DEWATS
Regional Policy Workshop of Stakeholders on Decentralized Waste Water Treatment Systems in Southeast Asia (SEA), 19-21 March, UNCC, SUMMARY OF DISCUSSIONS
Summary of discussions of Day 1 and Day 2
Good Practices and lessons learnt on DEWATS in SEA

- **BORDA**: Delivering DEWATS service packages incl. O&M and support services
- Importance to apply Technical Quality Standards and social/institutional SOP
- Co-management for O&M: CBO-loc. Authority
- Dissemination & reg’l networking
- **China**: Some electricity from biomass sold to the grid; Bio-methane production used for vehicle and sold to the grid
- Benefits: electricity sale, organic fertiliser, clean water, CO2 reduction, increased value of land, clean environment & better health; local ownership
Good Practices and lessons learnt on DEWATS in SEA

- **Malaysia**: WW sector is mainly driven by the private sector. **Standardization** of STP to minimize variations and facilitate regulatory work / tariff review.

- **Philippines**: **Comprehensive planning** of municipal hygiene, sanitation and WW with decentralized-centralized link; land issue for expansion of WTP.

- **Indonesia**: DEWATS conceived as **intermediate option** between on-site and centralized system; review of past CBS: collective facilities not working well; cost recovery issue. Example of good **national leadership and coordination on sanitation**: BAPPENAS.
Good Practices and lessons learnt on DEWATS in SEA

- **India**: Ecological sanitation is a triple win situation for hygiene, environment and agriculture. Creating wealth with human waste, reduced water and pollution. Importance to train technical staff and disseminate lessons from experiences.

- **AIT**: Strategic planning on waste management: National SD Strategies, National 3R Strategy Project as well as Community demonstration projects: capacity building on energy-biogas program. The main results: families are using the biogas for lighting and cooking. Importance to collect data. Shift the focus on waste (liquid, solid, gaseous) and awareness raising.
Stakeholder Frameworks & technical solutions for DEWATS

• **Prof. Ti le-Huu**: Institutional frameworks conceived as a sub-regional process of experience sharing on practices and partnerships, built on national ownership and expectations. Japan San consortium.

• **Prof. Makplan**: Transform waste and WW to renewable energy by recycling, recovering and reusing it (full cycle approach): biogas, natural WTP. Benefits of this approach. Need to have prefab designs.
Stakeholder Frameworks & technical solutions for DEWATS

• **Prof. Visvanathan**: comparison of WWT in Europe: *Water Framework Directive* as vision and driver of waste water reform. Shift toward sustainable sanitation systems (capex/opex costs; land requirement) from organic & suspended solids removal to nutrient removal: water and WW 3 Rs, membrane bioreactor, market driver
Group discussions Part 1 and 2
Cambodia

1. Issues discussed:
   • Limitation of land space and the use of roads as a drainage system (Ex: of India)
   • Cities use lakes/ponds as reservoirs for WWT before redirecting it to rivers

2. Solutions
   • Adopt DEWATS to different contexts
   • “Module” options of different conditions: anaerobic/aerobic systems
   • Options for subsidy, connection fee and tariff (include it in water or electricity bill?)
   • Measures for the poor: subsidy, no cost,
Group discussions Part 1 and 2

Lao PDR

**Vision:** San improvement in each town; national policy for serving communities, improved health and environment; participatory & integrated approach; master plan; enhanced promotion, capacities and knowledge

**Policy, strategy, law:** Integrate DEWATS to urban planning law, housing; MPWT is drafting strategy on urban WWM; start WWM master planning at provincial / district levels

**Coordination/cooperation** with core organizations at national and local levels

**Funding:** multi-source
Group discussions Part 1 and 2  
Viet Nam PR

1. **Policy, law, strategy**
   - Amend Decree 88 to expand to peri-urban + decentralized systems
   - Adopt law on Environment for effluent norms
   - Settle overlap on tariff and fee (decree 88-27)
   - Need for guidelines on minimum requirements for design, construct
   - Register DEWATS supplier chain

2. **Governance**
   - Change mindset of planners, decision makers on new ways to apprehend sanitation in urban context
   - Develop city master plan for sanitation and integrate lessons from DEWATS pilots
   - Base investments on city plans
   - Develop and apply compliance monitoring and enforcement including on-site connection to the system
   - Prepare regulations to involve private sector in operating san facilities
Group discussions Part 1 and 2
Viet Nam PR

3. **Coordination**: set up a TWG on sanitation in urban and peri-urban areas: replicate the RWSS TWG
   - National municipal coordination
   - 3 M sustainability: money, manpower, platform

4. **Financing**: 3 sources: state, donor, tariff
   - Add private sources: banks, micro-credit, revolving funds
   - Achieve cost recovery for OPEX with subsidies for the poor

5. **R&D** in technology development: affordable, modular, possibility for 3 Rs
Group discussions Part 1 and 2
Viet Nam PR

• Verbal Note
Regional DEWATS project timeline

Selection of the Regional Center for DEWATS

Regional Policy Workshop

Background Policy Study and Guidance Manual on DEWATS

19-21 March

April

August

September

19 November

Study Tour in Lao PDR

Regional Policy Workshop in Lao PDR

3 National Policy Workshops in Cambodia, Lao PDR, Vietnam

Development of 3 Concept Notes and Proposals for Cambodia, Lao PDR, and Vietnam

Implementation of the pilot project in Lao PDR