Freshwater Action Network
South Asia

Freshwater Action Network
South Asia-Bangladesh

Rising for Rights for Strengthening Civil Society Network in South Asia to Achieve SDG 6

FANSA-Bangladesh

CWIS Action Plan Implementation Guideline

Study Led by: Dr. Md. Mujibur Rahman

SKS

First Published September 2024

Editorial Advisor : Rasel Ahmed Liton
Editorial Assistance : Joseph Halder, Xavier Sku
Designing : Roknuzzaman
Published by : SKS Foundation

Printed by : *SKS Printers*

Freshwater Action Network South Asia

SKS

Freshwater Action Network South Asia-Bangladesh

Rising for Rights for Strengthening Civil Society Network in South Asia to Achieve SDG 6

(Rising for the Rights Project, FANSA-Bangladesh)

CWIS Action Plan Implementation Guideline

CSIRS Center for Smart Infrastructure Resilience and Sustainability

UIU UNITED INTERNATIONAL UNIVERSITY

Center for Smart Infrastructure Resilience and Sustainability (CSIRS)
United International University (UIU)
Dhaka

September 2024

Foreword

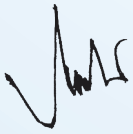
Urbanization is multiplying in Bangladesh. As a consequence of urbanization, city dwellers face multi-faceted problems. The population living in low-income communities in urban settings has increased leading to poor sanitation conditions and a higher risk of water-borne diseases. Targeting to combat these challenges, the government and development organizations are emphasizing the promotion of safely managed sanitation services (SMSS) following the city-wide inclusive sanitation (CWIS) approach.

SKS Foundation- the FANSA-Bangladesh Secretariat, has been implementing the project *Rising for Rights for Strengthening Civil Society Networks in South Asia to Achieve SDG 6* in partnership with other members of this advocacy network. FANSA-Bangladesh realized that framing the *CWIS Action Plan Implementation Guideline* is a must to support the successful execution of the CWIS Action Plan already developed for the Barishal City Corporation and Sreemangal & Gaibandha municipalities. This *CWIS Action Plan Implementation Guideline* is a comprehensive framework, not limited to applying only to the mentioned municipalities and a city corporation. This Guideline is also applicable to those who are implementing or, willing to ensure safely managed sanitation services in Bangladesh, or South Asia following the CWIS approach.

The *CWIS Action Plan Implementation Guideline* will empower local governments and community allies to take meaningful action toward achieving the objectives of inclusive sanitation, thus contributing to the health, dignity, and well-being of all urban residents. I hope the Guideline will serve as a comprehensive framework for the local government institutions for the successful implementation of CWIS Action Plans developed earlier under this project.

I express my heartfelt thanks & gratitude to Dr. Md. Mujibur Rahman, Professor, Department of Civil Engineering & Director, CSIRS-UIU, and his team members for developing this comprehensive framework of *CWIS Action Plan Implementation Guideline.*

I appreciate the relevant FANSA-Bangladesh member organizations and my colleagues at SKS Foundation for their efforts in initiating and supporting the development of the *CWIS Action Plan Implementation Guideline* by organizing the people in the urban communities, different groups & forums, and professionals & relevant stakeholders consulted to make the Guideline purposeful.



Rasel Ahmed Liton
Chief Executive
SKS Foundation

Preface

This report on the CWIS Action Plan Implementation Guideline is a comprehensive framework aimed at supporting the successful execution of sanitation improvement plans in urban areas. It draws upon the CWIS Action Plans previously developed for the municipalities of Sreemangal and Gaibandha, as well as the Barishal City Corporation.

The CWIS approach is grounded in the principle of universal access to safely managed sanitation services, with a particular focus on ensuring that the most vulnerable populations in cities and municipalities benefit from these improvements. This guideline provides a systematic approach to the implementation of these plans, outlining practical steps for local authorities, stakeholders, and partners in executing the proposed actions.

In preparing this report, we have drawn from the specific needs, challenges, and opportunities identified within the context of Sreemangal, Gaibandha, and Barishal. These municipalities and city corporation each possess unique characteristics, which have influenced the development of tailored action plans. By consolidating the lessons learned from these urban settings, this guideline offers a versatile and replicable model for broader application in other municipalities and cities across the country.

The goal of this document is to empower local governments and community stakeholders to take meaningful action towards achieving the objectives of inclusive sanitation, thus contributing to the health, dignity, and well-being of all urban residents. Through collaboration and sustained effort by the municipal/city authorities, local experts, and communities, we hope to catalyze further progress in urban sanitation and continue the path toward ensuring access to safe and sustainable sanitation for all.

Dr. Md. Mujibur Rahman
Professor of Civil Engineering &
Director of Center for Smart Infrastructure Resilience and Sustainability (CSIRS)
United International University (UIU), Dhaka Bangladesh

Formerly,
Professor and Head of the Department of Civil Engineering
Bangladesh University of Engineering and Technology (BUET) &
Director of ITN-BUET

Rising for Rights for Strengthening Civil Society Network in South Asia to Achieve SDG 6

CWIS Guideline to Contribute to City-wide Inclusive Sanitation in Bangladesh

Prepared by:
Center for Smart Infrastructure Resilience and Sustainability (CSIRS)
United International University (UIU)

Team Lead:
Dr. Md. Mujibur Rahman
Professor of Civil Engineering &
Director of Center for Smart Infrastructure Resilience and Sustainability (CSIRS)
United International University (UIU), Dhaka Bangladesh

Team Members:

Dr. Tariq Bin Yousuf, *Waste Management Specialist*

Dr. Rumana Afrin, *Associate Professor & Head, Department of Civil Engineering, UIU & Associate Director, CSIRS-UIU, & Sanitation Expert*

Syeda Aniqa Anjum, *Research Officer, CSIRS-UIU*

List of Abbreviations

CSDA	City Sanitation Service Delivery Assessment
CSIRS	Center for Smart Infrastructure Resilience and Sustainability
CWIS	City Wide Inclusive Sanitation
DPHE	Department of Public Health Engineering
FANSA	Freshwater Action Network South Asia
FGD	Focus Group Discussion
FS	Fecal Sludge
FSM	Fecal Sludge Management
FSTP	Fecal Sludge Treatment Plant
KII	Key Informant Interviews
LGED	Local Government Engineering Department
LGI	Local Government Institution
NGO	Non-Government Organization
SDG	Sustainable Development Goals
SFD	Shit Flow Diagram
SMSS	Safely Managed Sanitation Systems
SuSanA	Sustainable Sanitation Alliance
UIU	United International University
WASH	Water, Sanitation and Hygiene

TABLE OF CONTENTS

List of Figures

BACKGROUND

As Bangladesh aims to reach the Sustainable Development Goals (SDG) by 2030, it is imperative to prioritize the current state of sanitation, which falls within the scope of SDG 6 (Clean Water and Sanitation). The government, along with development partners, is promoting the City-wide Inclusive Sanitation (CWIS) approach in urban areas. CWIS aims to help cities adopt comprehensive strategies for improving sanitation. This includes ensuring that: ***human waste is safely managed along the whole sanitation service chain; effective resource recovery and re-use are considered; a diversity of technical solutions for onsite and off-site sanitation solutions are addressed, in either centralized or decentralized systems for everyone in urban areas, paying special attention to the needs of the poor, the marginalized, and women and girls.***

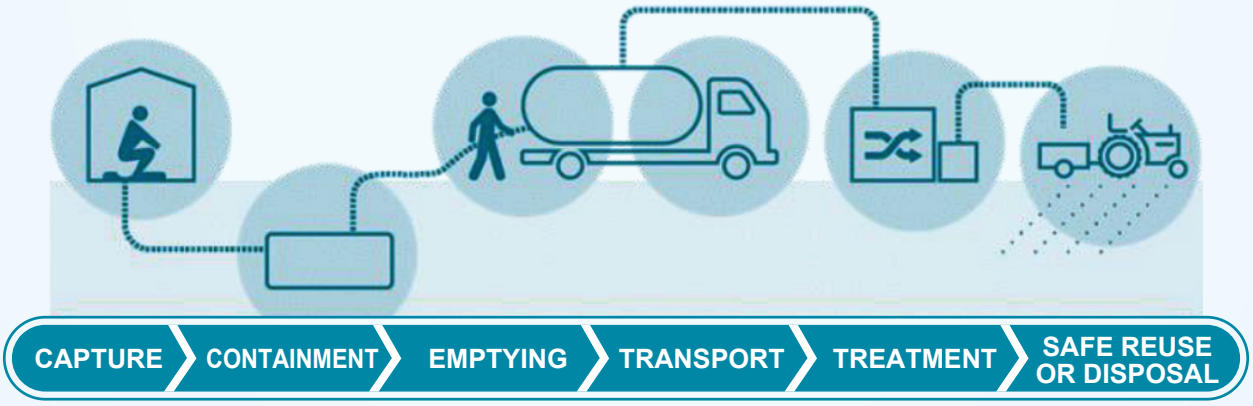


Figure 1: Sanitation Service Chain

To achieve SDG 6 by 2030, adapting CWIS has become more urgent than ever. Successful implementation of CWIS will ensure safe sanitation services for all, including low-income communities and women. Safely managed sanitation services can positively impact public health and the environment, which, in turn, will support long-term economic growth and foster climate resilience.

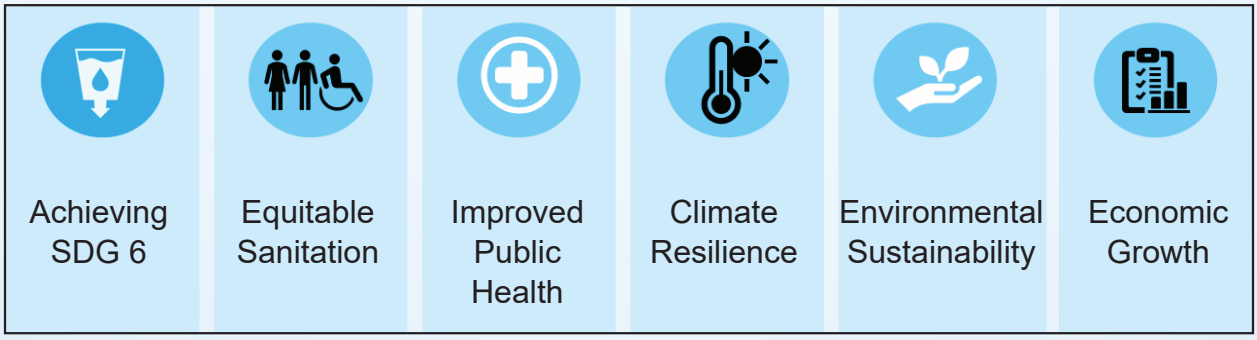


Figure 2: Impacts of Implementing CWIS

As part of the advocacy network covering the South-Asian countries, FANSA-Bangladesh focuses on safely managed sanitation services in the city areas with the promotion of City-wide Inclusive Sanitation (CWIS) by the service providers under the project ***Rising for Rights for Strengthening Civil Society Networks in South Asia to Achieve SDG 6 Project (hereinafter Rising for the Rights Project).*** The project includes

services for creating Shit (Fecal waste) Flow Diagrams (SFD) and CWIS Action Plans for targeted areas that include one City Corporation- Barishal, two Municipalities- Gaibandha & Sreemangal, and one Union- Muktinagar, Gaibandha. The project also includes developing an Implementation Guideline and an evidence-based Advocacy Strategy for FANSA-Bangladesh to effectively promote CWIS. Successful implementation of the *Rising for the Rights Project* will contribute to strengthening civil society networks in South Asia to achieve SDG 6.

SKS Foundation (FANSA-BD Secretariat) entered into an agreement with the Center for Smart Infrastructure Resilience and Sustainability (CSIRS) of the ***United International University (UIU)*** for conducting the above-mentioned studies under the ***Rising for the Rights Project.***

OBJECTIVE OF THIS GUIDELINE

This Guideline is expected to serve as a comprehensive framework for the local government institutions (LGIs) for the successful implementation of CWIS Action Plans which were developed earlier during this project period for Barishal City Corporation, and Sreemangal & Gaibandha Municipalities, Bangladesh.

This Guideline is prepared based on the findings from prior works under this project: creating Shit (Fecal waste) Flow Diagrams (SFDs) and CWIS Action Plans for the targeted areas that included one City Corporation- Barishal, two Municipalities- Gaibandha & Sreemangal, and one Union- Muktinagar, Gaibandha.

KEY STRATEGIES OF THIS GUIDELINE

(i) Increase investment in climate-resilient, sustainable sanitation infrastructure, including the construction of sanitary toilets having appropriate and adequate containment facilities, septic tanks with proper effluent disposal facilities, and adequate fecal sludge and wastewater treatment facilities.

(ii) Encourage the development of innovative technologies/ approaches appropriate to local conditions.

(iii) Move from basic to the safely managed sanitation system and establish fecal sludge management (FSM) in such a way that all sludge from septic tanks and pit latrines are safely contained, emptied, collected, transported, treated, disposed and/ or reused safely in an environmentally sustainable manner.

(iv) Promote behavioral change campaigns to encourage the adoption of safe sanitation practices, including the use of toilets, hand washing with soap, and safe disposal of fecal waste.

(v) Increase the involvement of the private sector in the sanitation services chain, including through public-private partnerships and innovative financing mechanisms.

(vi) Provide technical and business support to the private sector in fecal sludge management, recycling, etc.

(vii) Establish and strengthen mechanisms for enhancing the capacity of government institutions and local communities to plan, implement, and monitor sanitation programs and ensure enforcement of sanitation standards and regulations.

(viii) Prepare and implement a Sanitation Safety Plan (SSP) to give FSM an institutional shape and give emphasis on awareness building, capacity building, and training for pit emptiers, sludge transporters, treatment plant operators, etc. for ensuring sustainable sanitation services.

HOW TO ACHIEVE THE ACTION PLAN OUTCOMES

The outcomes of the CWIS action plans can be achieved through the following key steps:

(i) Public engagement and awareness raising
(ii) Institutional reform and capacity enhancement
(iii) Technological solutions
(iv) Private sector engagement
(v) Develop technical guideline and communication & campaign strategy
(vi) Establish co-ordination platform
(vii) Inclusion in the Master Plan and ADP

ENABLING ENVIRONMENT TO ACHIEVE THE ACTION PLAN

For successful implementation of the CWIS Action Plan, the following enabling environment must be created:

Political will and leadership: There must be political commitment and leadership at the national and local levels to prioritize sanitation as a fundamental human right and a public health concern. Governments should allocate resources and enact policies that support safe and sustainable sanitation.

Multi-stakeholder engagement: Engage all relevant stakeholders, including communities, civil society organizations, and the private sector in the planning and decision-making process.

Appropriate technological solutions: Explore innovative and appropriate technologies and approaches to improve sanitation services that are easy to operate and maintain and cost-effective in the local context.

Creation of Ownership: Empower communities to take ownership of their sanitation assets and participate in planning and decision-making processes, which can lead to long-term sustainability.

CWIS ACTION PLAN IMPLEMENTATION GUIDELINES

1. STAKEHOLDER ENGAGEMENT

IDENTIFYING KEY STAKEHOLDERS:

The key stakeholders need to be consulted for planning, implementation, funding and monitoring. They may include:

- **National Government:** Ministry of Local Government, Ministry of Finance, Ministry of Planning, Ministry of Health, Ministry of Education.
- **Local Government Institutions:** Municipal authorities, including mayors/ administrators, ward members/ councilors, the Department of Public Health Engineering, and district/ upazila administrations.
- **Community Leaders:** Influential community members and organizations such as community Youth and Women Representatives, Students, Educators, Researchers, LIC Representatives, Disadvantaged Groups (Physically Challenged, Elderly People, Horizons etc.), and Sanitation Workers.
- **NGOs and Civil Society:** Non-governmental organizations (NGOs/INGO) and civil society organizations (CBOs) focused on sanitation and public health.
- **Private Sector:** Businesses, particularly those involved in waste management and sanitation services.
- **International agencies:** Technical co-operation and financial support of the bi-lateral and multi-lateral donors and philanthropic organizations.
- **Media Representatives:** Media representatives to promote awareness and share information effectively.

Stakeholders mapping may be undertaken to identify the level of engagement required with the stakeholders based on their level of influence/power and interest ***(Annex 1).***

ENGAGEMENT STRATEGY:

The engagement strategies for CWIS stakeholders are crucial to successfully implement the CWIS Action Plan at the municipality or city corporation level:

Facilitate Regular Meetings: The Local Government Institutions (Municipality/ City Corporation) with support from DPHE will facilitate regular orientation, training and coordination meetings. Scheduled regular meetings will facilitate reviewing progress and sharing updates.

CWIS Unit: Every city/town should establish a dedicated unit for implementing and monitoring city-wide inclusive sanitation. This group can work as the decision-making body at the municipality/city corporation level.

- **Workshops and Training:** Before the implementation of the CWIS Action Plan, it's necessary that the stakeholders understand the CWIS approach and its significance. Organize a 3-4-day workshop or training session on introducing CWIS, its functions & outcomes, stakeholders' responsibilities in achieving CWIS and how CWIS can help to achieve SDG goals. Workshops should be tailored to the level of stakeholders.
- **Community Participation:** The inclusion of an awareness campaign and feedback mechanism will help to ensure community participation. LGIs with the help of NGOs/CSOs should create a feedback mechanism for the community members including women and marginalized people where they can express their concerns. Engagement with the community can be carried out in various manners which include focus group discussions, community-level consultations, public meetings, separate workshops with marginalized populations and distribution of posters, flyers, etc.

2. AWARENESS CAMPAIGN, ADVOCACY AND CAPACITY ENHANCEMENT

Awareness-raising activities generate multiple positive impacts. On the one hand, they help raise people's environmental consciousness to introduce greater comprehension of the negative effects of poor sanitation practices. On the other hand, they support citizens to understand the positive impacts of safe and sustainable management practices. Furthermore, a sensitization campaign makes people more conscious about their role in contributing to safe and sustainable sanitation and in supporting economic, social and environmental well-being for the whole community.

The figure below shows examples of communication tools that can be used to deliver the campaign's key messages:

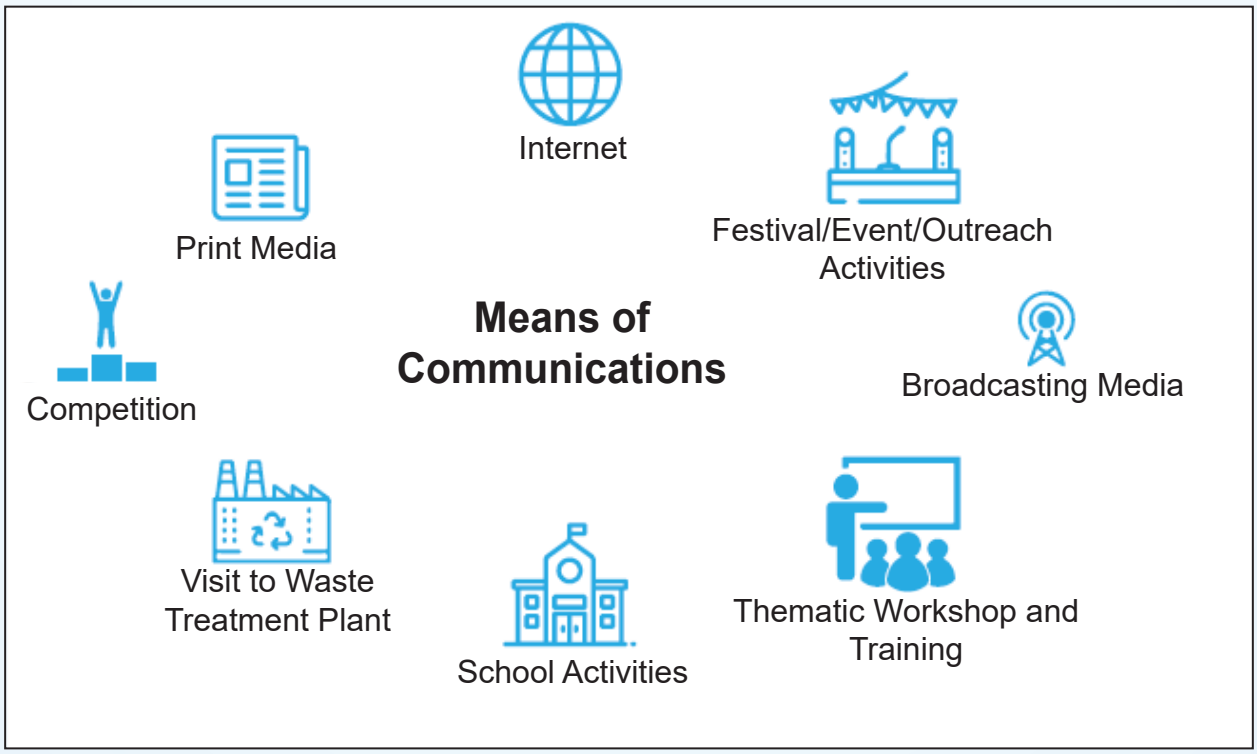


Figure 3: Various Communication Tools

AWARENESS CAMPAIGNS

The awareness campaign aims at stimulating behavioral change at the community level to achieve proper sanitation practices. Commitment from all community members is necessary to achieve behavioral changes and establish a sustainable sanitation system. Citizens must be aware of the challenges related to sanitation problems and the associated environmental and health threats. Education at all levels and knowledge sharing are proven tools for creating such awareness among the members of civil society and stimulating behavioral change.

- **Targeted Messaging:** Develop communication strategies that address the specific sanitation needs of different communities. Such specific topics can include CWIS and public health, women's hygiene in the workplace/ public place, sanitation in educational institutions, etc.
- **Media Engagement:** Use local media to promote sanitation initiatives and share success stories. Other methods, such as newsletters, posters, flyers, etc should be used simultaneously.

ADVOCACY FOR SUPPORT

- **Engage Local Leaders:** Mobilize local leaders to advocate for improved sanitation services.
- **Public Events:** Organize events to raise awareness and gather public support for sanitation initiatives. The events should be tailored according to target audiences and focus on groups affected by sanitation challenges, such as marginalized communities, local policymakers, and service providers. Street performances, drama, rallies and exhibitions can be a promising way to gain support from stakeholders.

TRAINING PROGRAMS

- **Need Assessment:** Conducting a regular training program is essential for capacity building. Prior to designing a training program, it is important to assess the need for training among stakeholders. The development of training materials should be focused on topics such as CWIS principles, technologies, management practices, gender inclusion and success stories.
- **Tailored Training:** The training sessions need to be tailored according to the target audience (e.g. City Corporation/Municipality health and sanitation officer, sanitation workers, users) and should provide clear directions on CWIS management and the safely managed sanitation service chain. LGI officials need to be clear about their roles and responsibilities.

  Emphasis should be given to creating inclusive sanitation systems to serve all city residents, including marginalized and low-income communities. Training sessions may be a day-long or span several days.

RESOURCE ALLOCATION

- **Budget for Capacity Building**: Allocate funds specifically for training and development activities.
- **Partnerships for Training:** Collaborate with educational institutions and NGOs for training expertise.

KNOWLEDGE SHARING

- **Best Practices Exchange:** Facilitate learning exchanges among municipalities or city corporations to share successful strategies and experiences. Several municipalities, such as Faridpur, Kushtia, Jhenaidah, and Sakhipur have adopted the CWIS approach and benefited from it.
- **Documentation of Lessons Learned:** Keep detailed records of training outcomes and best practices for future reference. Also, publish case studies of successful sanitation projects within the municipality/city corporation.
- **Sharing Results:** Share results and learnings with stakeholders to build momentum and support. Results can be shared through report publication, poster, presentation and media coverage.

3. POLICY AND REGULATORY FRAMEWORK

REVIEW OF EXISTING POLICIES

The success of Citywide Inclusive Sanitation (CWIS) planning and implementation hinges on a thorough understanding of relevant national and local policies, acts, and strategic frameworks governing water, sanitation, and hygiene (WASH) services in Bangladesh.

Sanitation policies are critical to creating an enabling environment that will encourage and support increased access to onsite sanitation and FSM services. The policy will provide the instruments (guidance, positive incentives and penalties) that turn priorities in sanitation into reality through the implementation of sanitation programs. The following specific issues are applicable to the entire sanitation service chain and should be considered in policies for inclusive urban sanitation service provision, including non-sewered sanitation systems:

National Water Supply and Sanitation Strategy, 2014 **(revised & updated 2021); IRF 2017 (City Corporation, municipalities); Relevant National Action Plans of IRF Implementation**	Provides uniform strategic guidelines to sector stakeholders, including the government, semi-government and local government institutions, private sectors and NGOs.
The Bangladesh Environmental Conservation Rules (2023)	Provides standards for domestic sewage and industrial discharges
Bangladesh National Building Code **(BNBC), 2020**	Provides standards for sanitation facilities in buildings
Pro-Poor Strategy for Water and Sanitation Sector in Bangladesh, 2005 **(revised 2020)**	Recommend sanitation standards for low-income communities
Existing Master Plans, SFD Reports, CWIS Plans etc.	Provides the current scenario and development plans for the study area

The following principles are key to guiding the development and implementation of sanitation policies:

(i) Equity: Policy statements, laws and budgetary allocation can be used to steer resources toward specific social groups or geographic areas to enhance equity.

(ii) Targeting Resources: Policies can be used to indicate where resources should be allocated. This includes determining which aspects of sanitation and hygiene promotion should be funded and at what level.

(iii) Health Considerations: The policy framework must provide for a full range of interventions (access to technology, promotion of hygiene behavior, and strengthening the enabling environment) to enable households to improve their health status.

(iv) Levels of Service: policy to signal (a) what levels of service are acceptable (i.e. health, safety and environmental standards that must be maintained); and (b) what activities will be promoted (perhaps through the provision of subsidy to support specific providers);

(v) Environmental Considerations: policy to address environmental protection.

(vi) Institutional Roles and Responsibilities: Policy to address clear roles and responsibilities (a) between public agencies; (b) between public and private/civil society agencies; and

(vii) Financial Considerations: The policy to guide who will pay (tariffs and charges) for what service, and any associated subsidies where applicable.

POLICY ADVOCACY

- **Advocate for Reforms:** Work with local and national authorities to promote reforms that align with CWIS principles.
- **Engage in National Dialogue:** Participate in national forums on sanitation policy development.
- **Sanitation in Master Plan:** Advocate inclusion of the CWIS Action Plan in the Master Plan of the Municipality/City Corporation.

ENFORCEMENT MECHANISM

- **Compliance Framework:** Develop clear guidelines for enforcing sanitation regulations.
- **Monitoring Compliance:** Implement mechanisms to monitor compliance and take corrective action as needed.

4. FINANCIAL ARRANGEMENT AND SUSTAINABILITY

BUDGET PLANNING

- **Detailed Budget:** A significant barrier to ensuring safe sanitation to the population of the study areas was observed to be limited financial resources. For instance: in Gaibandha Municipality only 3% of the total municipal budget is allocated to sanitation, which limits the municipality's ability to invest in much-needed sanitation infrastructure. Similar situations were observed in other study locations.

  Therefore, a comprehensive budget that includes all aspects of CWIS implementation is very crucial. The budget should cover the costs for the following items:

  - Baseline & end line surveys
  - Infrastructure costs (containments for households, communities, public places, including design for disabled persons)
  - Desludging/dewatering trucks (500L, 1000L, 1500L and 2000L) and equipment
  - Land Procurement for FSTP (an estimated amount of land required is given in the CWIS action plan which is to be validated prior to procurement of land)
  - Construction of new decentralized FSTP
  - Containment upgradations
  - Capacity Building of local authorities
  - Awareness Campaigns

DIVERSIFIED FUNDING SOURCES

- **Government Grants:** Seek funding from local and national government sources.
- **International Donors:** Approach international organizations and I/NGOs for additional funding support.
- **Public-Private Partnerships:** Explore partnerships with private sector entities for investment in sanitation infrastructure and services.

COST RECOVERY MECHANISM

Develop a framework for cost recovery through user fees for sanitation services. A sustainable cost recovery can be achieved through a combination of **4Ts (Tariffs, Taxes, Transfers, and Trade).** The estimated investment cost, along with operational and maintenance costs, should be less than or equal to the revenues generated through the 4Ts. Local governments should attempt this approach to establish a sustainable cost recovery system in the sanitation sector.

In addition, identify potential subsidies for low-income households to ensure affordability.

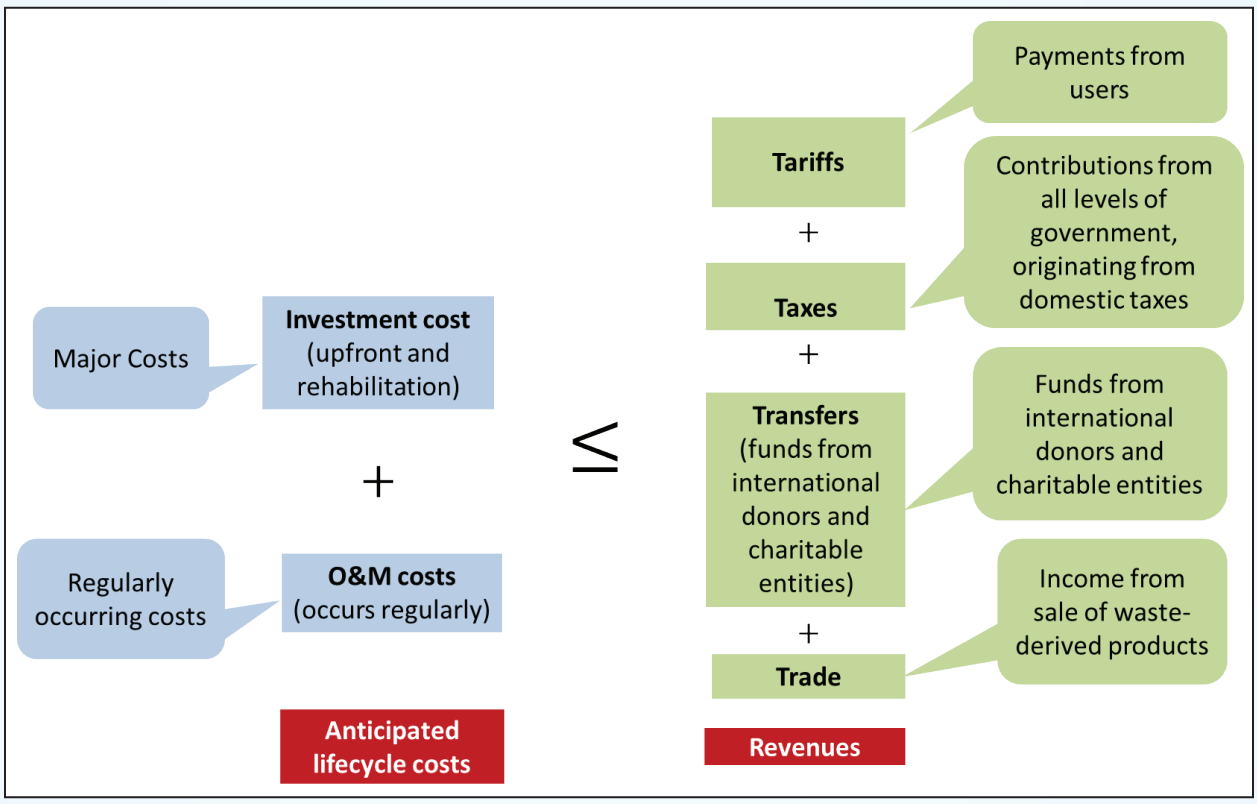


Figure 4: Sustainable Cost Recovery Mechanism (ESAWAS 2020)

5. INFRASTRUCTURE DEVELOPMENT

ASSESSMENT OF CURRENT SANITATION INFRASTRUCTURE

- **Comprehensive Surveys:** Conduct field surveys, Focus Group Discussions (FGDs), and Key Informant Interviews (KIIs) to gather data on existing sanitation facilities, service quality, and accessibility and identify gaps. Shit flow diagram (SFD) and City Sanitation Service Delivery Assessment (CSDA) can be used as analytical tools. The SKS foundation, with the help of CSIRS-UIU, has prepared SFD intermediate reports for the study locations: Barishal City Corporation, Sreemangal Municipality, Gaibandha Municipality, and Muktingar Union, Gaibandha.
- **Community Mapping:** Engage the community in mapping existing sanitation resources and identifying their needs. For example, the SFD report identified the potential need for gendered toilets in public places like markets and bazaars in Gaibandha Municipality. A similar scenario might also be applicable to other study areas which can be ensured through community mapping.

POSSIBLE SUSTAINABLE SOLUTIONS

- **Design Principles:** Prioritize designs that are resilient to climate change impacts, environmentally sustainable, socially acceptable, and economically viable. That includes
  - Pit latrines should be permeable, septic tanks should be watertight
  - Septic tank design should be complied with the BNBC 2020
  - Containments should not be in close proximity to wells or groundwater level. To prevent microbial contamination, pit and groundwater level should be separated by at least 2 meters vertically and 10 meters horizontally
  - Toilets should be elevated in flood-prone areas
  - Toilet should be accessible to all users
  - Public toilets should be separated for males and females and designed for privacy
  - In low-income communities (LICs), each household having an individual toilet may be connected to adequately designed common containment facilities, e.g. a common septic tank. However, if individual toilets are not possible, a maximum of two households (10 persons) can share one latrine
- **Pilot Projects:** Implement pilot projects to test innovative sanitation solutions.
- **Business Model:** Develop an entrepreneurship and business model for different components of the sanitation service chain. Such as -

Non-Sewered Sanitation Business Models	Investor/ Financier	Service Provider	Customer
Capture and Containment	Customer/User	Householder/ Utility/ Private	Householder & Non-domestic (commercial, institutions, industries etc.)
Faecal Sludge Emptying & Transportation	Utility/ Private/ NGO/ CBO	Utility/ Private/ NGO/ CBO	Householders, institutions, schools, commercial etc
Faecal Sludge/ Sewage Treatment	Utility/ Private	Utility/ Private	Not Applicable
Disposal/Re-Use	Utility/ Private	Utility/ Private	Private/ CBO/ Commercial/ Industries

INTEGRATION OF TECHNOLOGY

- **Smart Sanitation Solutions:** Explore the use of technology for monitoring, data collection, and service delivery. The choice of technological solution should provide sustainability with a focus on climate resilience.
- **Decentralized FSTP:** Assess the feasibility of decentralized fecal sludge treatment plants (FSTPs) tailored to local contexts. The CWIS Action Plans for Gaibandha & Sreemangal Municipality, and Barishal City Corporation have prioritized the use of decentralized FSTPs. This approach is preferred, as constructing and operating small-scale decentralized FSTPs is less time-consuming and less complicated than a centralized approach.

6. MONITORING AND EVALUATION

DEVELOP INDICATORS

- **SMART Indicators:** To evaluate the CWIS journey in a municipality/city corporation, develop specific, measurable, achievable, relevant, and time-bound indicators. A CWIS Action Plan with specific, measurable and time-bound sanitation targets has been prepared for Barishal City Corporation, Gaibandha and Sreemangal Municipality.
- **Baseline Data Collection:** Establish baseline data against which progress can be measured. Data can be collected through primary and secondary sources on different aspects of sanitation. Primary data can be collected through field surveys, FGD, KIIs and observations. Previous studies on sanitation status and progress can be utilized as secondary sources. Baseline data should cover the full sanitation service chain, from containment to treatment. The baseline data can be analyzed using tools such as SFD, CSDA and Capacity Needs Assessment (CNA). The SFD is a diagnostic tool that provides a clear overview of the pathways taken by excreta from defecation to disposal along the sanitation service chain in urban areas and CSDA is a complementary tool that assesses why the sanitation situation is as it is. **Additionally, GIS mapping should also be used to identify on-site sanitation system coverage in the municipality/city corporation.**

  For the previously mentioned study locations comprehensive field survey, FGD, and KII followed by an SFD report can serve as baseline data.
- **Application of Information and Communication Technology (ICT):** The use of Information and Communication Technology in monitoring can ensure effective implementation, data-driven decision-making, and transparency. Some potential applications include:
  - Use of mWater[1] or similar online survey tools in conducting questionnaire surveys. mWater was used in surveys at Gaibandha & Sreemangal Municipality and Barishal City Corporation
  - GIS-based mapping to analyze sanitation service area
  - Mobile applications or web platforms for scheduling desludging services and submitting feedback.

REGULAR MONITORING

- **Monitoring Schedule:** The CWIS Unit should establish a timeline for regular monitoring activities at each step of implementing the CWIS Action Plan. The following aspects should be identified for creating the monitoring schedule:
  - Monitoring parameters
  - Method of monitoring
  - Frequency
  - Monitoring agency
  - Reporting/ remarks
- **Community Involvement:** Involve community members in monitoring efforts to ensure transparency. This will also foster a sense of ownership and accountability. Community representatives can raise social awareness about CWIS through public meetings, group discussions, media engagement and advocating for data transparency.

FEEDBACK MECHANISM

- **Reporting Systems:** Create systems for reporting progress and challenges. The reporting mechanism should incorporate the target outcome, the achieved outcome and the challenges in achieving the result. The reporting format can be in the following manner:

Item	Baseline	Short Term 2024-2026		Mid Term 2027-2030		Long Term 2031 & beyond		Challenges
		Target %	Achieved %	Target %	Achieved %	Target %	Achieved %	
Improved and Safe Containment System								
Containment Upgradation/ Retrofit/ New development								
CWIS compliance assessment								
Develop technical guideline								
Coordination meeting								
Standard design check								
Quality of service from private sector								
Capacity Enhancement								
Public hearing event								
Develop communication and campaign strategy								
Implementation of campaign strategy								
Training and orientation programs								
Exchange visit								
Impact study								

Item	Baseline	Short Term 2024-2026		Mid Term 2027-2030		Long Term 2031 & beyond		Challenges
		Target %	Achieved %	Target %	Achieved %	Target %	Achieved %	
Mechanical Emptying and safe Transportation of Fecal Sludge								
Mechanical emptying and safe transportation of sludge								
Scheduled desludging								
Review and inclusion of sanitation tax								
Apps/hotline-based desludging services								
Procure desludging equipment								
Treatment/Safe Disposal and Re-use of Faecal Sludge								
Treat/safe disposal of fecal sludge								
Feasibility study on technical solutions								
Secure land for FSTPs (Local or Regional)								
Construct & operate FSTP								
Guideline/protocol for scaling up CWIS services								
Establish linkages between LGI and concerned organizations								
Dislodging illegal connections of toilets								

Item	Baseline	Short Term 2024-2026		Mid Term 2027-2030		Long Term 2031 & beyond		Challenges
		Target %	Achieved %	Target %	Achieved %	Target %	Achieved %	
Inclusion of CWIS/ FSM in the annual development plan								
Trend analysis for co-composting								
Packaging and marketing of compost								
Private sector-managed FSTP								
Private sector-led compost hub								

It should be noted that the reporting items are subject to change based on the sanitation scenario of the study location.

- **Adaptive Management:** Improve the CWIS action plan based on feedback from the community, including women, children, people with special needs and LICs.

CONCLUSION

Implementing the CWIS Action Plans for Sreemangal and Gaibandha Municipalities and Barishal City Corporation requires a holistic and coordinated approach. This approach should encompass all aspects of sanitation, from policy development and infrastructure design to service delivery and community engagement. Achieving these goals requires the active participation of multiple stakeholders, including local governments, communities, NGOs, and the private sector, working together to address the complex sanitation challenges faced by these areas.

By adhering to the comprehensive guidelines provided in the CWIS Action Plans, stakeholders can work collaboratively to improve sanitation services, enhance public health, and contribute to sustainable urban development. The successful implementation of CWIS Action Plans will involve not only the construction of physical infrastructure but also the creation of an enabling environment for safe sanitation practices through awareness campaigns, regulatory frameworks, and technical solutions.

Furthermore, commitment to ongoing engagement, capacity building, and adaptive management will be essential for the long-term success of these initiatives. Ongoing engagement will involve regular communication and feedback loops with the community to address emerging issues, while capacity building will ensure that local authorities and stakeholders have the necessary skills and resources to manage and sustain the sanitation systems. Adaptive management practices will enable the initiative to evolve in response to changing conditions, ensuring that the sanitation systems remain effective and resilient in the long term.

LIST OF REFERENCE

- Bangladesh Bureau of Statistics (2022). Population and Housing Census 2022. Ministry of Planning. Government of the People's Republic of Bangladesh.
- Department of Environment (1997). Environmental Conservation Rules. Government of the People's Republic of Bangladesh
- Eastern and Southern Africa Water and Sanitation Regulators Association (2020). Guidelines for Citywide Inclusive Sanitation (CWIS) planning.
- ITN-BUET (2024). Specialized Training Course on Citywide Inclusive Sanitation. Dhaka, Bangladesh.
- ITN-BUET (2022). Training Module on Design, Construction and Maintenance of Sanitation Containment (Septic Tank, Soak Pit and Pit Latrine). Dhaka, Bangladesh
- Local Government Division (2021). National Strategy for Water Supply and Sanitation. Ministry of Local Government, Rural Development and Co-operatives, Government of the People's Republic of Bangladesh.
- Local Government Division (2020). Pro-poor strategy for Water Supply and Sanitation (Revised). Local Government Division, Ministry of Rural Development and Co-operatives, Government of the People's Republic of Bangladesh
- Ministry of Housing and Public Works (2020). Bangladesh National Building Code. Government of the People's Republic of Bangladesh.
- UNICEF and WHO (2023). Progress on Household Drinking Water, Sanitation and Hygiene 2000–2022: Special Focus on Gender. New York: United Nations Children's Fund (UNICEF) and World Health Organization (WHO).
- WaterAid (2023). Sanitation Safety Plan: Sakhipur Municipality, Tangail. Dhaka: WaterAid Bangladesh.
- World Health Organization (2016). Sanitation Safety Planning: Manual for safe use and disposal of wastewater, greywater and excreta. France: World Health Organization.

ANNEXES

A1. STAKEHOLDER MAPPING

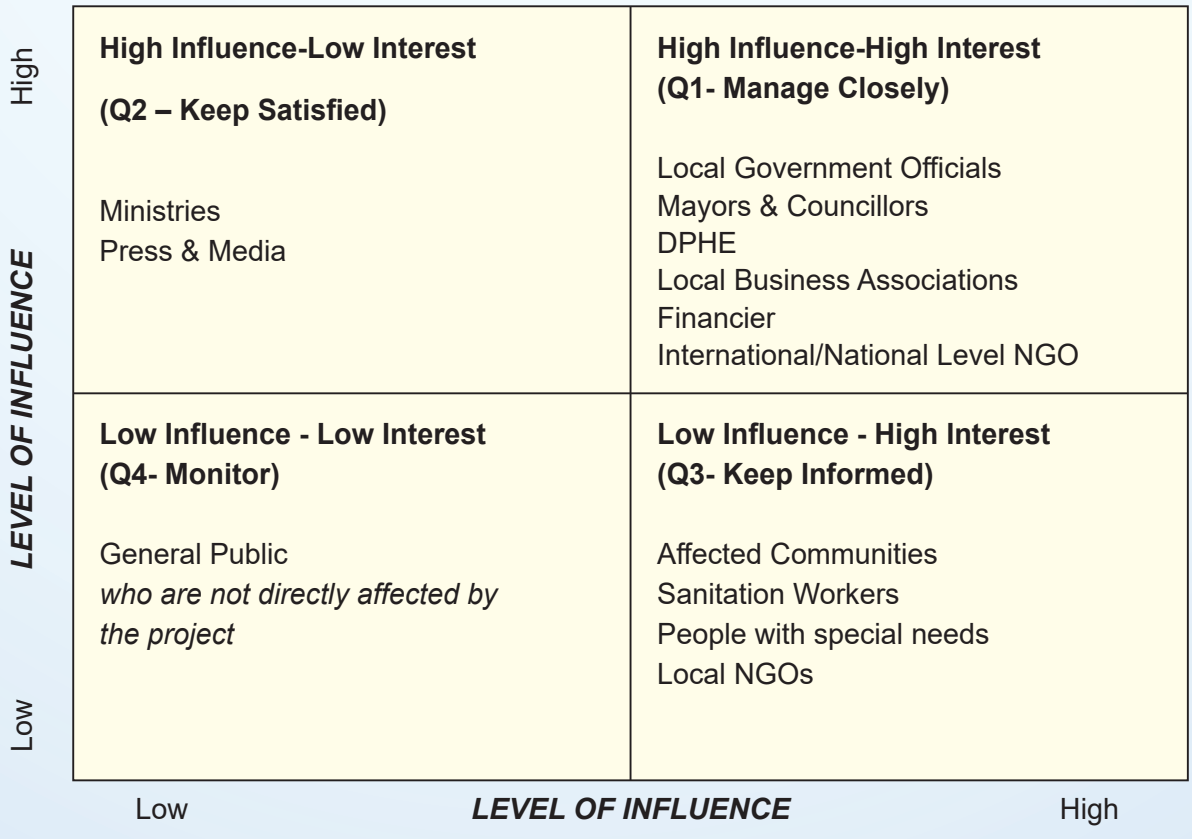
A stakeholder map is a visual representation of individuals or groups who hold the interest and power to influence a project, product, or idea. Stakeholder mapping helps to identify the key stakeholders, understand their influence, and develop a strategy for stakeholder management. The map consists of four quadrants (Q1, Q2, Q3 and Q4). The mapping description is as follows:

Q1 (High Influence-High Interest): The stakeholders that are in this quadrant have high influence and also high interest in the decision-making process. So, such stakeholders should be closely involved throughout the implementation of CWIS.

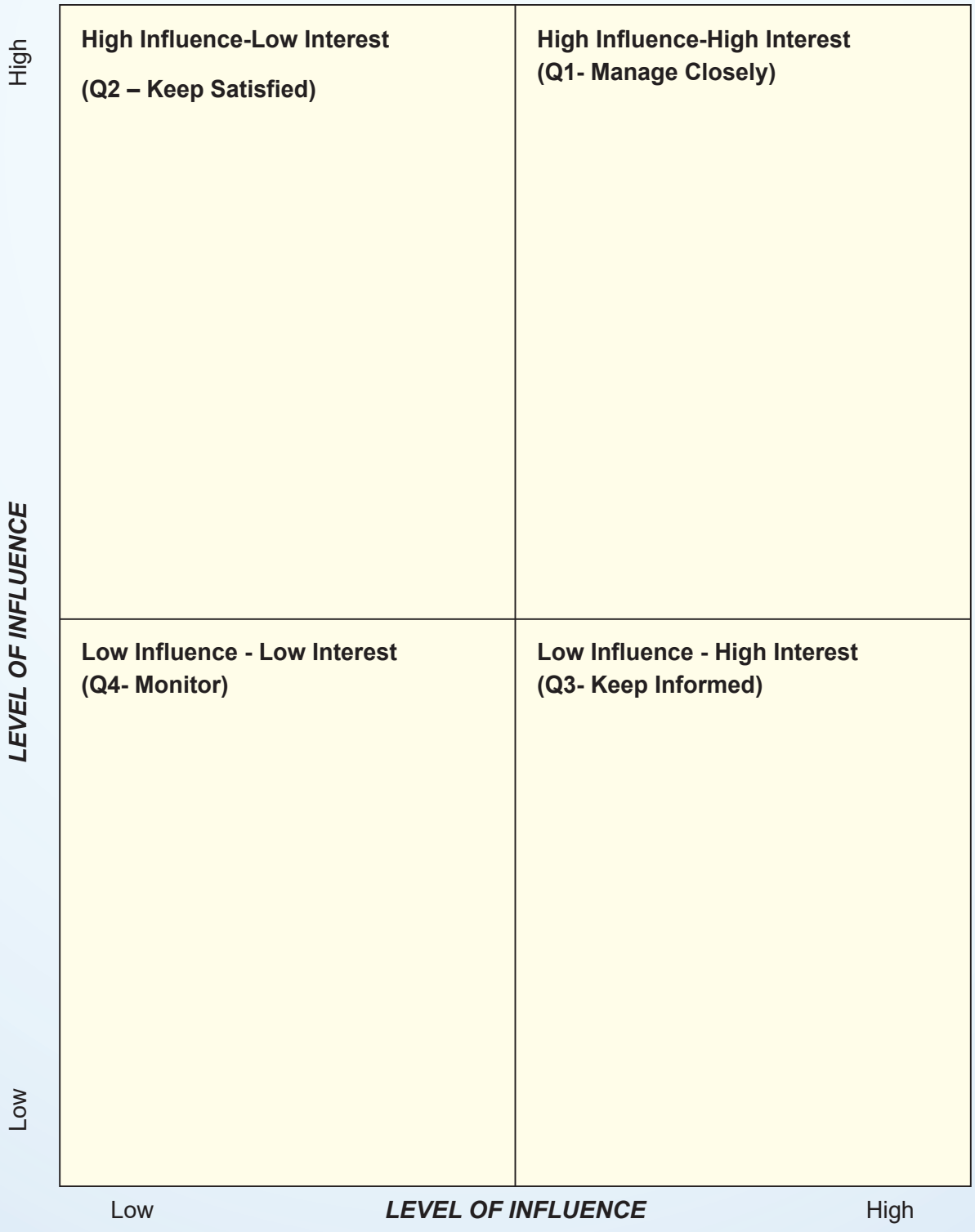
Q2 (High Influence-Low Interest): Stakeholders in this quadrant need to be kept satisfied as they have high influence over the decision, but may oppose the intervention. Their views need to be acknowledged to avoid conflict.

Q3 (Low Influence-High Interest): This group of stakeholders has lower influence than Q1 stakeholders. However, they should be kept informed for their high interest. This quadrant often contains vulnerable groups which in the context of CWIS may be the sanitation workers, disabled people and women. So, stakeholders require extra effort to ensure that their voice is heard and their participation is meaningful.

Q4 (Low Influence-Low Interest): This group of stakeholders is not closely involved in the project; however, they should be monitored by keeping informed.



The abovementioned example can be followed by Gaibandha Municipality, Sreemangal Municipality, Barishal City and any other interested town/city planning to undertake city-wide inclusive sanitation. However, it should be noted that the abovementioned mapping is not universal, and priority is subject to change based on the city corporation/municipality.



A2. MONITORING REPORT FORMAT

What is monitored?	
How is it monitored?	
Where is it monitored?	
Who Monitors it?	
When it is monitored?	

For example:

Operational Monitoring Plan for: Mechanical emptying and safe transportation of sludge	
What is monitored?	Mechanical desludging and safe transportation of sludge
How is it monitored?	Observation, Survey
Where is it monitored?	All over the municipality/ city corporation areas
Who Monitors it?	Conservancy Officer or any surveyor or a private company hired by the local government
When it is monitored?	Weekly observation

A3. REPORTING MECHANISM

Item	Baseline	Short Term 2024-2026		Mid Term 2027-2030		Long Term 2031 & beyond		Challenges
		Target %	Achieved %	Target %	Achieved %	Target %	Achieved %	

SKS Foundation

Striving for a Sustainable Change

Head Office:
College Road, Uttar Horin Singha,
Gaibandha-5700, Bangladesh
Tel : +88-02588877630
Fax : +88-02588877631
Cell : +880 1713 484430
sksfoundation@sks-bd.org

Dhaka Office:
SKS Bhaban, House # 2, Road # 16,
Sector # 3, Uttara, Dhaka - 1230
Tel : +88-0241091499
Cell : +880 1713 484485
sksfoundation.bd@gmail.com