

Baseline Study for the Project- Climate Resilient WASH project in the vulnerable locations of Bangladesh

Final Report



Acknowledgement

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Acronyms

CC	Community Clinic
CG	Community Group
CSG	Community Support Group
CHCP	Chief Health Care Provider
DPHE	Directorate of Public Health Engineering
FGD	Focus Group Discussion
JMP	Joint Monitoring Programme
HA	Health Assistant
LGI	Local Government Institutions
LGED	Local Government Engineering Department
MHM	Menstrual Health Management
NGO	Non-Government Organization
O&M	Operation and Maintenance
PEO	Primary Education Officer
PTA	Parent Teacher Association
RWHS	Rainwater harvesting system
SMC	School Management Committee
SDG	Sustainable Development Goals
UDCC	Union Development Coordination Committee
UFPHO	Upazilla Family Planning and Health Officer
UHC	Upazila Health Complex
UP	Union Parishad
WAB	WaterAid Bangladesh
WASH	Water, Sanitation, and Hygiene
WLCC	Ward-Level Coordination Committee
WSP	Water Safety Plan



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Executive Summary

The project “Climate Resilient WASH in the most vulnerable locations of Bangladesh” is aimed to improve water and sanitation services and hygiene behavior in five sub-districts of Bangladesh suffering from acute WASH conditions related to climate change related vulnerabilities and impacts. The project will focus on capacity development and system strengthening across local government authorities, schools, healthcare facilities and community management with a view of improving the overall WASH scenario of the intervention regions.

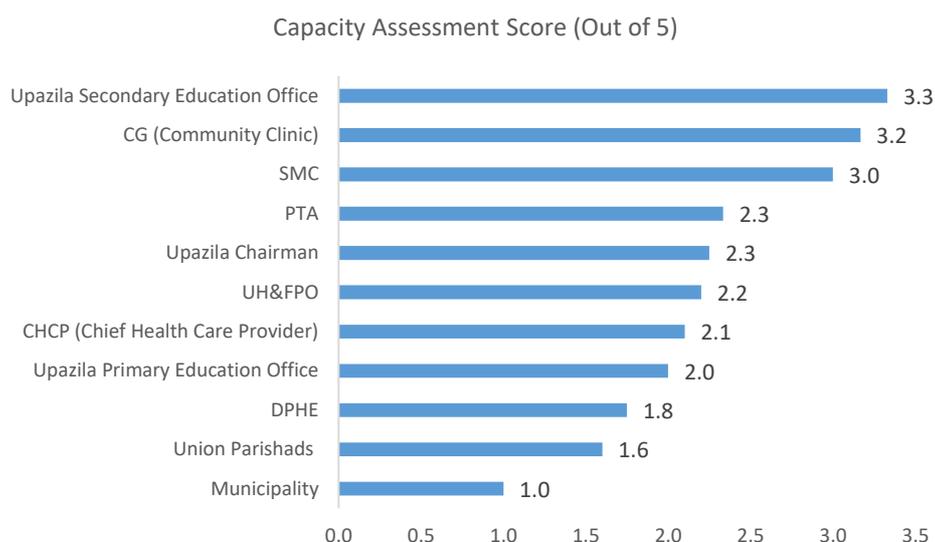
This study is conducted to assess the baseline condition for the above mentioned project by analyzing the present local WASH dynamics and obtaining necessary benchmark information for setting intervention priorities towards implementation.

Capacity Assessment of Stakeholders

The study involves broadly three (03) categories of stakeholders- Healthcare service providers (Community Groups, Chief Health Care Provider, Upazilla Health and Family Planning Officer), School (School Management Committee, Parent-Teacher-Association, Students, Parents, Upazilla Education Officer) and government (Upazilla Chairman, Union Parishad Chairman, Pourashova Mayor). Capacity assessment of these 11 types of stakeholders was done by using a Capacity Assessment checklist and scored accordingly.

Sl no.	Stakeholders	Region				
		Shyamnagar	Taherpur	Dacope	Paikgacha	Gangni
1	CG (Community Clinic)	N/A	3.6	2.3	N/A	3.6
2	CHCP (Chief Health Care Provider)	N/A	2	2	N/A	2.3
3	UH&FPO	1	2	3	2	3
4	Union Parishads	2	2.5	1	N/A	1
5	DPHE	1	2	1	N/A	3
6	Upazila Chairman	1	2	3	N/A	3
7	SMC	4	N/A	3.5	1.5	N/A
8	PTA	2	N/A	2	3	N/A
9	Upazila Primary Education Office	N/A	N/A	N/A	2	N/A
10	Upazila Secondary Education Office	2	N/A	2	4	N/A
11	Municipality	N/A	N/A	N/A	1	N/A

Of the different types of stakeholders, municipality (1.0), and Union Parishad (1.6) and DPHE (1.8), are found to have the lowest capacity scores. Paikgacha was the only municipality in the study and municipality mayor and ward representatives were interviewed to assess the capacity score according to the capacity assessment matrix. The detail findings of the capacity assessment for the municipality is given in page 32.



Community Groups (CG) in the Community Clinics (CC) were found to be activated and held monthly meetings in all of the five intervention regions. However, WASH related issues were not found in the meeting of any of the community clinics, or to be discussed during patient counselling sessions. In the community clinics, no personnel for the maintenance and management was allocated (SOURCE: KII of CHCP).

Current Capacity of Planning Effective Delivery of WASH services

In terms of effective planning of WASH services few key insights regarding current gaps were found such as the planning stage not including any climate resilience component (how to preserve or protect the water facility or latrine from floods or excessive rain or lack of water during summer season etc.), no inclusion of any O&M fund in the financial budget for the WASH facility and no inclusion of representatives from marginalized community in the planning process.

Current Status of WASH Service Delivery Models

The current service delivery models were not adequate to address the issue regarding challenge areas (climate resilience, water security etc.). It was found that 25.1% of overall water facilities suffered from service disruption in different times of the year. In the schools, 31% of boys and 34% of girls latrines were dysfunctional.

Current Status of Claiming Right to WASH Services

From the survey it has found that 96% of respondent have not submitted any type of request regarding any new WASH facility or any type of complaint regarding dysfunctional WASH facilities in the past 6 months.

Current Status of Community Participation in WASH-related Services

Community Participation in WASH-related activities were also found to be 13.5% among the household respondents. Except participating in meetings (35%) and expressing opinions (12.1%), no other significant action or follow-up activity was not done by the community households.

They were no inclusion of representatives from marginalized community in the planning of WASH facilities. Pro-poor participation was mentioned in some areas such as the government ward committees in municipality of Paikgacha, but, overall participation from ethnic, minority, disabled, sex-worker or any other marginalized group was not found in the planning of WASH facilities in both sub-district and community level.

Media was not found to be engaged with promotion of WASH activities, and evidence of clear-roles for delivery, management and financing of WASH related activities were found to be insufficient in healthcare facilities and schools.

In terms of a coordination meeting, only DPHE was found to have arrange monthly meetings between WASH actors in sub-district level, but district or national level coordination meeting with participation from the community was found to be absent currently.

Current WASH Status in Schools

<i>Category</i>	<i>JMP Ladder</i>	<i>Definition</i>	<i>Percentage</i>
Access to Water	Advanced	Includes elements such as water quality, water quantity, and water point accessibility for all users.	0%
	Basic	Includes improved and functional water sources. Improved source includes (piped, protected well/spring, rainwater, packaged/delivered water),	81%
	Limited	Includes improved source but not functional at the time of survey.	19%
	No Service	Includes water from unimproved sources (unprotected well/spring, surface water), or no water source.	0%
Sanitation	Advanced	To be defined at national level	0%
	Basic	Improved facilities, which are single-sex and usable at the school	27%
	Limited	Improved facilities (flush/pour-flush toilets, pit latrine with slab, composting toilet), but not single-sex or not usable at time of survey	70%
	No Service	No toilets or latrines, or unimproved facilities (pit latrines without a slab or platform, hanging latrines, bucket latrines)	3%
Hygiene	Advanced	Includes availability of handwashing facilities available at critical times (before eating and after using the toilet), if they are accessible to all users, and if menstrual hygiene education and products are provided.	0%
	Basic	Handwashing facilities, which have water and soap available	37%
	Limited	Handwashing facilities with water, but no soap	23%
	No Service	No handwashing facilities at the school or handwashing facilities with no water	40%

Schema: WASH scenario according to JMP definition

62% of sample schools (16 out of 26) did not have any separate latrine for female students. None of the sample schools had any additional WASH facility that were disabled children friendly, and according to the school observations, 77% of sample schools (23 out of 30) did not have latrines suitable for disabled children.

Current WASH Status in Healthcare facilities

Category	JMP Ladder	Definition	Percentage
Access to Water	Advanced	Includes elements such as water quality, water quantity, and water point accessibility for all users.	0%
	Basic	Includes improved and functional water sources.	68%
	Limited	Includes improved source but not functional at the time of survey.	32%
	No Service	Includes water from unimproved sources.	0%
Sanitation	Advanced	An advanced service level includes toilet cleanliness, toilet lighting, or patients per toilet ratios.	0%
	Basic	Improved facilities are usable, separated for patients and staff, separated for women and providing menstrual hygiene facilities and meeting the needs of people with limited mobility	0%
	Limited	Improved sanitation facilities are present by are not usable, or do not meet the needs of specific groups (women, people with limited mobility, staff)	100%
	No Service	Pit latrines without a slab or platform, hanging latrines, or there are no toilets or latrines at the facility	0%
Hygiene	Advanced	An advanced level includes availability of hand hygiene promotional materials near hand hygiene stations and/or the patient waiting area, or if hand hygiene facilities are accessible to all staff and patients.	0%
	Basic	Hand hygiene materials, either a basin with water and soap or alcohol hand rub, are available at points of care and toilets	16%
	Limited	Hand hygiene station at either points of care or toilets, but not both	74%
	No Service	Hand hygiene stations are absent; or present but with no soap or water	11%

Schema: WASH scenario according to JMP definition

68% of sample healthcare facilities were found to have basic water facilities, while 32% had limited water facilities. No health center had advanced facilities, advance facility include normative elements such as water quality and water quantity. Data were not available to fulfill these criteria. In terms of access to improved sanitation, all the sample community clinics had limited (100%) facilities. Under advanced service level, elements might include toilet cleanliness, toilet lighting, or patients per toilet ratios. 74% of the sample health facilities had limited hygiene facility. An advanced level for hygiene might include availability of hand hygiene promotional materials near hand hygiene stations and/or the patient waiting area, or if hand hygiene facilities are accessible to all staff and patients. A list of current condition of WASH facilities in all sample healthcare facilities can be found in annex 2 of this report.

WASH Scenario in the Intervention regions

Access to Water

As per new JMP definition, overall 43% of the households have access to improved water sources that are located on premise while 46% basic and 10% have limited access. Except Paikgacha and Shyamnagar, no other households from other regions use surface water as their main drinking water source. Prevalence of lowest amount of improved and on premise facilities are in Dacope (10%), whereas highest amount of limited facilities are in Shyamnagar (39%). Highest number of basic facilities are in Dacope (84%). **It should be noted that according to JMP standards a water facility can be labeled as safely managed only when it fulfills three criteria- type of water source (improved), if it is located on premise, and whether the water is free from any fecal matter or chemical compounds.** Since water quality tests were not done due to time and resource constraints, **Improved sources that are located on premise** category is used throughout the report instead of **safely managed** category. More detail about the water source can be found at chapter 12.

JMP Ladders	Parameters	Dacope	Gangi	Paikgacha	Shyamnagar	Taherpur	Overall
Improved sources that are located on premise and takes less than 30 minutes for collection of water	Improved source	10%	56%	80%	15%	55%	43%
	On premises	10%	56%	80%	15%	55%	
	Water quality tested	No data available					
Basic	Improved source	84%	42%	15%	45%	45%	46%
	Collection time is not more than 30 minutes for a round trip (including queuing)	84%	42%	15%	45%	45%	
Limited	Improved source	6%	2%	3%	39%	0%	10%
	Collection time is more than 30 minutes for a round trip (including queuing)	6%	2%	3%	39%	0%	
Unimproved	Unprotected dug well/spring	0%	0%	0%	0%	0%	0%
Surface water	Direct from surface	0%	0%	2%	1%	0%	1%

Table: Access to drinking water according to JMP definition

Access to Sanitation

According to new JMP scale 44% of the households use safely managed sanitation facilities. While 25% have access to basic facilities and 16% have access to limited facilities, amount of unimproved facilities stands at 6% and, 9% of the households still do not have any latrine facilities. In terms of open defecation, Daope is highest (18%) followed by Taherpur (14%). More detail about the findings of sanitation facilities can be found at chapter 12.

As per JMP definition, the term “**excreta are safely disposed**” means the excreta produced should either be treated or disposed in situ, stored temporarily and then emptied and transported to treatment off-site, or transported through a sewer with wastewater and then treated off-site.

For this baseline study, household latrines that have improved facilities and excreta are disposed through sewerage system, pit latrines which are cleaned and excreta disposed and treated offsite (but not disposed into water bodies) on a regular basis are considered facilities with safe disposal of excreta.

JMP Ladders	Parameters	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Overall
Safely managed	Improved facilities	57%	77%	24%	36%	25%	44%
	Not shared	57%	77%	24%	36%	25%	
	Excreta are safely disposed	57%	77%	24%	36%	25%	
Basic	Improved facilities	4%	17%	56%	38%	11%	25%
	Not shared	4%	17%	56%	38%	11%	
Limited	Improved facilities	19%	6%	12%	15%	30%	16%
	Shared	19%	6%	12%	15%	30%	
Unimproved	Pit latrine without slab or platform/hanging /bucket latrines	1%	0%	8%	0%	19%	6%
Open defecation	Open disposal of human excreta	18%	0%	0%	11%	14%	9%

Table: Sanitation according to JMP definition

Access to Hygiene

According to JMP, hygiene is multi-faceted and can comprise many behaviors, including handwashing, menstrual hygiene and food hygiene. But for this study the presence of a handwashing facility with soap and water on premises has been identified as the priority indicator for hygiene facility. As per new JMP standard, 47% of the households have basic hygiene facilities, while 9% have limited and, rest 44% of households do not have access to any hygiene facility. Households from Paikgacha region have the highest percentage (65%) of not having any hygiene facility. Households which use ash/sand instead of soap were considered as limited facility. More detail about the findings of hygiene status can be found at chapter 12.

JMP Ladder	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Overall
Basic ¹	31%	44%	29%	66%	64%	47%
Limited ²	18%	2%	6%	13%	13%	10%
No facility ³	51%	55%	65%	21%	23%	43%

Table: Hygiene according to JMP definition

¹ As per JMP definition the availability of handwashing facility on premises with soap and water is considered as “**basic**” hygiene facility.

² As per JMP definition the availability of a handwashing facility on premises without soap and water is considered as “**limited**” hygiene facility.

³ As per JMP definition, when no handwashing facility is found on premises it is considered as “**no facility**”

1. Introduction

WaterAid Bangladesh (WAB), an international non-profit, has been working to improve safe water and sanitation access including hygiene behavior of the poor and marginalized population in Bangladesh. For last several years WAB, along with its partner NGOs, has successfully developed and implemented model approaches for providing sustainable and disaster resilient community managed WASH services in salinity-prone coastal belt, haor and flood-prone chars keeping an eye over climate change implications.

To this end, WAB has recently developed a three-year long project titled “Climate Resilient WASH project in the most vulnerable locations of Bangladesh” in five locations. The project is funded by HSBC, a leading international bank, as part of its CSR fund.

The project aims to streamline functioning of mandated water and sanitation committees at the sub-district level i.e. Union parishad, Upazila, and Pauroshova level. This would be enabled through capacitating duty bearers and service providers on appropriate delivery standards and mechanisms. The project will also facilitate School Management Committees (SMC), Parent Teacher Associations (PTA), and local educational departments to create an enabling environment for the students in the educational institutions, as well as Community Group (CG) and Community Support Group (CSG) to enhance health care services building capacity of CG/CSG and health workforce in Community Clinics (CC).

The stakeholders of the project include:

- Health service provider
- Health facility management/ governance structure
- Secondary school students
- Parents
- School management committees
- Health department representatives
- Parents and school management committee
- Government representatives at Union Parishad (UP), Pauroshova and Upazilla level

The intervention regions for the program include:

- Taherpur (Sunamgonj),
- Paikgacha (Khulna),
- Gangni (Meherpur),
- Dacope (Khulna) and
- Shyamnagar (Satkhira).

Key Objectives

The project aims to promote structural changes within the WASH ecosystem, by engaging different stakeholders to make adoptive changes. The major objectives of the project are as follows:

- To evaluate capacity of local institutions to deliver and manage WASH services for all, and address challenges of hard to reach climate resilience, water security and urbanization.
- To assess Situation mechanisms for citizens to understand their entitlements/responsibilities and hold WASH service providers and duty bearers to account.

- To assess Policy, institutional and fiscal arrangements at national and/or sub-national levels to deliver and sustain WASH services for all by 2030.
- To evaluate cross-sector integration improves access to WASH and hygiene promotion in schools and healthcare facilities.

Background

Under the ministry of Local Government, Rural Development and Cooperatives (MoLGRD&C), multiple government bodies are responsible for providing and managing WASH related service to the general population.

The people from the rural community have a right for safe water supply and sanitation and can request for such facilities to the Union Parishad mandated by the National Policy for Safe Water Supply and Sanitation (1998). Similarly, urban community can claim their right to safe water and sanitation services through Pourashova or City Corporation.

According to the National Water Management plan (2010), DPHE is responsible for WASH facility implementation and maintenance in rural area whereas in urban regions, the duty is carried out by Pourashova or City Corporation. The citizen charter for DPHE also includes the installation of water and sanitation facilities and the government officer responsible for the supervision of these facilities in sub-district level is assistant engineer (Upazilla level).

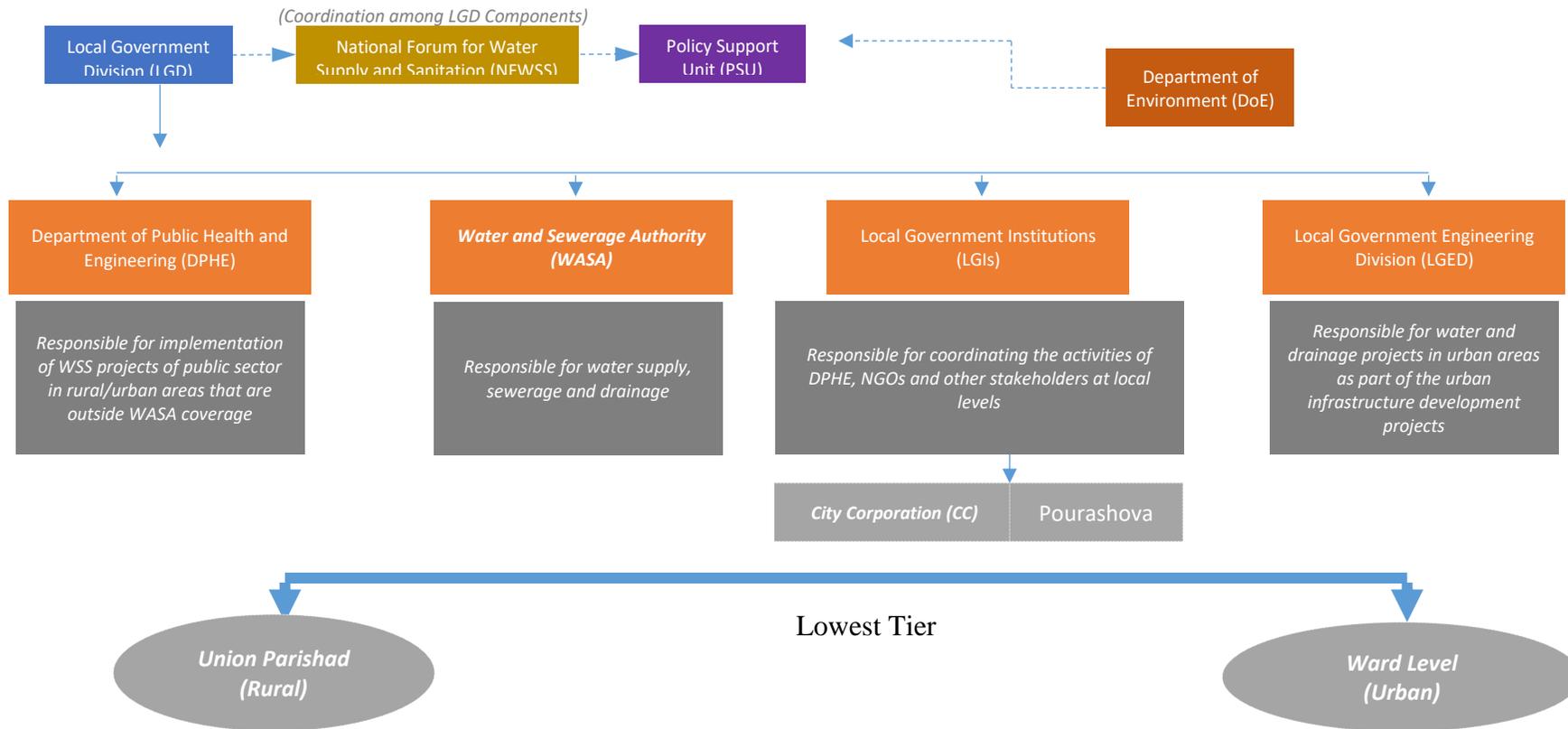
The National Water Management Plan also includes that LGD(Local Government Department) is responsible (the lead organization for) local government need assessment for water management (ID 001), regulatory body for water supply and sanitation sector (ID02), and DPHE is responsible for maintenance of rural water supply and distribution system (TR004) and Rural Sanitation (TR006).¹⁴ In sub-district level, respective Local Government body is the Upazilla and Union Parishad in rural areas and Pourashova and Ward in the urban areas.

The overview of the government structure and the actors responsible for WASH related activities, including the national, district and sub-district level administrative bodies with their key functions is given in the next page:

⁴ (Ministry of Water Resources, 2001)



All WASH institutions are under the Ministry of Local Government, Rural Dev. and Cooperatives (MoLGRD&C)



2. Methodology

The study started with systematic secondary information collection namely literature review to identify relevant and measurable parameters to measure the institutional capacity of relevant stakeholders in the study. For primary data, study will follow a mix method approach, deploying both quantitative survey and qualitative Focus Groups Discussions (FGD), In-depth Interviews (IDI), and Key Informant Interviews (KII). A 'Capacity Assessment Matrix' was developed to measure the institutional capacity of service provider institutions and government institutions and the qualitative part of the study was utilized to obtain necessary information to conduct this institutional capacity assessment using the defined matrix. The quantitative part of the study measured the distribution of household responses in the samples across the sample regions to project the SDG-defined WASH indicators for the overall population of those regions. A validation meeting was carried out after the insights were collected to explore and justify the findings of the research.

Qualitative Study

The qualitative segment included a series of Key informant interviews (KIIs), FGDs, in-depth interviews and site inspections of education and health institutions. The KII interviews included different stakeholders directly involved with delivering/facilitating WASH facilities. The overall qualitative part of the study is given below:

Stakeholders	Taherpur	Gangni	Paikgacha	Dacope	Shyamnagar	Total KIIs
Health Service Providers	3 KIIs	3 KIIs		3 KIIs		9 KIIs
Health Facility Management	3 KIIs	3 KIIs		3 KIIs		9 KIIs
Secondary School Students	1 FGDs and 3 In-depth interview	5 FGDs and 15 In-depth interviews				
Parents			2 In-depth interviews	2 In-depth interviews	2 In-depth interviews	6 In-depth interviews
School Management Committee	2 KIIs	10 KIIs				
Health Department Representatives	1 KII	5 KIIs				
Government Representatives*	1 KII	1 KII		1 KII	1 KII	4 KIIs
GOVERNMENT Stakeholders-2**	3 KIIs	3 KIIs	1 KII (MUNICIPALTY)	3 KIIs	3 KIIs	13 KIIs
GOVERNMENT Stakeholders-3***			2 KIIs	1 KII	1 KII	
School (Site Visit)	6 Schools	30 Schools				
Health Facility (Site Visit)	3 Health Facility	8 Health Facility	2 Health Facility	3 Health Facility	3 Health Facility	20 Health Facility
Household	1 FGD and 1 In-depth interviews	5 FGD and 5 In-depth interviews				

* Government representative includes DHPE officer

** Government representative includes Upazilla Parishad Chairman and two Union Parishad Chairman

*** Government representative includes primary and secondary education officer

Healthcare facilities included Community Clinics, Upazila Healthcare Complex, and Union Healthcare Complex

In total, 40 KIIs will be conducted, as well as, 40 in-depth interviews, 10 FGDs, 30 school visits and 20 visits of medical centers.



Schema: Study regions for the baseline

Quantitative Study

The quantitative study included a survey of potential beneficiary households directly impacted by the facilities provided by the government and other service based infrastructure e.g. Schools and medical facilities. Households were randomly selected from five intervention area, by selecting at least two different areas, such as unions or wards in the sub-district level. The selected households were selected within close distance of schools and medical facilities which have been selected for site visits.

Sampling Plan for Quantitative Study

The survey was conducted in five intervention areas. The sample calculation has been derived using the sample calculation formula using 93% confidence level and 5% error level.

The sample size is calculate assuming normal distribution and in terms of the confidence interval and margin of error selected, the sample size 'n' and margin of error 'E' are given by:

$$\begin{aligned}
 x &= Z(c/100)2r(100-r) \\
 n &= N x / ((N-1)E^2 + x) \\
 E &= \text{Sqrt}[(N - n)x/n(N-1)]
 \end{aligned}$$

Where N is the population size, r is the fraction of responses that is needed, and Z(c/100) is the critical value for the confidence level c. Z is the z-value corresponding to the confidence interval.

Population	3,884,560
Confidence Level	93%
Error Level	5%
Sample Approx.	324
Final Sample	330

* According to BBS Census 2011

The sample was equally divided in three of the major areas:

Gangni	66
Paikgacha	66
Shymnagar	66
Dacope	66
Taherpur	66
Total	330

The household survey samples were chosen through cluster sampling method from the unions of the selected upazillas or wards (in Paikgacha municipality). The unions or wards nearby the institutions where capacity assessment was done (community clinics, educational institutions) were selected and households were selected from those locations in a random manner. A breakdown of the unions and wards where the survey was done can be found in the Annex.

Quality Control Measures

To maintain fieldwork quality Physical crosschecks and Telephonic crosschecks are done. Overall, 10% physical crosschecks & 20% Telephonic crosschecks are done to assure the quality of the collected responses. A senior analyst and a senior consultant were present at the field levels to conduct the qualitative study and provided supervision of the field level execution of the quantitative surveys.

Data Analysis and Findings

Once quantitative data was obtained, individual responses were cleaned and entered into the spreadsheet using MS Excel as well as checked for consistency and accuracy. Data set was transposed into SPSS format and analyzed thereby. A series of tables and graphs was produced using the collected responses to identify key insights.

For qualitative data, the collected responses were analyzed through content analysis and key responses that were frequently repeated, were identified and coded. The 'Capacity Assessment Matrix' was completed using these

qualitative data to give a score to assess the institutional capacity of different types of institutions- schools, healthcare centers, and government institutions i.e. the Union Parishad and Upazilla Parishad.

The Institutional Stakeholder Capacity Assessment Matrix

In order to fulfill **Objective-1: To evaluate capacity of institutions to provide management, financial and technical support to service users**, an 'Institutional Capacity Assessment Matrix' was prepared and provided by WaterAid.

The components of the matrix and scoring of different components is given in **Annex 1**. Below is the different regions where stakeholders were assessed through the capacity assessment matrix and their overall capacity rated.

CAPACITY ASSESSMENT MATRIX

SL No	Stakeholders	Applicable Regions				
		Gangni (Meherpur)	Paikgacha (Khulna)	Dacope (Khulna)	Shyamnagar (Satkhira)	Taherpur (Sunamgonj)
1	CG (Community Clinic)	√		√		√
2	CHCP (Community Clinic)	√		√		√
3	UH&FPO	√	√	√	√	√
4	Union Parishads (UDCC)	√		√	√	√
5	DPHE	√		√	√	√
6	Upazila Chairman	√		√	√	√
7	SMC		√	√	√	
8	PTA		√	√	√	
9	Upazila Primary Education Office		√			
10	Upazila Secondary Education Office		√	√	√	
11	Municipality		√			

3. Findings According to Objectives

Objective 1: To assess current capacity of local institutions to deliver and manage WASH services for all, and address challenges of climate resilience, water security and urbanization

i. Current capacity of institutions to provide management, financial and technical support to service users

Based on the capacity assessment matrix provided by WaterAid, 11 types of stakeholder capacity were assessed in terms of providing management, financial and technical support. Combined score of the different stakeholders are given below:

Summary of Capacity Assessment Matrix

Sl no.	Stakeholders	Region				
		Shyamnagar	Taherpur	Dacope	Paikgacha	Gangni
1	CG (Community Clinic)	N/A	3.6	2.3	N/A	3.6
2	CHCP (Chief Health Care Provider)	N/A	2	2	N/A	2.3
3	UH&FPO	1	2	3	2	3
4	Union Parishads	2	2.5	1	N/A	1
5	DPHE	1	2	1	N/A	3
6	Upazila Chairman	1	2	3	N/A	3
7	SMC	4	N/A	3.5	1.5	N/A
8	PTA	2	N/A	2	3	N/A
9	Upazila Primary Education Office	N/A	N/A	N/A	2	N/A
10	Upazila Secondary Education Office	2	N/A	2	4	N/A
11	Municipality	N/A	N/A	N/A	1	N/A

TABLE 1.1: OVERALL CAPACITY SCORE OF STAKEHOLDERS

1. Community Group

Community Groups (CG) are the management bodies of Community Clinics (CC). Community clinics are established with a mission to extend Primary Healthcare to rural people of Bangladesh. They are set up through public-private partnership, i.e. the community donates the land and government provides the other inputs such as construction, logistics, the medicine, service providers etc. The Community Groups (CGs) are formed by participation from both the community and government. The group is headed by the Union Parishad (UP) members of the respective localities, and consist of 13-17 members with at least one-third being women and adolescent girls or boys. The land donors are made life members and senior vice president of the respective CGs. A female member is made president or vice president of every CG. Community Health Care Promoters (CHCP) are made member secretaries of the CGs.

Three community groups were assessed in regions of Taherpur, Gangni and Dacope. Average Scores for the community clinics show that the community clinics in Taherpur and Gangni have the higher capacity (3.6 out of 5) while community clinics in Dacope have the lowest capacity score (2.3 out of 5).

Region	Overall Average (Out of 5)	Community Clinic 1	Community Clinic 2	Community Clinic 3
Taherpur	3.6	4	4	3
Gangni	3.6	4	3	4
Dacope	2.7	2	3	2

Evidence was found that CG was activated in all regions, and CG meetings are conducted on monthly basis. However, after checking the meeting minutes, it was found that WASH are not discussed in these monthly meetings (none of the CG meeting minutes had mention of WASH related discussion). Topics that are discussed included supervision of medicine inventory, regular meeting on community funds etc. However, interview with UHFPO revealed that Health assistants are often tasked with arranging discussion sessions on hygiene related activities (what type of hygiene maintenance should the patients and patient attendants follow), but these hygiene sessions were found to be limited to specific events such as observation of hand washing day involving sessions on hand-washing and such. No regular meeting or discussion of water, sanitation facilities or hygiene sessions were found in the meeting minutes. Ability to mobilize resources was varied in CG groups, with some CG groups installing latrines and tube wells, but majority of water facilities were found to be dysfunctional due to lack of an O&M fund (prominent problem in all regions) and latrine facilities in regions such as Taherpur and Dacope were found to be dysfunctional during rainy seasons due to flood.⁵

	Criteria Met
	Criteria Not Met

Performance Criteria	Gangni			Dacope			Taherpur		
	CG 1	CG 2	CG 3	CG 1	CG 2	CG 3	CG 1	CG 2	CG 3
1. CG activated (Evidence found to have at least one meeting).									
2. President of the CG groups are aware on the WASH rights and can able to link the WASH issue with health and nutrition.									
3. CG Meeting conducted monthly basis (Check last six months).									
4. Evidence (meeting minutes) found that WASH related issues are discussed and found in the meeting minutes of at least three meetings									
5. CG able to mobilize resource for improvement of WASH situation of the health center (in last year)									

⁵ In Taherpur, groundwork is being already continued since 2017 by WaterAid. It has implication on activation and routine meetings of CGs.

2. Chief Health Care Promoters (CHCP)

The CHCP work as member secretaries of the community groups. They are government appointed employees who are given basic healthcare training. UHFPO monitor the work of Community clinics through Health Assistant (HA) and Family Planning Assistant.

Average score for overall CHCP was found to be 3.

Region	Overall Average Score (Out of 5)	Chief Health Care Promoters (CHCP) 1	Chief Health Care Promoters (CHCP) 2	Chief Health Care Promoters (CHCP) 3
Taherpur	2.0	2	2	2
Gangni	2.3	3	2	3
Dacope	2.0	2	2	2

In all community clinics it was found that, either Health Assistant or Family Planning Assistant do regular field visits to check the condition of the community clinics (at least once a month was found in all community clinics, and in some clinics weekly visit was seen in the attendance sheets). Except specific events such as hand-washing day, or in arranged hygiene promotion activities initiated by NGOs (such as intervention areas where NGOs such as BRAC, ASA are working), WASH issues are not discussed by CHCP during counselling. Typically, the medical equipment in Community Clinics are preserved carefully such as the stethoscope, or weight machine. Patient register is well-maintained in all the community clinics and medicine inventory is also regularly updated. Since community clinics have lack of sufficient medicine and submit their medicine use records to the Upazilla Health Complex and request for additional medicine if needed, the medicine records kept up to date. In terms of point 5, dedicated human resource for WASH, none of the community clinics have any additional human resource or fund for O&M purposes. Only one CHCP of a Community Clinic in Taherpur was found to have spent her own salary to keep a sweeper for cleaning the community clinic. In all other community clinics there is no personnel for maintenance of WASH i.e. water facility or latrines or hygiene materials. When a community clinic has a dysfunctional water facility or latrines, the problem is communicated to UHFPO of Upazilla Health Complex, and they transmit it to DPHE of that region. The whole process suffers from excessive delay and the WASH facilities remain dysfunctional for days.

	Criteria Met
	Criteria Not Met

Performance Criteria <i>Green= Met</i> <i>Red= Not Met</i>	Gangni			Dacope			Taherpur		
	CHCP 1	CHCP 2	CHCP 3	CHCP 1	CHCP 2	CHCP 3	CHCP 1	CHCP 2	CHCP 3
1. Community Health Care Provider (CHCP), Family Planning Assistant and Health Assistant on board at Community Clinics (Check their attendants sheet)									
2. WASH issues are discussed with the service recipient by CHCP / HA during counselling (Observe at least 2 cases)									
3. Medical materials and personnel are kept clean (hygienic manner) and CHCP maintains hygiene during seeing a patient (Washes hands before/afterward)									

4. Patient register and medicine inventory is up to date										
5. Dedicated human resource (or clear role clarity) for the O&M of the WASH facilities										

3. Upazilla Health and Family Planning Officer (UHFPO)

The UHFPO is the head of the Upazilla Health complex. He or she is a doctor by profession and the second most senior government representative (first is the Chief surgeon) in Upazilla-level health management. He is tasked with the supervision of the Upazilla Health Complex, the Union Parishad Health Center or Complex, and the community clinics in the purview of a specific Upazilla.

Capacity assessment based on the matrix revealed that highest capacity is in Dacope and Gangni (3 out of 5), followed by Taherpur and Paikgacha (2 out of 5), and lowest score is found in Shyamnagar (1 out of 5).

Stakeholders	Score by Region				
	<i>Shyamnagar</i>	<i>Taherpur</i>	<i>Dacope</i>	<i>Paikgacha</i>	<i>Gangni</i>
UHFPO	1	2	3	2	3

3 out of 5 UHFPOs found active with the CG and could tell about the WASH rights of people. Out of the 9 CG that were observed, it was found that 5 CC (2 in Gangni, 2 in Dacope, 1 in Taherpur), had received some type of resource mobilization activities (such as training facilities, funding help). Comments from other community clinics was that the UHFPO did not visit in the last three years (Community Clinic in Gangni), appeared in programs but did not provide any additional help (Community Clinic in Taherpur), including help with their dysfunctional water facility (Community Clinic in Dacope, Taherpur) etc.

When UHFPOs were asked in interviews regarding their support for the CG groups for any resource mobilization activity targeted for WASH, the general opinion was that WASH facilities of Community Clinics are the provision of DPHE. The UHFPO receive complaints for community clinics regarding dysfunctional WASH facilities and they send it to DPHE. It should be noted that currently there is no funding by the health ministry allocated for O&M of WASH facilities in community clinics or even in the individual Upazilla Healthcare Complex. The O&M of WASH facilities are at best maintained by a community-raised fund.

It is concluded that lack of coordination between LGI actors (Upazilla Parishad, Union Parishad) and Health Ministry actors (Upazilla Health Complex, Union Health Center, Community Clinic) and LGED (in this case, DPHE) results in a lack of proper management of WASH issues and delay in the process of repairing of WASH facilities by DPHE. The budget for installation, repair, and maintenance of WASH facilities also suffers from bureaucratic hassle and delay.

	Criteria Met
	Criteria Not Met

	Performance Criteria	<i>Shyamnagar</i>	<i>Taherpur</i>	<i>Dacope</i>	<i>Paikgacha</i>	<i>Gangni</i>
	1. Dedicated UH&FPO is on board and aware on the key elements of the WASH rights					
	2. Monthly meeting (involving the CHCPs) conducted. Evidence found that WASH issues of the CCs are discussed during the meeting (check meeting minutes)					



3. Evidence found that the UH&FPO conducted physical visits to at least 02 community clinics in last three months. (Check guest comment or any other available report as practice by UH&FPO)					
4. Evidence found that WASH aspects of the community clinic was checked / investigated in any physical visit conducted by UH&FPO in last three month (Check guest comment or any other available report as practice by UH&FPO)					
5. Evidence found that UH&FPO support the CG groups for any of the resource mobilisation activity that targeted for WASH (Discuss with CG groups)					

4. Union Parishads (UP)

Two union parishads chairmen from each of the Upazillas (all four except Paikgacha, since municipality was assessed for Paikgacha) were interviewed. The following score was found,

	Overall	Taherpur	Gangni	Dacope	Shyamnagar
Union Parishad Chairman 1	1.6	2	2	1	1
Union Parishad Chairman 2		2	3	1	1

The data shows that capacity of UP in Shyamnagar was found to be lowest (average 1 out of 5), while Capacity in Gangni was highest (average 2.5 out of 5).

It was found that more than 50% of Union Parishads surveyed (5 out of 8) had had a working UDCC (Union Development Coordination Committee). The activated UDCC are found to conduct monthly meetings regularly.

There was Disaster Management Committee in Dacope, Shyamnagar (formed after the Hurricane Sidor in 2009), Taherpur (which suffers from regular floods), while no committee was found to be formed in Gangni. However, no WASH committees were found in any of the regions in Union Parishad level.

There is ward-shova and open budget discussion held in all unions (as part of government requirement). These ward-shova's have participation from pro-poor and women representatives, in accordance with government format. However other marginalized people such as disabled, ethnic, minority, sex-worker etc. do not participate in these open budget discussions. Although local government representatives such as Upazilla Chairman and Union Parishad chairman in the study regions had claimed that minority population were part of the ward shova meetings and development decisions are made for them (such as building roads, or digging ponds etc.), in reality no such evidence was found in the focus group discussions or household surveys.

In terms of budget utilization of WASH by Union Parishad, it was found that budget has increased by at least 10% in 5 of the 8 sample unions. However, WASH budget is only limited to installation of tube wells, or latrines with ring slabs. There is no O&M budget for existing WASH facilities and no budget for any hygiene promotional activity.

	Criteria Met
	Criteria Not Met

Performance Criteria	Taherpur		Gangni		Dacope		Shyamnagar	
	South Borodol Union	Taherpur Sadar Union	Saharbat Union	Dhankhola Union	Dacope Union Parishad	Bajua Union	1 No. Vurulia Union	3 No. Shyamnagar Union
1. UDCC formed / activated and at least 50% of the group members know about their engagement in the group.								
2. Coordination meeting (UDCC) conducted in every month (check last three month). Discussion and decisions are found documented.								
3. Standing committee for WASH and Disaster (UDMC) are formed. Evidence found at least one meeting conducted in last three month.								
4. Ward-Shova and open budget discussion conducted in last financial year where there was participation from poor and marginalised people								
5. Budget utilisation for WASH increases at least 10%								

5. Department of Public Health Engineering (DPHE)

One DPHE from each of the Upazillas (all four except Paikgacha, since municipality was assessed for Paikgacha) were interviewed. The following scores were found,

Stakeholder	Total Average Score	Taherpur	Gangni	Dacope	Shyamnagar
DPHE	1.75	2	3	1	1

The data shows that capacity of Shyamnagar and Dacope were found to be lowest (both got 1 out of 5), while capacity in Gangni was highest (3 out of 5).

All the regions suffered from lack of sufficient DPHE staff. Currently DPHE office in each region, contain water quality test service but this includes testing arsenic only. These water quality tests are not done by DPHE unless under special condition such as in Gangni, there was water quality test done in the DPHE office by the NGO Save the Children.

In terms of service provided by DPHE, UP chairmen in Taherpur and Gangni were satisfied (the DPHE would respond to their requests as often they could), and in Shyamnagar and Dacope they were unsatisfied.

In all the study regions, DPHE officials were not found with functionality monitoring of the water and sanitation facilities of community clinics. When DPHE of these respective regions were asked regarding this, they identified lack of manpower and time as the two main challenges. When a WASH facility faces problem in community clinics, the complaint is first sent to Upazilla Health Complex (to the UHFPO) and they send it to DPHE.

However, it was found that DPHE responds to requests raised by service recipients but, the service process is slow due to bureaucratic process of the system and the lack of adequate human resources. The average community clinic or primary school or Upazilla Parishad health complex does not receive quick, quality service from DPHE.

	Criteria Met
	Criteria Not Met

	Performance Criteria	Shyamnagar	Taherpur	Dacope	Gangni
	1. 50% of total staff (provisioned in the particular upazila) is on board				
	2. Evidence found that Water Quality test conducted in two months. Any follow up Initiative on the basis of WQ result				
	3. At least two UP chairman considered satisfied with the service provided by DPHE in last year				
	4. Evidence found for functionality monitoring of the water and sanitation facilities by the DPHE officials in last two month including Community Clinics (CC)				
	5. Evidence found that DPHE responded to any kind of requirement raised by the service recipient				

6. Upazilla Chairman

One upazilla chairman from each of the Upazillas (all four except Paikgacha, since municipality was assessed for Paikgacha) were interviewed. The following score was found:

Stakeholder	Total Average Score	Taherpur	Gangni	Dacope	Shyamnagar
Upazilla Chairman	2.25	2	3	3	1

The data shows that capacity of Shyamnagar was found to be lowest (1 out of 5), while capacity in Dacope and Gangni were highest of the four regions (3 out of 5).

	Criteria Met
	Criteria Not Met

	Performance Criteria	Shyamnagar	Taherpur	Dacope	Gangni
	1. Upazilla chairman is aware on the WASH situation of the area and able to link the WASH issue with human rights				
	2. Upazilla level WASH committee are activated. Evidence found that at least one meeting conducted in last three month				
	3. Evidence found that the last annual budgeting process included the representative from poor and marginalised community				
	4. Budget allocation on WASH increased at least 10% in last budget comparing with the previous year budget				
	5. Budget spend for WASH increases at least 10%				

Upazilla chairmen in most of the regions (3 out of 4), could identify the importance of WASH and could associate WASH as a basic human right. No Upazilla level WASH committee was found to be present or activated. The Upazilla annual budgeting process has some representatives from poor community, but no representative from marginalized community. WASH budget was found to have increased by 10% in three out of four Upazillas.

7. School Management Committee (SMC)

Two School Management Committee members from each of the Upazillas (Three out of five upazillas) were interviewed. The following score was found:

	Overall	Paikgacha	Dacope	Shyamnagar
School Management Committee 1	3.0	1	4	4
School Management Committee 2		2	3	4

SMC committee was found to have been activated in all three regions. It was found that SMC in Dacope and Shyamanagar were aware about the importance of WASH issues. Additionally, there was session by female teachers on MHM for female students. Other teachers except the head teacher were also found to be active regarding the WASH situation of the school. WASH situation is discussed in the meetings but follow up decisions or implementation of decisions were not found to have been taken. Also, no evidence regarding the mobilization of resources for the O&M of the wash facilities was found.

	Criteria Met
	Criteria Not Met

Performance Criteria	Paikgacha		Dacope		Shyamnagar	
	SMC 1	SMC 2	SMC 1	SMC 2	SMC 1	SMC 2
1. SMC committee formed / activated and at least 50% of the member knows about their engagement in the committee						
2. SMC are aware about the importance of WASH issue (especially MHM and how the girls wellbeing can be interrupted for poor management of MH)						
3. Evidence found that SMC member (except head teacher) monitor WASH situation of the school and appropriate measure taken to address this)						
4. Meeting conducted as standard where WASH situation of the school discussed and follow up decisions made (at least one meeting in last three month)						
5. Evidence found that SMC able to mobilise resources for the O&M of the WASH facilities						

8. Parent Teacher Association (PTA)

PTA committee in schools follow a 9 to 11-member committee consisting of the head teacher, a female teacher, 4 parents of students (2 male parents and 2 female parents), 1 teacher from a nearby high school, 1 ward member of that locality, and 1 representative from land donors (who donated the land for the school). PTA was found in all the schools. PTA held meetings and WASH issues are discussed, however no follow up decisions or activities were executed. WASH decision taken in PTA meeting was found in only one school in Dacope. No representative from marginalized community was found to participate in the PTA meetings. One key finding of the study was that same teachers that formed the SMC were also present in the PTA groups.

Stakeholder	Total Average Score	Paikgacha	Dacope	Shyamnagar
Parent Teacher Association (PTA)	2.33	3	2	2

	Criteria Met
	Criteria Not Met

	Performance Criteria	Shyamnagar	Dacope	Paikgacha
	1. PTA formed / activated and at least 50% of the member knows about their engagement in the committee			
	2. PTA are aware about the importance of WASH issue			
	3. Meeting conducted as standard (check last 06 month). WASH situation of the school discussed and follow up decisions are made			
	4. Evidence found that PTA member (accept head teacher) monitor WASH situation of the school and appropriate measure taken to address this)			
	5. PTA engage the representative from poor and marginalised communities who take part in the meeting			

9. Primary Education Officer (PEO)

The primary education officer was aware about the importance of WASH in schools. He was also found to regularly inspect schools as part of his job criteria (each primary education officer is obliged to visit 5 schools per month). However, observation of WASH facilities was not done by the education officer. When a government primary school has a dysfunctional water facility or latrine, they inform the education officer and the education officer contacts DPHE. One important point regarding the maintenance of WASH facilities is that, facilities that are installed by an NGO typically arrange for an O&M fund that is collected from the community people including guardian of students, and is used for the repair and maintenance of that WASH facility.

10. Secondary Education Officer (SEO)

The capacity assessment score was found lowest for Shyamnagar region. Overall average score was found to be 3.33.

Stakeholder	Total Average Score	Paikgacha	Dacope	Shyamnagar
Secondary Education Officer	3.33	4	4	2

Unlike primary education officials, there is no fixed government appointed post for secondary education officials. All the allocated secondary education officials are appointed on a project-basis, usually jointly funded by government and development partner (for example, in Paikgacha the Secondary education officer was appointed on a project funded by World Bank).

All education officials were aware on the importance of WASH in schools, and could connect the necessity of WASH with the well-being of students (except Shyamnagar). The education officials regularly conduct visit of schools as part of their job mandate. However, WASH facilities are not inspected during their visit or inspections. When a school has a dysfunctional water facility or latrine, they send a repair request to the education officer, who then make a list of all necessary repairs needed and forwards it to the DPHE. In terms of allocation of resources for pro-poor aspects, nothing is provided in the secondary education level. The government scholarship provided on secondary schools is a merit-based general scholarship, and is not exclusive to pro-poor student candidates.

	Performance Criteria	<i>Shyamnagar</i>	<i>Dacope</i>	<i>Paikgacha</i>
	1. Education officials (allocated) are aware on the importance of WASH in school.			
	2. Secondary education officials have an understanding on the importance of WASH in schools.			
	3. Education officials conducted at least three physical visit in the school in the last 3 months			
	4. Physical visits included investigation of WASH situation. Recommendation has been made			
	5. Upazila Education office allocated resources considering pro-poor aspects			

11. Municipality

Among the five study regions, only Paikgacha had a municipality. According to the Capacity Assessment Matrix, the municipality had a score of 1 out of 5.

	Performance Criteria	<i>Paikgacha Municipality</i>
	1. WCs are formed and members are aware on their engagement	
	2. WASH plan is available in the municipality	
	3. WCs includes representatives from poor and marginalised groups	
	4. Evidence found that municipality monitoring the water and sanitation interventions.	
	5. Evidence found that municipality has a sustainable WASH system for its citizens.	

There was ward-based committees in all of the 8 wards of Paikgacha consisting of 11-members, in the government format which included both female and pro-poor members. However, there was no participation from any marginalized groups (such as disabled, minority, sex worker, ethnic etc.) in the ward committees.

The water systems established by government sources are monitored by the Pourashova's Water Branch which has fixed personnel for this role. However, there is no branch or department for the monitoring of sanitation facilities (such as public latrines) or hygiene promotion. The current water system is a centralized water purification plant which provides safe water for drinking. But, the current system can only serve 10% of the total households under the purview of the pourashova (source: KII- Pourashova Mayor). There is no WASH plan currently available in the municipality office. Due to over-extraction, water levels in Paikgacha is getting lower. This is resulting in future uncertainties in the region.

ii. Current capacity to plan the effective delivery of WASH services

In order to gain insight on the current scenario of planning and carrying out WaSH services, four major key informants were interviewed. The four major stakeholders were- government stakeholders, health service stakeholders, school stakeholders and school students and parents.

Under health service provider there are community clinics. In total, representatives from nine community clinics were interviewed from three regions (Taherpur, Gangni and Dacope).

- In Taherpur, two of the CGs were found to be active in planning but follow up activities of the plan was not done. Only in one CG both planning and implementing was present and also the support of government officials.
- In Gangni region, two of the community groups were found to be successful in mobilization of resources to carry out WaSH related plans. While in the other community clinic, no evidence of successful implementation of WaSH services was found.
- In two community groups in Dacope, WaSH related issues were not discussed but UHFPO and DPHE were reported to do their work accordingly, while the third CG did not plan any WaSH related services.
- **It should be noted that while planning phase included the delivery of WASH services in normal conditions, WASH service delivery in special conditions were not part of the planning stage i.e these WASH facilities lacked climate resilience component, and were dysfunctional during floods or in summer.**

Months Functional	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
1-3 months	0.0%	7.7%	0.0%	1.5%	7.6%	7.6%
4-6 months	1.5%	3.1%	0.0%	3.0%	0.0%	0.0%
7-11 months	37.3%	15.4%	4.55%	27.3%	0.0%	0.0%
12 months	61.2%	73.8%	95.45%	68.2%	92.4%	92.4%
TOTAL	100%	100%	100%	100%	100%	100%

TABLE 2.1: FUNCTIONALY OF WATER SOURCES THROUGHOUT THE YEAR

In School Management Committees (SMC) the result was varied. One SMC member from Paikgacha reported that there was no WaSH related planning in their committee meetings. While in Shyamnagar, proper planning and execution of WaSH related activities were evident. In Dacope, planning was done but follow-up actions were not carried out by SMC.

Parent Teacher Associations (PTA) in schools were observed in Paikgacha, Dacope and Shyamnagar. Planning and execution of WaSH services were not evident in Dacope region by the PTA. In Shyamnagar planning was done but not carried out. **There was no quota for the inclusion of marginalized people (poor, pro-poor, sex worker, disabled etc) in the SMC or PTA committee in any of these regions.**

In summary, three major gaps were identified in terms of effective planning of WASH services. First, the planning stage did not include any climate resilience component (how to preserve or protect the water facility or latrine from floods or excessive rain or lack of water during summer season etc.). **Second**, the planning did not include any O&M fund for the regular maintenance and repair of the WASH facility. There were water facilities or latrines present in schools but, they were out of service due to lack proper maintenance (31% of boys and 34% of girls latrines were dysfunctional). **Third**, in the planning process of WaSH related services, they were no inclusion of representatives from marginalized community. Pro-poor participation was mentioned in some areas but, participation from ethnic, minority, disabled, sex-worker or any other marginalized group was not found in the planning of WASH facilities in both sub-district and community level.

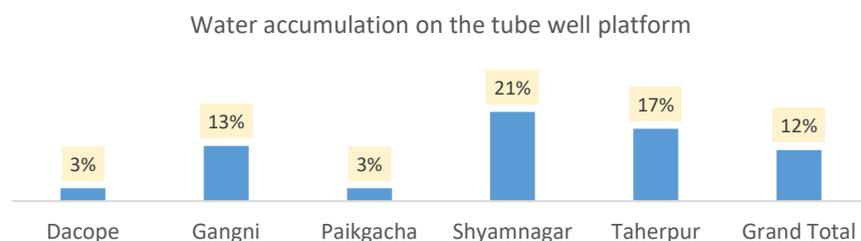
iii. Current status of service delivery models regarding the capacity to address challenge areas (urban, climate resilience, water security, hygiene)

While the current service delivery models provide water and sanitation service effectively under normal conditions, during special conditions and in challenge areas, service disruption is a common phenomenon.

Key findings from the interview with different stakeholders is given below:

- The Upazila Health and Family Planning Officer (UH&FPO), of Taherpur reported that during rainy season and floods, the water supply systems in community clinics and in Upazilla Health Complex, face service disruption. The toilets and tube wells of low-lying areas go under water becoming unusable and result in contaminated water around the locality and prevalence of water-borne diseases. Also, there is no specific guideline to treat this critical situation. A representative from Badhaghat Community Clinic in Taherpur also stated the same problem.
- UHFPO from Shyamnagar reported that during summer the ponds become parched. Also during monsoon, while it floods, the water becomes saline. Then the toilets in the community clinics are also submerged under water and become unusable.
- The UP chairman of Bajua Union of Dacope stated that in rainy season most of the toilets in that area become unusable. And as most of their toilets are unimproved the situation gets worse.

From the key informants interview and observation checklists it became evident that regions like Dacope, Taherpur and Shyamnagar are the most severely affected by climatic challenges like floods. It was found that 21% of tube wells in Shyamnagar, 17% in Taherpur, and 13% in Gangni suffered from accumulation of water during the rainy seasons and during floods.



Does water accumulate on the tube well platform?	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
No	97%	87%	97%	79%	83%	88%
Yes	3%	13%	3%	21%	17%	12%
Grand Total	100%	100%	100%	100%	100%	100%

TABLE 2.2: HOUSEHOLD SURVEY RESULT REGARDING SUBMERGENCE OF TUBE WELLS DURING FLOODS

In terms of water security, 25.1% of overall water facilities were found to suffer from service disruption in different times of the year. The rainy season (Ashar, from June to July), pre-summer (Chaitryah, from March to April) and summer (Baishak, from April to May) were the times when water supply would suffer and regions most affected were Dacope and Shyamnagar.

	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur
Ashar (June-July)	16.4%	26.2%	27.3%	10.6%	0.0%
Ashin (September-October)	-	1.5%	-	-	-
Baishak (April-May)	14.9%	-	56.1%	13.6%	3.0%
Chaitryah (March-April)	10.4%	-	12.1%	1.5%	1.5%
Jaisthyah (May-June)	-	-	-	9.1%	-
Kartik (October-November)	-	1.5%	-	-	-
Magh (January-February)	-	-	3.0%	1.5%	-
Paush (December-January)	1.5%	-	-	-	-
Sraban (July-August)	-	10.8%	-	-	-
Water source is functional all year round	56.7%	60.0%	1.5%	63.6%	95.5%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%

TABLE 2.3: REGION-WISE BREAKDOWN OF MONTHS WHEN WATER SUPPLY IS NON-FUNCTIONAL

In terms of daily availability of water in the functional water sources, Shyamnagar, Gangni and Dacope were the regions most affected.

	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
Water Available 24 hours	77.6%	63.1%	92.4%	40.0%	86.2%	71.9%
Water not available for 24 hours	22.4%	36.9%	7.6%	60.0%	13.8%	28.1%

TABLE 2.4: DAILY AVAILABILITY OF WATER IN DIFFERENT REGIONS

A summary of the challenges faced by the service delivery models in different regions is given below:

Regions	WASH Service Delivery Model	Challenges Faced
Dacope	<p>Most common water delivery system is tube well (26.9%) and PSF (43.3%) in sample households, while Rain Water Harvesting system (100%) in sample community clinics and schools.⁶</p> <p>For sanitation, pit latrine is the most common latrine type in sample households (79.1%), schools (100%) and community clinics (100%).</p>	<p>During summer season, the water level goes down and salinity in water is a common problem in household level. The ponds become dry and lack of clean drinking water becomes scarce.</p> <p>Also, Dacope is geographically surrounded by rivers and canals. In rainy season, the water facility and latrines in Community Clinics become submerged in excessive water, rendering them unusable.</p>
Shyamnagar	<p>Most common water delivery system is tube well (31.7%), PSF (28.9%) and in sample households, and PSF (88.9%) in sample community clinics and schools.</p>	<p>Similar to Dacope, salinity is the main problem in Shyamnagar region and tube wells lack adequate supply of water during summer reason.</p>

⁶Schools in Dacope include, Sonar Bangla Secondary High School, Mohammad Ali Secondary High School, South Gunari High School, Gunari Shitolchondro High School, K.G.V.J Sommiloni Girls High School, Tildanga Primary School
Healthcare Center includes Shuvosmrity Community Clinic, Kalilabati Community Clinic, Lakkhikhola Community Clinic.

	<p>For sanitation, flush to septic tank and septic hole (41.2%) is the most common latrine type in sample households followed by pit latrine (29.4%).</p> <p>Flush to septic tank is most prevalent (100%) in sampled institutions such as schools and community clinics.⁷</p>	<p>Flooding also causes ponds (which have PSF installed) to become infused with saline water, thus making the water of the PSF salty and undrinkable.</p> <p>The latrines also suffer from inactivity due to submergence in water during the rainy season.</p>
Taherpur	<p>Most common water delivery system is tube well (98.5%) in households, community clinics (100%) and schools (100%).</p> <p>For sanitation, pit latrine is the most common latrine type in sample households (65.7%), whereas flush to septic tank were the most prevalent in sample schools (66.7%) and sample community clinics (100%).⁸</p>	<p>Since, Taherpur geographically a haor region, surface water sources such as ponds, canals are common and submergence of tube wells and latrines in water during the rainy season is a common phenomenon causing service disruption.</p>
Gangni	<p>It was found that the most common water delivery system is shallow tube well (54.5%) in households, Desalination Plants for schools (83%, 5 out of 6 schools), and deep tube wells in healthcare centers (88%, 7 out of 8).</p> <p>For sanitation, pit latrine is the most common facility type in sample households (86.3%), septic tank for sample schools (100%) and sample community clinics (63%).⁹</p>	<p>In Gangni, arsenic contamination in water was found to be the biggest challenge and suffered from higher arsenic contamination compared to the other study regions. In Gangni, most of the sanitation facilities are safely managed and basic, and during floods or any other natural calamity the households do not face any severe problem and the facilities remain functional.</p>
Paikgacha	<p>Most common water source is deep tube well (70.1%) in sample households while In sample schools the prevalent source is Government stand pipe/tap water/pipeline without permanent reservoir (50%) and in sample</p>	<p>As Paikgacha is situated in the southern belt, it is affected by salinity. So the water sources are saline and traces of iron particles can be found.</p> <p>During rainy season when it floods, the latrines overflow as most of them are pit latrines where excreta is not safely deposited.</p>

⁷ Schools in Shyamnagar include Ishwaripur A Sobahan High School, Shyamnagar Kendrio Darul Ulum Madrasa, Nakipur Govt. HC High School, Shawkatnagar high school, Atulia Abdul Kader School and College, Shankarkati Khadiza Govt Girls Higt School. Community Clinics includes Durgapur Community Clinic, Hatchala Community Clinic, Henci Community Clinic.

⁸ Schools in Taherpur include Taherpur Girl High School and college, Uzan Taherpur Govt. Primary School, Gulockpur Govt. Primary School, ModdhoTaherpur Govt. Primary School, Kawkandi Govt. Primary School, Bordol Uttor hatibanda Govt. Primary School

Community Clinic include Lakma purbapara Community Clinic, Taker Ghat Community Clinic, Tahirpur Health Complex.

⁹ Schools in Gangni include Dhankhola Secondary School, Mikusish Secondary School, Bashbaria High School, Juginda High School, Chitla High School, Jugirgofa High School.

Community clinics include Solotaka Community Clinic, Chitla Community Clinic, Garadob Community Clinic, Koshba Community Clinic, Jugindha Community Clinic, Dhankhola Community Clinic, Sosanghat Community Clinic, Manikdia Community Clinic

	<p>community clinics it was shallow tube well (100%).</p> <p>In case of sanitation, the most common type of facilities in sample households was pit latrine (86.6%). The most prevalent sanitation facility was flush to septic hole/latrine in sample institutions such as schools and community clinics.¹⁰</p>	
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¹⁰ Schools in Paikgacha include 61 no Shohid Gofur Govt Primary School, 14 no Soroldighir Par Primary School, The Rising Sun School, Paikgacha Govt Girls School, Jamiatul Sunnah Darul-ulom Madrasha, Paikgacha Govt School
Community clinics include Godaipur Health complex, Paikgacha Upazila Healthcare Complex.



Objective-2: Current condition of mechanisms for citizens to understand their entitlements/responsibilities and hold WASH service providers and duty bearers to account

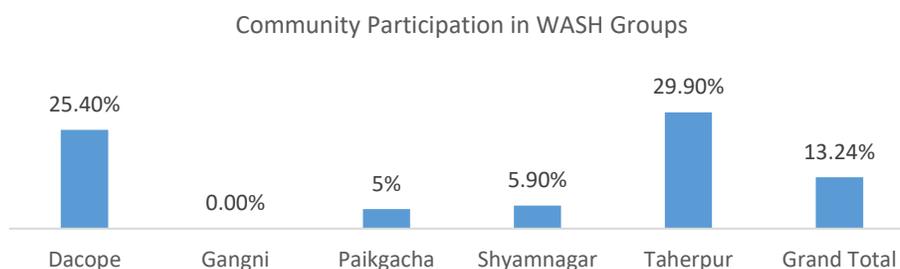
i. Current status of community involvement\participation in planning, monitoring and evaluation processes at different levels

No management committees for WASH service delivery was found in any of the regions. Therefore, community involvement in planning, monitoring and evaluation process was found to be very limited.

There is current government guideline for inclusion of community in planning phase. In sub-district level, request for a water facility or community latrine is requested by the community to the Union Parishad Chairman through the ward-shovas arranged before budget. The union parishad chairman refers the requested number of water or sanitation facility to the upazilla chairman who includes the request in the upzaila level budget. This budget is forwarded to the district level budget and becomes part of the national budget under the annual development plan (ADP) segment.

There is no participation of community in the monitoring or evaluation process of the WASH facilities at different levels.

Except some selective NGOs working in different zones, there is no presence of WASH groups, as well as participation by households in any type of WASH-based activity involving planning, delivery or monitoring. Overall only 13.5% of households were found to be involved in some type of WASH groups but most of the respondents could not mention the name of the WASH groups. In Taherpur region some respondents mention the name of ERA which is an NGO working in that region. As shown in table 4.1. Highest amount of community participation was found in Taherpur (29.9%) and Dacope (25.4%), whereas lowest participation was seen in Gangni (0%), Paikgacha (5%), and Shyamnagar (5.9%).



	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
<i>Community Participation in WASH Groups</i>	25.4%	0.0%	5%	5.9%	29.9%	13.2%

TABLE 4.1: % OF HOUSEHOLDS PARTICIPATING IN WASH GROUPS

In regions where community participation in WASH groups was found, it was seen that typically 1-2 people per household participated.

<i>How many people of your household participate in the Community-based WASH meeting?</i>	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
<i>1 person</i>	10.4%	0.0%	3%	5.6%	29.9%	9.8%
<i>2 person</i>	14.9%	0.0%	2%	0.0%	0.0%	3.4%
<i>More than 2 person</i>	4.5%	0.0%	0.0%	2.8%	0.0%	1.3%
<i>None/No involvement</i>	70.1%	100.0%	95%	91.7%	70.1%	85.4%

TABLE 4.2: NUMBER OF PEOPLE INVOLVED IN WASH GROUPS PER HOUSEHOLD

Activities done by household members in WASH groups included participating in meetings (34%) and expressing opinions (12%). Activities such as organizing activities, or events were found to be very low.

Activities	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
Conduct meeting	0.0%	0.0%	3%	0.0%	6.0%	1.80%
Express own opinion	44.8%	6.3%	3%	5.9%	0.0%	12.00%
Participate in meeting	44.8%	25.4%	2%	26.5%	71.6%	34.06%
Participate in different activities	0.0%	1.6%	2%	0.0%	0.0%	0.72%
Provide leadership or organize activities	0.0%	0.0%	0.0%	2.9%	1.5%	0.88%
Do not participate in anything	10.4%	66.7%	91%	64.7%	20.9%	50.74%

TABLE 4.3: TYPE OF ACTIVITIES DONE BY COMMUNITY PEOPLE IN WASH GROUPS

In the different regions of the study, participation of the community was investigated through the household survey by asking if any changes to the WASH facilities was observed due to feedback given by the community, and highest amount of results was seen in Dacope (38.81%), where BRAC, ASA etc. NGOs are working with community wash-based interventions.

Any changes due to the feedback given by the community in the past 6 month to 1 year, for the WASH facilities						
Responses	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
No	61.19%	96.97%	82%	87.50%	85.94%	82.72%
Yes	38.81%	3.03%	18%	12.50%	14.06%	17.28%

TABLE 4.4: % OF HOUSEHOLD SURVEY RESPONDENTS PROVIDING FEEDBACK FOR WASH FACILITIES

Apart from Shyamnagar region (28.57%) and Paikgacha region (23%), district level government built water or sanitation facilities were found to be of very small % (less than 5%).

Water/sanitation facility built by the district level government	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
No	100.00%	95.45%	77%	71.43%	98.44%	88.46%
Yes	0.00%	4.55%	23%	28.57%	1.56%	11.54%

TABLE 4.5: PREVALVENCE OF WATER/SANITATION FACILITY BUILD BY DISTRICT LEVEL GOVERNMENT

Current status of the community regarding claiming their rights for WASH

Knowledge of the general population regarding claiming their rights for WASH (including knowledge about the process for requesting a WASH facility) was assessed through the household survey.

When your community needs a WASH facility (water pump/ community toilet etc.), do you know how to approach the local government for it?						
Responses	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
No idea	100%	61%	50%	89%	78%	86%
Yes, clear idea	0%	2%	0%	4%	2%	3%
Yes, some idea	0%	38%	50%	7%	20%	12%

TABLE 4.6: KNOWLEDGE OF THE COMMUNITY REGARDING REQUESTING A NEW WASH FACILITY FROM LOCAL GOVERNMENT

From table 4.6 it can be seen that overall majority (78%) of the sample households did not have any knowledge regarding the process or procedure to requesting a WASH facility when needed. Similarly, it can be seen from table 4.7 that when a WASH facility is dysfunctional or not working properly, majority (71%) of community members do not know how to submit a complaint to the duty-bearer or representative.

When a government WASH facility is not working properly, do you know how to submit a complaint to duty-bearers/representatives for dysfunctional WASH facilities?						
Responses	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
No idea	79%	55%	45%	88%	86%	71%
Yes, clear idea	0%	3%	2%	5%	6%	3%
Yes, some idea	21%	42%	53%	7%	8%	26%

TABLE 4.7: KNOWLEDGE OF THE COMMUNITY REGARDING REQUESTING REPAIR OF DYSFUNCTION WASH FACILITY FROM LOCAL GOVERNMENT

Table 4.8 shows the percentage of community involvement regarding submitting request for anew WASH facility and the frequency of complaints in the last 6 months. 89% of respondent have not submitted any type of request regarding any new WASH facility.

Have you submitted any requests for new water facility or community latrines?						
Responses	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
No	93%	92%	64%	98%	98%	89%
Yes	7%	6%	36%	2%	2%	11%
If yes, how many in the last 6 months?						
Responses	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
None	100%	97%	96%	98%	100%	98%
1	0%	3%	2%	0%	0%	1%
2	0%	0%	2%	2%	0%	1%

TABLE 4.8: AMOUNT OF REQUESTS FOR NEW WASH FACILITY OR COMMUNITY LATRINE BY HOUSEHOLDS

Similar to the previous data, table 4.9 shows the community involvement regarding submitting a complaint for dysfunctional WASH facilities and the frequency of complaints in the last 6 months. 99% of respondent have not submitted any type of complaints regarding any dysfunctional WASH facility.

Have you submitted any complaints regarding any dysfunctional water facility or community latrines?						
Responses	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
No	85%	97%	60%	98%	100%	88%
Yes	15%	3%	40%	2%	0%	12%
If yes, how many in the last 6 months?						
Responses	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
None	100%	98%	98%	98%	100%	99%
1	0%	2%	2%	0%	0%	1%
2	0%	0%	0%	2%	0%	0%

TABLE 4.9: AMOUNT OF COMPLAINTS FOR DYSFUNCTIONAL FACILITIES BY HOUSEHOLDS

ii. Current status of representation and active participation of people from marginalized and socially excluded groups in the WASH processes

Since the study is conducted on sub-district level, participation of marginalized and socially excluded groups were investigated in the Upazilla, Pourashova and Union level. For the purpose of the study, categories considered as marginalized and socially excluded groups included the following:

- Pro-poor, extreme poor
- Physically disabled
- Ethnic
- Minority
- Sex worker

Except the pro-poor category, no active representation and participation of marginalized and socially excluded groups in the planning, monitoring or evaluation process of WASH facilities was found.

In community-based WASH facilities installed by the government, the existing process provides no option for marginalized and socially excluded groups to participate. Pro-poor is the only exception. The current sub-district level planning process is done through WLDC or Ward Level Development Committee in Pourashova. The 10-member ward committee of Pauroshova follows the government format where there is quota for women (at least 40% of total members) and pro-poor representatives, however disabled, minority, ethnic, sex-worker etc. marginalized and socially excluded groups have no representative or participation.

Type of Member	Number Allocated
Chairman	1
Vice-chairman	1
Pro-poor representative	4
Civil Society representative	2
Professional body representative	2

TABLE 5.1: FORMAT OF WARD COMMITTEE IN POURASHOVA (SOURCE: PAIKGACHA POURASHOVA OFFICE)

In case of Union Parishad, there is quota for female representatives but, no representation and participation of marginalized and socially excluded groups.

Sometimes, informal WASH groups are seen in WASH facilities installed by NGOs of through charity donations. But, in the study regions, no such WASH groups was found where marginalized and socially excluded groups were actively participating.

iii. Current status regarding knowledge and understanding of the media to effectively engage in WASH promotion

In the focus group discussions, KII and household survey, respondents were asked if they could remember any notable WASH promotional activity in the past 3 month in any type of print media (newspaper, magazine). No notable articles were recalled by the participants.

In the household survey it was inquired if any past WASH promotional activity was remembered by the respondent. The most common response was the television advertisement of soaps, detergents (46%) followed by discussion sessions held by NGO workers (14%).

Type of Media	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
Natok/Drama in village hut	0%	0%	8%	9%	0%	3%
NGO worker	34%	0%	9%	0%	28%	14%
Poster	3%	0%	5%	20%	3%	6%
Radio	1%	0%	18%	9%	6%	7%
Tea-stall	16%	0%	3%	4%	22%	9%
Television	40%	94%	5%	57%	33%	46%
Thana/Upazilla Health Complex	4%	0%	18%	0%	8%	6%
Do not remember	0%	6%	35%	2%	0%	9%

TABLE 6.1: DIFFERENT TYPES OF MEDIA REMEMBERED BY RESPONDENTS REGARDING WASH CAMPAIGN PROMOTION

Objective-3: Current condition of policy, institutional and fiscal arrangements at national and/or sub-national levels to deliver and sustain WASH services for all by 2030

i. Current status of clear roles and responsibilities for delivery, management and financing of WASH services

The findings regarding objective 7 is discussed below from the perspective of two types of stakeholders- community clinics and educational institutions i.e. schools for this study.

Community Clinics

According to the interview with CHCP and UHFPO, it was revealed that there is a guideline provided by the health ministry outlining the activities of the CC members. But, the guideline has no section for delivery of WASH services, management or responsibilities for maintenance including source of fund for periodic O&M. As a consequence, WASH facilities requiring maintenance remain dysfunctional for long periods of time. The observation of community clinics and interview with CG, CHCP revealed the following facts:

- Service delivery is outlined in the government provided guidelines by the health ministry. But, WASH service delivery is considered by the health ministry as the function of LGED (i.e. the DPHE of that respective region).
- CHCP is responsible for the management of the community clinic, and provides updates to HA and FPA of the Upazilla Health Complex. During dysfunctional WASH facilities, the CHCP would notify the UHFPO and the UHFPO will notify the DPHE for carrying out necessary repair activities.
- Installation of new water facility and latrine is requested to the respective Union Parishad, but the installation budget does not include any operation and maintenance funds. This fund is typically collected from the community.

Educational Institutions (Schools)

According to interview with Upazilla education officers, and School Management Committees, it was found that there is a process for installation of water sources or latrines though DPHE using government allocated funds. But the allocated fund does not include repair or maintenance. The schools are tasked with managing the WASH facilities themselves. When a WASH facility is dysfunctional, the school notifies the upazilla education office, and they send the repair request to DPHE. Schools may also create a fund through the school management committee for the purpose of maintenance of the WASH facilities. Usually schools which receive NGO funding for water facility or improved latrines, usually commit to creating and maintaining a community-based fund for the purpose of carrying out repairing and maintenance of the installed WASH facilities.

ii. Current condition of coordination mechanisms for WASH actors working at national/district level

No coordination meeting between WASH actors currently exist at the national or district level. DPHE is tasked to arrange a coordination meeting with sub-district level (i.e. Upazilla, Union Parishad) WASH actors in the office of the UNO. In the current government format, DPHE is responsible for the installation and maintenance of WASH facilities in rural regions including installation of tube wells, excavation of ponds in villages, setting up and maintenance of water and sanitation facilities for government schools, healthcare centers (Upazilla Health Complex, Union Parishad Health Center, Community Clinics), Upazilla Parishad or Union Parishad offices etc. Thus an ideal coordination meeting should include representatives from all these stakeholders which DPHE is responsible for providing WASH related services.



Objective-4: Improved cross-sector integration improves access to WASH and hygiene promotion in schools and healthcare facilities

i. Percentages of schools with gender-segregated WASH facilities

Findings on segregated wash facilities were collected from school observation checklist and KII for school stakeholders. A total of 30 school samples were collected (6 from each region). Among those thirty schools, twenty-six (26) schools were coeducation schools. Following are the findings from school observation survey.

- Among those twenty-six (26) coeducation schools, fourteen (14) had gender segregated sanitation facilities. All the schools had a joint water facility to be used by both boys and girls. 13% of sample schools were only girl schools (4 out of 30) having proper sanitation facilities for the girl students. In terms of sanitation, **62% of sample schools (16 out of 26) did not have any separate latrine for female students.**
- Functionality of sanitation facilities was a common problem found in schools. Thirty-one percent (31%) of boys' latrines and thirty-four percent (34%) of girls' latrines were found to be dysfunctional. Reasons for dysfunctionality included lack of proper maintenance due to unavailability of funds and manpower.
- Average number of male and female students per latrine was found to be 153 and 98, indicating the lack for sufficient number of latrine facilities.

The representation of gender segregated WaSH facilities according to the respective regions are given in table 9.1.

Regions	Water			Sanitation		
	Segregated	Not-segregated	Total (n=26)	Segregated	Not-segregated	Total (n=26)
Taherpur	17%	83%	5	17%	83%	5
Paikgacha	0%	100%	5	40%	60%	5
Gangni	33%	67%	6	80%	20%	6
Dacope	0%	100%	5	40%	60%	5
Shyamnagar	0%	100%	5	60%	40%	5

Table 7.1 Gender segregation in WaSH facilities

ii. Percentages of schools with WASH facilities that are accessible for children with disability

No wash facility in any of the sample schools was found that had facilities to help use by disabled children. Typical facilities common to help disabled children include handle inside the latrine to help movement of disabled, or the presence of an inclined stairway to help the movement of a wheel chair etc. But, no such facility was found in any of the sample schools during observation. Disable children use the same water and latrine facilities used by other students. It was further confirmed by the FGD and household survey findings.

According to the school observation, 77% of sample schools (23 out of 30) did not have latrines suitable for disabled children. These schools contained pit latrines which were not suitable for disabled persons having movement limitations. The rest 23% (13 out of 30) of sample schools provided limited accessibility in the form of flush to septic tank facilities. But, this does not actually constitute as making the latrine facility more user friendly for a disabled person.

iii. Percentages of health facilities with basic WASH facilities

Total nineteen (19) healthcare centers were observed and the condition of WASH facilities were assessed. The findings were compared with the latest JMP introduced SDG levels for WaSH facilities and then ranked accordingly. All the findings are presented in table 8.1, 8.2 and 8.3 which represent the water, sanitation and hygiene facilities accordingly.

Health care facilities with an improved water source but without water available or that is off-premises are classified as having “**limited**” service, and those with unimproved or no water source are classified as “**no service**”. In countries where basic service is already the norm, a country-defined “**advanced**” service level may be appropriate based on the national context, priorities and resources. Criteria for an advanced level might include normative elements such as water quality and water quantity. 68% of sample facilities were found to have basic water facilities, while 32% had limited water facilities. Tube wells were found to be the predominant source of water accounting for 63% total water sources in healthcare facilities.



Level	Definition Parameter	Percentage
Advanced	To be defined at national level	0%
Basic	Water from an improved source which is available on-premises. Improve sources include tube-well, piped water into dwelling, protected dug well and spring, rainwater collection protected with cover, PSF protected with cover, packaged or delivered water.	68%
Limited	Water from an improved source that is available off-premises; or an improved source is on site but no water is available.	32%
No Service	Water from an unprotected dug well or spring, surface water as its main drinking water source; or no water source	-

Table 8.1 Water Facilities Scenario

In terms of access to sanitation, all the sample healthcare facilities had limited (100%) facilities. It was found that 84% (16 out of 19) of the facilities did not have any separate facility for menstrual hygiene maintenance for women and 74% (14 out of 19) were perceived of not being friendly for people with limited mobility.

Level	Definition Parameter	Percentage
Advanced	To be defined at national level	0%
Basic	Access to sanitation from improved facilities and are usable, separated for patients and staff, separated for women and providing menstrual hygiene facilities and meeting the needs of people with limited mobility. Improved facilities are defined as flush to hole, flush/pour flush to pipe sewer system, septic tanks or pit latrines, ventilated improved pit latrines, composting toilets, or pit latrines with slab.	0%

Limited	Having improved sanitation facilities but those are not usable, or do not meet the needs of specific groups (women, people with limited mobility, staff).	100%
No Service	Centers that have pit latrines without a slab or platform, hanging latrines, or there are no toilets or latrines at the facility	-

Table 8.2 Sanitation Facilities Scenario

In terms of hygiene of healthcare facilities, it was observed that 74% of samples had limited facilities with only water available and 16% had basic facilities with both soap and water available on premise near a hand washing station and 11% had no service.

Level	Definition Parameter	Percentage
Advanced	To be defined at national level	0%
Basic	Centers that provide hand hygiene materials, either a basin with water and soap or alcohol hand rub, are available at points of care and toilets	16%
Limited	Facilities that have hand hygiene station at either points of care or toilets, but not both.	74%
No Service	Facilities that do not have any hand hygiene stations or do not have any soap or water available in those stations	11%

Table 8.3 Hygiene Facilities Scenario

From the findings it can be said that the healthcare centers located in Dacope have the highest number of basic hygiene facilities while centers in Gangni have the highest number of limited hygiene facilities.

Also, the condition of WASH facilities in health facilities were inquired in the household survey to explore the experience of the survey respondents. It was found that responses related to access to clean latrines were the least in all the regions (overall 1.9%). Access to drinking water was found lowest in Paikgacha (3%) and Gangni (12.1%), while access to soap and water for handwashing was found lowest in Gangni (6.1%), Taherpur (7.8%) and Shyamnagar (10.7%). The following responses were found:

Does the health facility in your area have access to drinkable water/clean latrines/soap and water for washing hands?						
Responses	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
Yes, access to clean latrine	4.5%	0.0%	6%	3.6%	1.6%	3.14%
Yes, access to drinking water	38.8%	12.1%	3%	32.1%	21.9%	21.58%
Yes, soap and water for handwashing	20.9%	6.1%	6%	10.7%	7.8%	10.30%
Do not know	35.8%	81.8%	71%	53.6%	68.8%	62.20%

CASE STUDY-1



Being built in 1996 under a government project, Barirkhal Community Clinic is the oldest healthcare complex in Bajua union, Dacope where Mr. Rajib Dey acts as the Chief Health Care Provider (CHCP).

Barirkhal Community Clinic is located in Chunkuri village. The facility predominantly provides primary care to patients. Every day the complex serves 45 to 50 patients on average. A significant number of these patients are pregnant women. When asked about the main drinking water source for the health workers and patients of this CHCP, Mr. Dey told that there was only one pond in Chunkuri village and that served as the main water source for the whole village as well as for the complex. He also mentioned that after the attack of cyclone Aila most of the water sources became dysfunctional and the remaining sources contain saline water.

There was only one functioning latrine in that complex. The condition of the latrine is not satisfactory at all. When Mr. Dey was asked about the complaints they receive from his patients about the WaSH facilities he agonizingly stated “We do not actually have any significant facility that the patients can complain of”. As most of the patients are pregnant women they face acute difficulty in using the latrine. There is one basin with tap in this complex for washing hands. Mr. Dey also stated that they had formally complained to the Union Parishad office more than once but did not received any help.

12. Household Survey Findings

Access to safe water

The data regarding household water sources was converted into SDG-based JMP indicators, and the following results were found:

JMP Ladder	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
Improved sources that are located on premise and takes less than 30 minutes for collection of water	10%	56%	45%	15%	55%	43%
Basic	84%	42%	47%	45%	45%	46%
Limited	6%	2%	-	39%	-	10%
Surface Water	-	-	8%	1%	-	1%
Grand Total	100%	100%	100%	100%	100%	100%

JMP Ladders	Parameters	Dacope	Gangi	Paikgacha	Shyamnagar	Taherpur
Improved sources that are located on premise and takes less than 30 minutes for collection of water	Improved source	10%	56%	45%	15%	55%
	On premises	10%	56%	45%	15%	55%
	Water quality tested	No data available				
Basic	Improved source	84%	42%	47%	45%	45%
	Collection time is not more than 30 minutes for a round trip (including queuing)	84%	42%	47%	45%	45%
Limited	Improved source	6%	2%	0%	39%	0%
	Collection time is more than 30 minutes for a round trip (including queuing)	6%	2%	0%	39%	0%
Unimproved	Unprotected dug well/spring	0%	0%	0%	0%	0%
Surface water	Direct from surface	0%	0%	8%	1%	0%

The following definitions are used for quantifying the data into JMP indicators,

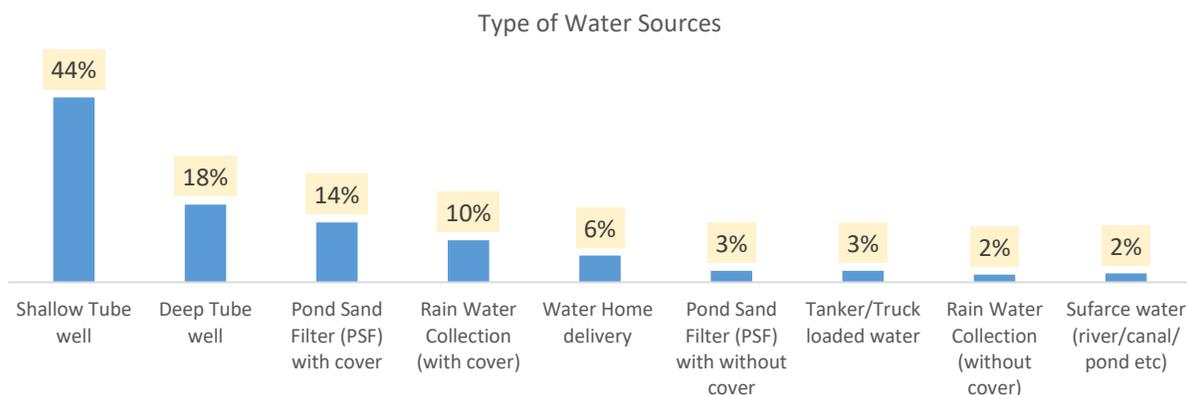
- Safely managed: Drinking water from an improved water source that is located on premises, available when needed and free from fecal and priority chemical contamination.
 - “Premises” is defined as the boundary of the household ranging up to 10-20 hands in distance.
 - “Available when needed” is defined as availability in all months, throughout the year.
 - “Free from fecal and priority chemical contamination” has to be investigated by water quality tests.

Due to operational limitations, time and resource constraints, water quality tests were not done. The water facilities which fulfilled the criteria of being improved source, located on premise, and available when needed are tagged as “improved sources that are located on premise and takes less than 30 minutes for collection of water”.

- Basic: Drinking water from an improved source, provided collection time is not more than 30 minutes for a round trip, including queuing
 - Improved source is defined as piped water, boreholes or tube wells, protected dug wells, protected springs, PSF with filter, protected rain water collection system, reverse osmosis, submersible pump, water from desalination plant, and packaged or delivered water
- Limited: Drinking water from an improved source for which collection time exceeds 30 minutes for a round trip, including queuing
- Unimproved: Drinking water from an unimproved source
 - Unimproved source is defined as unprotected dug well, unprotected spring, PSF without filter, rain water collection without filter
- Surface water: Drinking water directly from river, canal, pond, stream, dam, lake or irrigation canal

It was found that Paikgacha had the most number of improved sources that are located on premise (80%) whereas Dacope and Shyamnagar had the least amount i.e. 9.8% and 15.02% respectively. Highest amount of **basic** water sources was found to be in Dacope (84%) and highest amount of **limited** water sources were in Shyamnagar (39%).

Most predominant type of water source was found to be shallow tube well (44%) followed by deep tube well (18%), and PSF (14%). Water level in Gangni is higher compared to other regions, and tube wells sunk into the ground at 20-30 feet could easily draw water (SOURCE- KII of DHPE). Coastal regions such as Dacope and Shyamnagar suffer from salinity and iron in tube well water and PSF is a more preferred water source. In Dacope, PSF and Rain water collection is the common source of water accounting for 39% and 18% of total water source for drinking. In Shyamnagar water home delivery services from private suppliers (providing water in jars or barrels) is common and accounts for almost one-third (31%) supply of drinking water. In Taherpur, tube well is the predominant source of water supply accounting for almost 99% of total drinking water source.



TYPE OF WATER SOURCE	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
Shallow Tube well	20%	55%	33%	21%	90%	44%
Deep Tube well	8%	45%	12%	12%	9%	18%
Pond Sand Filter (PSF) with cover	38%	-	12%	21%	1%	14%
Pond Sand Filter (PSF) with without cover	5%	-	-	9%	-	3%



Rain Water Collection (with cover)	18%	-	21%	5%	-	10%
Rain Water Collection (without cover)	9%	-		-	-	2%
Water Home delivery		-	2%	31%	-	6%
Tanker/Truck loaded water	2%	-	12%	-	-	3%
Surface water (river/canal/ pond etc.)	2%	-	8%	2%	-	2%

In terms of water security, Gangni is found to have the most positive result, where 89.2% of households stated that their source of drinking water is not shared by any other family. **Shyamnagar, Taherpur and Dacope are found to be the most challenge areas in terms of water security. Dacope had the most number of sharing of the drinking water source indicating high scarcity and subsequently high demand for drinking water.**

	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur
No families share the water point	27.0%	83.3%	61%	0.0%	0.0%
1-10 families	1.6%	5.6%	5%	14.0%	38.5%
10-30 families	0.0%	5.6%	25%	27.9%	52.3%
31-50 families	3.2%	0.0%	10%	20.9%	7.7%
50-100 families	50.8%	0.0%	0.0%	34.9%	1.5%
101-150 families	1.6%	0.0%	0.0%	0.0%	0.0%
More than 150 families	15.9%	5.6%	0.0%	2.3%	0.0%
GRAND TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%

Few attributes such as average distance, collection time including round-trip and queuing, and frequency per day for collecting water is presented in the table below:

Average distance, time, frequency regarding water collection	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
Average distance to water source (in hands)	210.64	19.90	34.43	75.42	50.45	85.46
Average round trip time for collecting water (minutes)	16.11	2.89	3.97	28.57	6.42	11.34
Average frequency per day for collecting water	2.81	8.75	3.60	2.52	3.76	4.31

In terms of perceived quality of water according to the households, it was observed that respondents in Paikgacha and Shyamnagar were the least satisfied.

Quality of water according to households	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
Good	89.6%	81.3%	18.2%	59.4%	76.1%	64.9%
Fair/Not good	10.40%	18.70%	81.8%	40.70%	23.90%	35.1%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

The respondents of the household survey were inquired about the water quality problems faced by them. In Dacope the most prominent water quality problem was salinity (80%), followed by arsenic (20%). Of the five regions, Gangni was found to be the region most affected by arsenic (87.5%). Shyamnagar being a coastal region similar to Dacope, suffers from salinity (59.38%), blackish color or muddy color (18.75%) and excessive iron (6.25%). Taherpur suffers from muddy water (58.82%) and arsenic (35.29%).

Water Quality Problems	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
Water contains Arsenic	20%	88%	67%	3%	35%	47%
Water contains excessive iron compound	0%	8%	15%	6%	0%	9%
Water is of bad smell	0%	0%	4%	13%	0%	5%
Water is impure/muddy	0%	0%	2%	19%	59%	13%
Water is salty	87%	0%	13%	59%	6%	26%
Grand Total	100%	100%	100%	100%	100%	100%

Access to Sanitation

Similar to the JMP ladder for water sources, sanitation facilities were also categorized according to the JMP ladders based on the safe management of excreta and sharing of facilities between households. The findings are presented below.

Region	Safely Managed	Basic	Limited	Unimproved	Open defecation
Taherpur	25%	11%	30%	19%	14%
Paikgacha	24%	56%	12%	8%	0%
Shyamnagar	36%	38%	15%	0%	11%
Gangni	77%	17%	6%	0%	0%
Dacope	57%	4%	19%	1%	18%
TOTAL	44%	25%	16%	6%	9%

TABLE 12.2.1: JMP DEFINITION BASED SANITATION FACILITIES IN DIFFERENT REGIONS

Although 44% of the households have safely managed facilities, a staggering 9% still live without any sanitation facilities. Findings on types of facilities that respondents use are presented on Table 12.2.2. The percentage of open defecation is highest in Dacope (18%) and second highest is in Taherpur (14%) region.

The highest percentage of sample households with safely managed sanitation facilities were found in Gangni region (77%). Highest number of sample households without any sanitation facilities i.e. highest amount of open defecation was found in Dacope (18%) followed by Taherpur (14%) and Shyamnagar (11%).

JMP Ladders	Parameters	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Overall
Safely managed	Improved facilities	57%	77%	24%	36%	25%	44%
	Not shared	57%	77%	24%	36%	25%	
	Excreta are safely disposed	57%	77%	24%	36%	25%	
Basic	Improved facilities ¹¹	4%	17%	56%	38%	11%	25%
	Not shared	4%	17%	56%	38%	11%	
Limited	Improved facilities	19%	6%	12%	15%	30%	16%
	Shared	19%	6%	12%	15%	30%	
Unimproved	Pit latrine without slab or platform/hanging/bucket latrines	1%	0%	8%	0%	19%	6%
Open defecation	Open disposal of human excreta	18%	0%	0%	11%	14%	9%

¹¹ According to JMP definition sanitation facilities like flush/pour flush to piped sewer systems, septic tanks or pit latrines; ventilated improved pit latrines, composting toilets or pit latrines with slabs are considered as “improved” facilities.

As per JMP definition, the term “**excreta are safely disposed**” means the excreta produced should either be treated or disposed in situ, stored temporarily and then emptied and transported to treatment off-site, or transported through a sewer with wastewater and then treated off-site. For this baseline study, household latrines that have improved facilities and excreta are disposed through sewerage system, pit latrines which are cleaned and excreta disposed and treated offsite (but not disposed into water bodies) on a regular basis are considered facilities with safe disposal of excreta.

Toilet facility used by the household members	Dacope	Gangni	Paikgacha	Taherpur	Shyamnagar
Flash to septic hole/latrine	1%	9%	8%	8%	15%
Flash to sewerage system through pipe	0%	2%	3%	0%	9%
Flash to septic tank	0%	0%	65%	3%	21%
Flash to other place	0%	0%	2%	0%	4%
Pit latrine with slab With safe disposal of excreta	36%	56%	9%	63%	26%
Pit latrine with slab but Without safe disposal of excreta	44%	31%	0%	8%	11%
Composite latrine	1%	2%	6%	0%	2%
Hanging latrine	1%	0%	8%	12%	0%
No latrine/open defecation	18%	0%	0%	6%	11%

TABLE 12.2.2: DIFFERENT TYPES OF SANITATION FACILITIES USED BY HOUSEHOLD RESPONDENTS

Access to improved sanitation facilities refers to excreta disposal facility that can effectively prevent human, animal, and insect contact with excreta. The use of improved latrines, as per JMP¹² definition, in Dacope, Gangni, Paikgacha, Taherpur and Shyamnagar are 81%, 100%, 92%, 82% and 89% respectively.

	Dacope	Gangni	Paikgacha	Taherpur	Shyamnagar
Improved facility	81%	100%	92%	82%	89%
Unimproved facility	1%	0%	8%	12%	11%
No facility	18%	0%	0%	6%	0%

TABLE 12.2.3 % OF IMPROVED AND UNIMPROVED FACILITIES IN DIFFERENT REGIONS

The households, which reportedly installed latrines, were enquired about if they share their latrines with others. Findings indicate that most of the households do not share their facility with others. The findings are presented in table 12.4. Respondents from Dacope use the highest number of shared latrines (26%).

	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur
Shared facility	26%	6%	12%	9%	43%
Not-shared facility	76%	94%	88%	91%	57%

TABLE 12.2.4: % OF SANITATION FACILITIES SHARED BY HOUSEHOLDS

To understand ownership status and source of financing of household latrine, the respondents were asked questions in this regard. Data thus gathered, analyzed and presented in Table 12.5. In Paikgacha region 100 percent of the toilets are self-funded.

12 'As per JMP (WHO and UNICEF, 2003-2010), improved latrines are flush to septic tank/ sewer line/ pit, ventilated improved pit latrine, pit latrine with slab, and composting toilet, whereas unimproved latrines are flush to elsewhere, pit latrine without slab, bucket or hanging latrine, shared facilities of any type, and no facilities.'

Ownership of the facility	Dacope	Gangni	Paikgacha	Taherpur	Shyamnagar
Own	89%	97%	100%	52%	94%
Joint ownership	2%	2%	0%	28%	0%
Owner of the house	9%	2%	0%	2%	4%
Community	0%	0%	0%	0%	2%

TABLE 12.2.5: TYPE OF OWNERSHIP OF SANITATION FACILITIES

About source of installation or financing of installation of household latrine, the data reveal that the latrines in these regions are mostly financed by the respondents themselves.

Financing of the installation of the facility	Dacope	Gangni	Paikgacha	Taherpur	Shyamnagar
Self	62%	98%	98%	57%	81%
NGO	27%	0%	0%	14%	4%
Owner of the house	11%	2%	0%	8%	15%
Govt. organization (DPHE)	0%	0%	0%	2%	0%
Union Parishad	0%	0%	0%	2%	0%
Pauroshova	0%	0%	2%	0%	0%

TABLE 12.6: TYPE OF FINANCING FOR THE INSTALLATION OF THE SANITATION FACILITY

In table 12.2.8 distance (meters) of latrine from the main dwelling room are presented. In Gangni and Shyamnagar the household latrines comparatively situated more distant from the main dwelling room.

Distance (meters) of latrine from the main dwelling room	Dacope	Gangni	Paikgacha	Taherpur	Shyamnagar
Within 10 meters	85%	45%	68%	75%	78%
11 to 20 meters	8%	34%	18%	12%	16%
21 to 30 meters	0%	13%	12%	10%	0%
31 to 40 meters	0%	2%	2%	4%	3%
41 to 50 meters	8%	3%	1%	0%	0%
More than 50 meters	0%	3%	1%	0%	3%
n	52	64	60	52	37

TABLE 12.2.8: DISTANCE OF THE SANITATION FACILITY FROM THE MAIN DWELLING ROOM

Findings regarding place of defecation, under-five children are presented in table-12.2.9. In Paikgacha region the percentage of children's defecation in no specific place/in the courtyard is the highest (47%).

Place of defecation of under-five children	Dacope	Gangni	Paikgacha	Taherpur	Shyamnagar
In specific hole	38%	31%	11%	13%	0%
In specific pot	29%	15%	38%	22%	3%
No specific place/in the courtyard	18%	17%	47%	33%	0%
Use household latrine	15%	37%	2%	31%	98%
n	55	59	45	45	40

TABLE 12.2.9: PLACE OF DEFECTION OF UNDER-FIVE CHILDREN

Findings about place of disposal of feces of under-five children are presented in Table 12.10. . In Taherpur, 25 percent households do not take care of the waste so it remains exposed. From the data it can be indicated that 15 percent

of households from Dacope do not take care of the waste. And 29 percent of them do not have any specific place for disposing of feces of under-five children

Place of disposal of feces of under-five children	Dacope	Gangni	Paikgacha	Taherpur	Shyamnagar
Children use household latrine	15%	59%	2%	19%	86%
Disposed into household latrine	36%	8%	26%	54%	5%
No specific place/in courtyard	29%	27%	49%	2%	10%
Remain here and there	15%	0%	2%	25%	0%
To drain/dustbin	5%	0%	9%	0%	0%
Washed with tap/tube well water	0%	4%	0%	0%	0%
In pond/canal/river	0%	2%	13%	0%	0%
n	55	51	47	48	42

TABLE 12.10: PLACE OF DISPOSAL OF FECES OF UNDER-FIVE CHILDREN

When asked about whether any of the family member had defecated outside of the house within the last seven days and where was the place, following responses were received. In Dacope highest number of respondents defecated outside home and used open space to defecate while outside of home.

Place of defecation outside of the house	Dacope	Gangni	Paikgacha	Taherpur	Shyamnagar
Defecated in outside of house in last seven days	15	6	6	10	11
Place of defecation outside of the house					
Other's latrine	67%	67%	83%	50%	9%
Open space	33%	0%	0%	10%	9%
Public latrine	0%	17%	17%	0%	45%
Community latrine	0%	17%	0%	20%	0%
Mosque latrine	0%	0%	0%	20%	18%

TABLE 12.2.11: PLACE OF DEFECTION OUTSIDE OF THE HOUSE IN THE SURVEY RESPONDENTS

Overall condition of the latrines are presented on Table 12.2.12. Here attributes like opening of sewerage system and overall hygiene condition of the facilities were observed. In Taherpur 25 percent of the latrine outlets were connected to open spaces. In Taherpur and Shyamnagar the overall condition of the latrines were found to be worse than the other regions.

Overall condition of the latrines					
Indicators	Dacope	Gangni	Paikgacha	Taherpur	Shyamnagar
Outlets of the latrine					
To sewerage system through pipe	7%	3%	12%	37%	17%
To septic hole/specific hole	91%	94%	88%	37%	78%
To open space (river/canal/pond)	2%	3%	0%	25%	4%
n	55	65	66	51	46
Present condition of the latrine					
Excreta has come outside and spread out	4%	12%	0%	29%	4%
Insects can enter into latrine pit	0%	14%	29%	75%	11%
Bad smell emits from latrine	42%	42%	2%	53%	30%
Latrine pipe stays in open space connected to ditch/canal/pond/river	4%	14%	0%	12%	20%

TABLE 12.2.12: OVERALL CONDITION OF THE SANITATION FACILITIES IN DIFFERENT REGIONS

Suitability of the latrines for children, women and disable people were also observed. While most of the facilities were suitable for children and women in five regions, latrine facility for disabled people was significantly low in all five regions.

Indicators	Dacope	Gangni	Paikgacha	Taherpur	Shyamnagar
Children' user friendliness					
Yes	35%	55%	87%	70%	85%
No	65%	45%	13%	30%	15%
Women's user friendliness					
Yes	57%	92%	100%	98%	94%
No	43%	8%	0%	2%	6%
Disabled person's user friendliness					
Yes	33%	7%	0%	16%	30%
No	67%	93%	100%	84%	70%

TABLE 12.2.13: USER FRIENDNESS OF THE SANITATION FACILITIES FOR CHILDREN, WOMEN AND DISABLED PERSON

Lastly the maintenance cost of the facilities and how the costs were managed are presented in Table 12.14. Here, it shows that in most of the regions the highest amount of money was spent on renovation of the facility and the cost was carried out by respondents themselves mainly. In Paikgacha, it was found that none of the respondents had deposited money to an external person for latrine repair and maintenance. This is due to the absence of any active WASH management committee or WASH group in Paikgacha.

Maintenance or repairing of latrine since installation	Dacope	Gangni	Paikgacha	Taherpur	Shyamnagar
Type of repairing/maintenance work done					
Install new latrine	5%	3%	0%	4%	18%
Renovation/maintained	80%	41%	0%	92%	50%
Not needed	15%	55%	100%	0%	28%
Cleaning off filled up latrine pit/tank	0%	2%	0%	4%	5%
n	55	64	65	52	40
Average cost for latrine repair and maintenance (BDT)					
Mean	278.3	738.1	-	512.5	435.3
Median	300	500	-	500	100
Mode of deposition of repairing/maintenance money					
I spend myself	78%	97%	45%	83%	31%
To other user	4%	0%	0%	6%	0%
Responsible person of community group	2%	2%	0%	0%	3%
Do not deposit money to anyone	17%	2%	43%	10%	5%
To caretaker	0%	0%	11%	2%	13%
n	54	63	66	52	39

TABLE 12.2.14: TYPE OF REPAIRING AND MAINTENCEN WORK DONE IN THE SANITATION FACILITIE

Hygiene Behavior

Similar to the water and sanitation facilities for the households, the hygiene facilities are also categorized into the JMP ladder system as is shown in table 12.3.1. Among the five study regions, no facility was found to be highest in Paikgacha (65%) followed by Gangni (55%) and Dacope (51%). Highest number of basic facilities were found in Shyamnagar (66%) followed by Taherpur (64%).

JMP Ladder	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Overall
Basic ¹³	31%	44%	29%	66%	64%	47%
Limited ¹⁴	18%	2%	6%	13%	13%	10%
No facility ¹⁵	51%	55%	65%	21%	23%	43%

TABLE 12.3.1: HYGIENE FACILITIES OF HOUSEHOLDS ACCORDING TO JMP LADDER

Prevalence of the five Water Safety Plan (WSP) habits were asked and observed in the sample households to identify the hygiene behavior.

A. Whether water pot cleaned with drinking water during water collection

Water pot cleaned with drinking water during water collection	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
No	1.5%	1.6%	0%	3.2%	9.0%	3%
Yes, always	80.6%	96.9%	100%	91.9%	58.2%	86%
Yes, sometimes	17.9%	1.6%	0%	4.8%	32.8%	11%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

It was found majority of respondents (86%) cleaned water pot during water collection.

B. Whether water pot is covered during drinking water collection

Water pot is covered during water collection	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
No	28.4%	17.5%	0%	0%	28.4%	15.0%
Yes always	43.3%	66.7%	98.8%	98.4%	43.3%	63%
Yes sometimes	28.4%	15.9%	2%	1.6%	28.4%	15%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

An uncovered water pot with preserved water may become contaminated with dust, dirt or any other substance if left uncovered during the water collection period. However, almost equal amount of yes sometimes (15%) and no (15%) responses were found regarding covering of water pot during drinking water collection.

¹³ According to JMP definition households that have handwashing facilities on premises with soap and water were marked as having Basic hygiene facilities.

¹⁴ Availability of a handwashing facility on premises without soap and water was considered as limited hygiene facility according to JMP standards.

¹⁵ Households that were not found to have any handwashing facility on premises were marked as having no hygiene facility as per JMP definition for hygiene facility.

C. Whether water pot is covered during preservation (After observation)

Water pot is covered during preservation	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
No	0.0%	30.2%	3%	4.8%	3.0%	8%
Not preserved	0.0%	11.1%	0.0%	1.6%	4.5%	3%
Yes	100.0%	58.7%	97%	93.5%	92.5%	88%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

It was observed that majority (88%) of respondents covered the water pot during preservation.

D. Where the water pot is kept to preserve drinking water (after observation)

Place of keeping the water pot while preserving	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
Floor	28.4%	77.8%	59%	58.1%	11.9%	47%
High place	71.6%	7.9%	41%	41.9%	88.1%	50%
Not preserve	0.0%	14.3%	0.0%	0.0%	0.0%	3%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Almost half (47%) of the respondents kept water pot in the floor, whereas rest half (50%) of the respondents kept it in a high place.

E. Whether glass is cleaned with drinking water when served (after observation)

Row Labels	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Grand Total
No	0.0%	4.8%	0.0%	0.0%	0.0%	1%
Sometimes	0.0%	0.0%	0.0%	3.3%	0.0%	1%
Yes, always	52.2%	81.0%	98%	91.8%	28.4%	70%
Yes, sometimes	47.8%	14.3%	2%	4.9%	71.6%	28%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Almost all (70%) the respondents cleaned the glass and poured water afterwards when a glass of drinking water was asked.

Handwashing behavior during the five important times was inquired and it was found that after defecation handwashing was universal (99%), followed by before eating (70%). Lowest instances of handwashing behavior was found in before cooking (32%), and before feeding child (37%).

Events	Dacope	Gangni	Paikgacha	Shyamnagar	Taherpur	Overall
After defecation	100%	100%	100%	95%	100%	99%
After rinsing child's excreta	66%	14%	53%	68%	83%	56%
Before eating	63%	30%	100%	77%	84%	70%
Before cooking	4%	11%	69%	59%	22%	32%
Before feeding child	12%	5%	39%	68%	69%	37%

TABLE 12.3.2: HANDWASHING BEHAVIOUR DURING DAILY EVENTS

CASE STUDY-2



“When I was child, I cannot remember a single time when we had to worry about drinking water in the house. But now getting good drinking water has become a high priority issue.” says Moniruzzaman, a local resident of Shymnagar, Satkhira. He has passes his entire life in Shymanagar and is a witness of the effect of climate change in this zone.

Salinity intrusion is a serious problem in Shyamnagar region which is nearby the coast of the Bay of Bengal. During the last severe cyclones ‘Sidr’ and ‘Aila’ in 2007 and 2009 respectively, strong tidal surges inundated with sea water of the Bay of Bengal had caused traditional ponds and other surface water bodies to become water logged with highly saline sea-water, making it unsuitable for any form of human consumption.

Currently Moniruzzaman’s family collects water from a tube well almost half kilometer away from their house and they need to travel this distance 2-3 times each day for collecting their daily water. During the summer season, water scarcity increases, and people have to wait in line for hours to avail their necessary water. This is the common peril of not Moniruzzaman but, all the households of Shyamnagar.

13. Discussion of the findings

One point should be noted that as previous intervention has been done by WaterAid in regions like Dacope and Taherpur, increased awareness and improved practices have been found in those regions, especially in healthcare sector.

In terms of access to safe water, 43% facilities are safely managed, 46% are basic and 9.9% are safely managed. Prevalence of lowest amount of safely managed facilities are in Dacope (10%), whereas highest amount of limited facilities are in Shyamnagar (39%), and highest number of basic facilities are in Dacope (84%).

For sanitation, Taherpur has the lowest number of safely management facilities (25%) as well as highest number of basic (11%), limited (30%) and unimproved (19%) facilities. In terms of open defecation, Daope is highest (18%) followed by Taherpur (14%).

Regions which lacked the highest number of facilities for hand-washing is 65% in Paikgacha, followed by Taherpur (28%). Highest number of limited facilities are in Dacope (42%), and lowest number of basic facilities are in Taherpur (36%).

The five study regions are geographically distributed in three locations and water quality and sanitation facilities in respective regions have similar type of problems.

- Gangni has good water layer levels and tube wells are the most common source of water (99.9%). According to DPHE interview, water layer in Gangni is within 20 to 30 feet and shallow tube wells are sufficient to provide good quality drinking water. However, Gangni suffers from higher arsenic contamination compared to the other study regions. In Gangni most of the sanitation facilities are safely managed and basic. So during floods or any other natural calamity the households do not face any severe problem and the facilities remain functional.
- Shyamnagar, Dacope and Paikgacha are coastal regions in the south and all suffer from salinity intrusion, and higher concentration of iron in drinking water sources. Majority of households in Shyamnagar and Dacope depend on PSF (Pond Sand Filter). Most of the water supply in Paikgacha suffer from being saline and undrinkable. The three coastal regions face the highest form of difficulty during rainy season when it floods. Almost all of the latrines go under water and as these are not safely managed facilities the waste overflows and contaminates the water sources.
- Taherpur is geographically a haor-based area having abundance of canals and ponds. During the rainy season, the water in the hoar overflows and flood is a common phenomenon in this region. As Taherpur is a flood-prone area, during monsoon the latrines located in low-lying areas go under water and just like the southern regions the water becomes contaminated by overflowing of waste. That causes unhygienic atmosphere which threatens the entire ecosystem. After the water goes down the latrines remain dysfunctional for some time.

14. Recommendation

The following recommendations are made based on the study findings and presented based on study objectives:

Broad Objectives	Specific Objectives	Recommendations
Objective 1: To evaluate current capacity of local institutions to deliver and manage WASH services for all, and address challenges of climate resilience, water security and urbanization	Evaluation of current capacity of stakeholders	<ul style="list-style-type: none"> In DPHE, capacity development should be done to ensure that functionality monitoring of the water and sanitation facilities is done, Water Quality test conducted periodically and follow up decisions taken on the basis of Water Quality results. To induce a behavioral change, interventions can be implemented, for example educating CHCP to discussion WASH issues with service recipient i.e. the patient and patient attendants, and ensuring that discussion of WASH related issues are discussed in CG meetings. Capacity development of the UHFPO should be done to facilitate regular inspection, and relevant mobilization of resources to solve WASH-related problems.
	Current capacity to plan the effective delivery of WASH services	<ul style="list-style-type: none"> In Union Parishad level, WASH groups should be formed and activated. These WASH groups can play an important role during the Ward-shova and open budget discussion to represent participation from marginalized people of the community. In terms of WASH services, appropriate business models can be explored to make the interventions and systems more sustainable. For example, crisis of water creates underlying demand and any institutional arrangement to cater to that demand through a business model can help fulfil the need of the community as well as ensuring the financial viability of the venture.
	Current status of service delivery models regarding challenge areas	In certain geographical areas some challenges exist. For example, Dacope has limited water sources but, due to the geography of Dacope, installation of water sources within premises of households is challenging. Therefore, appropriate technology or system has to be sought which will provide access to safe water in an affordable and convenient way to the inhabitants.

Objective-2: To assess current condition of mechanisms for citizens to understand their entitlements/responsibilities and hold WASH service providers and duty bearers to account	Current status of community involvement in planning, monitoring and evaluation processes at different levels	Upazilla level WASH committee should be formed and activated, and this committee can contribute to representing the WASH needs of the general community, poor and marginalized population in annual budget process.
	Current status of community regarding claiming their rights for WASH	More awareness programs/campaigns can be launched by NGOs and other concerned groups to ensure that people know about their WASH rights and how to claim those.
	Current status of active participation of people from marginalized and socially excluded groups	At present no active participation of people from the socially excluded group has not been found. To include them in the ward-shova, community groups' discussion related WASH, proper policies should be made.
	Current status regarding knowledge and understanding of the media to effectively engage in WASH promotion	Local media can be used to increase the community's WASH related literacy. Currently the community only can relate to advertisements for soap with hygiene issue. More integration can be done using media to engage more people in the process of successful WASH delivery.
Objective-3: To Assess current condition of policy, institutional and fiscal arrangements at national and/or sub-national levels to deliver and sustain WASH services for all by 2030	Current status of clear roles and responsibilities for delivery, management and financing of WASH services	In the Pourashova, a sustainable WASH plan needs to be created aimed at providing full WASH access to the inhabitants. A water branch was found, but any branch or man-power for monitoring of sanitation facilities or hygiene promotion was found to be absent. A branch with sufficient man-power for monitoring of sanitation facilities and hygiene promotion should be done to ensure regular operation of the WASH facilities.
	Current condition of coordination mechanisms for WASH actors working at national/district level	No coordination meeting between WASH actors currently exist at the national or district level. In the current government format, DPHE is responsible for holding a meeting at upazila level. Thus an ideal coordination meeting should include representatives from all these stakeholders which DPHE is responsible for providing WASH related services.
Objective-4: To evaluate improved cross-sector integration improves access	Percentages of schools with	In schools, institutional arrangement of WASH service was found to be present, but inadequate according to the number of students. Also, the current process of O&M of

<i>to WASH and hygiene promotion in schools and healthcare facilities</i>	gender segregated WASH facilities	WASH facilities was found to be a challenge, and any intervention to ensure increased availability of WASH facilities will contribute to the well-being of the students further.
	Percentages of schools with WASH facilities that are accessible for children with disability	Proper WASH facilities accessible for children with disability were not found in any of the region. To improve the existing facilities to “advanced” stage, appropriate facilities for children with disabilities is a must.
	Percentages of health facilities with basic WASH facilities	In community clinics, the maintenance and repair of water and sanitation facilities were found to be a challenge. Therefore, hardware based interventions should be implemented to resolve this.



ANNEX-1

Capacity Assessment Checklist Items

Stakeholders	Performance criteria
CG (Community Clinic)	1. CG activated (Evidence found to have at least one meeting).
	2. President of the CG groups are aware on the WASH rights and can able to link the WASH issue with health and nutrition.
	3. CG Meeting conducted monthly basis (Check last six months).
	4. Evidence (meeting minutes) found that WASH related issues are discussed and found in the meeting minutes of at least three meetings.
	5. CG able to mobilize resource[3] for improvement of WASH situation of the health center (in last year)
CHCP (Community Clinic)	1. Community Health Care Provider (CHCP), Family Planning Assistant and Health Assistant on board at Community Clinics (Check their attendants sheet)
	2. WASH issues are discussed with the service recipient by CHCP / HA during counselling (Observe at least 2 cases)
	3. Medical materials and personnel are kept clean (hygienic manner) and CHCP maintains hygiene during seeing a patient (Washes hands before/afterward)
	4. Patient register and medicine inventory is up to date
	5. Dedicated human resource (or clear role clarity) for the O&M of the WASH facilities
UH&FPO	1. Dedicated[4] UH&FPO is on board and aware on the key elements of the WASH rights
	2. Monthly meeting (involving the CHCPs) conducted. Evidence found that WASH issues of the CCs are discussed during the meeting (check meeting minutes)
	3. Evidence found that the UH&FPO conducted physical visits to at least 02 community clinics in last three months. (Check guest comment or any other available report as practice by UH&FPO)
	4. Evidence found that WASH aspects of the community clinic was checked / investigated in any physical visit conducted by UH&FPO in last three month (Check guest comment or any other available report as practice by UH&FPO)
	5. Evidence found that UH&FPO support the CG groups for any of the resource mobilization activity that targeted for WASH (Discuss with CG groups)

Union Parishads (UDCC)	1. UDCC formed / activated and at least 50% of the group members know about their engagement in the group.
	2. Coordination meeting (UDCC) conducted in every month (check last three month). Discussion and decisions are found documented.
	3. Standing committee for WASH and Disaster (UDMC) are formed. Evidence found at least one meeting conducted in last three month.
	4. Ward-Shova and open budget discussion conducted in last financial year where there was participation from poor and marginalized people
	5. Budget utilization for WASH increases at least 10%
DPHE	1. 50% of total staff (provisioned in the particular upazila) is on board
	2. Evidence found that Water Quality test conducted in two month. Any follow up Initiative on the basis of WQ result
	3. At least two UP chairman considered satisfied[5] with the service provided by DPHE in last year
	4. Evidence found for functionality monitoring of the water and sanitation facilities by the DPHE officials in last two month including Community Clinics (CC)
	5. Evidence found that DPHE responded to any kind of requirement raised by the service recipient
Upazila Chairman	1. Upazila chairman is aware on the WASH situation of the area and able to link the WASH issue with human rights
	2. Upazila level WASH committee are activated. Evidence found that at least one meeting conducted in last three month
	3. Evidence found that the last annual budgeting process included the representative from poor and marginalized community
	4. Budget allocation on WASH increased at least 10% in last budget comparing with the previous year budget
	5. Budget spend for WASH increases at least 10%
SMC	1. SMC committee formed / activated and at least 50% of the member knows about their engagement in the committee
	2. SMC are aware about the importance of WASH issue (especially MHM and how the girls wellbeing can be interrupted for poor management of MH)
	3. Evidence found that SMC member (except head teacher) monitor WASH situation of the school and appropriate measure taken to address this)

	4. Meeting conducted as standard where WASH situation of the school discussed and follow up decisions made (at least one meeting in last three month)
	5. Evidence found that SMC able to mobilize resources for the O&M of the WASH facilities
PTA	1. PTA formed / activated and at least 50% of the member knows about their engagement in the committee
	2. PTA are aware about the importance of WASH issue
	3. Meeting conducted as standard (check last 06 month). WASH situation of the school discussed and follow up decisions are made.
	4. Evidence found that PTA member (accept head teacher) monitor WASH situation of the school and appropriate measure taken to address this)
	5. PTA engage the representative from poor and marginalized communities who take part in the meeting
Upazila Primary Education Office	1. Primary education officials (allocated) are aware on the importance of WASH in school.
	2. Primary education officials have an understanding on the importance of WASH in schools.
	3. Education officials conducted at least three physical visits in the school in last three months
	4. Physical visits included investigation of WASH situation. Recommendation has been made
	5. Upazila Education office allocated resources considering pro-poor aspects
Upazila Secondary Education Office	1. Education officials (allocated) are aware on the importance of WASH in school.
	2. Secondary education officials have an understanding on the importance of WASH in schools.
	3. Education officials conducted at least three physical visit in the school
	4. Physical visits included investigation of WASH situation. Recommendation has been made
	5. Upazila Education office allocated resources considering pro-poor aspects
Municipality	1. WCs are formed and members are aware on their engagement
	2. WASH plan is available in the municipality
	3. WCs includes representatives from poor and marginalized groups

	4. Evidence found that municipality monitoring the water and sanitation interventions.
	5. Evidence found that municipality has a sustainable WASH system for its citizens.



ANNEX-2

Breakdown of the household samples

Name of Upazilla	Union/Ward
Dacope	Bajua
	Chunkuri
	Shaheberabad
Gangni	Dhankhola
	Saharbati Union
	Solotaka
Paikgacha	Ward 1
	Ward 2
	Ward 3
	Ward 6
	Ward 9
Shyamnagar	Shyamnagar Sadar
	Vurulia
	Kashimari
	Bhadaghati
	Esshoripur
	Nakipur
Taherpur	1 no Ward Taherpur Sadar Union
	2 no Ward Taherpur Sadar Union
	3 no Ward Taherpur Sadar Union
	5 no Ward Taherpur Sadar Union
	7 no Ward Taherpur Sadar Union
	Balia Ghat
	Uzan Taherpur

List of schools and healthcare facilities with individual SDG-based WASH indicators

i. Healthcare Centre

SL no.	Name of healthcare center	Region	Water Facility	Sanitation Facility	Hygiene Facility
1	Shuvosmriti Community Clinic	Dacope	Basic	Limited	Basic
2	Kalilabati Community Clinic	Dacope	Limited	Limited	No Service
3	Lakkhikhola Community Clinic	Dacope	Limited	Limited	No Service
4	Lakma purbapara Community Clinic	Taherpur	Limited	Limited	Limited
5	Taker Ghat Community Clinic	Taherpur	Basic	Limited	Basic
6	Tahirpur Health Complex	Taherpur	Basic	Limited	Limited
7	Solotaka Community Clinic	Gangni	Limited	Limited	Limited
8	Chitla Community Clinic	Gangni	Basic	Limited	Limited
9	Garadob Community Clinic	Gangni	Basic	Limited	Limited
10	Koshba Community Clinic	Gangni	Basic	Limited	Limited
11	Jugindha Community Clinic	Gangni	Basic	Limited	Limited
12	Dhankhola Community Clinic	Gangni	Basic	Limited	Limited
13	Sosanghat Community Clinic	Gangni	Basic	Limited	Limited
14	Manikdia Community Clinic	Gangni	Basic	Limited	Limited
15	Durgapur Community Clinic	Shyamnagar	Basic	Limited	Limited
16	Hatchala Community Clinic	Shyamnagar	Basic	Limited	Limited
17	Henci Community Clinic	Shyamnagar	Limited	Limited	No Service
18	Godaipur Health complex	Paikgacha	Limited	Limited	Limited
19	Paikgacha Upazila Healthcare Complex	Paikgacha	Limited	Limited	Basic

ii. Educational Institutions (Schools)

SL no.	Name of School	Region	Water Facility	Sanitation Facility	Hygiene Facility
1	Sonar Bangla Secondary High School	Dacope	Basic	Basic	Basic
2	Mohammad Ali Secondary High School	Dacope	Basic	Basic	Basic
3	South Gunari High School	Dacope	Basic	Limited	Basic
4	Gunari Shitolchondro High School	Dacope	Limited	Limited	No Service
5	K.G.V.J Sommiloni Girls High School	Dacope	Basic	Limited	Basic
6	Tildanga Primary School	Dacope	Limited	Limited	No Service
7	Dhankhola Secondary School	Gangni	Basic	Basic	Limited
8	Mikusish Secondary School	Gangni	Basic	Limited	No Service
9	Bashbaria High School	Gangni	Basic	Limited	Basic
10	Juginda High School	Gangni	Basic	Limited	No Service
11	Chitla High School	Gangni	Basic	Limited	Basic
12	Jugirgofa High School	Gangni	Basic	Limited	No Service

13	61 No Shohid Gofur Govt Primary School	Paikgacha	Limited	Limited	No Service
14	14 no Soroldighir Par Primary School	Paikgacha	Basic	Limited	No Service
15	The rising sun School	Paikgacha	Basic	Limited	Basic
16	Paikgacha govt girls School	Paikgacha	Basic	Limited	No Service
17	Jamiatul Sunnah Darul-ulom Madrasha	Paikgacha	Limited	Limited	Limited
18	Paikgacha govt School	Paikgacha	Basic	Limited	No Service
19	Ishwaripur A Sobahan High School	Shyamnagar	Basic	Basic	Basic
20	Shyamnagar Kendrio Darul Ulum Madrasha	Shyamnagar	Basic	Basic	Basic
21	Nakipur Govt. HC High School	Shyamnagar	Basic	Basic	Limited
22	Shawkatnagar High School	Shyamnagar	Basic	Limited	No Service
23	Atulia Abdul Kader School and College	Shyamnagar	Basic	Limited	No Service
24	Shankarkati Khadiza Govt Girls High School	Shyamnagar	Basic	Limited	No Service
25	Taherpur Girl High School and College	Taherpur	Basic	Limited	No Service
26	Uzan Taherpur Govt. Primary School	Taherpur	Basic	Limited	Limited
27	Gulockpur Govt. Primary School	Taherpur	Basic	Limited	No Service
28	ModdhoTaherpur Govt. Primary School	Taherpur	Basic	Basic	No Service
29	Kawkandi Govt. Primary School	Taherpur	Limited	Limited	No Service
30	Bordol Uttor hatibanda Govt. Primary School	Taherpur	Limited	No Service	No Service

ANNEX-3 Data Capture Instruments



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