

Watershed

empowering citizens



WASH and IWRM: Experience of Bangladesh

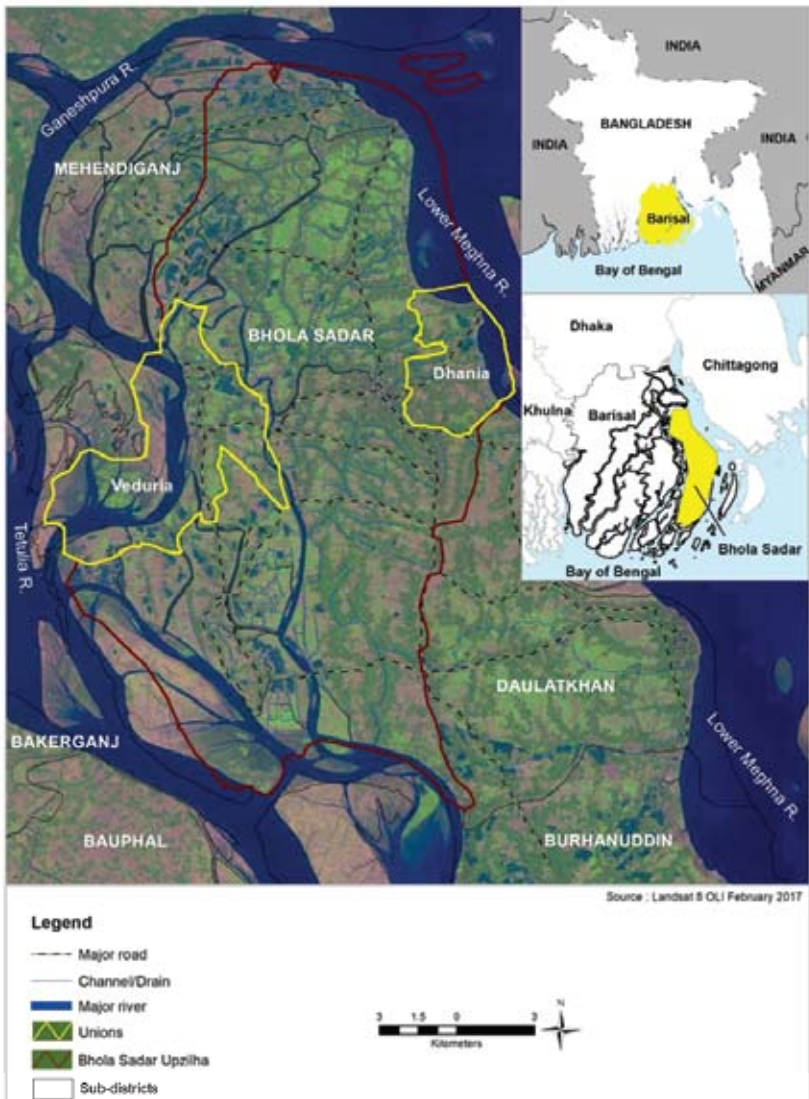
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Abbreviation

BADC	Bangladesh Agriculture Department Co-operation
BWDB	Bangladesh Water Development Board
CSO	Civil Society Organization
DORP	Development Organization of the Rural Poor
DPHE	Department of Public Health and Engineering
FGD	Focus Group Discussion
IWRM	Integrated Water Resources Management.
KII	Key Informants Interview.
LGED	Local Government and Engineering Development
NGO	Non-Government Organization
WASH	Water, Sanitation and Hygiene
WISA	Wetlands International South Asia
WMCC	Water Management Citizen Committee
WSP	Water Security Plan

Map of Bhola Sadar Upazila, Bangladesh



Preface

The main aim of Watershed-empowering citizens program is to strengthen capacity of Civil Society Organizations (CSOs) to advocate and lobby in the interrelated fields of IWRM and WASH to ensure equity and social inclusion, as well as sustainable usage of water resources. DORP is implementing the program at Bhola where the issues are very relevant. Bhola a coastal district is basically an island. It is a hard to reach area combination of both rural and urban. Many chars (marshy land) are also under the district's jurisdiction. This paper is based on the present situation of WASH & IWRM and what are government departments as service providers and duty bearers doing for development. Next plan of action also discussed in this paper for overall improvement for sustainability.

Introduction

DORP is implementing the Watershed-empowering citizen project at Bhola Sadar Upazila since 2017 and onward. Strengthening capacity of 2 CSOs (Water Management Citizen Committee-WMCC and NGO Network) to do evidence based lobby and advocacy on WASH and IWRM is the key objective of this project. There are 3 themes in this project which are Knowledge & Research, Capacity Development and Lobby & Advocacy. Main strategy to achieve the outcome of Watershed project is Civil Society Capacity Strengthening, Policy Practice & Policy Implementation, and Inter-stakeholder Dialogue.

Background

Sustainable Development Goal (SDG) 6 underlined the need to increase people's participation in ensuring universal access to water and sanitation. The government has acknowledged the crucial role of CSOs in SDG implementation, which was not encouraged before. DORP aims to accelerating the process of SDGs implementation by capacity strengthening of CSOs to be able to engage with public finance decision making process to increase allocations for WASH for most disadvantage peoples (at Bhola).

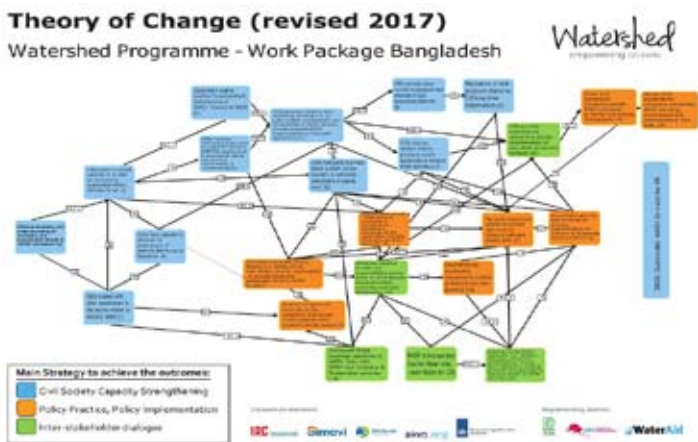
Community people and citizen are not aware about the budgeting process as well as the roles and responsibilities of different service providers to get required WASH services. However, budget tracking process can help to bring different stakeholders on their own perspective and create an enabling environment for people's participation. It also involves local decision-makers to implement the relevant acts, policies, strategies and plans to bridge between the community and the local government representatives.

Various policies, act, strategies already reviewing in line with SDG while service providers (DPHE, LGED, BWDB, Union Parishad, Upazila Parishad, etc.) public representatives should have updated clear understanding and apply accordingly. E.g. WASH standing committee at Upazila comprising of public representative, citizen, service providers and community people does not know and act properly then policy implications on

WASH cannot be sustainable. These committees supposed to sit bi-monthly to follow up the progress for WASH at Upazila and Union but it is not practicing unless all stakeholders including citizen take their own initiative.

Besides, there are two reasons which are significant for inclusion of people in budgeting i.e. the systems are exists but people do not know and political commitment throughout the total structure. Percentage of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management is the indicator in SDG for inclusion which needs to be addressed by local government. This also could enable environment for establishing of accountability mechanism at ground.

Watershed programme has undertaken a number of activities to engage CSO in local policy advocacy and monitoring progress of WASH and IWRM. As a CSO, DORP aims to strengthening capacity of local CSOs in contributing towards achieving SDG-6 by 'Budget Tracking' on WASH budget in Bhola - thus sensitising policymakers towards challenges in implementation and allocation efficiency in resource distribution, bringing more transparency in the implementation process, facilitating exchange of information and coordination with all those working and interested to work on the Water Resource Management (WRM) and Water, Sanitation and Hygiene (WASH).



Strategy

There are 5 (five) strategies of Watersheed -empowering citizens program to strengthen capacity of Civil Society Organisations (CSOs) to advocate and lobby in the interrelated fields of IWRM and WASH to ensure equity and social inclusion, as well as sustainable usage of water resources.

1. Data for evidence

Multiple sources of data may be available in a country e.g. national reports, census data, survey data, research data, NGO data etc. Data collected should be Reliable, Valid, Timely, Interpretable, Relevant and Applicable. Data analysis should be directed towards building the Evidence base i.e. meaningful interpretations of the data that can hold convincing power, when messages are taken to key stakeholders. Evidence needs to be organized into meaningful but powerful summaries e.g. summary table, graph, chart, map etc. Evidence is needed explain the root causes/problem area; this could be a survey, secondary information or information sharing within stakeholders.

Data are a collection of facts that can be used as the basis to build the “substantiation” or the body of evidence necessary for convincing advocacy. In itself, data represents a set of facts. The interpretation and appropriate use of data serves as the evidence which is associated with the idea of “proof” and substantiation of a hypothesis or theory. The process of evidence gathering necessitates the collection of sound, reliable and valid information or “data”.

2. Social inclusion

Gender is different from sex. It stems not only from the physical aspect of being a woman or a man, but also from the socio-cultural, economic, and political aspects. Gender is rooted in power relations, which are not always equal, but rather asymmetrical. The meaning of asymmetric power relations is that differences exist in power among people, such as between men and women (husband and wife), between men (father and son), and between women (mother in law and daughter in law) and between rich and poor men, women, children. Gender also interacts with age, ethnicity, socio-economic class, caste, location and so on. So, gender is dynamic or changeable.

Gender relations can change and do change, like culture, if people themselves want it to change. She exemplified that there is a taboo that Muslim women do not touch fishing nets but in Monpura char of Bhola Muslim women are doing fishing. For their survival they are breaking the gender norms and culture. This is an example of changing the gender norms and attitudes in a conservative society.

In human beings, from birth onwards, some gender ideologies are set. Whenever we talk about inclusion, we think about including women. We don't even think about poor people. So, mindset is very crucial for water and sanitation because women are closely related with water for their daily work and sanitation as well. For example women's menstruate and Menstrual Hygiene Management (MHM) needs are different for women and girls. There is nothing natural about unequal gender relations. In fact it is cultural. In sanitation and hygiene, lots of taboos exist and changing gender ideology (mindset and attitude), which is difficult, but not impossible. Therefore, gender relations are power relations which can change and do change, like culture, if people themselves want it to change.

3. IWRM/WASH integration

There are 5 core elements of Water Security Plan

1. Access to safe and sufficient drinking water at an affordable cost in order to meet basic needs, which includes sanitation and hygiene (cf. United Nations General Assembly, 2010), and the safeguarding of health and well-being;
2. Protection of livelihoods, human rights, and cultural and recreational values;
3. Preservation and protection of ecosystems in water allocation and management systems to maintain their ability to deliver and sustain the functioning of essential ecosystem services;
4. Water supplies for socio-economic development and activities (such as energy, transport, industry, tourism);
5. Collection and treatment of used water to protect human life and the environment from pollution;

There are 4 Guiding principle of IWRM

Principle No.1: Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment.

Principle No.2: Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels. *(The participatory approach involves raising awareness of the importance of water among policy-makers and the general public. It means that decisions are taken at the lowest appropriate level, with full public consultation and involvement of users in the planning and implementation of water projects.)*

Principle No.3: Women play a central part in the provision, management and safeguarding of water.

Principle No.4: Water has an economic value in all its competing uses and should be recognized as an economic good.

There are 6 Working principles for WASH and IWRM

1. Catchment management and source protection are essential to ensuring sustainability of supply.
2. Water use efficiency and demand management must be addressed to minimize the need for new source development.
3. Multiple uses of water should be acknowledged and encouraged.
4. All stakeholders should be involved in decision making, but particular emphasis should be put on the active participation of users.
5. Gender and equity issues must be addressed throughout the project cycle.
6. Water provision should be priced so as to discourage wasteful use, while ensuring the right to access of a necessary minimum for all.



4. Finance and budget tracking

Budget tracking on WASH is a process which helps to visualize how public budget is allocated and utilized at Union Parishad (lowest tier of government administration) in order to improve the basic service access to water, sanitation and hygiene for all. Budget tracking on WASH also intended to oversee the financial involvement in water, sanitation and hygiene sector while it also provides a roadmap to the decision makers in their attempt to address the commitment on WASH of the politician as well as government. By involving various stakeholders, budget tracking process plays an important role in the use of existing policies and plans of Government of Bangladesh on WASH and IWRM. It also involves local decision makers to implement the available related policies and plans to bridge between the community and the local government representatives. Budget for water, sanitation and hygiene need to be increased on the basis of demand from the community people as well as timely implementation of plans.

Engaging community people and sensitizing authorities at the same time could make a connection that contribute to enhance effort for improvement of WASH sector which in future may solve issues like less budget allocation and its proper utilization thus develop WASH and IWRM country situation. Water, sanitation and hygiene sectors were not seen separately before, but due to difference goals and targets, the Bangladesh Water Development Board-BWDB, Local Government Engineering Department-LGED and Department of Public Health Engineering-DPHE and local government institutes i.e. Union Parishad, Upazila Parishad and Municipality are now giving necessary support to the public budget allocation of this sector.

5. Policy influencing

Existing budgeting system of WASH is fragmented through different ministries, institutions, divisions as well as departments. Local Government, Rural Development and Cooperatives (LGRDC) is the designated line Ministry for water, sanitation and hygiene facilities, services, monitoring and policy preparation. In association with LGRDC, at least 4 other more ministries are involved or linked with WASH policy and budget and its related implementation. Under the Mid Term Budgetary Framework-

MTBF all ministries and its relevant departments prepare both development and non-development budget of 1 fiscal year estimated budget and another 2 years projected budget. Local Government Division-LGD under the MoLGRDC is the responsible agency for WASH sector and all the budgeting, relevant policies and strategies are prepared through this division. However, understanding of national and local budgeting process and relevant policy implication is very important to know for better planning and its execution in WASH sector.

Country Status Bangladesh

The Government of Bangladesh has acknowledged the crucial role of the Civil Society Organisations (CSOs) in achieving Sustainable Development Goals (SDGs), which is also one of the targets (17.17) of SDG-17. Two CSOs, namely, Water Management Citizen Committee (WMCC) and Watershed NGO Network (WNN), have been formed and socially-excluded and less-welcome citizens have been included in these two CSOs to attain “Leave No One Behind” goal.

A CSO represents people from various sections of the society while another CSO represents local NGOs who can bargain, influence and sensitise the local Water, Sanitation and Hygiene (WASH) and Integrated Water Resource Management (IWRM) authority as well as local citizens. Development Organisation of the Rural Poor (DORP) acting as a facilitator to strengthen capacity of the CSOs in accelerating the process.

It may be mentioned that equity, gender and social inclusion cannot be addressed without inviting and engaging local communities as well as CSOs. However, to engage them, political and social issues also need to be considered in line with local context.

Gradually the initiative can link the citizens and improve understanding capacity of various groups of people at union and upazila level. About 15 per cent budget for WASH from Annual Development Programme (ADP) is a commitment from Local Government Division (LGD) which is an opportunity for CSO to explore and link. IWRM is new in practice level though coordination among service providers and citizens need to be

strengthened while training of CSOs on the tactics of lobbying and advocacy and getting into the entry point of lobbying can help in the process. 5 Issues which are being addressd in Watershed program for sustainable WASH services,

- Finance and Accountability
- Citizen Participation
- IWRM
- Lack of Policy Operationalization
- Leadership of Government

There are national level CSO and networks working on WASH and IWRM in Bangladesh. WSSCC, FANSA, BAWIN, etc. WHO and UNICEF established the Joint Monitoring Program for Water Supply, Sanitation and Hygiene in 1990, and published regular global updates throughout the Millennium Development Goal period and now Sustainable Development Goal-SDG period. The JMP service 'ladders' enable benchmarking and comparison of progress across countries at different stages of development. According to Joint Monitoring Programme for Water Supply, Sanitation and Hygiene-2017, estimates on the use of water, sanitation and hygiene in Bangladesh are, 56% safely managed water, 47% basic sanitation as no data is available for national safely managed but in rural it is 32% and 40% basic service in Hygiene.

According to GED (2015) the proportion of total water resources used in Bangladesh was 2.9 percent in 2010. Bangladesh is endowed with rich water resources. Internal renewable water resources are estimated at 105 km³/year (based on the National Water Plan Phase II), including 84 km³ of surface water produced internally as stream flows from rainfall and approximately 21 km³ of groundwater resources from within the country. Annual cross-border river flows that also enter groundwater are estimated at 1105.64 km³ and represent over 90 percent of total renewable water resources which are estimated to be 1210.64 km³. Total water withdrawal in 2008 was estimated at about 35.87 km³, of which approximately 31.50 km³ (88 percent) is used by agriculture, 3.60 km³ (10 percent) by municipalities and 0.77 km³ (2 percent) by industries. About 28.48 km³ or 79 percent of total water withdrawal comes from groundwater and 7.39 km³ or 21 percent, from surface water.

The Sustainable Development Goals (**SDGs**), otherwise known as the Global Goals, are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. These 17 Goals build on the successes of the Millennium Development Goals, while including new areas such as climate change, economic inequality, innovation, sustainable consumption, peace and justice, among other priorities. The goals are interconnected, often the key to success on one will involve tackling issues more commonly associated with another. Ensuring universal access to safe and affordable drinking water for all by 2030 requires we invest in adequate infrastructure, provide sanitation facilities, and encourage hygiene at every level. Protecting and restoring water-related ecosystems such as forests, mountains, wetlands and rivers is essential if we are to mitigate water scarcity. More international cooperation is also needed to encourage water efficiency and support treatment technologies in developing countries.

The success of Bangladesh in achieving MDG targets is well recognized. As part of this recognition, Honorable Prime Minister has been made a member of HLPW for SDG-6. This membership has induced lots of activities in SDG-6 and an action plan has been formulated by MOWR. 87% of population has access to



safe water sources (Target 6.1) and 61% population has access to safe sanitation (Target 6.2) in 2015. No updated data is available on these indicators. For sustainable management of water resources, two key initiatives can be observed related to Target 6.3 (improvement of water quality) and Target 6.6 (protection of water ecosystem). Hazaribag tannery industries have been relocated to Savar in order to improve the severely degraded water quality of Buriganga. To preserve Halda river ecosystem, drastic efforts have been taken this year bearing, bearing in this instance, immediate results in terms of large fish egg collection.

Institutions for WASH and IWRM:

The Ministry of Water Resources (MoWR) is the executive body responsible for water sector development and management including expansion of irrigated areas, water conservation, surface and groundwater use, and river management. MoWR is entrusted under the NWPO with formulating a framework for institutional reforms to guide water related activities.

The Bangladesh Water Development Board (BWDB) is responsible for the planning and execution of water projects throughout the country including flood control, drainage, irrigation, town/coastal protection and erosion control. The functions of the Board include construction of water management structures, dredging and re-excavation of channels, land reclamation works, river training and erosion control, construction and maintenance of coastal embankments, and rainwater harvesting. It is also responsible for flood and drought forecasting, hydrological survey and investigations, research, establishment and training of water user associations and other stakeholder organizations.

The Local Government Engineering Department (LGED) is responsible for development and management of rural projects—small-scale FCDIs (1000 ha and less), road, electricity, water supply and sanitation, health improvement and so forth (WARPO, 2000e). It places a heavy emphasis on local participation, with representation in Sub-District Co-ordination Committees. The WARPO under the Ministry of Water Resources is the apex planning and coordinating organization with multidisciplinary professionals from different water use sectors. The Institute

of Water Modelling (IWM) deals with mathematical modelling of Bangladesh river systems, geographic information systems, environment and groundwater modelling, and the Environment and GIS II Project (EGIS) provides technical assistance and material support to WARPO in development of the National Water Resources Database and in building up WARPO's environmental capacity; and other NMWP consulting groups.

Three water supply agencies exist in Bangladesh: the Department of Public Health Engineering (DPHE), which is responsible for waterworks development projects, and planning in the rural water supply and sanitation sector, in the urban water supply sector as well as addressing arsenic contamination problems; the Dhaka Water Supply and Sewerage Authority (DWASA) and Chittagong Water Supply and Sewerage Authority (CWASA) are, respectively, in charge of domestic, industrial and commercial water supply of Dhaka and Chittagong.

Some 35 central government organizations, affiliated with 13 ministries, have been identified in the 'Draft Development Strategy' with functions relevant to the water sector (WARPO, 2000e). With the involvement of a large number of institutions in the water sector, the fragmented approach and overlap of roles and responsibilities among them is a concern. The implementation of IWRM process requires the national capacity for sectoral planning be integrated with intersectoral coordination and priorities.

Situation of Bhola before:

Bhola is an Island which is enclosed by the water (three Sides River and one Side Sea). The main sources of the water are river, canal, marsh, tank and pond. In the rainy season, the recorded amount of the rain has comparatively more than other district.

The Bhola Sadar Upazila of Bhola District is the working area. Bhola consisting of 13 Union, Sadar Upazila, Bhola is a hard to reach area combination of both rural and urban.

Watershed is one of the reflections of Delta plan, coastal belt is one of the six hotspots in Bangladesh. Bhola is a coastal districts as well as an island which can be termed as a delta.

A delta is a geo-morphological area, largely defined by its low lying surface form and location in landscape and coastal area that forms at the mouth of a river. Deltas form from deposition of sediment carried by a river as the flow leaves its mouth. Over long periods, this deposition builds a dynamic and characteristic geographic, ecological and social pattern of the delta and its features.

Long term Delta plan 2100 Vision is *“Ensure long term water and food security, economic growth and environmental sustainability while effectively coping with natural disasters, climate change and other delta issues through robust, adaptive and integrated strategies, and equitable water governance.”*

However, the waterbodies had been received the domestic waste and different water degrading activities e.g. washing the cattle in the water bodies, using the huge people in a small pond, cattle house beside the water bodies that been discharged the cattle peeing and dung, built the toiles beside the water bodies and discharged the waste directly into the water bodies, those who had not ability to build the toilets they used to open place for toilet and discharged the household waste in the water bodies. As a result the water of the water bodies has been polluted and people were used to domestic use and somewhere they had to drink it after maintaining the local filtering.

Present Situation of WASH & IWRM at Bhola

Water

Present water of the water bodies is comparatively good than three or four decades back. Because, in before, people used to use open toilets and did not aware about the water bone diseases. The scenario has been changed mostly for the government initiatives of the construction of river barrage (GO bags, CC block) around the Bhola district, construction of the sluice gates and other water resisting and controlling activities.

On the other hand, the water bodies being polluted for several reasons in recent time i.e. discharging the domestic and household waste, toilets are situated beside the water bodies and most of the toilets have liking problems viz. lack of the sewerage capacity, Most of the ponds are being received leaves

of the Rain-Tree and those leaves degrade the quality of the water due to the spoiling in the water.

People are using the motor pump and reserve tank for their daily use from ground water. In before, they didn't use this technology and depend on the surface water bodies for their WASH and domestic uses. They only use the ground water for drinking purpose. For the river conservation, embankment building has been done and for the canal conservation, re-excavation has been done. But they think that both of these works have been done for the control the river side erosion and do facilitate the irrigation.

In a nutshell, it can be said that Bhola has still lack of comprehensive works or programs in term of conservation of surface water bodies among the government departments. If the condition will not being increased than the availability of the drinking water, WASH use and other domestic use will fall under threat in near future.

Sanitation

Government data shows that the sanitation system at Bhola has improved and now it is more than 80%. The research team has found that in every ward there are some initiatives have been ongoing and mostly they help those who have not ability to construct the sanitary toilets. The union has keep eyes to the problem and make aware to the village people on this issue. The service has given to the people under the observation of the union. The services are giving by the union the ring slaves, commode, and repairing facilities.

Further, they also get the advice on the hygiene sanitation. Finally, it has been observed that the sanitation use of the Bhola has increased. On the other hand, people were used to open toilets and discharged the waste into the water bodies. Through the joint initiatives of the government and NGOs, the scenario has improved massively. But, the research team has found that still there are some toilets reside the water bodies and those are open as well. Sometimes public toilets are situated on the water bodies and discharging the waste into it.

Hygiene

Water bodies are not safe from the pollution that is why the assumption is that people are using the polluted water for their domestic work i.e. bathing, cooking and WASH services. The research team has found the sufficient evidence in the field visit. For example, people are not taking care of the water bodies even though they are using the water of these water bodies. People are also keep the cattle house beside the water bodies and the waste are directly discharging into it. Aquaculture practice is not keeping the water hygiene the color of the water has been changed due to the food. People are also unaware about the pollution from the liking of the toilets and there are huge toilets have been found beside the water bodies.

Regarding the river water, people believe that water of the river and canal are not polluted and they do use even for drinking purpose especially in the restaurant those are reside in the terminal area. Government is also not aware on this issue. Because, all inland transport have been using the toilets and discharging the waste into the river and canal directly. On the other hand, in the terminal area, government is also construct the toilets on the water and those are also not hygiene in term of water facilities and women issue especially menstrual matter.

Agriculture

Most of the people of the country are working in the agriculture sector. The sector is fully depending on the surface water bodies. In Bhola, agriculture sector has been using 100 percent of Surface water. The Agriculture department is one of most important departments in this sector which have not any mentionable program in recent time. According to the officials, in the last 10 years there is no remarkable work has been done that related to the WASH and water security at Bhola Sadar. According to the Agriculture department, huge amount of budget been allocated but the amount would not helping agricultural department due to the less integration with the Upazila Parishad. Because, when the department seek the allocated budget from the Upazila, it do not find the budget rather Upazila give an excuse of using the amount in other sector for example Upazila said it had construct a road form this amount. So the department does not able to

work against the demand of the farmer where the issue of the water security would be a dream of the department.

There is another department, Bangladesh Agriculture Development Cooperation (BADC), which is also working on agriculture sector and dealing with surface water mostly. The department has the irrigation project which is helping the farmer to produce the crops through the skim system (a committee from local farmer who is liable for maintaining a pump for irrigation from the surface water) where in dry season there is no availability of surface water. To facilitate the irrigation project, the department has also some other projects i. e. canal excavation and re-excavation, underground drain system etc. The department do not concern about the water security even it has not any integration with other departments. It only thinks about the high production. The system of the production does not sustainable that means farmers are polluting the water during the farming.

For instance, they use the fertilizers that are killing the fish and other species herewith degrading the quality of the water. On other hand, it has a project to keep record of the quality of the surface water and ground water and measurement of the ground water distance from the soil. Both of these activities have great importance regarding water security. If we would like to secure the water for future we have to keep the quality of the water either surface water or ground water and do not use found water in such a way that in near future the water would under gone.

Health

Health is directly related with the water because water has the most influence on body function. If we want to create a healthy nation there is no alternative without ensuring water security. In Bhola, The Department of Health has been working to improve the human resource health where the community based health education program is ongoing. The program has three targets namely pregnant time services, menstrual services and child medical camp (under the 5 years age). All of these three activities have the direct relation with the safe drinking water. Even, through the program, it has been claimed

that there are remarkable success on this issue. For example, diarrhea epidemic has been gone out form the country as well as death from diarrhea diseases; decreased the mortality of the delivery women and child mortality has been decreased.

The department is making aware the pregnant women about the pregnant health including the safe water. It is also giving the services to the menstrual women regarding their hygiene cleanness during and after the menstruation. It has ongoing child medical camp under five years old about the diarrhea disease. According to the department of health, still there is a gap that is the responsible persons are not sincere about their due responsibilities. If the working culture of the staff would be increased than the outcome will cross the existing result. The program has covered in 13 Unions of the Bhola Sadar. The research team has found that there is no relation with the DPHE in term of safe drinking water.

Education

Bangladesh has achieved outnumber of the result in education sector. If the booming result need to transform into a skilled, productive and talent result than improvement of the WASH services in the school must be needed. To achieve this end, the department has been taken some program on WASH for example construction of the toilets and Tube well in every school.

At the same way, in Bhola, the department of education has taken the project of WASH block for ten secondary schools in this year. On the other hand, WASH services have been included under the Secondary Education Development Project (SEDP). But in the recent school in wash project of the intervention area, it has been found that almost 90% of the institutions have not hygiene toilets facilities. Sometimes, open toilet also been found in the Bhola Sadar. There is still lack of WASH block and hygiene toilets facilities in the educational institutions. If the existing condition will not change than it will be difficult to include the student under the WASH coverage. In a result, students will not being included under the sustainable WASH services that will keep remote outnumber of the citizen from the WASH facilities.

Water Resource Management

Water Resource Management (WRM) is the activity of planning, developing, distributing and managing the optimum use of water resources. In this regard, Bangladesh has sufficient drawback of planning, developing, distributing and managing the water resources. The reflection of the country is present in Bhola as well in this area. Because, all of the concern departments do not working jointly to done this job. Indeed, the concern departments do not aware of the activities of other concern departments and have not any plan to do so in officially. According to the DPHE, all other departments need to inform about the drinking sources after installation of Tube well or managing the drinking sources in anywhere of the Bhola Sadar but none of the departments do so.

On the other hand, government took the plan to use the surface water through the pond digging and re-digging projects in several departments for instance DPHE and BADC have such projects but the people are not aware about the projects as well as government fails to make understand people about the importance of the projects.

Budget

Denying the outcome and other indicator, the trend of the budget has massive improvement in present year compare to the last two fiscal years in the water, sanitation and hygiene sector that will easier to widen the working area of this sector. In Dhania union, the budget has increased almost 150% compare to the last two years. On the other hand, in Veduria union budget is also increased massively. It stands almost double (195%) figure compare to the last two years budget. It can be assumed that if the existing CSOs continue the lobby and advocacy than achieving SDGs will be easier.

The 2 CSOs who are being coached by the 'Watershed-empowering citizen' program are using 'Budget Monitoring Tool' to collect and assess data quarterly. After analyzing the data collected from the tools, interprets that the allocated budget for Union Parishad under Annual Development Program-ADP cannot be used timely due to delay in distribution of budget from relevant ministries at national level. However, from our

previous experience, a total of 25 open budget sessions have been conducted in 25 Unions in different geographical location of Bangladesh. Participants were Upazila Nirbahi Officer , Upazila Family Planning Officer, Chairman of Union Parishad, Secretary Union Parishad, Members of Union Parishad, Health village group members, DPHE mechanic, NGO network members, Teachers, Budget club members, local elites etc.

WASH budget has been increased on an average 31% than previous year which happened due to lobby and advocacy of CSOs. Therefore, more people especially the marginalized are getting access to safe water and improved sanitation. The evidences envisage that budget will increase in all areas where community people's involvement in the budget process is more and Union Parishad open their budget substantially.

Sub-District Plan: WASH & IWRM on Ground

Bhola district being a coastal district and the only island district in Bangladesh is an ideal place for this project as there is a strong Integrated Water Resources Management projects implemented by various government organizations such as Bangladesh Water Development Board (BWDB), Department of Public Health Engineering (DPHE), Local Government Engineering Department (LGED), Ministry of Disaster Management and Relief, Ministry of Agriculture etc.

Bangladesh Water Development Board (BWDB) is the premier entity that keeps the river banks, dykes and polders in operational condition so that these do not break during heavy waves or natural disasters. BWDB in Bhola is implementing the project titled River Bank Conservation in Bhola Sadar (Rezapur and East Elisha) during the period 2016 – 2020. The main activity of the project is conservation of river bank with Geo Bag and CC Block. The project is benefiting 408,994 persons of the 13 Union of the Bhola Sadar Upazila. People have already started to get benefit from the project as the river erosion has decreased and people have been able to use the land for productive purposes.

Department of Public Health Engineering (DPHE) is the primary institution to supply Water and Sanitation to the rural people of Bangladesh. It is implementing the project titled 'Water Supply

project in the Rural Area' form January 2016 to June 2019. The key activities of the project are installation of Deep Tube well, Pond excavation and re-excavation, Toilets and community toilets construction. The project will provide one drinking water source for 50 people and will cover 13 Unions of Bhola Sadar Upazila.

Local Government Engineering Department (LGED) is primarily focused on building rural infrastructures in Bangladesh. In Bhola the institution implements has developed a project titled Re-excavation of Kumari Canal (South Chorpata PaniBabosthaponasomobaySomiti), Bhola Sadar. The project has been sent to the central authority for final approval. It will be a 1 or 2 years project operating for 3 months during the summer season and will serve the people (around 5000 people) living by the banks of Kumari Canal.

Ministry of Disaster Management and Relief (MoDM&R) implements each fiscal year a project titled "Reformation of the Rural Infrastructure and Maintenance of the Rural Infrastructure project". The key activities of the project are the development of social, educational and the public welfare institutions and the development of different infrastructures. The project beneficiaries are the people who are poor. The approximate budget for the project in the last two years was Taka eight crore. The activities of the project are, Establishment of the sanitary toilet for 512 families, Establishment of the Cyclone Center with toilets and water facilities, and Establishment of the culvert for water drainage.

The Upazila Agricultural Extension Department (DAE) is the primary institutions for providing all types of agricultural support to the farmers and people who are dependent on agriculture as a profession. They have been taken some programs for next 3 years which are, to increase of surface water use through different projects. Mainly the promotion if Low Lift Pump (LLP) will be provided to the farmers; The irrigation pipe will be supplied for 200 to 500 meter; Establishment Buried pipe irrigation system for 200 meter as a pilot; To establish water withdraw system of LLP and buried pipe irrigation through using solar energy.

Veduria and Dhania Union Parishad have taken projects related to water management, sanitation and hygiene. These are the following:

Water management

- The two Union Parishads have received the design of installing infrastructures for safe water use in every Ward/ village. All the people of the Ward/Village will be able to use the water.
- The two Union Parishads have taken plans to conserve natural water by increasing people's awareness.
- The two Union Parishads have built drains for drainage.
- The two Union Parishads are implementing projects for canal re-excavation and pond digging.

Sanitation:

- The two Union Parishads have taken activities to transform all unhealthy toilets to sanitary toilets in every Ward.

Hygiene:

- The two Union Parishads are implementing programme to make people aware of the necessity for hand washing in all the villages.
- The two Union Parishads are implementing children hygiene program in all schools/ Education institutions.
- The two Union Parishads are implementing programme for providing sanitary napkins for adolescents' girls.

Citizen Scoring

Scoring by using Citizen Scorecard-CS in Bhola was a civil society initiative undertaken in June 2018 followed by starting in 2017 to value government WASH and IWRM services. The exercise gathered citizen feedback on services of public agencies and shared with Bangladesh Water Development Board-BWDB, Local Government Engineering Department-LGED and Department of Public Health Engineering-DPHE. A ten-point rating scale facilitated quantification of citizen satisfaction levels with regard to Citizen Charters of respective departments i.e. BWDB, LGED and DPHE.

Changes in services have visualized in year 2018 which shows the improvement and commitment of services of the respective departments. This has reflected in the citizen scoring eventually. Both the service providers and service recipients have shown development of WASH services and management of water resources in the citizen scoring. Moreover, an opportunity has been created for people's opinion to make the services more effective. Satisfaction on services reveals improvement than moderate situation among scoring data. There are six points for BWDB and LGED and DPHE and most of the points shows moderate situation with a balance of both good and need improvement.

QIS ladders

Government institutes particularly BWDB, DPHE and LGED are participating in various stakeholders meetings and is listening their needs as well. Besides, they have come up with a consensus through a signing ceremony in consensus dialogue with other stakeholders on the issue of WASH service improvement as well as water resource management strengthening. Already government (DPHE) sanctioned and installed 26 tube wells where marginalized groups also received. Besides, 1300 feet embankment renovated which was one of the long awaited demands from the stakeholders as well as CSO to the Bangladesh Water Development Board-BWDB, Bhola.

Gender budgeting on WASH and IWRM is one of the issues which we have tried to see the expenditure by national government and found that there is a separate gender budgeting system under each ministries but no clear guidelines how to spend at district and downwards level. Besides by using inclusive and gender responsive budget monitoring tools we did not get any segregated data yet. However, it seems there is planning but no practice yet.

GOV - 1: Level of Government responsiveness to stakeholder demands on WASH and IWRM	
Score	Mini-scenarios
100%	Government reports to stakeholders on how they have incorporated/addressed their demands on WASH and IWRM service provision
75%	Government action is guided by stakeholders' demands on WASH and IWRM service provision
50%	Government actively seeks to understand stakeholders' demands on WASH and IWRM service provision
25%	Government is aware of the importance of listening to stakeholders' demands on WASH and IWRM service provision
0%	Government is unwilling to listen to stakeholders' demands on WASH and IWRM service provision
Narrative	
<p>The government institutes are yet to become more responsive to demands on WASH and IWRM. No effective coordination among the agencies are in place. Every agency works in silo. The current situation demands a lot of actions to bring our government response to the demands of different stakeholders. DPHE and BWDB have been more in contact with other stakeholders (or targeted by lobby and advocacy programmes), therefore they are more aware of the importance of listening to the stakeholders but still the practice to actively seek input from the stakeholders is missing.</p> <p>The baseline scoring are as follows:</p> <ul style="list-style-type: none"> WAPRO: 0% BWDB: 21% DPHE: 25% LGED: 0% 	

The local government has transparent on their WASH budget allocation by organizing open budget, publishing budget booklet and writing the budget on wall and for expenditure filling up budget monitoring tools give information quarterly. However, we can see evidence of transparency on expenditure at the end of next fiscal years. For instances, they publish real expenditure of 2016-17 fiscal years in the proposed budget of 2018-19 fiscal year's budget.

CSO - 3: Level of inclusion of marginalised groups	
Score	Mini-scenarios
100%	CSOs convince their target groups to address the needs of marginalised groups
75%	CSOs have explicitly included the interests voiced by marginalised groups, in their L&A messages and strategies
50%	CSOs engage with marginalised groups to listen to their opinions and understand their needs
25%	CSOs recognise the diversity of groups and are aware of the importance to consider this in their L&A messages and strategies
0%	CSOs are unaware of the importance to consider the diversity (in gender, age, income, ethnicity, religion, sexual preference,...) of groups in their L&A messages and strategies
Narrative	
DORP tries to target the poorest of poor and most marginalized in its projects. The documentation on how disaggregated data are collected to feed in this process is important. Further, how marginalized groups are taken in the decision making processes and how DORP can convince their target groups to address the needs of marginalized groups needs to be improved.	

Survey of Water bodies:

Still a huge number of the village women have been using the surface water bodies for their daily life activities. Moreover, some are prefer to do so as they habituated on it form the time immemorial. A beautiful scenario is that most of the male members of the houses are love to taking their water most of the daily life activities form the water bodies for instances taking bath, washing cloth, taking water for WASH services.

Moreover, almost all of the ponds are being used as aquaculture. For this reason, most of the ponds owners do not follow the proper guideline of aquaculture. As a result, occasionally, ponds water lost its usable manner. Sometimes the condition is reached in so bad position that people do not use the water bodies for their daily uses. One of the pathetic scenarios is that cattle are being nurture on the pond embankment. Naturally, cow dunk and pee have continued fallen into the water bodies. Another learning scenario is that most of the toilets are being constructed beside the water bodies.

Besides, there are a considerable number of toilets ring slave being broken by the user and toilets waste been discharging

into the water bodies directly and indirectly. Due to the extra water bodies available in the home, user group only taking care of one or two water bodies and rest of the water bodies do not being taking care by the user groups. Rarely, water bodies being exploited by outnumber of users. Discharging household waste into the water bodies is very common. Women are most users of the water bodies but there are not enough stirs for the women. For this reason, they are being under risk of physical accident especially old age women. Hence, women are not getting the secured facilities for taking bath in the ponds and existing facilities is lam sum categories.

Action Plan of Union Parishad

To overcome the WASH & IWRM problems in the two unions of the intervention area, two meetings have been held to prepare an action plan. In the meeting, Chairman of the two unions has been given their insight on action plan. Besides, other participants of the meeting also have given their thought on it. However, as a new issue of water which is integrated

Action Plan for Integrated Water Resource Management
Veduria Union 2019

SL. No.	Main Elements	What need to be done	When will be done	Who will do
1	Access to safe and sufficient drinking water at an affordable cost	12 Tube well installation at the essential areas	February-June 2019	Union Parishad
2	Protection of livelihoods, human rights, and cultural and recreational values	Aware people on discharging toilet water to canal and pond.	January –February 2019	Union Parishad
3	Preservation and protection of ecosystems in water allocation and management systems	Aware the farmers about using pesticides and contaminated food for cultivating fish.	March –August 2019	WASH Standing committee
4	Water supplies for socio-economic development and activities	A tube well installation at the market for mass people.	May-June 2019	Union Parishad
5	Collection and treatment of used water to protect human life and the environment from pollution	Immediately stop all the open toilets issuing a circular by Union Parishad.	January –April 2019	Union Parishad and WASH Standing committee

water resource management is also not vastly understand by the stakeholders. Local people will be united to resolve the problems on surface water bodies. Further they will take

initiatives in which the issues bring into the concern government departments to resolve. This has done following guiding principle number 2 of IWRM which is, “Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels”.

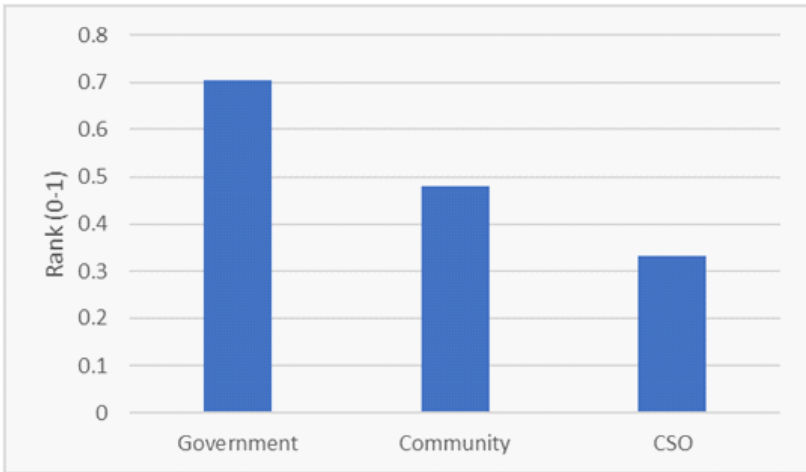
**Action Plan for Integrated Water Resource Management
Dhania Union 2019**

SL. No.	Main Elements	What need to be done	When will be done	Who will do
1	Access to safe and sufficient drinking water at an affordable cost	10 Tube well installation among the marginalized people	February-June 2019	Union Parishad
2	Protection of livelihoods, human rights, and cultural and recreational values	Create awareness amid the people so that excluded people like Bede, fishermen do not face any difficulties to fetch water.	January –March 2019	WASH Standing committee members
3	Preservation and protection of ecosystems in water allocation and management systems	Aware the farmers about using excess water so that people face no problems for other uses.	January –March 2019	WASH Standing committee
4	Water supplies for socio-economic development and activities	A tube well installation at the market for mass people.	May-June 2019	Union Parishad
		Digging a pond at the Cluster village of ward number 7.	July –December 2019	WASH Standing committee
5	Collection and treatment of used water to protect human life and the environment from pollution	Create awareness among the people about kitchen and other waste do not throw to wetlands or pond	January –April 2019	WASH Standing committee

Management Efforts for conservation of wetlands

Due to the degrading state of the wetlands in the region effective management is required for conservation of wetlands. But as per the discussion’s participants have not seen water bodies’ conservation as a part of political manifesto of the government. Water bodies’ conservation is not seen as a priority by the government. According to the community the major responsible authority for conservation of wetlands is government followed by community and then CSO as highlighted in Fig 6.

Currently, according to the community the only major activities that are being carried out by the government are excavation of canals and channels to maintain connectivity of the wetlands as well as building embankment to protect people against floods and avoid mixing of river water which is either highly polluted or saline varying across the season.



Key Findings on Wetlands at Bhola

It was observed from the discussion that wetlands play a major role in WASH services as still certain portion of the community depend on wetlands as a source of water for drinking purposes. Though since the initiation of tube well technology the dependence on wetlands has decreased still not everyone has accessibility to tube well thus are dependent on wetlands. Wetlands play an important role in acting as a flood store as well as a flood buffer. Roles of wetlands in WASH services has been recognised by the community as they perceive that since the groundwater is declining and if the surface water continue to degrade WASH services cannot be guaranteed if it continues.

Dumping of household waste and discharge of toilet waste are the major sources of degradation of wetlands in the region which are not being addressed currently by the government. Generating awareness amongst community about the importance of wetlands can act as an important advocacy agenda to generate laws against dumping of household waste and discharging of toilet waste.

Currently there is no political ownership about the degrading status of wetlands. Community can be influenced by conducting workshop to increase awareness which help them in doing advocacy to enhance political ownership which will help against degradation of wetlands.

Priority wetlands in each ward were identified which will be surveyed in detail to generate management efforts to conserve the wetlands and help acquire water security option. The criteria for identification were:

- High status of degradation over the past years.
- Large number of people is dependent on the wetland.
- Should constitute of different ownership status so as compare how ownership effects the situation of water bodies.
- Wetlands which community perceive should be given high priority in management.

Conclusion:

We have planned to have a water security plan to improve the sector. We should focus on strengthening institutions. The share of budget allocation to the WASH sector in the national budget is insufficient. Achieving WASH goals will require not only higher budget allocations, but stronger accountability between different agencies. At present, central departments still implement a considerable part of capital investment projects while local governments are formally responsible for WASH. Greater input from citizens and elected representatives would promote much-needed momentum. Ensuring universal access to safe and affordable drinking water for all by 2030 requires adequate investment in infrastructure, provide sanitation facilities, and encourage hygiene at every level. Cooperation from development partners and international sources are required to encourage water efficiency and support treatment technologies in developing countries like Bangladesh.





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