

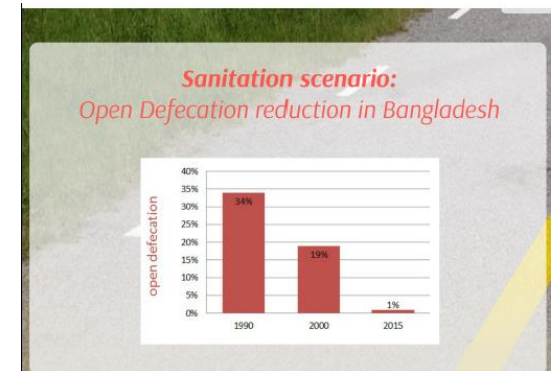
Urban Sanitation; Bangladesh Overview

WELCOME

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Background

- * 44 M people lives in urban towns;
- * 54 % of urban population are having improved sanitation;
- * 28 % have shared latrines;
- * Water consumption is 88 LPCD*44 M=3872 MLD;
- * 80 % of these water returns to drainage systems;
- * 3097 MLD produced as waste water;



SDG indicators putting the situation more challenging

Urban Sanitation	
SAFELY MANAGED	-
BASIC	54
LIMITED	28
UNIMPROVED	18
OPEN DEFECATION	0

Source: JMP 2017 report

Existing Procedures in law or policies and level of participation (GLASS,2017)

Procedures exist

✓ Yes

✗ No

Level of participation

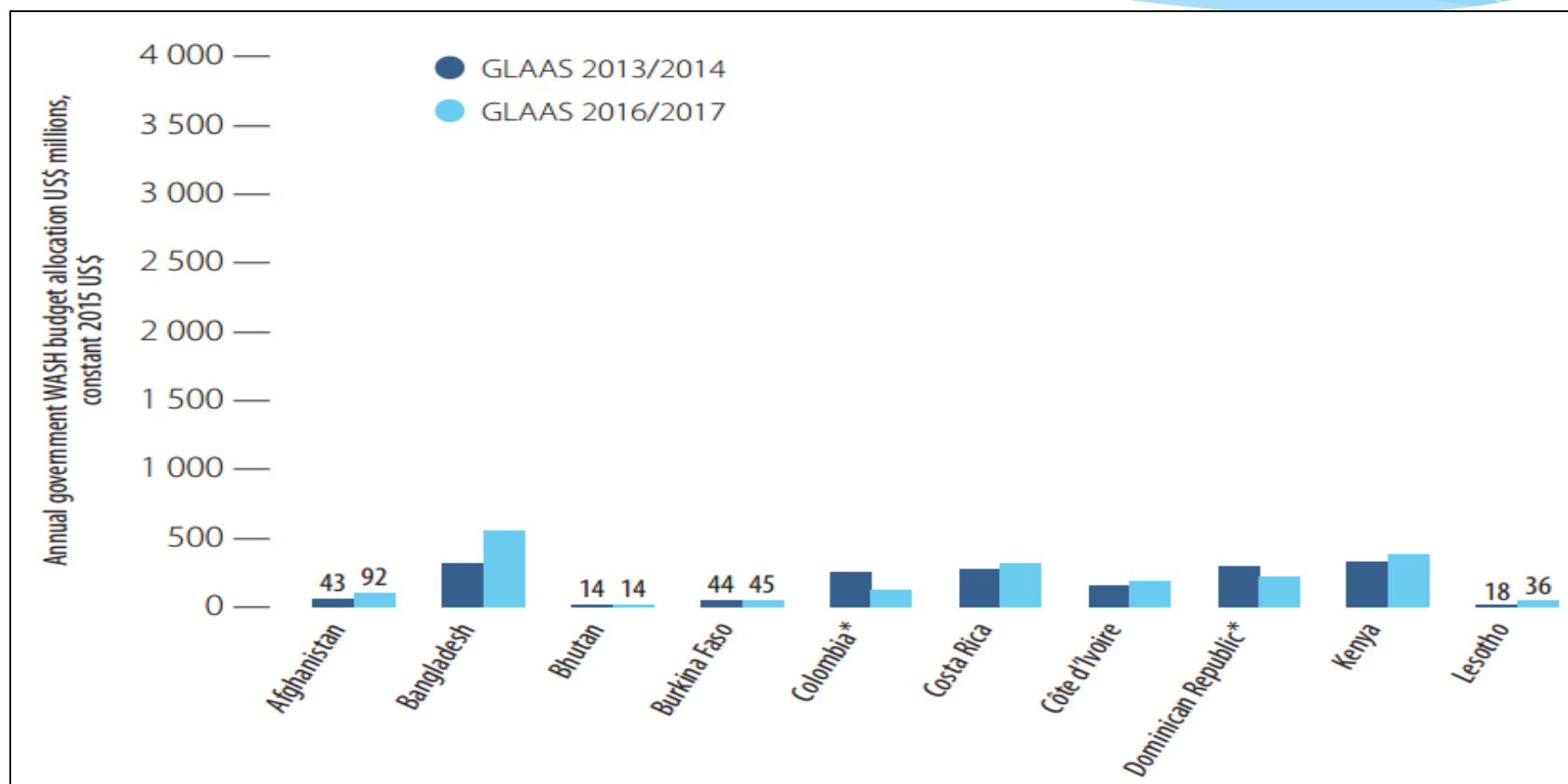
✓ High

● Moderate

✗ Low

COUNTRY	Sanitation				Drinking-water supply				Hygiene promotion		Water resources planning and management	
	Urban		Rural		Urban		Rural		National		National	
	Procedures exist	Level of participation	Procedures exist	Level of participation	Procedures exist	Level of participation	Procedures exist	Level of participation	Procedures exist	Level of participation	Procedures exist	Level of participation
Afghanistan	✗		✓	●	✗		✓	●	✓	●	✓	✗
Albania	✓	✗	✓	✗	✓	✗	✓	✗	✓		✓	
Argentina	✓	●	✓	✗	✓	●	✓	✗	✗		✓	●
Azerbaijan	✓	●	✓	●	✓	✓	✓	✓	✓	✗	✓	✓
Bangladesh	✓	●	✓	●	✓	●	✓	●	✓	●	✓	✗
Barbados	✓	✗	✓	✗	✓							
Belarus	✓	●	✓	●	✓	●	✓	●	✗	●	✓	●
Bhutan	✓	●	✓	✓	✓	●	✓	✓	✓	✓	✓	✗

Government budget trends (GLASS, 2017)



Sanitation in Dhaka

- * Around 16 M people lives in Dhaka;
- * Area of Dhaka city is 306 sq km;
- * Only Dhaka has a sewerage system (916 km) which is covering 20% of it's total areas;
- * 50% of these covered areas sewage can be treated in one sewage treatment plant in Pagla, Dhaka;
- * Rest of the cities are depending on septic tanks, soak pit for sanitation.



Future Sanitation situation, Dhaka

- * Average water consumption in Dhaka is 150 lpcd;
- * Nearly 2000 MLD sewage need to be treated;
- * Present sewage treatment capacity is 120 MLD (6 %)
- * By 2020 Dhaka will add 180+500 MLD (34%) of sewage treatment;
- * It will add 250+350 MLD (30%) y 2030
- * BY 2035 Dhaka might cover all.

Other Urban cities

- * Chittagong, Rajshahi, Khulna all together 4 M people lives;
- * Rest 24 M people lives in 324 division or district or municipal towns;
- * None of these towns have sewerage network;
- * These towns are also relying on septic tank, soak pit etc;
- * DPHE has piloted Faecal Sludge Management (FSM) in 11 municipal towns.



FSM Initiatives

- * Faecal Sludge Treatment Plant piloted by DPHE including Public Private Partnership for sludge management services;
- * Compliance to sanitary requirements during construction following BNBC;
- * Occupational health and safety to ensure sanitation value chain.



Urban Sanitation Challenges.....

- * Unhygienic latrine in urban slums and fringes;
- * Lack of space, particularly in crowded slums;
- * **Land ownership for urban slum dwellers;**
- * Absence of a legal framework for improved sanitation;

Urban Sanitation Challenges.....

- * **Service coverage:** while sanitation coverage in urban areas more than 83% (basic) and 54% (improved), only 12 - 30% of slum population have hygienic sanitation;
- * **Network sewerage:** absent in all urban areas except Dhaka where only 20% area is under sewerage coverage.

Urban Sanitation Challenges

- * **On-site Sanitation Services:** the majority of the septic tank systems and pit latrines suffer from design inadequacies and are not fully hygienic and therefore not suitable;
- * **Fecal sludge management is extremely inadequate:** limited or no pit emptying services, septage management;

Technological Issues

- * Lack of technological know-how: treatment processes;
- * Limited sanitation technological options;

Institutional Constraints

- * Provision for staff development and continuing education are not sufficient;
- * Weak partnership among Public Agencies, Utilities, Local Government Institutions, and NGOs;
- * Inadequate private sector involvement.

Other Issues of Urban Sanitation

- * Inadequate emergency sanitation program;
- * Projects are sometimes not designed based on actual demand and people's willingness to pay;
- * Discrete and inequitable investment.

Provision for Improvement

- * De-linking land ownership issue from service provision;
- * Conversion of unhygienic latrines to hygienic ones, through people's motivation and Utilities-NGO partnership;
- * Community facilities through public –private partnership;
- * Promotion of Eco-Sanitation in urban fringes.

Addressing technological issues.....

- * Multiple technological options should be considered;
- * Medium cost sewerage technologies;
 - * **Simplified or modified small bore sewerage system can also be tried particularly in small to medium townships;**
- * Twin-pit toilet technology need to be promoted in urban fringes as well as in other small to medium size urban centers.

Addressing technological issues...

- * Appropriate desludging of septic tanks and pit latrines must be enforced and effluent disposal in a proper manner
 - * **Sludge emptying service by CCs and Paurashavas**
- * **Sewage treatment technologies** with greater emphasis on resources recovery and recycling should be given priority in improving urban sanitation.
 - * **Emphasis on less energy intensive technologies, e.g., constructed wetland, oxidation ditch, extended aeration, stabilization ponds**

Addressing Public Places

- * Adequate facilities to be constructed at places where people congregate such as railway stations, bus stations, river stations, parks, markets and other public places;
 - * **The authorities, e.g., City Corporations, Paurashavas, should build these public toilet facilities.**
 - * **The public toilets may be leased out to NGOs/ private sector for better operation under a public-private partnership arrangement.**

Financing issue in Urban Sanitation

- * Public funding for sanitation promotion need to be increased from the present level ;
- * Adequate fund allocation in the Municipalities & City Corporation for sanitation and hygiene promotion is essential;
- * Need enhanced cooperation from development partners on funding for sanitation activities in cities;
- * Private financing need to be encouraged through at least for O&M of sanitation facilities;
- * **Urban sanitation programs should be designed based on people's WTP and affordability;**
- * **Equitable resource allocation need to be ensured.**

Suggested approach

- * Prioritize on-site sanitation options over sewerage;
- * Ensure environmentally sound management of fecal sludge;
- * Promote recycling of fecal sludge and wastewater;
- * Arrange credit facilities for low income communities;
- * Promote private sector involvement in FS Collection, treatment and recycling;

Key Actions can be taken.....

- * Raising public awareness among all;
- * Arranging credit funds for low income group;
- * Ensuring proper utilization of Govt. subsidy for the hardcore poor;
- * Raising awareness among middle to high income group of people for conversion of unhygienic units;

Key Actions can be taken

- * Promoting income generating activities e.g., co-composting of sludge, agricultural use of treated wastewater;
- * Properly estimating required investment for achieving 100% sanitation;
- * Mobilizing funds from different sources;
- * Establishing clear roles of different stakeholders

Safe
Sanitation
for all



Thanks

