

Wastewater and solid waste management

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Wastewater treatment

- Intent
 - To treat the wastewater generated in the complex to the level prescribed by pollution control for disposal/various applications
- Proposed baseline
 - To treat and dispose entire amount of wastewater generated in the site
- Impact
 - Reduced load on sewerage system of municipality if it exist
 - In the absence of connection to the drainage system, provides hygienic environment

Technical interventions

- Combined treatment system for gray water and black water or for graywater
- Dual plumbing lines to separate the two streams
- Treatment systems based on biological process or constructed wetlands

Policy interventions

- Two pipe system is one of the choice of plumbing system that can be adopted for large buildings and houses
- Sullage treatment system within the complex and reuse for flushing, make up water for cooling towers for air conditioning system
- No contamination with any water supply line, tank or system used for domestic and drinking supply

Estimation of optimal water reuse

- Plot area = 1000 m²
- About 20 tenements with average 4 people per house
- With baseline of 100 l/capita/day, total wastewater generation is 8 kld
- Water reuse = 50% of treated water for flushing(4 kld) and 50% for irrigation or other applications

Solid waste management

- Intent
 - To recover and utilise the available resources in the waste
 - Safe and environment friendly disposal
- Baseline
 - Decentralised system or recycling centre for disposal of the waste with resource recovery for every 500 households

Waste management (Contd.)

- Impact
 - Decentralised system reduces the burden on civic authorities to transport and dispose the waste
 - Improve the surrounding environment
 - Recycling of plastics, paper and other resources
 - Reduces the load on the landfills

Technical interventions

- Providing 3 bin facilities for storing recyclable, non recyclable and biodegradable wastes in individual households
- Common centre for collecting the recyclable material
- Contract with local agency for sorting and disposal
- Identification of licensed agents for recyclable materials
- Common composting or biomethanation plant for manure and biogas production
- Identification of utilisation of compost and fuel

Policy interventions

- No existing law or rule for household level segregation and disposal
- MOEF MSW Management and Handling Rules, 2000 requires the disposal by every local bodies/municipality
 - Bins for storage of biodegradable-green, recyclable-white and non biodegradable-black
 - Processing of biodegradable components by composting, anaerobic digestion or pelletisation
 - Only inert non biodegradable material to be landfilled
 - Mixed waste containing recoverable resources shall follow the route of recycling.