



Urban Sanitation Development in Vietnam

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Promoting Innovations in Wastewater Management

Making Sanitation a Sustainable Business

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- Combined sewerage systems for wastewater and storm water; incomplete, inconsistent with degraded drains leading to low discharge.
- Untreated wastewater discharges directly to water bodies.
- Treated wastewater accounts for less than 10%.
- Low household connection to urban sewerage systems



Current Urban Sanitation in Vietnam: Overview

- Urban Flooding:



- Pollutions:



- **Policy:** Inconsistencies, overlaps and gaps in legal documents; legal enforcement is not strong.
- **Technical issues:** Selecting model and technology for sewerage treatment:
 - Types of sewerage systems (combined vs. separated)
 - Model of sewerage system (centralized vs. decentralized)
 - Technology of sewerage treatment



- **Financial Issue:** Wastewater fee collection is not exercised in reality (only environmental protection fee worth 10% of water tariffs is enforceable)

Difficulties:

- Awareness of the municipal authorities;
- Consensus of the public;
- Incomplete wastewater projects, leaving urban wastewater problems unresolved, thus losing public trust.



- **Investment in building and rehabilitation of sewerage systems**

- Require large amounts of funds;
- Difficulty in fund raising due to high demand in investment;
- Lack of priorities from local authorities;
- Limited private sector participation;
- Delayed and ineffective project implementation;
- Public participation.



- **Institutional issue – service providers**

- Decree No. 88 stipulates that service utility shall be an organisation or individual to provide wastewater service as per O&M Contract.

- In practice, this has not been well defined. There are currently three models of sewerage utilities:

- + Water supply and Wastewater treatment company (WWC)

- + Urban environmental company (URENCO)

- + Drainage company (DSC)

→ What model to achieve effectiveness?



- **Climate change** has caused visible impact like irregular whirlwinds, heavy rain, flooding, high tides, etc., on the operations of urban sewerage systems (in Vietnamese urban centres).



Drainage and Wastewater Treatment: Integrated Approach for Development

- Continue to improve the current sector legal document system (Decrees, Orientation and Action Plans);
- Improve Urban Master Plan to use models and treatment technologies in sewerage planning;
- Policies for financing wastewater investment: Combine central government grant/subsidy and provincial contributions; End-user contributions are encouraged (for tertiary and house connections...); Various forms of public-private partnerships (PPP) are encouraged, such as BOT, BOOT, etc.



Drainage and Wastewater Treatment: Integrated Approach for Development

- Introduce wastewater fee policies to cover operating costs and, following 2015, partial cost recovery;
- For model of sewerage utilities, Government encourages to merger water supply & sewerage utilities;
- Capacity development for central government and urban: establishment of strategies, improvement of planning quality, forecast, improvement of awareness for local authorities of all levels through training courses, manuals, etc.
- Encourage international knowledge and experience in wastewater treatment technology and relevant O&M, etc.





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Thank you for your attention!

