



REPORT

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

CONSULTATION WORKSHOP FOR DEVELOPING OUTLINE OF THE EMERGENCY WASH TRAINING MODULE FOR AE/SAE



Venue: DPHE Auditorium, Dhaka

Date: 30 March 2024



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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; and (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.

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

After divisional training programs for executives and decision-makers were successfully implemented, an essential step has been taken to increase the effectiveness of WASH services in times of emergency. The significance of field-level professionals, particularly Assistant and Sub-Assistant Engineers within the DPHE, cannot be overstated in the smooth delivery of WASH interventions within emergencies. Understanding this need, a consultation workshop was thoughtfully organized to provide a detailed plan for the customization of training modules that would address the needs of these first responders. The consultation workshop was arranged at the DPHE Auditorium Dhaka on 30th March 2024.

2. Objective:

The primary objective of this workshop was to develop an outline of the Capacity Development training for Assistant Engineers and Sub-assistant Engineers in the WASH Sector in Bangladesh focusing on Climate Change Adaptation, Disaster Risk Reduction, and WASH in Emergency Preparedness & Response.

The specific objectives of this workshop were:

- To determine the specific requirements and difficulties experienced by Assistant and Sub-Assistant Engineers working in the DPHE with reference to WASH service supply during emergencies

- To jointly create an outline of the essential elements of a customized training module designed to fulfill these requirements.

3. Activity Overview

The workshop started on 30th March 2024 at DPHE Auditorium, DPHE, Dhaka with an opening session. Md. Saifur Rahman, Additional Chief Engineer, DPHE, and S.M. Shamim Ahmed, Project Director, 10 Town Project were present during the opening session of the workshop.



Figure 1: Opening session of the workshop

At the beginning of the opening session, A.H.M. Khalequr Rahman, Superintending Engineer, Store Circle, DPHE presented the objectives of this training and provided an overview of the contents of the sessions. Later S.M. Shamim Ahmed, Project Director, 10 Town Project gave a short speech on the importance of the workshop, and then the Chief Guest of the workshop Md. Saifur Rahman, Additional Chief Engineer, DPHE announced the opening of the workshop. The workshop schedule is attached as [Annex-1](#).

After the opening session, Maharam Dakua, Consultant, DPHE presented the background of the workshop and provided an overview of the content of the workshop. The participants were asked to suggest the outline of the training module for the field-level officers of DPHE. Participants were divided into groups and each group was allocated a different section of the existing training module. The participants developed an outline of the training module from the existing one and presented their part.



Figure 2: Facilitator presenting the outline and outcomes of the workshop.

4. Workshop Participants

A total of 30 participants attended the workshop program. Among the participants, there were Executive Engineers, Assistant Engineers, and Sub Assistant Engineers. The list of participants is attached as [Annex-2](#).



Figure 3: Participants understanding the group work from the facilitator

5. Feedback and General Recommendations from the Group Work

The participants shared some valuable experiences with WASH in disasters and emergencies. The feedback of the participants and some general recommendations directed at the policy level are given here:

- There should be a guideline for how to handle local administration. Sometimes in situations, local admins come to the DPHE officials and force them to change something to fix something. At that time there should be some guidelines so that they can handle the situation
- The training of the AE/SAE should be for 3 days.

- A guideline is necessary by which the AE/SAE will be able to make a preparedness plan all by themselves from the data of the previous year's disaster for the next year's disaster.



Figure 4: Group discussion between the participants while developing the outline of the module

- There should be a guideline so that alternative funds other than DPHE can be found.
- The training should focus more on the operation and maintenance of WASH technologies and there should be a guideline for the operation of these WASH technologies during normal periods.
- The manpower issue is severe. For Example: a cyclone is coming towards Khulna. The cyclone signals are given in Khulna but not in Kushtia as the cyclone is not yet close to the country. At that time it is necessary to bring some people from Kushtia there is an issue in the budget for the accommodation of that person. There has to be a guideline for the AE/SAEs to handle such situations.
- Also, area-specific technologies can be introduced so that if someone from Chittagong is transferred to Gaibandha he/she will have an idea of what technologies are used in Gaibandha.
- There should be a proper guideline for the safety measures of the workers during disasters and while handling the WASH technologies. Training for field-level officers is necessary for the safety of the officers. Because during a disaster someone might not know how to swim, someone might not know how to handle the equipment.
- Arrangement of Safety equipment for field-level officers is necessary during a disaster.
- There should be a format for emergency response planning so that when the EE is transferred and a new EE comes from a different district he would get to know how to

develop an emergency response plan. A Framework/guideline for the development of ERP.

- There should be a guideline for expired material listing and disposal plans. Sometimes after a disaster 50 tubewells are sent to a disaster-affected place but after the rehabilitation stage is over 30 tubewells get back and 20 become liability/expired material.

More feedbacks from the workshops are attached as [Annex 3](#)

6. Conclusion:

At the end of the training, a brief closing session was arranged. A.H.M. Khalequr Rahman, Superintending Engineer, Store Circle, DPHE was present in the closing session.



Figure 5: Participants Presenting their feedback in the workshop

ANNEX

Annex-1: Schedule of Workshop

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

Consultation Workshop for Developing Outline of the Emergency WASH Training Module for AE/SAE

Venue: DPHE Auditorium, Dhaka

Date: 30 March 2024

Program Schedule

Time	Session Contents
9.30 – 10.00	Registration and network building
10:00 – 10:30	Opening Session
10.30 – 11.00	Background and overview of the capacity building program
11.00 – 11.30	Review of the training module developed for management level
11.30 – 12.15	Group work on content development for AE/SAE and presentation
12.15 – 12.45	Open discussion
12.45 – 13.00	Closing Remarks and Certificate Distribution

Annex-2: List of Workshop Participants

SL.No.	Name of Participants	Designation
1.	Mohammad Anwar Eusuf	SE, DPHE, Planning Circle, Dhaka
2.	Ehete Shamul Russel Khan	SE, DPHE, Fusibility & Study Circle, Dhaka
3.	SM Shamim Ahmed	PD, DPHE, 10 Town Project, Dhaka
4.	Nazia Tasnim	DPD, DPHE, FREAP, Dhaka
5.	Farhana Hossain	EE, P & C Division, Dhaka
6.	Ruksana Parviin	EE, DPHE, Training Division, Dhaka
7.	Dilruba Farzana	DPD, DPHE, 10 Town Project, Dhaka
8.	Rebeka Ahsan	EE, DPHE, Store Division, Chattogram
9.	Md. Yasin Arafat	EE, DPHE, Store Division, Dhaka
10.	Md. Saihan Ali	EE, DPHE, Gaibandha
11.	Md. Rezwana Hossain	EE, DPHE, Norshindi
12.	Md. Ibne Mayaz Pramanik	EE, DPHE, Tangail
13.	Gazi Fatema Ferdous	EE, DPHE, Manikganj
14.	Md. Abul Kashem	EE, DPHE, Sunamganj
15.	Md. Mahbubur Rahman	EE, DPHE, Kishorganj
16.	Md. Moshir Rahman	EE, DPHE, Netrokona
17.	Md. Ashrafuzzaman	EE, DPHE, Patuakhali
18.	Jaynta Mallik	EE, DPHE, Bagerhat
19.	Md. Shohidul Islam	EE, DPHE, Satkhira
20.	Md. Muztafizur Rahman	AE, DPHE, Asasuni, Satkhira
21.	Md. Akmol Hossain	EE, DPHE, Khulna
22.	Amit Kumar Sarkar	EE, DPHE, Chapainawbganj
23.	Mohammad Nurul Kabir Bhuiyan	EE, DPHE, Natore
24.	Pankaj Kumar Saha	EE, DPHE, Rangpur
25.	Abul Manjur	AE, DPHE, Cox's Bazar
26.	Subrato Borua	AE, DPHE, Rangamati Sadar
27.	Md. Abdullah-al Mahmud	AE, DPHE, Dhakop, Khulna
28.	Md. Yousuf Ali	SAE, DPHE, Nachol, Chapainawbganj
29.	Abdur Razzak	AE, DPHE, Lama, Bandarban
30.	Md. Robin Hossain	SAE, DPHE, Store Circle, Dhaka

Annex-3: Feedback from the Participants

Session No.	Time of Session		Slide No.	Comments		General Comments
	Previous	Proposed		Need to be Removed	Need To be Added	
1	45m	45m		Remove the group work on the Consequences of Climate change or otherwise make it simple so that they can do it in a short time easily	×	×
				Merge the understanding of climate change and the impacts of Climate change and make it simple		
				×	Add Some Statistics on Climate Change from the perspective of Bangladesh so that they can understand the severity of it	
				×	Add something about the mean sea level describing it also add about rainfall	
				×	Add the Social and Economic Impact of Climate change for different regions. The impact	

					on the coastal areas is not equal to the impact of the Haor area.	
2	45m	1hr	x	Remove Examples of Disasters outside of Bangladesh	Add more examples of Disaster mentioning the areas of the disaster for Bangladesh	x
				x	Add an example of area-based disaster mapping	
				Repetition of Definition of Disaster	x	
				x	Add a group work Case study based on the previous disaster	
3	1hr		x	x	Here only roles are given, there should be a fixed responsibility of the stakeholders at different levels	<ul style="list-style-type: none"> • Previous data analysis strategies selection. • A guideline is necessary by which the AE/SAE will be able to make a preparedness plan all by themselves from the data of the previous year's disaster for the next year's disaster
			x	x	Specify the roles of local stakeholders – AE/SAE Volunteer, LGI, UNO, UP, Local Working force	

			x	x	Detailed work description on Emergency Preparedness. Proper Guideline on what to do to take the preparedness actions for different stakeholders	<ul style="list-style-type: none"> Stakeholders are not the only organization we need to address all the stakeholders from the SOD Definition of SOD and What the SOD is needs to be addressed SOD and Cluster is the most important thing for the AE/SAE Divide the SOD into 2 parts, Risk reduction functions, and emergency response duties, and make the participants read it. And do group work where they will answer what is in the SOD, what are the existing practices, what should be done and what is the challenger? This will let them do some brainstorming and let them say what are the things that are ordered in the SOD but that are not done in the real-life situation There should be a guideline for how to handle local administration. Sometimes in situations, local admins come to the DPHE officials
		Slides 64, 65, 67, 73, 76, 80,	Figures of the national level roles can be there but in short. Less focus	Change all the figures and make them for the local level More focus on the Local Level		
		Slide-68	x	<p>For Risk reduction, there should be</p> <p>Climate Resilient intervention of present water sources and sanitation facilities mentioned in the slide</p> <p>Identification of disaster-prone areas and selection of alternative WASH sources</p> <p>Local risk mapping and risk reduction planning</p>		

			Slide- 71		<p>The Roles and Responsibilities of DPHE is many more:</p> <ul style="list-style-type: none"> • Communicate and activate the local working force • Send Indent to HQ • Resource Mobilization to Local Level 	<p>and force them to change something to fix something. At that time there should be some guidelines so that they can handle the situation</p> <ul style="list-style-type: none"> • There should be a guideline so that alternative funds other than DPHE can be found
			Slides 87 to 90	Remove District Focal Group	Add Upazila Focal Agency	
4	1hr		Slide - 96		The code of Conduct in Disaster Response should address gender, age, and disability	<ul style="list-style-type: none"> • Sessions 3 and 4 should be 1 day • Group work on the Whole session
					In disaster Management Activities there should be an year wise activity chart disaster stage-wise for different regions	
					There should be a slide on the Water safety plan for disaster	
					Group work on Guidelines and Standard	

5	1hr	50m/3hr	Slide-152,160,166	x	Example/Photo/Videos need to be added	<ul style="list-style-type: none"> Focus on all types of participants, i.e. AE, SAE, Mechanics, Estimators Focus more on the Operation and maintenance of WASH Technologies Simple Detailing with Photos and Videos. Make it interesting with animation or else it will be boring Group works/ Practical Demonstrations are needed for more engagement of the participants Clear Pictures should be added with hyperlinks on the softcopy. The manpower issue is severe. For Example: a cyclone is coming towards Khulna. The cyclone signals are given in Khulna but not in Kushtia as the cyclone is not yet close to the country. At that time it is necessary to bring some people from Kushtia there is an issue in the budget for the accommodation
			Slide 153,178	Remove the slide, not necessary	x	
			Slide 161,162,163	Merge into one slide		
			Slide-165	There will be a change which is written in the handbook		
			Slide-201	Simplify the slide		
			Slide-210	Add a detailed slide that should be Specific to Disaster		
			Slide-165	x	GFS needs to be included	
			Slides 166, 178	Remove the Slide	x	
			Add drought-specific WASH technologies			

			x	x	x	<p>of that person. There has to be a guideline for the AE/SAEs to handle such situations.</p> <ul style="list-style-type: none"> • It would be better if we mention the technologies, then mention which disaster that technologies are used, and then say the operation and maintenance of that technology which is on the 6th session. So it will make both 5 and 6 sessions into one session. • Also, area-specific technologies can be introduced so that if someone from Chittagong is transferred to Gaibandha he/she will have an idea of what technologies are used in Gaibandha.
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6	1hr	1hr/2hr	Slides- 261 to 270	Remove these slides. Not needed	x	<ul style="list-style-type: none"> • There were two types of technologies explained here. Hard issues like Handpumps, MWTPs, etc. are a type. And Soft issues like tippy taps, sachet waters, bleaching power, etc. So it is confusing whether the DPHE officials need to address the soft issues and the hard issues. Because the soft issues are more for the general people and they have to operate it and maintain it. So these technologies should be divided for clear representation of the duties of a DPHE AE/SAE/Mechanics • This Session is the most important session for the AE/SAE/Mechanics. Because they are the field-level workers of DPHE. For this reason, This session needs more time. • There are 2 parts to the session, First, the technologies were mentioned then the operation and maintenance were discussed. It can be together. While mentioning the techs we can add the O&M.
			x	x	x	

						<p>Add worker safety guidelines. There should be a proper guideline for the safety measures of the workers during disasters and while handling the WASH techs.</p>
7	1hr45m	1hr45m	x	x	x	<ul style="list-style-type: none"> • Guidelines on the WASH Cluster Meeting should be given in the training • There should be a WASH Cluster Meeting at the Upazila Level • Need to have a format/Guideline for Meeting minutes for WASH Cluster Meeting • There are Service boxes on the DPHE Website like General Development Forum. We should have a Service box on Climate Change, emergency, and WASH, where there will be all the meeting minutes uploaded and, a manual of the training so that the

			x	x	<p>Group work should be done where a demo situation is placed and then the participants of a group are divided into different stakeholders, someone acts as DRRO, someone as DPHE EE, someone as Civil surgent officer, someone as DC, and someone as NGO rep. then let them develop an emergency response plan. It can be like a mock drill</p>	<p>Stakeholders of the WASH Cluster get all the materials</p> <ul style="list-style-type: none"> • There should be a WASH Cluster Meeting at the AE/SAE level where participants should be the representatives of LGI, UNO, and others. It is to be fixed later • There should be a guideline for how to report the data for further analysis • Guideline to publish data online • There should be a format for emergency response planning so that when the EE is transferred and a new EE comes from a different district he would get to know how to develop an emergency response plan <p>A Framework/guideline for the development of ERP</p> <ul style="list-style-type: none"> • Framework/guideline on the Development of Contingency plan • Guideline of expired material listing and disposal plan. Sometimes after a disaster 50 tubewells are sent to a disaster-affected place but after the rehabilitation stage is over 30
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						<p>tubewells get back and 20 become liability/expired material</p> <ul style="list-style-type: none">• Training for the field-level officers is necessary for the safety of the officers. Because during a disaster someone might not know how to swim, someone might not know how to handle the equipment.• Arrangement of Safety equipment for field-level officers is necessary during a disaster.
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