CASE STUDY: FINANCING INTEGRATED SANITATION

Bac Ninh

City: Bac Ninh.
Country: Viet Nam.
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 USD/capita.
Country GDP: 2,385 USD/capita.
Estimated Capital Expenditure: 102,500,000,000 Dong, equivalent 4,500,000 USD (as of Dec. 2018).
Actual Capital Expenditure: 2,500,000,000 Dong, equivalent 107,000 USD (as of Dec. 2018).

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

Expected 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, schools and traditional markets.
4. Enhanced capacity of the local staff regarding DEWATS implementation, operation and maintenance.

Current Project Interventions
1. Develop the capacity of local authorities or implementation and operation and maintenance of DEWATS.
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 fecal sludge management.

Key Messages
For policymakers:
The project provides the appropriate practical solutions for wastewater management and sustainable operation and maintenance in noodle processing activities as well as enabling the polycentric urban wastewater planning to meet the national standards at column B and column A in 5 coming years by municipality to higher policy makers.

For financing institutions:
The project is optionally funded under public-private partnership (PPP).
with Build and Transfer (BT) methodology that means the municipality exchanges the land for infrastructure investment from private sector so that the private sector is involved in investing and implementation of the project until handing over the complete project to municipality for operation and maintenance.

For think-tanks and academia: The project contributes to the continuous improvement of modules to meet column A of national standards after 5-year commitment of column B for wastewater treatment from noodle processing activities and helps to raise awareness of municipality on necessity of piloting the faecal sludge treatment from household septic tanks.

**Contribution to the 2030 Agenda for Sustainable Development**

Implementation of the concept of Integrated Sanitation that is applied in this city contributes to achievement of a cluster of Sustainable Development Goals and Targets of the 2030 Agenda for Sustainable Development, such as SDG 1 - No Poverty; SDG 6 - Clean Water and Sanitation; SDG 7 - Affordable and Clean Energy; SDG 9 - Industry, Innovation and Infrastructure; SDG 11 - Sustainable Cities and Communities; and SDG 17 - Partnerships for the Goals.

**Contacts**

Ratna Aria Laycock, City Alliance (PeopleSanitation. Cities) Secretariat, secretariat@cityalliance-psc.org

Hendra Gupta, AIT- BORDA Regional Competence Center on Urban Waters

Aida Karazhanova, UN ESCAP

Mallory Bellairs, UN ESCAP (Layout)

Helmi Satoto, BORDA (Layout)

Jakrapong Tawala, UNITAR (Administrative map)

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*UN ESCAP, UN-Habitat and Asian Institute of Technology (2015), Policy Guidance Manual on Wastewater with A Special Emphasis on Decentralized Wastewater Treatment System.*