

# **ADB Wastewater Management Program in Viet Nam**

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# **Viet Nam = Legal Background WW**

- **Decree 80/2014 Waste Water**
  - Cost Recovery O&M and subsidies CAPEX
  - Connection Cost by HH & Mandatory
  - Service Contract O&M
- **Decree 25/2013 Environmental Protection fees**
- **Decision 1930/2009: Orientation Plan Waste Water & Industrial Parks 2025 (Vision 2050): Coverage**
- **Construction Code: Mandatory Septic Tanks**

# Viet Nam WSS Sector Outline

- \* **Viet Nam passed MDG => VDG**
- \* **Urban Coverage (108 Cities and Towns):**
  - WS: Improved source = 98% ; Piped = 73%
  - WW: < 10% centrally sewerred ( Others septic tanks)
- \* **440 Communes** (Total 646 – Population 4,000 to 50,000) without piped water supply & sanitation
- \* **Average Tariff:**
  - \* > Water Supply > \$0.30 (block, lifeline, connection)
  - \* > Wastewater: From 10% water tariff
    - (First cities breaking ceiling with tariff over \$0.10)

# ADB => We have done our homework in Viet Nam!

- \* **Decentralized wastewater management:** Kieu Ky, Hanoi PDA with Borda (2009). O&M by ~~Community~~ / Public
- \* **Past and ongoing Lending through Urban Development / Urban Environment Projects:**
  - **Thanh Hoa (2009): Central wastewater management**
    - From Combined to Separate (+20 y) Network
    - From Lagoon to Aerated Lagoon (+10 y) to SBR (+20 y)
    - Sanitation Revolving Fund Peri-urban areas (Latrines) with Women Union
- \* **WW Strategy Small Towns:** ADB/SNV (2012)

# ADB => Ongoing Sanitation Work

- \* **CDTA7885-VIE:** Support to Central and Local Governments to Implement Urban Environment Programs (\$2 million, 2012 to 2015) with Ministry of Construction (ATI/MABUTIP)
- \* **City Sanitation Strategies:** 10 cities (2014 - 2015)
- \* **Options Studies:** 3 Cities - Planning for decentralized wastewater management & Septage Management (2015)
- \* **Policy Issues:**
  - \* Institutional,
  - \* Social,
  - \* Technical,
  - \* Financial.

# Viet Nam Wastewater Sector Institutional Issues

- **Decree 80/2014 in line with Decree 25/2013**
  - Environmental Fees vs. Water Tariff
- **Water quality standards:** Flexible and relevant to economic / environmental objectives
- **Decentralisation & accountability / Governance**
  - Local Governments to be accountable
  - Level of Service
- **Ownership & private sector participation**
  - Clarity regulatory framework
- **Training and Education / Dissemination**
  - Framework for human resources development

# Viet Nam Wastewater Sector

## Social Issues

- **Affordability and Willingness to Pay:**
  - Access to Service
  - O&M
  - Awareness
- **Pro poor:**
  - Technical solutions (Latrines / Septic tanks / Connections / Decentralized)
  - CAPEX and Tariff subsidies
- **Participatory approach:** Design, Implementation, O&M
  - Citizen Report Card (assessment service)

# Viet Nam Wastewater Sector

## Technical Issues

- **Flexible, Adaptable and Phased**
  - Design of Systems should allow phasing and upgrading
  - From Decentralized to Centralized over 20 years ++
- **Dealing with Combined Systems & Septic Tanks**
- **Septage Management**
  - Septic tanks maintenance
  - Sludge characterization
  - Sludge management & disposal
- **Options for Treatment Technology**
  - Energy considerations
  - Influent and Effluent Standards

# Viet Nam Wastewater Sector Financial Issues

- **Principles on Subsidy and Cost Recovery**
  - Subsidies for Capital Expenditures
  - Cost recovery for Operation and Maintenance
  - Phasing to cost recovery: Future loans to cover Viability Gap Financing
- **Household Connections**
  - Mandatory and Included in Tariff
  - Output Based Aid for poor households
  - Revolving Fund for others

# **Viet Nam ADB Sanitation Strategy**

## **Capacity Building, Pilots, Policy & Planning (2010 – 2015)**

### **Large Cities (15): Ongoing central wastewater projects (up to 60% coverage) by Donors:**

Plan decentralized ww for peri-urban areas and septage management (2015 – 2025 ++)

### **Secondary Cities (50,000 to 250,000):**

Plan decentralized ww & septage management (2015 – 2025 ++)

### **Small Towns and Communes (<50,000):**

Septage management (2015 – 2025 ++)

# **Viet Nam Pilot SFPF – Proposal**

**Secondary Cities: Dong Hoi & Vinh Long**

**CSS Completed: Septage Disposal & Treatment available**

**Pilot Project:**

- **Feasibility of Septage Management through PPP**
- **Grant Investment Component:**
  - **Septage management:** Collection, Treatment and Disposal to nursery trees farms

# Viet Nam Pilot SFPF – Proposal

**Implementation: 2015 plus 5 years O&M**

## **Special features:**

- **Sludge Characterization:** ongoing Hanoi CE University – Swiss
- **Testing of mobile dewatering units**
- **5 years O&M by Private Sector**
- **Sliding scale subsidy for tariff over 5 years**
- **Sludge management cycle – Trees Nursery Farms**
  - Sludge for water content = Irrigation (water conservancy)
  - Trees fix the sand (erosion) & Reduce air pollution
  - Evapotranspiration: Improved resilience climate change
  - Local economic development: Timber and resin production
- **Linkage with TA7885-VIE (Policy, Governance, Participatory Approach, Awareness, Behavior Change and Dissemination)**
- **Leverage:** Country through lending National Urban Development Program (2017 - 2030): **Mainstream CC & FSM**

# Viet Nam Pilot SFPF – Donor Coordination

Outputs	BMGF (SFPF)	ADB (TA7885-VIE) Development Partners
Improve Governance Enable environment for wastewater management		TA7885 WB, JICA, GIZ
Policy review (Technical, Financial, Institutional and Social)		TA7885 GIZ, JICA , WB (Decree 80/2014 and Circulars
National Policy on Septage Management		TA7885 (JSC & SNV)
Planning (CSS and Options Studies)	+ additional cities	TA7885 (10 CSS, 3 Option Studies; 5 CSS completed)
Building Awareness and Behavior Change to Water Pollution Control	+++	GIZ, Finland, DANIDA, WB, WSP, ADB
Access to sanitation services (Septage / decentralized & Connections)	+	TA7885 WSP/ADB (GPOBA)
Technology Demonstration (decentralized wastewater management through DBO and EPC and FSM)	+	ADB RETA (Technology review and WAMEX) SNV Biogas (rural and peri-urban)
Financing CAPEX		TA7885 (Policy)
Financing OPEX	+++ (Pilot)	TA7885 (Policy)
Participatory Approach (CBO & CRC)	+++	TA7885 (CSS)
Private sector participation O&M through DBO and Septage Management (OMC)	+++ (Pilot)	TA7885 (Enabling environment)
Knowledge Management / Dissemination	+++	TA7885 (ASR updating) GIZ (website), WSP (website and publication) and ADB (website and publication)

