Co-Composting of Municipal Solid Waste and Faecal Sludge for Agriculture in Kushtia Municipality, Bangladesh

Iftekhar Enayetullah
Director, Waste Concern, Bangladesh

RECOVERING RESOURCES FROM WASTE: A WIN-WIN SOLUTION FOR LOCAL GOVERNMENT BUDGETS AND CLIMATE CHANGE"

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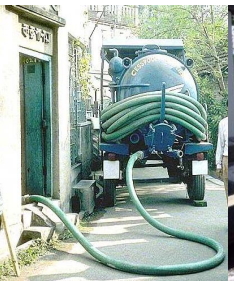
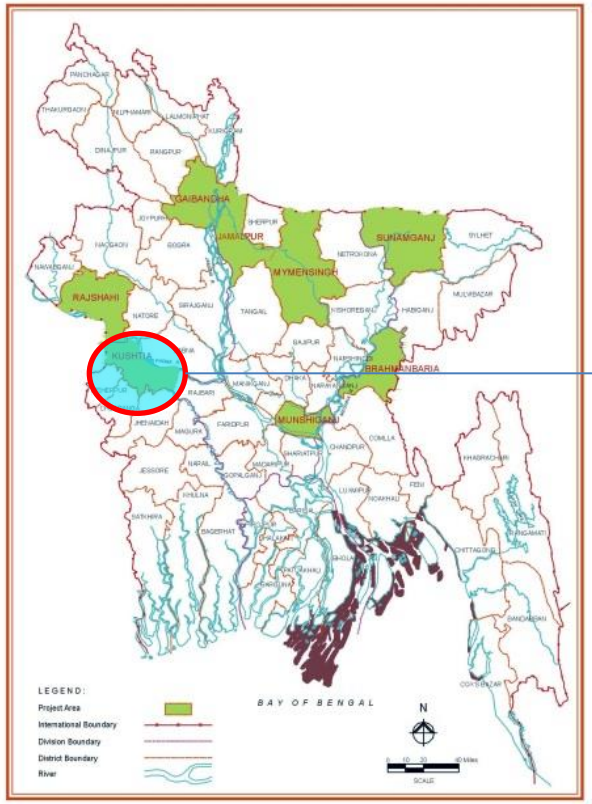





Overview of the Presentation

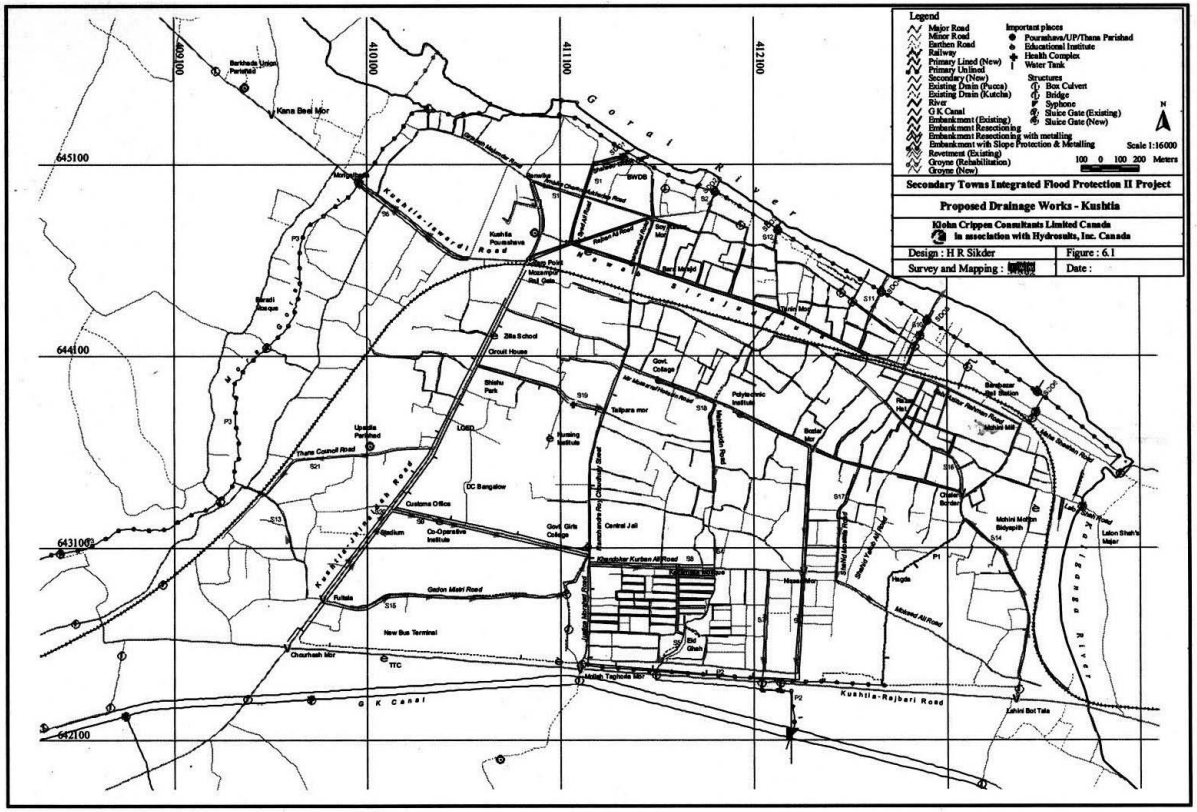
1. Background of Kushtia Municipality
2. Solid Waste Management in Bangladesh
3. Faecal Sludge Management Situation in Bangladesh
4. Pilot Intervention on Faecal Sludge Management in Kushtia
5. Key Findings

Location of Kushtia Municipality



Kushtia, Bangladesh

Background of Kushtia



Total Area: 27.75 sq.m

Estimated Population: 102,988

Total Number of Holdings: 12,907

Total Number of Household: 23,037

Faecal Sludge Collected by the City: 180-270 M3/ month

(equivalent to faecal sludge collected from 90 holdings)

Solid Waste Collected by the City: 20-25 ton/ day (out of this 80% is organic)

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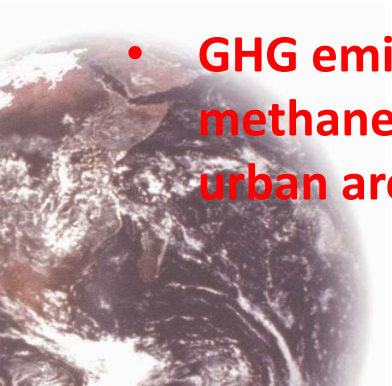
Solid Waste Management in Bangladesh

- Rapid urbanization in Bangladesh is creating an increasing strain on overburdened infrastructure, as well as more demand on limited public services.
- Solid Waste Generation in Urban Areas: **20,000 tons/day**
- Organic Waste: **80%**
- Collection Efficiency of Waste: **50-60-%**
- Crude dumping of waste in low-lying areas is the most common method of disposal of waste
- An enormous potential exists to improve existing municipal solid waste management operations with improved organic waste components and to provide positive economic and environmental benefits.
- Organic waste management, therefore, is a key sub-sector of municipal waste management which deserves more attention.
- **GHG emissions in Bangladesh are primarily from methane. Source of methane is from flooded rice fields and also from waste from mainly urban areas.**



Negative Impacts of Unmanaged Waste

VERMINS
Spreading more than 40 Diseases

METHANE GAS
Bad Odor & Green House gas

LEACHATE
Polluting Ground & Surface Water

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PROBLEMS OF SOLID WASTE MANAGEMENT

Faecal Sludge Management in Bangladesh

- **Faecal sludge**: Sludges of variable consistency collected from so called on-site sanitation systems; such as . pit latrines, non sewered public toilets, septic tanks

- At present there is no formal or environmentally sound faecal sludge collection and disposal system in Bangladesh.

- Septic tanks and pits are not desludged regularly to keep them functional. These are occasionally emptied manually and dumped into the nearby drainage system, low lands, surface waters and into open environment.

- With the increase in sanitation coverage in urban areas using septic tanks and pit latrines it is expected that faecal sludge volume will increase considerably within a few years and if collection and disposal systems are not developed serious environmental degradation and associated health risk will increase.

- Municipal authorities and the people in general, are not aware of the seriousness of the problem and therefore of the needs for improvement. Financial and operational capacity of the municipalities for improved faecal sludge collection, treatment and safe disposal are also limited.

Problem

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