



Concept Paper:

Institutional and Regulatory Framework for FSM in Urban Areas of Bangladesh and Business Models for Providing FSM Services

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1. INTRODUCTION

In Bangladesh, lack of fecal sludge management (FSM) services is causing severe environmental pollution, particularly in urban areas, endangering both environment and public health. On-site sanitation is prevalent throughout the country, except for a small portion in Dhaka city, and the huge quantity of fecal sludge generated in septic tanks and pits (of pit/pour-flush latrines) is inaptly managed. Disposal of fecal sludge in low-lying areas and in lakes and canals is common, leading to serious environmental degradation (BUET, 2007; IWM, 2007; GoB and UNDP, 2010).

Although there are a number of legal documents governing the water supply and sanitation sector in the country, there is no specific regulatory framework related to FSM. As a result there is confusion among relevant organizations (e.g., WASAs, City Corporations, City Development Authorities) regarding shouldering responsibility for different component of FSM services, particularly in the major cities of the country. There is also lack of interest among these organizations about FSM services. Lack of awareness regarding the adverse impacts of fecal sludge and of modern technologies available for fecal sludge management is primarily responsible for the lack of interest.

A number of Paurashavas/Municipalities (e.g., Faridpur and Laksmipur Paurashavas) have recently initiated limited FSM services, with support from development partners and I/NGOs. A number of NGOs (e.g., DSK in Dhaka) and private organizations are also providing septic tank/pit emptying services in selected areas of major cities. However, sustainability of even these limited FSM services appears to be a major challenge in the absence of suitable business models for delivering FSM services. The challenge will be much more significant if the entire FSM service and value chain (from emptying of on-site facilities to treatment and disposal/reuse of fecal sludge) is considered.

In order to promote sustainable FSM services in urban areas of Bangladesh, two **Knowledge Products (KPs)** would be developed by the K-Hub Bangladesh National Center (ITN-BUET):

- (a) **KP-1:** An institutional and regulatory framework for FSM in urban areas of Bangladesh; and
- (b) **KP-2:** Suitable business models for sustainable delivery of FSM services.

2. PROPOSED TOPIC/ PRODUCT

As noted above, two **Knowledge Products (KPs)** would be developed by the K-Hub Bangladesh National Center (ITN-BUET):

- (a) **KP-1:** An institutional and regulatory framework for FSM in urban areas of Bangladesh, with clear assignment of responsibilities among the stakeholder organizations; and
- (b) **KP-2:** Suitable business models for sustainable delivery of FSM services in diverse urban settings, involving Government, I/NGOs and the private sector.

The overall “goal” of the K-Hub Bangladesh National Center is to promote “Inclusive, safe and sustainable urban living by improving the overall environment through implementing appropriate fecal sludge management (FSM) services, and improving living conditions in urban slums and low-income communities, through knowledge based integrated development by 2021”.

The first “objective” (Objective 1 in the “work plan”) to achieve this “goal” is to “to create an enabling environment for decision makers to sustainably implement fecal sludge management (FSM) services in urban areas of Bangladesh”. The Knowledge Products KP-1 and KP-2 would contribute to this “objective”.

3. RATIONALE

There are compelling evidences regarding huge adverse impact of inappropriate fecal sludge management. In Dhaka, a mega city with over 15 million people living in an area of 325 sq. km, 79% of the population is covered by on-site facilities, and almost the entire fecal sludge from these facilities are discharged into nearby residential environment, drainage system or water bodies (WSP, 2014). Only 1% of the population could avail “safe emptying” services, but this emptied sludge is again discharged into the open environment (WSP, 2014). The situation is similar or even worse in most major cities as well as secondary towns (Paurashavas). The situation is alarming across towns and cities and also across socio-economic strata within towns and cities.

A root cause for lack of FSM services is that there is no clear assignment of responsibilities with regard to fecal sludge management among the utility service providers (e.g., water supply and sewerage authorities, WASAs), City Corporations and Paurashavas/Municipalities, and City Development Authorities in major cities (e.g., Dhaka, Khulna, Chittagong, Rajshahi, Cox’s Bazar) (SNV and DevCon, 2014). There is also lack of awareness among these institutions and organizations regarding FSM. As a result, there is a lack of concerted effort by all concerned to address this serious issue.

Therefore, the first major step toward solving the FSM problems is to develop an institutional and regulatory framework for FSM (i.e., KP-1), with clear assignment of responsibilities among the stakeholder organizations. However, only assignment of responsibility is not enough. It is important of develop suitable business models for sustainable delivery of FSM services (i.e., KP-2) in diverse urban settings (e.g., mega city Dhaka, major cities with/without WASAs, secondary towns/ Paurashavas).

The first essential step toward development of these two KPs is to clearly understand the existing FSM scenario in the urban areas of Bangladesh. In order to achieve this, a “case study” will be carried out covering selected urban areas, including slum areas where providing FSM services is a major challenge. The case study would cover all aspects of FSM, including service delivery mechanisms (in areas where limited FSM services are provided).

Another pre-requisite to the development of the KPs is a detail assessment of the exiting legal documents (policies, strategies, laws, rules and regulations), key stakeholders and their relationships (i.e., stakeholder analysis).

4. METHODOLOGY

In order to develop these two Knowledge Products (KPs), two important activities need to be carried out first:

- (1) A “case study” to understand the existing FSM scenario in urban areas of Bangladesh; and
- (2) A detail assessment of: (a) the existing strategies, laws, rules, regulations and acts governing the sanitation sector; and (b) key stakeholders in the sanitation sector and their interrelationships (i.e., influence/interest with regard to FSM).

Based on these two activities, a detail strategy for development of the proposed institutional and regulatory framework and business models for delivery of FSM services will be developed.

The case study will be carried out in different urban setup areas of Bangladesh, including: (a) urban slum areas, (b) urban developed areas (middle-income/ high-income communities), and (c) Paurashava/ Municipal towns. The case study would cover the entire FSM service/value chain, from on-site sanitation (OSS) facilities, emptying and collection, transport, treatment, and disposal/reuse. The study will cover at least one area where limited FSM services are available. Questionnaire survey, Focus Group Discussions (FGDs), and Key Informant Interviews (KIIs) will be used in the case study to gather information on existing FSM scenario, including service delivery mechanisms (where available).

As a part of developing the KPs, a detail assessment of the key legal documents governing the water supply and sanitation sector will be reviewed. These include:

- (1) Bangladesh Water Act, 2013;
- (2) Local Government Act 2009 (amended in 2010 for Paurashavas and 2011 for CCs), which describes the functions and responsibilities of Local Government Institutions (LGIs);
- (3) Water Supply and Sewerage Act 1996, which describes the roles and responsibilities of WASAs;
- (4) Environmental Conservation Act 1995 and Environmental Conservation Rules 1997, which, among others, set requirements for disposal of effluent into the environment;
- (5) Bangladesh National Building Code 1993/2006, which specifies the requirements for household level water supply and waste disposal system (e.g., septic tanks).

The next task would be identify the key stakeholders, including relevant Ministries (e.g., Ministry of Local Government, Rural Development and Cooperatives, Ministry of Environment and Forest, Ministry of Housing and Works), City Development Authorities, Local Government Institutions

(e.g., City Corporations, Paurashavas, WASAs), Academia/research institutions, I/NGOs and Development Partners, and the private sector. Along with identifying the key stakeholders/actors, it is also important to understand the interrelationships among key actors, as well as influence and interest of each. In order to understand these, a series of stakeholder workshops will be carried out involving relevant stakeholders.

It should be noted that the Ministry of Local Government, Rural Development and Cooperatives (MoLGRD&C) is the custodian of all major acts, rules and regulations related to water supply and sanitation in the country. Therefore, it is important to make sure that the Local Government Division (LGD) of the MoLGRD&C leads the process of the developing the FSM framework and owns the initiative, and that the framework is developed with active participation of all stakeholder, including LGI, I/NGOs, Development Partners (DPs), academia, and the private sector. Therefore, the process of developing the KPs and the KPs themselves would be developed through a consultative process (through arranging a series of consultations/workshops, including some at national level) involving the identified key stakeholders.

5. AUDIENCE

The Ministry of LGRD&C would be the custodian of the proposed institutional and regulatory framework for FSM in urban areas of Bangladesh (i.e., KP-1), while the FSM business models would be of most interest to the local government institutions (LGIs) responsible for delivery of FSM services.

While the Ministry of LGRDC is very supportive of the FSM initiatives, the need for development of an institutional and regulatory framework for FSM needed to be articulated and communicated to the Ministry in an appropriate forum, so that the Ministry could lend its support to the development of the framework. The “National Forum and Water Supply and Sanitation” (NFWSS), headed by the Secretary of the Ministry of LGRDC, is the highest decision making body of the Local Government Division (LGD) of the Ministry on matter related to water supply and sanitation. The Policy Support Unit (PSU) of LGD plays an important role in setting agenda of the NFWSS. The strategy was therefore the work together with PSU to present the rationale for development of FSM framework before the NFWSS. Prior to this, a number of stakeholder consultations were arranged involving relevant stakeholders, some of who are members of the NFWSS; the objectives of these consultations were to generate a consensus regarding development of the institutional and regulatory framework for FSM.

Following these consultations, a presentation on FSM was made, on behalf of K-Hub Bangladesh National Center (ITN-BUET), at the 16th meeting of the NFWSS (on 4 September 2014) chaired by the Senior Secretary, Ministry of LGRDC. In the presentation, the status of FSM in the country and its adverse impacts were highlighted. The reasons for lack of effective FSM services were discussed, and the rationale for the development of an institutional and regulatory framework for FSM was presented. All major stakeholders present at the meeting supported the initiative. In the meeting, it was decided that a draft institutional and regulatory framework for FSM in Bangladesh will be developed under the leadership of ITN-BUET with necessary policy related support from PSU. Subsequently a 32-member Working Committee (WC) was formed by LGD, Ministry of LGRDC for the development of the framework. Professor Dr. Md. Mujibur Rahman (Coordinator, K-Hub Bangladesh) is the co-chair, and Dr. Muhammad Ashraf Ali (Director, ITN-BUET, and Urban Specialist, K-Hub Bangladesh) is the member-secretary of the WC. The

members of the WC include representatives from all major stakeholders. Formation of the WC by the LGD for development of the FSM framework was the very important first step in the development of the framework, which ensured ownership of the initiative by the Government. The WC is now in the process of developing the strategy for the development of FSM framework and drafting the FSM framework following the strategy.

Several consultations involving representatives from the LGIs (including the Municipal Association of Bangladesh), I/NGOs and the private sector is planned for sharing ideas on existing service delivery mechanisms and their challenges (including legal, institutional and technological). Possible business models for FSM service delivery will also be developed through these consultations.

6. PEER REVIEW

- Ms. Michelle Laurie
- Dr. Debjani Ghosh of NIUA; Professor Mahanama of University of Moratuwa; and Professor Sudha Shrestha of Institute of Engineering, Tribhuvan University may identify appropriate reviewers for the Concept Paper.

7. REGIONAL PERSPECTIVE

Among the regional countries, India has a national regulation on fecal sludge (septage) management. The Indian experience with regard to the development of the regulation and its application would be very useful for the development of FSM framework in Bangladesh. The Indian K-Hub partner will be requested to provide input/comment/suggestion in this regard. The other K-Hub partners in Sri Lanka and Nepal will also be requested to share relevant documents/experiences on FSM.

All K-Hub partners will be requested to provide examples of best practices, as well as “failed practices” with regard to FSM service delivery.

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