REPORT

Divisional Training on

CAPACITY DEVELOPMENT IN WASH SECTOR IN BANGLADESH: CLIMATE CHANGE ADAPTATION, DISASTER RISK REDUCTION, AND WASH IN EMERGENCY PREPAREDNESS AND RESPONSE.

Venue: Buro Bangladesh, HRD Center Faridpur

Date: 29-30 April 2024

TABLE OF CONTENT

LIST OF FIGURES

1. Introduction

Bangladesh is among the countries that experience frequent natural disasters due to climate change where the country's vast population is extremely vulnerable to cyclones, floods, droughts, and the danger of saline water intrusion into sweet water zones and the agricultural areas due to sea level rise. Over the past three decades, Bangladesh has experienced around 200 natural disasters as the nation gets exposed to several natural hazards every year because of its low-lying topography, proximity to the Bay of Bengal, and monsoon season.

The frequency of hazards and disasters has been increasing due to climate change, which has had a serious impact on the WASH sector in Bangladesh. As a result, climate-resilient WASH infrastructures are required to deal with the effects of climate change. Furthermore, it is critical to raise awareness among government policymakers and WASH program implementers to deal with climatic realities to turn WASH infrastructures into climate-resilient facilities that can also withstand the effects of disasters.

Under the joint initiatives of the Department of Public Health Engineering (DPHE) and UNICEF, the WASH Cluster has been functioning in Bangladesh since 2008, following Cyclone Sidr, to bring together the active partners working in the WASH sector. The WASH Cluster is a component of the international cluster strategy and the broader national Humanitarian Coordination Task Team (HCTT) to facilitate strategic collaboration in disaster planning and response within the WASH sector. The WASH Cluster seeks to guarantee a better coordinated and successful response by enlisting the help of the Ministries of the Government and their line agencies, UN organizations, INGO, and civil society organizations.

The WASH Cluster is specifically focused on: (i) using the Humanitarian Development Nexus to promote comprehensive WASH services and mainstream disaster risk reduction (DRR) in the WASH sector; (ii) bolstering national and local coordination mechanisms that involve all relevant stakeholders to improve the effectiveness of emergency and humanitarian response; (iii) enhancing local capacity in terms of WASH in emergency preparedness and response; and (iv) ensuring cooperation for collective action by its members. To meet these targets, along with other programs, the experts of the WASH sector are committed to continuing education and training initiatives for promoting climate-resilient approaches to deal with the changing climate and its impacts on the environment, especially in Bangladesh's many affected geographical areas.

Therefore, DPHE and UNICEF have planned to jointly organize divisional training events, titled “Capacity Development in WASH Sector in Bangladesh: Climate Change Adaptation, Disaster Risk Reduction, and WASH in Emergency Preparedness and Response”, for capacity building of DPHE officials, NGO representatives, and Government officials who play important roles in

WASH service delivery during disasters and in emergency preparedness and response in the affected areas of Bangladesh. To accomplish the objectives of the capacity building program, DPHE and UNICEF worked jointly where UNICEF Bangladesh provided guidance and DPHE implemented the activities that included the development of a training module, organizing meetings and consultations with stakeholders, organizing WASH Cluster meetings, and facilitation of the training events at the divisional level.

Following the development of the training module for a 2-day training program and a Training of Trainers (ToT) event in Dhaka, the first phase of the training at the divisional level started in November 2023. During the first phase, five trainings were conducted in Barishal, Mymensingh, Khulna, Rangpur, and Dhaka for the respective DPHE circles. The second phase of the training program started in March 2024. After the first two batches of the second phase at Chattogram and Sylhet, another divisional training was arranged for the Faridpur Circle at the Buro Bangladesh, HRD Center, Faridpur from 29-30 April 2024.

2. Objectives of the training

The main objective of this capacity development initiative was to improve and strengthen the technical capacity of the WASH professionals as well as to raise awareness among different stakeholders at the national level and sub-national levels in different climate-affected regions of Bangladesh. The specific objectives of the assignment were:

- Strengthening the capacity of WASH sector professionals on disaster and emergency preparedness and response, and planning and delivering climate-resilient WASH services for efficient and effective implementation of emergency preparedness and response programs in vulnerable districts.
- Promoting awareness of Disaster Risk Reduction (DRR) to address the impacts of disaster and climate change on WASH.
- Developing sector capacity to integrate DRR and climate-resilient approaches into WASH programs nationwide and mainstreaming DRR mechanisms into WASH programming.

3. Participants

A total of 38 participants attended the training program including DPHE engineers, officials from different departments of the government, and NGO representatives who are major stakeholders in WASH sectors, especially during disasters and emergencies. Among the participants, there were 8 Executive Engineers, 9 Assistant Engineers, 2 Sub-assistant engineers, 4 Estimators from DPHE, 4 officials from other departments of government, and 11 NGO representatives. The list of participants is attached as Annex-2

4. Training Facilitators

The 2-day training program with several engaging sessions was conducted by Maharam Dakua, Consultant, DPHE, A.H.M. Khalequr Rahman, Superintending Engineer, Store Circle, DPHE, Dhaka and Md. Yasin Arafat, Executive Engineer, Store Division, Dhaka.

Figure 1: Opening session of the training

5. Opening Session

The training started with an opening session on 29th April 2024 at the Buro Bangladesh, HRD Center, Faridpur. Md. Bahar Uddin Mridha Superintendent Engineer, DPHE, Faridpur Circle, and Furqan Ahmed, WASH Officer, UNICEF were present during the inaugural session of the training. At the beginning of the opening session Maharam Dakua, Consultant, DPHE presented the objectives of this training and provided an overview of the contents of the sessions. Later, Furqan Ahmed, WASH Officer, UNICEF gave a short speech on the importance of the training, and then the Chief Guest of the session, Md. Bahar Uddin Mridha, Superintendent Engineer, DPHE, Faridpur Circle announced the opening of the training program.

6. Training Sessions

There were seven sessions in the 2-day training program. Five sessions were conducted on day 1 and the remaining two sessions were conducted on day 2. The schedule of the training is provided in Annex-1. The facilitators of the sessions were:

- Session 1: Maharam Dakua, Consultant, DPHE
- Session 2: Maharam Dakua, Consultant, DPHE

- Session 3: Maharam Dakua, Consultant, DPHE
- Session 4: Maharam Dakua, Consultant, DPHE
- Session 5: A.H.M. Khalequr Rahman, Superintending Engineer, Store Circle, DPHE
- Session 6: Md. Yasin Arafat, Executive Engineer, Store Division, Dhaka
- Session 7: Maharam Dakua, Consultant, DPHE

6.1. Sessions of Day 1

Session 1: Climate Change and Its Impacts on Water, Sanitation and Hygiene (WASH)

Outline of the session:

- Introduction to Climate Change and its Causes
- Elements of climate, how they interact, and consequences of Climate Change
- Identifying Impacts of Climate Change on WASH in Bangladesh

Outcome of the session:

- Understanding of the basics of climate change
- Understanding of the consequences of climate change
- Understanding of the impacts of climate change on WASH in Bangladesh

This session provided a brief overview of weather, climate, and climate change. It covers a wide range of topics, including the differences between weather and climate, the causes and effects of climate change, and the impact of climate change on various sectors such as agriculture, water, and health. The session also highlights the impact of climate change in different areas and on vulnerable populations such as low-income communities. A video on the effect of the greenhouse on the earth was shown to the participants. There was a quiz for the trainees which was conducted through Mentimeter. The participants were also given a groupwork for identifying indicators of climate change and finding its outcomes, consequences, and impacts.

Figure 2: Participants engaging in a quiz on session 1

Figure 3: Group work of session 1 on identifying indicators, outcomes, consequences, and impacts of climate change

Session 2: Disasters and Impacts on WASH Infrastructures in Bangladesh

The session focused on disasters and their impacts on WASH infrastructures in Bangladesh. The outcome of the session:

- Identification of the main disasters in the WASH sector in Bangladesh
- Identification of the main impacts of disasters on WASH infrastructures in Bangladesh
- Understanding the disaster management steps and activities in WASH

Figure 4: Facilitator addressing the steps and activities of disaster management in WASH during session 2

The session discussed the steps involved in disaster management for WASH infrastructures in Bangladesh. Participants learned about the different phases of the disaster management cycle, including preparedness, response, recovery, and rehabilitation, and the specific activities that are involved in each phase of the cycle. Participants also learned about the terminologies related to disaster risk reduction. During the session, different types of disasters and their impacts on WASH infrastructures were also discussed.

Session 3: Stakeholders' Roles in DRR and Emergency Preparedness and Response in WASH

The session focused on Stakeholders' Roles in DRR and Emergency Preparedness and Response in WASH. The outcome of the session:

- Identification of the stakeholders involved in WASH in DRR and emergency response, and their respective roles
- Understanding of the DPHE's role in disaster risk reduction, and emergency preparedness and response
- Understanding of the coordinating mechanisms among the stakeholders

Figure 5: Participants understanding of the role of stakeholders and the coordinating mechanisms among them

The session mostly discussed the organizations involved in disaster management, including the government, non-governmental organizations, and community-based organizations. The session also covered the Standing Orders on Disaster (SOD), which is a set of guidelines for disaster management in Bangladesh. The SOD aims to ensure a coordinated and effective response to disasters by all stakeholders. The session also discusses the formulation of the WASH Cluster, its aims and objectives, and how to operationalize the WASH Cluster through

meetings. The session also discussed about WASH cluster and the participants were informed about the WASH cluster meeting that took place after this session.

Session 4: Standards and Guidelines for WASH during Disasters and Emergency Response

The outcome of the session:

- Learning the recommendations in the operational guidelines in Bangladesh for WASH services in an emergency.
- Learning the recommendations for WASH services in an emergency from the SPHERE standard.

Figure 6: Facilitator addressing the standards and guidelines for WASH services in an emergency

This session gave an overview of the regulatory framework and code of conduct for disaster management in Bangladesh in the WASH sector, guidance on preparedness for WASH in emergency response, and early recovery interventions in disaster situations, standards for WASH services during emergency response. The participants were given a small task to answer some questions and to identify some statements whether they were true or false (Annex-4). A quiz was also taken through Mentimeter.


Figure 7: Participants engaging in group work on Sphere Standards

Session 5: Climate Resilient WASH Technologies

The outcome of the session:

- Understanding of the importance of adaptation and mitigation in building climate resilience in the WASH system
- Learning the current practices in terms of promoting climate-resilient WASH technologies.

In this session, the participants were provided with real examples to get an understanding of the importance of adaptation and mitigation in building climate resilience in the WASH system. The session covered examples of climate-resilient WASH technologies and the participants learned about the climate-resilient features of the technologies. They also learned about the different strategies that can be used to address these challenges and improve the resilience of WASH systems. The participants were encouraged to share their experiences at the field level as well. There was a quiz that was conducted through Mentimeter.

Figure 8: Participants learning about the best practices for climate-resilient WASH technologies

6.2. Sessions of Day 2

At the start of Day 2, there was a review session where a brief review of the previous day was given by Maharam Dakua, Consultant, DPHE. The participants were asked some questions about what they learned on the previous day. After the review session, the remaining three sessions of the training started.

Figure 9: Facilitator giving a brief review of the previous day

Session 6: WASH Services in Disasters and Emergency Response

In this session, the participants learned about the technologies used for water supply sanitation, and hygiene during disasters and the operation and maintenance of water, sanitation, and hygiene facilities during and after disasters. The outcome of the session:

- Learning effective water supply, sanitation, and hygiene practices for disaster risk reduction
- Understanding the operation and maintenance of WASH systems and services during and after disasters.

Some real-life problems were also discussed during this session and some suggestions came up to take steps to fix those problems.

Session 7: Emergency Response Planning and Implementation in WASH

This session of the training discussed the importance and steps of emergency preparedness and response plans in the context of WASH, and the key principles that should guide emergency response efforts. The outcome of the session:

- Different steps in emergency preparedness and response with activity timeline
- Key considerations in emergency preparedness and response in WASH

Figure 10: The session of the training on emergency response planning and implementation in WASH

The SOS and D-Forms were discussed, and later a demo of a digital data collection tool was introduced to the participants which was developed using Kobo Toolbox by which one can quickly share information about the current status of the WASH technologies of an area. After using the tool, the participants were requested to provide feedback about the tool for further improvement of the tool.

The steps for developing an inclusive emergency response plan and a contingency plan were discussed. Later, the groups were provided with a task on the development of a hazard-specific emergency response plan. In the end, the participants were asked to make a presentation of their group work on the development of a hazard-specific emergency response plan.

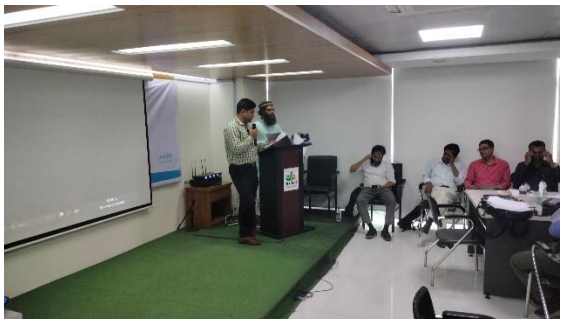

Figure 11: Participants preparing their group work for presentation and presenting on their topic

7. WASH Cluster Meeting

A WASH cluster meeting was arranged at the end of the training sessions. The meeting was organized for the district of Faridpur where the participants from this district, who attended the training, took part in the meeting. The list of participants is attached as Annex-3. At the beginning of the meeting, a brief overview of the objectives of the WASH Cluster and its scope of work as outlined by the Standing Orders on Disaster (SOD) and other guidelines was provided by Maharam Dakua, Consultant, DPHE.

Figure 12: WASH Cluster Meeting for the District of Sylhet

The WASH Cluster meetings were chaired by Sumon Roy, Executive Engineer, DPHE, Faridpur. The meeting focused on establishing the WASH Cluster at the district level, determining its structure, and frequency of meetings, and defining its scope of work

8. Feedback from the Participants

Participants addressed many topics related to the training implementation and offered some helpful recommendations for the training activities. They expressed their satisfaction over the 2-day long training program and appreciated the contents of the training module. While they were asked to share the scope for further improvement in the training, some feedback from the participants at the end of the training sessions were:

- The participants requested the development of a training module in a simple version in the Bangla language.
- Participants addressed the need to add WASH technologies to the manual which are used in low water table areas and areas where river erosion takes place.
- Participants suggested adding a part for mock drill training so that the field-level officials could be given proper training.

9. Closing Session

At the end of the training, a brief closing session was arranged on 30th April 2024. Md. Bahar Uddin Mridha, Superintendent Engineer, DPHE, Faridpur Circle, Furqan Ahmed, WASH Officer, UNICEF, and Maharam Dakua, Consultant, DPHE were present as guests in the closing session.

Figure 13: Closing session of the training

ANNEX

Annex-1: Schedule of the training

Capacity Development in WASH Sector in Bangladesh: Climate Change Adaptation, Disaster Risk Reduction, and Emergency Preparedness and Response

Venue: Buro Bangladesh, HRD Center, Faridpur
Date: 29-30 April 2024

Training Schedule

Topics	Time	Session Contents
Day 1		
Opening Session	9.00 – 9.30	Registration, tea and snacks, and network building
	9:30 – 10:15	Opening Session
Section 1	10.15 – 11.00	Session 1 – Climate Change and Its Impact on Water, Sanitation and Hygiene (WASH)
	11.00 – 11.15	Tea break
	11.15 – 12.00	Session 2 – Disasters and Impacts on WASH Infrastructures in Bangladesh
Section 2	12.00 – 13.00	Session 3 – Stakeholders' Roles in Disaster Risk Reduction and Emergency Preparedness and Response in WASH
	13.00 – 14.00	Lunch and prayer break
Section 3	14.00 – 15.00	Session 4 – Standards and Guidelines for WASH during Disasters and Emergency Response
	15.00 – 15.15	Tea break
	15.15 – 16.30	Session 5 – Climate Resilient WASH Technologies
Day 2		
Review Session	9.30 – 10.00	Review of Day-1 Session's Contents
Section 4	10.00 – 11.00	Session 6 – WASH Services for Disaster and Emergency Response
	11.00 – 11.15	Tea break
	11.15 – 13.00	Session 7 – Emergency Response Planning (ERP) in WASH and Implementation
	13.00 – 14.00	Lunch and prayer break
Meeting	14.00 – 15.30	WASH Cluster Meeting
	15.30 – 15.45	Tea Break
Closing Session	15.45 – 16.30	Closing Remarks and Certificate Distribution

Annex-2: List of participants in the training

Sl. No.	Name	Designation & Organization
1.	Sumon Roy	EE, DPHE, Faridpur
2.	MD. Foyez Ahmed	EE, DPHE, Gopalganj
3.	Md. Fazlul Haque	EE, DPHE, Shariatpur
4.	Md. Samsul Islam	EE, DPHE, Madaripur
5.	Md. Zakaria Ahmed	EE, DPHE, Rajbari
6.	Md. Somesh Ali	AE, DPHE, Shariatpur
7.	Mohammad Nasir Uddin Mollah	AE, DPHE, Pungsha Rajbari
8.	Md. Nurnabi Islam	Store Officer-Estimator, DPHE, Rajbari
9.	Md. Tariqul Islam	AE, DPHE, Madaripur Sadar
10.	Sufa Begum	AE, DPHE, Circle Office
11.	Md. Lutfor Rahman	AE, DPHE, Modhukhali, Faridpur
12.	Md. Amzad Hossain	AE, DPHE, Bhanga, Faridpur
13.	Md. Jamal Sheikh	AE, DPHE, Sadarpur, Faridpur
14.	Md. Akir Khan	AE, DPHE, Kotalipara, Gopalganj
15.	A.F.M. Hasibul Chowdhury	Estimator, DPHE, Gopalganj
16.	Md. Ataul Gony	Store Officer-Estimator, DPHE, Shariatpur
17.	Md. Hasan Mia	SAE, DPHE, Noria, Shariatpur
18.	Md. Golam Morshed	SAE, DPHE, Madaripur
19.	Md. Naimuzzaman Biswas	AE, DPHE, Faridpur Sadar
20.	Md. Asiamuzzaman Sheikh	Store Keeper, DPHE, Faridpur
21.	Md. Jayanta Sarkar	EE, DPHE, Pirojpur
22.	Md. Ershaduzzaman Mridul	EE, DPHE, Jhalokathi

23.	Md. Mahmudur Rahman	EE, DPHE, Bhola
24.	Dr. Siddiqur Rahman	DCS, Faridpur
25.	Md. Mohi Uddin	DPEO, DPE, Faridpur
26.	Abu Naser Mohammad Babar	DRRO, Faridpur
27.	Bishnu Pada Ghosal	DEO, DSHE, Faridpur
28.	Ali Islam Mredha	Project Co-ordinator, SDS, Shariatpur
29.	Md. Nurul Islam	Field Team Leader, iDE, Faridpur
30.	Samir Kumar Kundu	Regional Officer, BRAC, Shariatpur
31.	Md. Ayub Ali Talukder	Executive Director, Aungukur Palli Unnayan Kendra, Madaripur
32.	Md. Nur Miyad	Manager, Jagorani Chakra Foudation, Madaripur
33.	Molla Aslam Hossain	Area Manager, AMP Project, EPRC, Gopalganj
34.	Md. Khandaker ahsan Rakib	District Co-ordinator, Practical Action, Faridpur
35.	Md. Asadullah	District Co-ordinator, Faridpur
36.	Md. Azharul Islam	Adviser, FDA, Faridpur
37.	Sheikh Mohammad Masud Rana	Executive Director, GJUS, Rajbari
38.	Lutfar Rahman Labu	Executive Director, RUS, Rajbari

Annex-3: List of Participants in WASH Cluster Meeting

SL. No.	Name	Designation
1.	Md. Bahar Uddin Mridha	SE, DPHE, Faridpur Circle
2.	Sumon Roy	EE, DPHE, Faridpur
3.	Dr. Siddiqur Rahman	DCS, Faridpur
4.	Md. Mohi Uddin	DPEO, DPE, Faridpur
5.	Md. Lutfor Rahman	AE, DPHE, Modhukhali, Faridpur
6.	Hasibul Hasan Mamun	Estimator, DPHE, Faridpur
7.	Md. Naimuzzaman Biswas	AE, DPHE, Faridpur Sadar
8.	Shah Md. Saiful Munir	Assistant Inspector, District Education Officer, Faridpur
9.	Md. Amzad Hossain	AE, DPHE, Bhanga, Faridpur
10.	Md. Jamal Sheikh	AE, DPHE, Sadarpur, Faridpur
11.	Md. Aslamuzzaman Sheikh	Store Keeper, DPHE, Faridpur

Annex-4: Task for group work in session 4

Sphere Standards

(Group work based on Standard 1.1, 1.2, and 1.3) Time: 15 minutes

Suppose there are **5000 disaster-affected households (HHs)** in a community in which 6000 people are women, 3500 are men, and the rest are children. To evaluate the awareness of the key public health risks related to hygiene, the following information is collected through a social survey.

- **1500 HHs** correctly describe the three measures to prevent WASH-related diseases.
- **3000 HHs** store drinking water in clean and covered containers.
- **4500 HHs** have soap and water for handwashing.
- The local environment is free from animal feces but nearly **25% area** is covered with human feces.
- Each HH has **only one** water container varying from **10-20L**.
- **None of the women** is satisfied with menstrual hygiene management.

Based on the above survey findings, answer/comment on the following queries

1. Find the percentage of HHs who correctly describe the three measures to prevent WASH-related diseases.
   (Answer: _ _ _ _ _ % of HHs)

2. Find the percentage of HHs who store drinking water in clean and covered containers.
   (Answer: _ _ _ _ _ % of HHs)

3. Find the percentage of HHs who have soap and water for handwashing.
   (Answer: _ _ _ _ _ % of HHs)

4. The affected area meets all the standards based on hygiene promotion. ☐ YES ☐ NO

5. Do you think that this affected community meets Standard 1? ☐ YES ☐ NO.

   If NO, suggest any three potential measures to meet Standard 1.

   (i) _

   _

   (ii) _

   _

   (iii) _

   _

Sphere Standards

(Based on Standard Indicators) **Time: 15 minutes**

Hints:

- *Go through the Sphere Standard 2 to 6, and answer the following queries.*
- *Mention that based on which Standard you have selected your answer.*

1. Queuing time at water source ≤ 30 minutes ☐ TRUE ☐ FALSE Standard: _ _ _ _
2. At least 100 people per laundry facility ☐ TRUE ☐ FALSE Standard: _ _ _ _
3. Mean water usage = 15 L/HH/day ☐ TRUE ☐ FALSE Standard: _ _ _ _
4. Minimum water quality standard: <10 CFU/100mL at delivery point (chlorinated water) ☐ TRUE ☐ FALSE Standard: _ _ _ _
5. Least water quality standard: ≥ 0.2-0.5 mg/L Free Residual Chlorine at delivery point ☐ TRUE ☐ FALSE Standard: _ _ _ _
6. Maximum water quality standard: <5 NTU Turbidity ☐ TRUE ☐ FALSE Standard: _ _ _ _
7. All excreta containment facilities are an adequate distance from the groundwater source. ☐ TRUE ☐ FALSE Standard: _ _ _ _
8. Maximum 50m distance between shared toilets and dwelling ☐ TRUE ☐ FALSE Standard: _ _ _ _
9. Ratio of shared toilets: minimum 1 per 20 people ☐ TRUE ☐ FALSE Standard: _ _ _ _
10. All excreta are disposed of in an unsafe manner to the public health and environment. ☐ TRUE ☐ FALSE Standard: _ _ _ _
11. Percentage of HHs who have taken adequate action to protect themselves from relevant vector-borne diseases. ☐ TRUE ☐ FALSE Standard: _ _ _ _
12. There is solid waste accumulating around designated neighborhoods. ☐ TRUE ☐ FALSE Standard: _ _ _ _
13. Percentage of schools and public markets with appropriate and adequate waste storage. ☐ TRUE ☐ FALSE Standard: _ _ _ _

Annex-5: Pictures of the training


WASH CLUSTER MEETING
FARIDPUR DISTRICT