



REPORT

Training of Trainers on

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



Venue: DPHE Auditorium, DPHE Bhaban, Dhaka

Date: 3-4 November 2023



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TABLE OF CONTENT

| | |
|--|----|
| 1. Introduction | 3 |
| 2. Objectives of ToT..... | 4 |
| 3. Participants of the ToT | 4 |
| 4. Facilitators of the ToT | 4 |
| 5. Inaugural Session | 5 |
| 6. Training Sessions | 5 |
| 6.1. Sessions of Day 1 | 5 |
| Session 1: Climate Change and Its Impacts on Water, Sanitation and Hygiene (WASH). 5 | |
| Session 2: Disasters and Impacts on WASH Infrastructures in Bangladesh | 6 |
| Session 3: Stakeholders' Roles in DRR and Emergency Preparedness and Response in WASH..... | 7 |
| Session 4: Standards and Guidelines for WASH during Disasters and Emergency Response..... | 8 |
| Session 5: Climate Resilient WASH Technologies | 9 |
| 6.2. Sessions of Day 2..... | 10 |
| Session 6: WASH Services in Disasters and Emergency Response | 10 |
| Session 7: Emergency Response Planning and Implementation in WASH..... | 11 |
| 7. Feedback from the Participants..... | 11 |
| 8. Closing Session | 11 |
| ANNEX | 12 |
| Annex-1: Schedule of the ToT | 12 |
| Annex-2: List of Participants of the ToT..... | 13 |

LIST OF FIGURES

| | |
|--|----|
| Figure 1: Inaugural session of the ToT | 5 |
| Figure 2: Groupwork of Session 1 on identifying indicators, outcomes, consequences, and impacts of climate change..... | 6 |
| Figure 3: Facilitator addressing the steps and activities of disaster management in WASH during session 2..... | 7 |
| Figure 4: Participant answering a quiz on session 4 through Mentimeter | 9 |
| Figure 5: Facilitator addresses the practices for climate-resilient WASH technologies | 10 |

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 completion of the development of the training module, a Training of Trainers (ToT) for two days from November 3-4, 2023 was arranged at DPHE Bhaban in Dhaka before the start of the training at the divisional level.

2. Objectives of ToT

The main objective of the capacity development training program is to improve and strengthen the technical capacity of WASH professionals as well as to raise awareness among the stakeholders at the district level, focusing on Climate Change Adaptation (CCA), Disaster Risk Reduction (DRR), and Emergency Preparedness and Response in WASH, in different climate affected regions of Bangladesh. In alignment with the objective of the training program, the ToT program had the specific objectives of

- Strengthening the capacity of DPHE professionals to facilitate the trainings at the divisional level.
- Identifying gaps in the training module, if any, and addressing the gaps in the contents of the module, as appropriate.
- Checking for the adequacy of the allotted time for different sessions of the training module before the divisional trainings.

3. Participants of the ToT

A total of 24 participants attended the ToT program, including DPHE officials and NGO representatives. Among them, there were 2 Superintendent Engineers, 12 Executive Engineers, 3 Assistant Engineers, 2 participants from NGOs, and 5 other Government officials.

4. Facilitators of the ToT

The 2-day training program with several engaging sessions was conducted by A.H.M. Khalequr Rahman, Superintending Engineer, Store Circle, DPHE, Dhaka, DPHE, and Maharam Dakua, Consultant, DPHE. A separate session on the WASH Cluster was facilitated by Saleha Khatun, Cluster Coordinator – WASH in Emergencies Specialist, UNICEF.

5. Inaugural Session

The ToT started with an inaugural session on 3rd November in the presence of several guests including Md. Sarwar Hossain, Chief Engineer, DPHE, Tushar Mohon Shadhu Khan, Additional Chief Engineer (Planning), A.H.M. Khalequr Rahman, Superintending Engineer, Store Circle, DPHE, and Saleha Khatun, Cluster Coordinator–WASH in Emergencies, UNICEF. During the inauguration of the training program, A.H.M. Khalequr Rahman presented the objectives of the ToT and provided an overview of the contents of the sessions. At the end of the session, the Chief Guest of the session, Md. Sarwar Hossain, Chief Engineer, DPHE announced the opening of the ToT.



Figure 1: Inaugural session of the ToT

6. Training Sessions

There were seven sessions in the 2-day ToT program among which five sessions were conducted on day 1 and the remaining two sessions were conducted on day 2. The schedule of the ToT is provided as [Annex-1](#). Among the seven sessions, session 5 and session 6 were facilitated by A.H.M. Khalequr Rahman, Superintending Engineer, Store Circle, DPHE. The rest of the sessions were facilitated by Maharam Dakua, Consultant, DPHE. A summary of each session is provided in this section.

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



Figure 2: Groupwork of Session 1 on identifying indicators, outcomes, consequences, and impacts of climate change

This session provides 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 find its outcomes, consequences, and impacts.

Session 2: Disasters and Impacts on WASH Infrastructures in Bangladesh

The session focuses on disasters and their impacts on WASH infrastructures in Bangladesh.

The outline of the session includes:

- Disasters in the WASH sector in Bangladesh
- Impacts of disasters on WASH infrastructures in Bangladesh
- Disaster management cycle and activities

Outcome of the session:

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



Figure 3: 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, the 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 focuses on Stakeholders' Roles in DRR and Emergency Preparedness and Response in WASH. The outline of the session includes:

- Identification of the stakeholders in DRR, and emergency preparedness and response in WASH
- Roles of stakeholders and their working areas
- DPHE's role in DRR, and emergency preparedness and response
- Coordination mechanisms among the stakeholders

Outcome of the session:

- Identified 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

The session discusses 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.

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

Outline of the session:

- 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.

Outcome of the session:

- Understanding of the regulatory framework and code of conduct for disaster management in WASH.
- Understanding of the standards and guidelines for WASH services in an emergency.

This session gave an overview of the national regulatory framework, code of conduct for humanitarian response, operational guidance on WASH in emergency preparedness and response including early recovery interventions in disaster situations, and national and international standards for WASH services during emergency response.



Figure 4: Participant answering a quiz on session 4 through Mentimeter

Session 5: Climate Resilient WASH Technologies

Outline of the session:

- Importance of adaptation and mitigation in building climate resilience into the WASH system
- Climate change adaptation in water and sanitation technologies

Outcome of the session:

- Understanding of the importance of adaptation and mitigation in building climate resilience into the WASH system
- Learning of the best practices for 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 5: Facilitator addresses the 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 the contents of the sessions of the previous day. After the review session, the remaining sessions of the training started.

Session 6: WASH Services in Disasters and Emergency Response

In this session, the participants learned about the services provided to ensure adequate provision for safe water, sanitation, and hygiene during disasters, and the operation and maintenance of the WASH facilities during and after disasters. The outline of the session includes:

- Technologies used for water supply, sanitation, and hygiene during disasters
- Operation and maintenance of water, sanitation, and hygiene facilities during and after disasters

Outcome of the session:

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

Some real-life problems were also discussed during this session and participants shared their experience while working during and after disasters.

Session 7: Emergency Response Planning and Implementation in WASH

The last 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 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. The participants' feedback about the tool was collected for the improvement of the demo tool. The steps of an inclusive emergency response plan and contingency plan were discussed in the session.

7. Feedback from the Participants

Participants provided their feedback on the contents of the sessions, and techniques of delivering the training at divisional level, and came up with some helpful recommendations for the training. At the end of each session, they were also requested to share their suggestions to improve the content. Some of the suggestions from the trainees include:

- The participants suggested the optimization of the functionality of the KOBO toolbox to improve the user experience.
- In order to improve time management, participants suggested removing a few slides or making the contents concise.
- Recognizing the need for increased engagement, participants emphasized the importance of incorporating additional quizzes or tasks to augment the interactive nature of the training and mitigate potential monotony.
- Several participants articulated suggestions for modifying the content, with some contributors providing specific content recommendations to be integrated into the presentation slides.

8. Closing Session

At the end of the training, a brief closing session took place on 4th November 2023. A.H.M. Khalequr Rahman, Superintending Engineer, Store Circle, DPHE, and Saleha Khatun, Cluster Coordinator – WASH in Emergencies Specialist, UNICEF were present at the closing session.

ANNEX

Annex-1: Schedule of the ToT

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

Venue: DPHE Auditorium, Dhaka

Date: 3-4 November 2023

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 of the ToT

| Sl. No. | Name | Designation & Organization |
|---------|--------------------------|---|
| 1. | Dr. Md. Imran Kabir | Professor, Dept of CEE, SUST, Sylhet |
| 2. | Md. Shamim Anwar | Assistant Engineer, DPHE |
| 3. | Farhana Hossain | Executive Engineer, DPHE |
| 4. | Rebeka Ahsan | Executive Engineer, Store, Chittagong |
| 5. | Pankaj Kumar Saha | Executive Engineer, Rangpur |
| 6. | Muhammad Mashiur Rahman | Executive Engineer, Netrokona |
| 7. | Md. Emran Tarafder | Executive Engineer, Barishal |
| 8. | Md. Rokonujjaman | Executive Engineer, Sirajganj |
| 9. | Md. Azad Kazi | Assistant Engineering, DPHE Sylhet |
| 10. | Md. Abdulla-hill-kafi | Assistant Engineer, DPHE |
| 11. | Md. Zahid Parvez | Executive Engineer, DPHE, Jashore |
| 12. | Dilruba Farzana | Executive Engineer, SIR, DPHE |
| 13. | Dalila Afroze | Executive Engineer, Design, DPHE |
| 14. | Md, Yasin Arafat | Executive Engineer, Store Division, Dhaka |
| 15. | Md, Raushan Alam | Superintending Engineer, Dhala Circle, DPHE |
| 16. | Nazia Tasmin | DPO, FREAP, DPHE |
| 17. | Ehete Shamul Russel Khan | Superintending Engineer, FS&D circle, DPHE |
| 18. | Ruksana Parvin | Executive Engineer, Training Division, DPHE |
| 19. | Palash Chandra Das | Executive Engineer, Chittagong |
| 20. | Mahmud Kabir Chowdhury | PD, Bangladesh City Inclusive Sanitation |
| 21. | Sudeshna Biswas | Documentation Officer, NGO Forum |
| 22. | Areef Anowar | PD, FREAP, DPHE |
| 23. | Fatema Akter | LDATC-Office of DPHE, Store Circle Dhaka |
| 24. | Junaid Shahriar | Research Associate, ASGD |