

Scaling up CWIS towards achieving SDG 6.2 in Bangladesh

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Figure 1 – Source: CWIS-FSM Support Cell, DPHE.

Summary

In line with the global sanitation commitment, Bangladesh realized new sanitation challenges regarding sanitation governance to bring changes in policy guidelines. The milestone of sanitation policy reform aligning SDG 6.2 journey is the formulation of Institutional and Regulatory Framework (IRF) for Faecal Sludge Management (FSM) followed by National Action Plan (NAP) for both urban and rural setup of the country. CWIS-FSM Support Cell has been established in the Department of Public Health Engineering (DPHE) following such policy direction in a notion to scale the Citywide Inclusive Sanitation (CWIS) approach across the country and paving the development of the CWIS ecosystem through institutionalizing the three pillars of CWIS approach: Accountability, Responsibility, and Resourcing (Fig 1). The cell works

with the International Training Network-Bangladesh University of Engineering and Technology ([ITN-BUET](#)) a national-level capacity-building hub for sanitation and waste management, to develop skills and provide training for city authorities on the entire value chain of sanitation and waste management, conceptualizing the CWIS approach. The cell also works on developing a digital [sanitation dashboard](#) where city profiles focusing on both FSM and solid waste management are entailed; advocates for technology that demonstrates a total sanitation value chain and provides citywide sustainable services for both faecal sludge and solid waste. Stronger advocacy led by the cell strengthens the resource mobilization efficiently with the different development partners like the World Bank, Asian Development Bank, Islamic Development Bank, Asian Infrastructure Investment Bank, and French Development Agency on sanitation and waste management to bring them on board in the urban setup of Bangladesh. The triggering effort of the cell is to establish the CWIS ecosystem in Bangladesh by 2030 through partnership and collaboration with national and international sanitation actors.

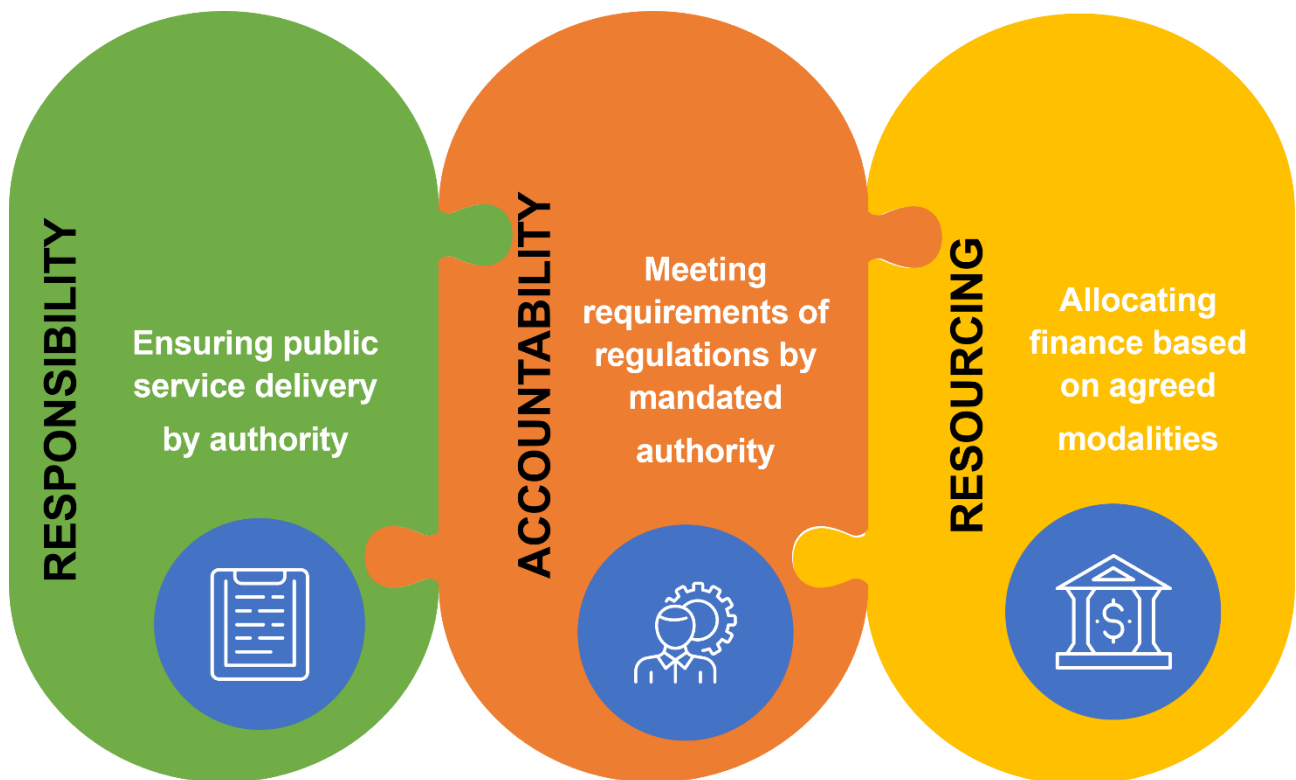


Figure 2 – Pillars of CWIS Approach.

Overview

Geographical information

Country: Bangladesh

Country population: 165,000,000



Problem

- Lack of sectoral coordination to follow the Citywide Inclusive Sanitation (CWIS) approach.
- Insufficient data on individual municipalities toward achieving sanitation targets by 2030.
- Inadequate resource allocation for sanitation and waste management.
- Lack of technological innovation and appropriateness.
- Lack of CWIS capacity enhancement.

Solution

- Establishment of CWIS-FSM Support Cell led by Local Government Division (LGD) under the Ministry of Local Government Rural Development & Cooperatives (MoLGRD&C).
- Establishment of a national sanitation dashboard (www.sanboard.gov.bd) for individual municipalities.
- Tapping essential resources through advocacy with International Financial Institutions (IFIs) and with the Government.
- Conducting relevant research to identify technological gaps.
- Initiating CWIS capacity enhancement initiative based on capacity need assessment.

Problem

Over almost two decades (2003–2022) of the sanitation journey in Bangladesh, much visible progress and many improvements have been made towards the Millennium Development Goals

(MDGs) and the Sustainable Development Goals (SDGs). In 2015, Bangladesh reached zero-defecation status through MDG endeavours. Nationally improved sanitation status has reached over 95%. However, the SDG 6.2 (access to adequate and equitable sanitation and hygiene for all and end open defecation) by 2030 has provided new challenges for Bangladesh to achieve 'safely managed sanitation' instead of improved sanitation through the entire sanitation value chain.

Moving toward the SDG sanitation targets, the national sanitation movement has faced a few barriers. One of the most critical challenges that emerged is to propose and adopt necessary changes in WASH (water, sanitation and hygiene) institutional arrangement to address the national safely managed sanitation status by articulating specific responsibility of any department or wing under the respective ministry. Simultaneously, it was realized that the WASH sector has been suffering from lack of current, reliable and readily available sanitation data at the national level to address the real needs of achieving safely managed sanitation. Therefore, institutional responsibility needs to catch up in supplying reliable data at the municipal level to meet national sanitation needs.

Between 2015 and 2020, Bangladesh faced another challenge, especially in urban areas with the increased city populations which has increased sanitation problem, especially on safe containment and lack of waste management in terms of faecal and solid waste. Apart from this, other challenges have arisen in the capacity building of local government institutions (LGIs) and innovation of essential new technologies to meet new sanitation challenges towards building a safer environment.

The final and most important problem that has emerged is resource constraints to meet the new sanitation challenges to ensure the safety of the entire sanitation value chain in rural and urban Bangladesh. It is noted that the sanitation movement in Bangladesh stagnated in drawing the keen attention of policymakers and development partners to influence the allocation of adequate financial resources in 2015–2020. There was a lack of strategic advocacy to meet the country's adequate sanitation needs in terms of infrastructure, innovative essential technologies, time-worthy research and capacity enhancement to face the SDG sanitation challenges.

Solution

The Government of Bangladesh adopted necessary changes in policy governance. Subsequently, it approved the Institutional and Regulatory Framework (IRF) for Faecal Sludge Management (FSM) and the National Action Plan (NAP) for implementation of the IRF-FSM during 2017–2020 to facilitate FSM service delivery LGIs aligned with SDG target 6.2 (Fig 3).

Under the directive of this NAP, a “CWIS-FSM Support Cell” has been set up by the Local Government Division (LGD) under the Ministry of Local Government, Rural Development and Co-operatives ([MoLGRD&C](#)) within the Department of Public Health Engineering (DPHE), which acts as the nodal coordinating agency for achieving SDG 6.2 nationally. The primary role of the CWIS-FSM Support Cell is to provide adequate support to the implementation and monitoring of FSM at the paurashava level (fourth-order administrative division), maintaining liaison with different relevant ministries, exploring financial support from the government as well as its development partners, and providing technical support to FSM implementers in Bangladesh. The identified role of this cell has also been mainstreamed with our national 8th five-year plan till 2025.

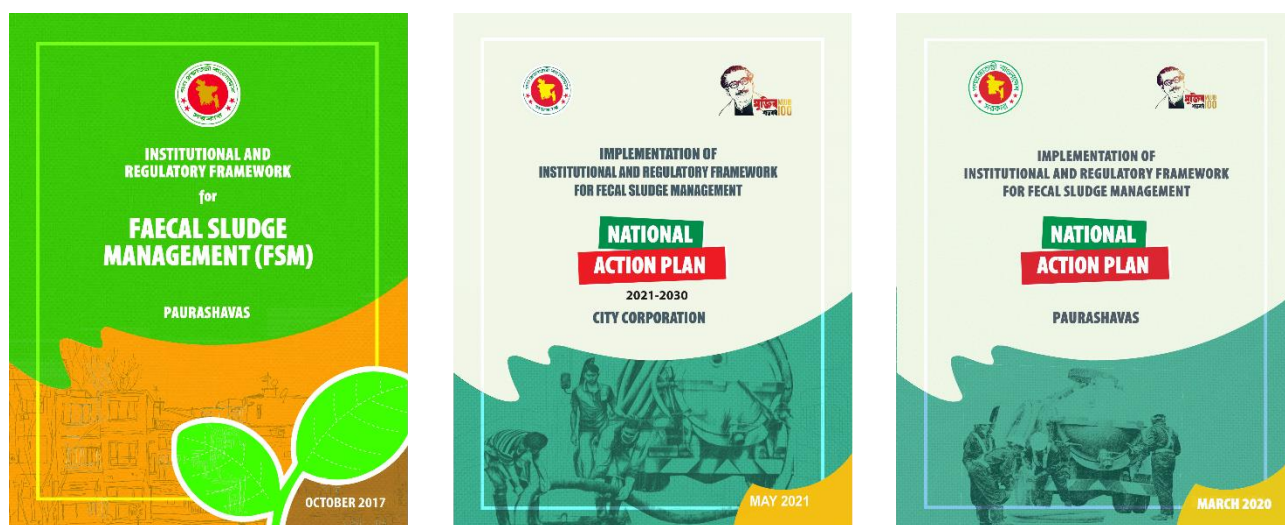


Figure 3 – National Regulatory Framework and Action Plan related to FSM.

Besides this role, CWIS-FSM Support Cell creates a CWIS Eco-system with a keen focus on building CWIS capacities of all the 329 municipalities in enhancing responsibility, accountability and resource planning and management through coordination, collaboration and advocacy initiatives. Under the CWIS Eco-system, the CWIS-FSM Support Cell works with the International Training Network-Bangladesh University of Engineering and Technology (ITN-BUET), a national-level capacity-building hub for sanitation and waste management, to develop skills and provide training on the entire value chain of sanitation and waste management. The developed modules prioritize the health, safety and rights of the waste workers (Fig 4). The strategic advisory and advocacy roles of the CWIS-FSM Support Cell will ensure the standardization of different CWIS modules that are developed by ITN-BUET and the Center of Global Water and Sanitation of the Asian Institute of Technology (AIT), Bangkok, and effectively delivered as built-in components of several projects implemented by the Government of Bangladesh.

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জানুয়ারি ২০২১



ITN-BUET



Figure 4 – Training modules and directives related to Occupational Health and Safety.

The CWIS-FSM Support Cell is keenly interested in creating a digital data profile of the urban setup of Bangladesh, focusing on sanitation and waste management. The advisory role of the CWIS-FSM Support Cell assists the DPHE in developing a digital [sanitation dashboard](#) which includes city profiles focusing on both FSM and solid waste management. The cell has taken the initiative to develop excreta flow diagrams (SFDs) of all the municipalities as part of the advocacy and monitoring tool for SDG6.2 (Fig 5).



Figure 5 – Excreta Flow Diagram (SFD) for different municipalities.

The CWIS-FSM Support Cell advocates for technology that demonstrates a full sanitation value chain and provides citywide sustainable services for both faecal sludge and solid waste. The responsibility of providing sanitation and waste management services lies with the Municipal authority according Bangladesh's policy. The Cell is advocating for innovative technologies like Omni Processor, Gasifier and/or pyrolysis unit that can treat not only faecal sludge but also appropriate solid waste. Including such innovative technologies requires an appropriate business model for sustainable O&M by the Municipality.

The strategic support of CWIS-FSM Support Cell strengthens resource mobilization efficiently through advocacy with different development partners like the World Bank, Asian Development Bank, Islamic Development Bank, Asian Infrastructure Investment Bank, and French Development Agency on sanitation and waste management in the urban setup of Bangladesh. As a result, 80 million USD has been invested in new projects from 2021/22, and more than 500 million USD is in the pipeline for further investment in sanitation and waste management.

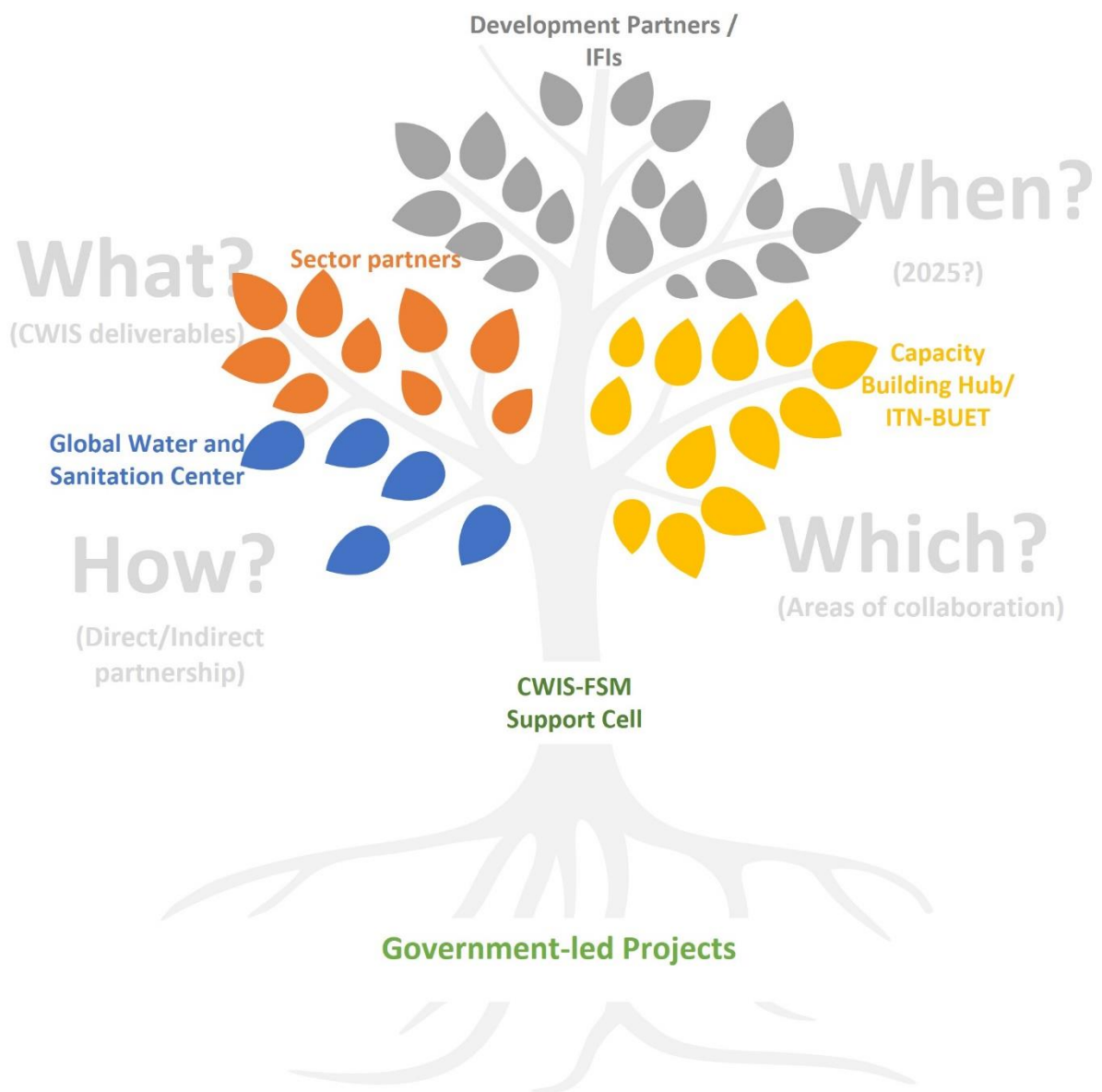


Figure 6 – CWIS ecosystem in Bangladesh.

The CWIS-FSM Support Cell is working to establish the CWIS ecosystem (Fig 6) in Bangladesh through partnership and collaboration. The cell is doing strong advocacy working inside the Government to answer queries and provide strategic guidance to implement CWIS in Bangladesh.

Lessons learned

CWIS is an approach to demonstrate functional roles of cities to foster the journey of safely managed sanitation by 2030.

During the pandemic period, the sloth progress of safely managed sanitation gives us a critical learning to enhance capacity of city authorities of all municipalities in Bangladesh with a comprehensive planning addressing CWIS responsibility, accountability and resource planning.

The intra Governmental advocacy role of the CWIS-FSM Support Cell is efficiently allocating resources to sanitation and waste management-related works and influencing IFIs to implement the National Action plan-2020 through an effective coordinating and collaborating manner.

Useful links

<http://sanboard.gov.bd/>

Further reading and references

- [CWIS Brief of Bangladesh](#)
- [Market insights for the multi-unit reinvented toilet in Bangladesh](#)
- [Market opportunity for the portfolio of Omni Processor technologies in Bangladesh](#)
- [Prioritize the Health and Safety of Waste and Sanitation Workers-Briefing Paper](#)
- [Fecal Sludge Management in Municipalities Sustainability Concerns-Briefing Paper](#)
- [Concept paper on Integrated Waste \(Faecal and Solid waste\) Management](#)
- [Operation & Maintenance Guideline of Septic Tank](#)

About the author

Dr Abdullah Al-Muyeed is a development WASH professional who has worked for more than 15 years with experience in developing and managing large-scale environmental and water–sanitation programmes/projects targeting poor and vulnerable populations in urban/rural parts of Bangladesh. He is also working with different high-level government committee members, particularly on water and sanitation. By training, he is a Civil and Environmental Engineer with a PhD from the University of Tokyo. Currently, he is working as Chief Operating Officer of the CWIS-FSM Support Cell of the Department of Public Health Engineering, a government agency under the [MoLGRD&C](#). He authored four textbooks, more than 100 peer-reviewed papers, and reports on environmental engineering.

About the institution / organisation

CWIS-FSM Support Cell, a national-level secretariat in DPHE led by the Local Government Division under [MoLGRD&C](#), supported by [Bill & Melinda Gates Foundation](#), was established in June 2020, implementing the National Action Plan following the Institutional Regulatory Framework on Faecal Sludge Management (IRF-FSM) primarily covered in 329 municipalities towards achieving SDG 6.2 by 2030. <http://dphe.gov.bd/>



CWIS-FSM Support Cell

About the IWA Inclusive Urban Sanitation Initiative

IWA's Inclusive Urban Sanitation initiative responds to a huge and growing public need - safe sanitation in combination with access to safe drinking water and hygiene underpins good health. The aim of this initiative is reshaping the global urban sanitation agenda by focusing on inclusive sanitation service goals--and the service systems required to achieve them - rather than the traditional singular focus on expanding sewer networks and treatment works. This forms part of IWA's larger agenda to promote inclusive, resilient, water-wise, and sanitation-secure cities.

About the Inclusive Urban Sanitation Stories

The Inclusive Urban Sanitation stories are documenting some of the policies, practices, and approaches that demonstrate how stakeholders especially those in urban areas (e.g., public sector, operators, academics, regulators, and other key actors) are taking part or contributing to Sustainable Development Goal 6 which require water and sanitation concepts and norms to look beyond technology and the usual focus on building infrastructure. Increased focus is on safety, inclusion, environment, public health, and multiple technology solutions tailored to different geographies and socio-economic contexts for building climate-resilient cities. The stories aim to inspire urban stakeholders to discuss ways for advancing inclusive urban sanitation, especially in low- and middle-income countries.