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


• 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 sewered (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

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
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

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