Hybrid PPP for non-network sanitation improvements in Greater Colombo

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OBA pilot in Sanitation in Sri Lanka

Key drivers to focus on decentralized and on-site sanitation:

1. A major sanitation issue
   - Very limited sewerage network
   - Few connections – expensive access
   - Majority use on-site systems: nonfunctional
   - Poor live in low lying, flood prone, high water table areas – septage overflows
   - Desludging services unregulated
Key drivers to focus on decentralized and on-site sanitation:

2. A favorable context:
   - High-level commitment from the Government to push the sanitation agenda (Mahinda Chintana - Vision for the Future)
   - A (cautiously) daring operator: the National Water Supply & Drainage Board willing to provide decentralized (untried) / on-site (LG responsibility) services

3. Donors involvement in support of sanitation:
   - Sida: Wastewater collection and treatment;
   - Output-Based Aid to increase access and improve service to poor households
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... but small networks called for various technical options:

Output 1: New connections to piped network:

1.a. Direct connection to existing sewers;
1.b. Connections to short sewer network extensions (conventional technology);
1.c. Connections to short sewer network extensions (simplified technology – shallow sewers);
1.d. Connections to decentralized treatment facilities - DEWATs – communal septic tanks);

Output 2: Performance & operations improvement of on-site systems, through small-scale PPP bundling facility improvement and regular desludging

Decentralized & on-site sanitation solutions
DEWATs demonstrated measurable results:
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Early lessons/challenges:

A lot of direct involvement/communication/advocacy needed

• To get Municipalities’ ok to pilot PPPs for on-site sanitation;
• Demand creation - communication and consultation with communities on scheme benefits to maximize demand from targeted eligible poor households;

PPP design needs to be simple but thorough

• Universal coverage sought;
• PPP to integrate facilities improvement, regular desludging and safe septage transport/disposal

Promotion of parallel improvement of solid waste collection
On site Sanitation Improvements

Activities

- Construction of 3785 Septic Tanks/Anaerobic Filter units and Soakage Pits
- Construction of 1135 Toilets
- Connect all black and grey water to the Treatment unit in 3785 houses
- Annual De-sludging of Treatment units for 4 years for discounted rate

Date of award : 16.05.2016
Date of Commencement : 02.06.2016
Target Date of Completion : 31.12.2017
Domestic Wastewater Treatment and Disposal Unit

[Diagram of wastewater treatment and disposal unit with labels for Black water, Kitchen W/W Inlet, Septic Tank, Anaerobic Filter, Soakage Pit, Grey water inlet, and House connections.]
Space Requirement

Treatment Unit: 8 ft.

Soakage Pit: 5 ft. x 5 ft.

Pit: 6 ft. x 6 ft.
Toilet Construction
Pre-casting and installation of Treatment Units
New Dedicated Fabrication Plant
Encouraging results... but, challenges

Progress

1. All household toilets completed
2. 1000 HH have paid for service
3. 2000 treatment units will be installed by June 2017.

Challenges

1. Learning by doing
2. Cooperation with/support from responsible local governments
3. Demand creation/uptake for facilities
4. Space (treatment units and access) a constraint at many densely populated locations with small plot sizes
5. New market/product for contractor (pilot):
   • delay in fabrication of treatment units
   • difficulty in mobilizing skilled personnel for installation
Discussions