



From Research to Implementation: BRAC WASH Initiative for FSM in Urban Areas

Digbijoy Dey

N Khan, M Kabir, MK Barua, A Islam

BRAC WASH Programme



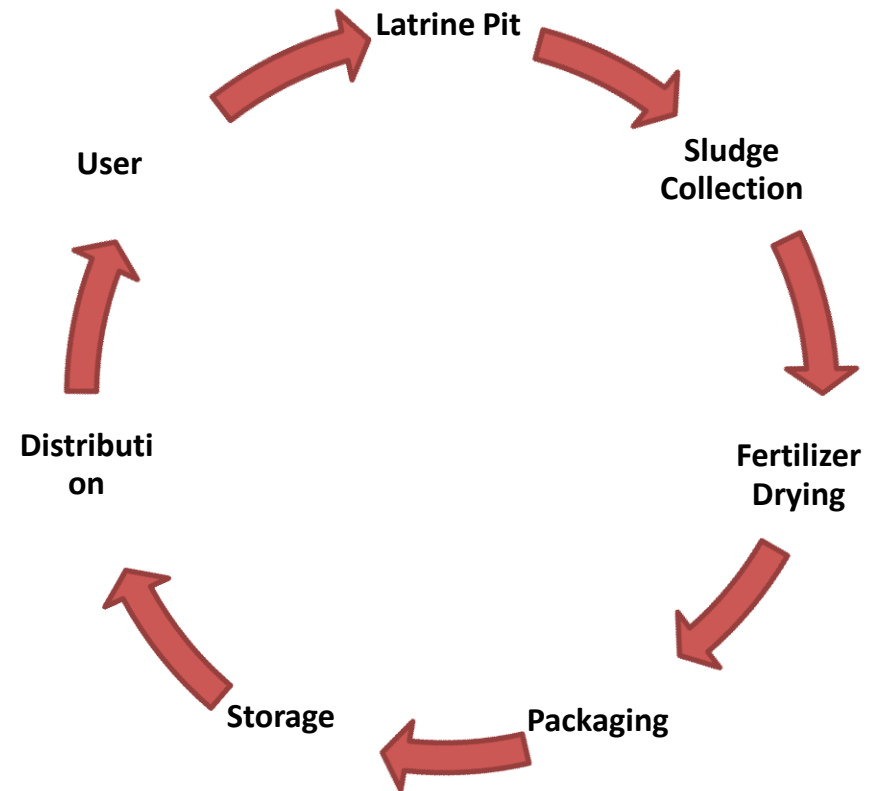
BRAC WASH scale at a glance (May 2006 – December 2015)

Working area	Total 250 sub-districts
Total population in working area	66.4 million
Number of people who received hygiene education from BRAC WASH	13.9 million per year in communities 2.9 million per year in schools
Number of people who gained access to hygienic latrines	41.6 million
Number of people who gained access to safe water (direct support only)	2.3 million
Established Village WASH Committees	65,566
Schools provided with WASH support	5,658



FSM in rural area: methodology

- Treatment method development pathogen removal and nutrient enrichment
- Completion of successful field trial both on laboratory and field condition
- Dissemination of FSM information to the community through communication materials like leaflets, brochures, etc.



Action research for small urban areas

- Desludging operation in four sub-districts of Bangladesh
- Pre-treatment of faecal sludge
- Post-treatment of faecal sludge (co-composting)



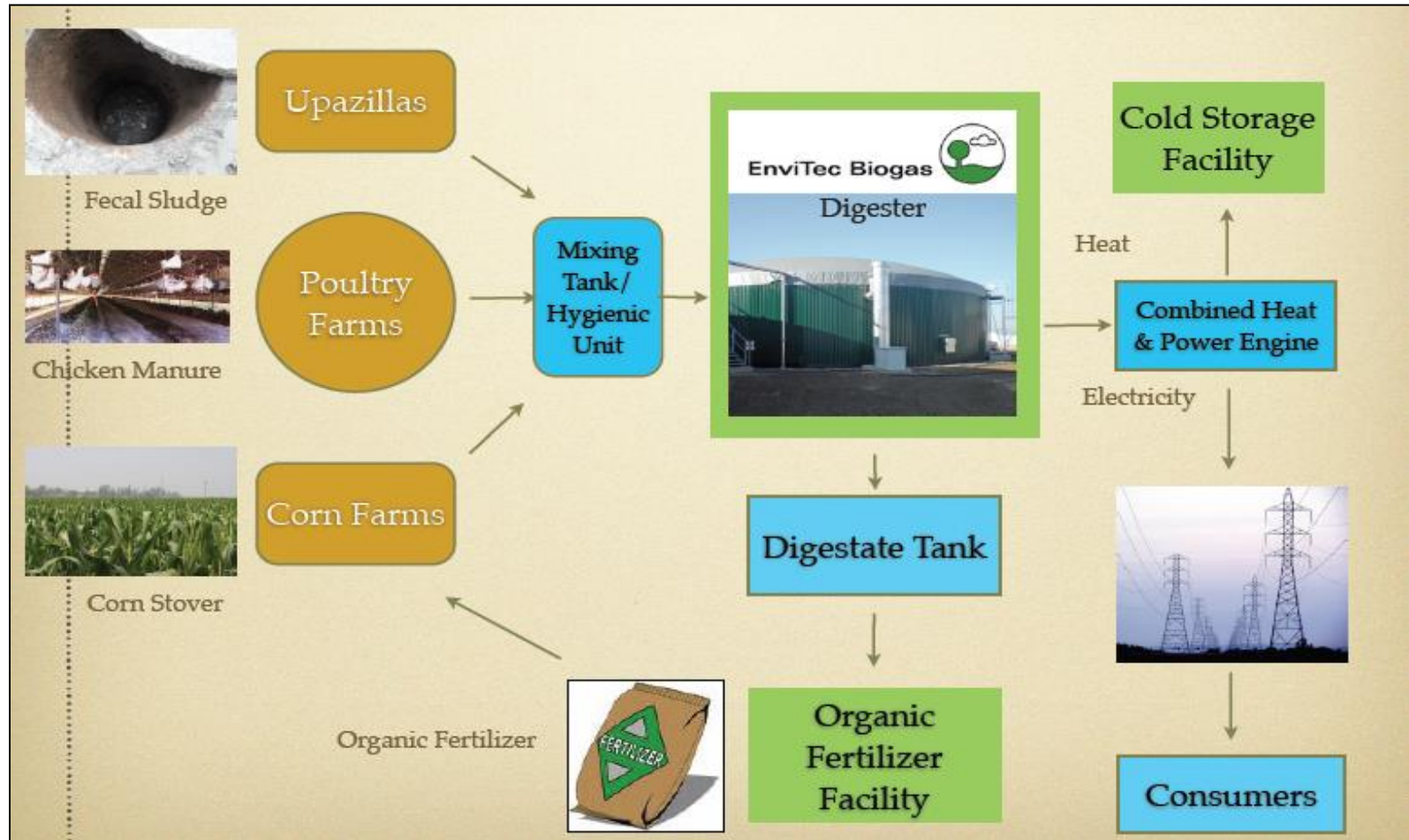
Action research for small urban areas(cont..)

- Valorisation of faecal sludge based fertiliser by pelletisation
- Field trial on spinach through different treatment of faecal sludge based fertiliser
- Market research on willingness to pay for the service



Action research for FS to energy

Reducing greenhouse gas emission through the processing of human fecal sludge, animal and agricultural waste into biogas



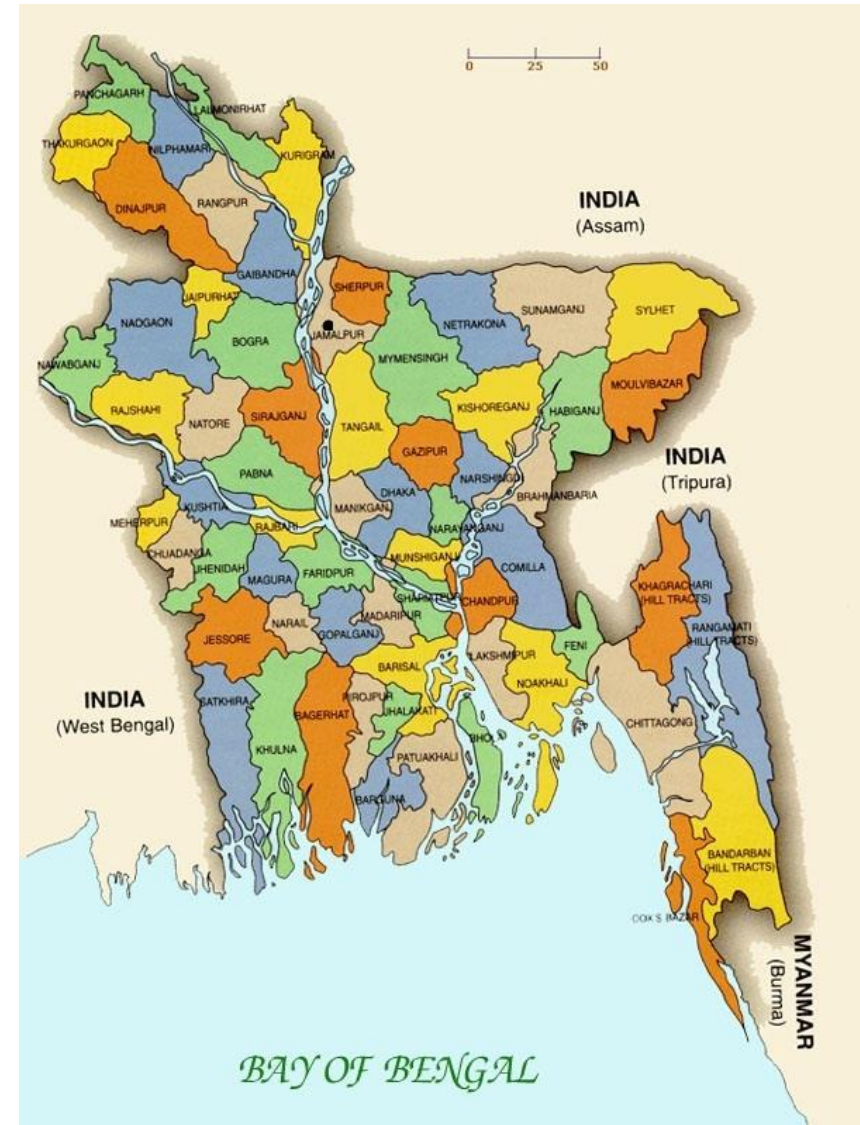
Action research for FS to energy (Contd..)

- Sludge collection from pit and transport by vacutug to the treatment site
- Sludge processing and anaerobic digestion
- Sludge collection, sampling and laboratory treatment for safe pathogen deactivation method

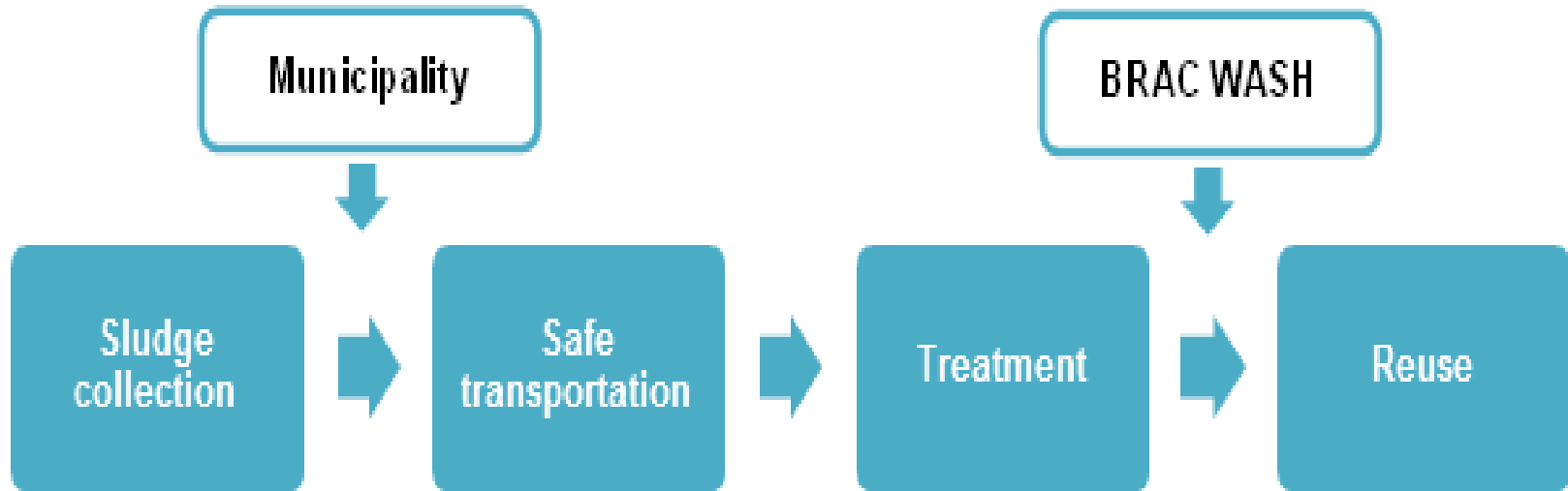


Urban intervention: Jamalpur

- Jamalpur is district town situated in the northern side of Bangladesh
- Total no of household 35375 and population 148219
- 3 green markets in the municipality area
- Municipality has got cleaning staff and logistics for solid waste cleaning
- No treatment operation for FSM and MSW



Operation Design



- Formation of pit/septic tank emptiers group
- Health and occupational safety training of the emptiers
- Activation of the treatment plant
- Training local entrepreneur for waste treatment plant operation

Development of low cost vacutug

- Development of a low cost country made vacutug
- Capacity of carrying 700 L
- Operated by two persons
- Construction Cost USD 2500



Plant design and coverage

- Constructed wetland based treatment facility
- Capacity of processing 300000 L wastewater per year
- Capacity of processing 100 Mg MSW per year
- Can produce 45 Mg of compost per year



Major Obstacle



Thank you

