

# Financing Integrated Sanitation

**City:** Bac Ninh

**Province:** Bac Ninh

**Applied financing model:** Provincial or city budget or Build and Transfer option through the land exchange for infrastructure investment from the private sector

## Quick facts:

Population: 206,035 inhabitants

Intervention area: 7,45 sq.km

City GDP: 6,340 US\$/capita

Country GDP: 2,385 US\$/capita

Estimated total required monetary investment without compensation cost: 102,5 bio VN (equivalent 4,5 mio USD)

Actual monetary investment without compensation cost up to 2018: 2,5 bio VN (equivalent 107,000 USD)

## Development priority

The priority of the government authorities is to treat wastewater disposed of by household noodle production enterprises at Khac Niem ward to meet the discharge standard through the application of Decentralised Wastewater Treatment Systems (DEWATS).

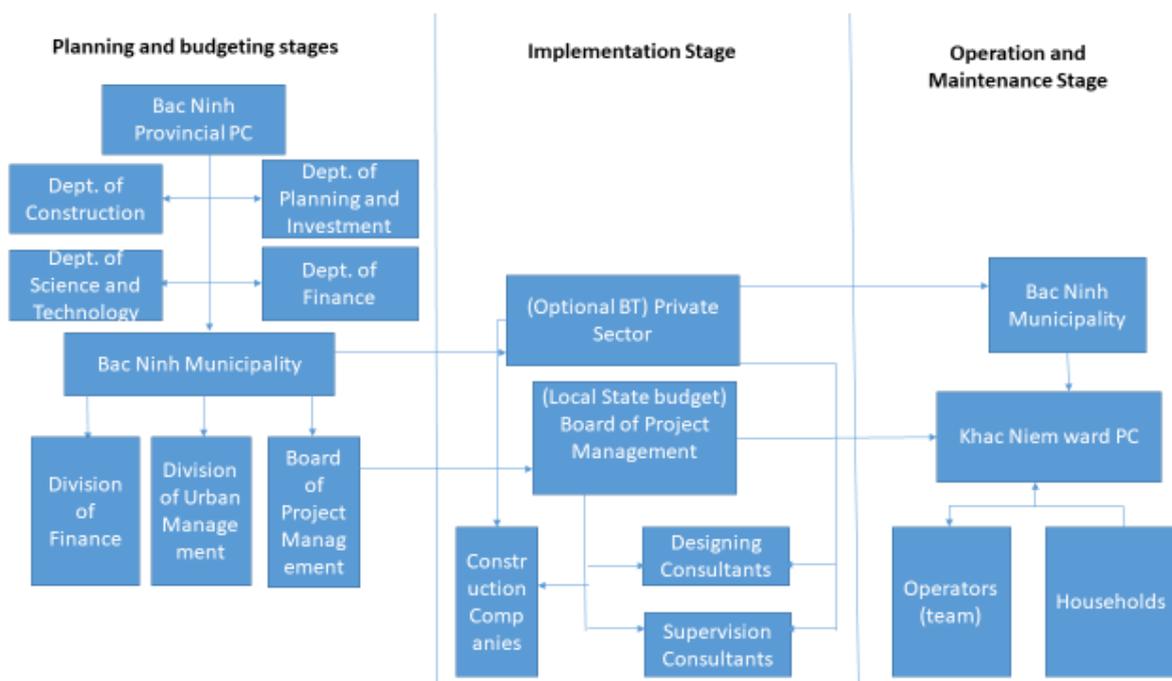
## Project outcomes

1. Wastewater disposed of from domestic, noodle production and husbandry activities are treated at the location and meet the discharge standard,
2. Sustained operation and maintenance by the local authority,
3. Established policies and regulations on fee collection,
4. Enhanced capacity of the local staffs regarding DEWATS implementation, operation and maintenance,

## Project Interventions

1. Develop the capacity of local authorities or implementation and operation and maintenance of decentralized wastewater management,
2. Raise awareness of the decision makers and the people on environmental protection such as wastewater treatment to reduce pollution as well as hygiene and sanitation,
3. Assist the local authorities in developing policies and regulations on fee collection for wastewater management,
4. Propose and demonstrate the technological solution to Faecal Sludge management.

## Financing scheme



- Bac Ninh provincial People Committee issued the Decision No.1139/2014 about investment on 5 new DEWATS treatment plants to solve the pollution problem due to the disposal of untreated wastewater from noodle productions at Khac Niem village (nowadays Khac Niem ward) in Bac Ninh city. Bac Ninh provincial PC is also to decide the methodology of investment with Build and Transfer(exchanging land for infrastructure investment) or using the local state budget.

- Dept. of Planning and Investment is under the direct management of Bac Ninh provincial PC and is charged to plan and review the project planning as well as the legal framework on project investment. It advises the provincial PC for an informed decision on investment in accordance with the legal processes.

- Dept. of Finance is under the direct management of Bac Ninh provincial PC and is mandated to review the legal framework, regulations on finance and perform project financial appraisal in accordance with the existing legal framework as well as manage capital flows of the province during project implementation.

- Dept. of Construction and Dept. of Science and Technology are also under the management of Bac Ninh provincial PC and are responsible for the selection of proper technologies for drainage/ sewage

and wastewater treatment according to the civil construction law to be invested for the project. They provide advises to Bac Ninh provincial PC for effective investment in accordance with the existing legal framework.

- Bac Ninh Municipality manages the professional divisions and decides on deploying the implementation of the project in accordance with the legal process after being assigned by Bac Ninh provincial PC to be the project owner.
- Division of Urban Management is the advisor to Bac Ninh Municipality about the process of project management in accordance with the legal framework, approval and deployment of the project in the city.
- Division of Finance is to manage the capital flows in the implementation of the project, to control the cash flow, disbursement progress, payment and settlement, checking, inspection of the project finance.
- Board of Project Management is assigned to manage and deploy the project as project owner by Bac Ninh Municipality, especially during the stage of project implementation.
- Private sectors are the project investor in the case of Bac Ninh provincial PC decides to apply BT investment. The private sectors will be the project owner to deploy and manage the project, perform the trial operation, provide training on operation and maintenance and then hand over the completed project to Bac Ninh Municipality. During the implementation of the project, Bac Ninh Municipality with its functions of project owner will supervise and receiving the handing over from the private sector.

To ensure the sustainability of the operation and maintenance of the project, Bac Ninh Municipality will hand over the complete project to Khac Niem ward PC. The receiver will be responsible to establish the operator team and collect the fee from households/ beneficiaries with the suitable fee in consideration as follows:

1. The operator team will be assigned to operate and maintain the wastewater treatment plants. The fee for operation and maintenance will be calculated considering the labour costs, equipment purchased for operation and maintenance, management and maintenance costs.
2. The fee will be collected by local authority or operators (team).
3. Sludge from the wastewater treatment plants will be removed and transported to centralized treatment plant of the city for further treatment. The cost for desludging and treatment will also be calculated and collected from the households including with the fee for operation and maintenance of wastewater treatment plant.
4. According to the requirement of Dept. of Natural Resources and Environment, the effluent shall meet class A standard (Announcement No.38/2018) Bac Ninh Municipality proposed to Bac Ninh provincial PC to allow effluent to meet class B standard (in the first stage of investment) and commit to meet class A standard within 5 years. So that the revenue will be earmarked to improvement and extension of the wastewater treatment plant.