipality of Luang Prabang and the Department of World Heritage are taking actions. WISE project has been launched by GRET to support these efforts to improve sanitation and to restore keys functions of the urban wetland of Luang Prabang.

### **Objectives**

WISE project aims to contribute to the improvement of the environment and living conditions of the population of the city of Luang Prabang through better access to sanitation and better management of the urban wetlands in Ban Mano, one of the 72 villages of Luang Prabang located within the protected area of the city. The 30 ponds of Ban Mano village will be used as a pilot to test and monitor innovative measures that could be replicated, with the support of local authorities, on a larger scale in a later phase.

In Ban Mano village, solid wastes are commonly found in the ponds, degrading the environment and the ornamental character of the site >

#### **Project objectives**

- Support the establishment of an improved, sustainable and safely managed sanitation service for the population leaving near the ponds in the Ban Mano district.
- Set up and support an innovative system for the sustainable and integrated management of urban ponds in the Ban Mano district.
- Monitor, evaluate, disseminate and promotes the results and lessons of the project in Laos and in France.

#### Key project figures

- 90,000 inhabitants in the city of Luang Prabang.
- Over 2,000 inhabitants in Ban Mano district.
- 30 out of the 80 ponds of the city will benefit from the project.
- About 30 local agents will benefit from capacity building.



The project has two main intervention axis:

- > The improvement of the sanitation with the implementation of pilot decentralized wastewater treatment systems (such as DEWATS). The project will explore the feasibility of nature-based treatment solutions. Also, at household level, the technical standards for on-site sanitation systems (septic tanks) will be reinforced.
- > The characterization of wetland degradation factors and the definition of a governance mechanism to strengthen the protection and valorisation of this world heritage natural area of the city. Population will have a central role in the governance mechanism to define and implement priority actions to improve the functioning and the quality of the wetland and to promote its cutural and environmental value within the population.

## The common, a promising approach

Past experiences on wetlands management and protection show the importance of the population participation to ensure proper management of the ponds. Trying to establish a real process of consultation and participation of the various stakeholders (local residents, owners, project owners, etc.) is therefore crucial.

By drawing inspiration from the operating methods of French basin committees



#### **EXPECTED RESULTS**

- Semi-collective facilities to treat waste water, such as DEWATS, are built in the Ban Mano area.
- Household sanitation systems are built in compliance with official technical and quality standards.
- With the reduction of the pollution by untreated wastewater, the water quality in the wetlands is improved.
- The ponds are well maintained, valued and protected
- A collective governance mechanism coordinates the management of the wetland
- The lesson learnt in Ban Mano village are shared at city scale in order to improve the maintenance and protection of the whole World Heritage wetland.

combined with the approach by the commons, the project will seek for the emergence of collective actions.

A common is made up of a resource and a set of actors with rights over it: as a social construct, it becomes a common when the actors engage in collective action to define the shared governance mechanism that enables it to be managed sustainably.

In WISE project, the common is the World Heritage wetland of Luang Prabang. If the ponds are mainly owned by private, their use, the service they provide and their environmental functions are common to all residents.





Residents' house along the ponds in Ban Mano



Accumulation of solid wastes in a canal

Photos: © GRET

BUDGET 502 674 € IN EUROS FUNDED BY:







CONTACT

GRET—Lao representation office

PO 2483 Ban Saphanthong, Xisathanak District, Vientiane

**tel**: (856) (0)21 453 332 **e-mail**: vontobel@gret.org

www.gret.org