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Table of Contents

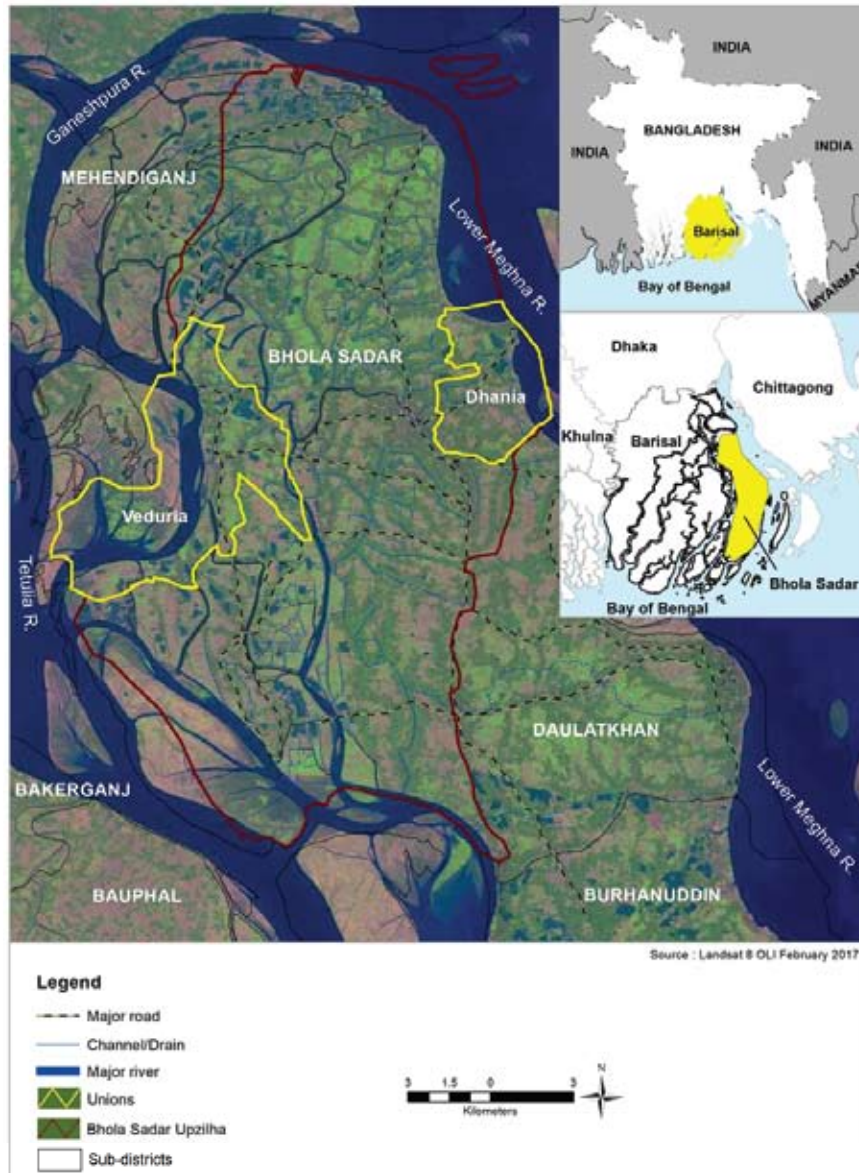
1. Preface.....	01
2. Background.....	02
3. Strategy.....	04
4. Country Status Bangladesh: CSO engagement.....	11
5. National situation on Water Resource Management (WRM)	13
6. Institutions for WASH and IWRM.....	14
7. Focus Group Discussion (FGD) Results.....	16
8. Sub-District Plan: WASH and IWRM on the Ground.....	20
9. Analysis of WASH and IWRM in Bhola.....	24
10. Citizen Scoring.....	30
11. Recommendation.....	32
12. Action Plan of Union Parishad.....	34
13. Commitments by Government participants in the workshop	37
14. Management Efforts for conservation of Wetlands.....	38
15. Key Findings on Wetlands at Bhola.....	39
16. Conclusion.....	41

Abbreviation

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

Map

Bhola Sadar Upazila, Bangladesh



Preface

Watershed is a strategic partnership between the Dutch Ministry of Foreign Affairs and non-governmental organizations from the Netherlands, Bangladesh, India, Ghana, Uganda, Mali and Kenya. In Bangladesh, Watershed is implemented by Simavi, Wetlands International, IRC WASH, WaterAid, DORP, Gender and Water Alliance and Akvo.org.

DORP is implementing the Watershed- empowering citizens program at Bhola since 2017 where the issues are very relevant. Bhola, a coastal district, is basically an island. It is a hard to reach suburban area. Many chars (Chars are new river banks) are also under the district's jurisdiction. There are 3 themes in this project which are Knowledge & Research, Capacity Development and Lobby & Advocacy. The main strategies to achieve the outcome of Watershed program are Civil Society Capacity Strengthening, Policy Practice and Policy Implementation, and Inter-stakeholder Dialogue.

Watershed works closely with civil society organisations and government officials on IWRM – WASH integration. Among other activities, a workshop was organised in April with duty bearers and community members. In this workshop, participants varying from government officials to nomadic people agreed on joint actions to improve IWRM – WASH integration. Concrete joint actions include reduction of sewage discharge and pesticides use to improve the quality of water in rivers and canals.

This paper is based on the experiences so far and presents the actual state of IWRM – WASH integration and the roles different actors play in it. This paper also discusses future actions focusing on overall improvement of the sustainability of IWRM and WASH interventions.

Background

The objective of Watershed is to strengthen the capacity of CSOs to advocate and lobby in the interrelated fields of Integrated Water Resources Management (IWRM) and Water, Sanitation and Hygiene (WASH) to ensure equity and social inclusion as well as sustainable usage of water resources. Sustainable WASH services cannot be achieved without sustainable water resources, and vice versa. Lobby activities supported by Watershed focus on including women and marginalised groups in IWRM and WASH policy making.

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

Communities and citizens are not often 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 different stakeholders bring on their perspectives and create an enabling environment for people to participate. 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 are already being reviewed in line with the SDGs, but service providers (DPHE, LGED, BWDB, Union

Parishad, Upazila Parishad, etc.) and public representatives are yet to have an updated and clear understanding of these policies and acts and act accordingly. For example, if WASH standing committee and IWRM committee at the Upazila comprising of public representatives, citizens, service providers and community members are not aware about the updates in WASH area, then policy implications on WASH cannot be sustainable. These committees are supposed to meet bi-monthly to follow up on the progress of WASH at Upazila and Union level, but it is not happening unless all stakeholders including citizens take initiatives.

It is crucial to include community members in the budgeting process for two reasons– firstly, there are many relevant government policies that general people do not know about and secondly, the political commitment throughout the 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 for inclusion in SDG6 and this needs to be addressed by the local government. This also could enable the environment for establishing accountability mechanism at the ground.

Watershed program 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 strengthen the capacity of local CSOs so that they can contribute towards achieving SDG-6 by 'Budget Tracking' on WASH budget in Bhola – therefore, sensitize policymakers about the challenges in implementation and effective allocation of resources, bring more transparency in the implementation process, facilitate the exchange of information and coordination among everyone who is working and interested to work on the Water Resource Management (WRM) and Water, Sanitation and Hygiene (WASH).

Strategy

There are 5 strategies of Watershed-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

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 represent 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”.

Multiple sources of data may be available in a country e.g. in national reports, census data, survey data, research data, NGO data etc. Collected data 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 to formulate messages that can convince key stakeholders. Evidence needs to be organized into meaningful, concise and powerful synopses like summary table, graph, chart, map etc. Evidence is needed to explain the root causes/problem areas; this could be a survey, secondary information or sharing information within the stakeholders.

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.

There is nothing natural about unequal gender relations. In fact, it is cultural. Gender relations can change and do change, like culture, if people themselves want it to change. A female person exemplified that there is a taboo that Muslim women do not touch fishing nets but in Monpura char of Bhola Muslim women are doing the 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.

Since birth, human acquire or inherit certain gender norms from the society and they differ according to the societies. Whenever we talk about inclusion, we think about including poor women, as they are at the lowest in the social hierarchy and have the least access to services. So, changing mind-set about gender is very crucial for ensuring social inclusion in water and sanitation.. Women also have very special WASH needs e.g. to ensure proper Menstrual Hygiene Management (MHM).. A lot of taboos and power play exist in sanitation and hygiene, and changing gender ideology, mind-set and attitude is crucial to achieve social inclusion in WASH.



3. IWRM/WASH integration

This is one of the most important strategies of Watershed program in Bangladesh. WASH situation needs to be linked and realized through IWRM framework. Some key elements, guiding principles and working principles are required within the framework of IWRM.

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;

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.¹

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 visualize how public budget is allocated and utilized at public service institutions in order to improve the basic service access to

¹ “Despite the wording in the Dublin principles on water as an economic good, it is important to mention that at least from a human rights perspective, water should be treated as a social and cultural good and not primarily as an economic good (see e.g. CESCR, General Comment no. 15, 2002, at 5).”



water, sanitation and hygiene for all. Budget tracking on WASH also intended to oversee the financial aspects of the water, sanitation and hygiene sector while providing a roadmap to the decision makers in relation to the commitments made by the politicians as well as government on WASH . 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 engages local decision makers to implement the available related policies and plans to bridge between the community and the local government representatives. The budget for water, sanitation and hygiene needs to be increased on the basis of demand from the community as well as for timely implementation of plans. To monitor or track WASH and IWRM budget, a structured budget monitoring tool is being used in Bhola.



Country Status Bangladesh: CSO engagement

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. In Watershed program and identifying the importance of CSOs in SDG-6 achievement, two CSOs, namely, Water Management Citizen Committee (WMCC) and Watershed NGO Network (WNN) have been formed. These two CSOs include socially-excluded and less-welcome citizens 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 sensitize 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) is acting as a facilitator to strengthen capacity of the CSOs for accelerating the process.

Gradually the initiative can link the citizens and improve the capacity of various groups of people at union and Upazila level. About 15 per cent budget for WASH from Annual Development Program (ADP) is a commitment from Local Government Division (LGD) which is an opportunity for CSOs to explore and link. IWRM is new in practice and to implement it efficiently, the coordination among service providers and citizens has to be strengthened, while training the CSOs on the tactics of lobbying and advocacy and getting into the entry point of lobbying can help in the process.

5. Policy influencing

Existing budgeting system of WASH is fragmented through different ministries, institutions, divisions as well as departments. Rural Development and Cooperatives (LGRDC) is the designated local Government in line with the 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 their relevant departments prepare both development and non-development estimated budget of 1 fiscal year and another 2 years for 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, the understanding of national and local budgeting process and relevant policy implication is very important for better planning and its execution in WASH sector.

There are some national level CSOs and networks working on WASH and IWRM in Bangladesh like WSSCC, FANSA, BAWIN, etc. With them, 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 period. The JMP service 'ladders' enable benchmarking and comparison of progress across countries at different stages of development. According to Joint Monitoring Program 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 water, but in rural areas, it is 32% and 40% basic service in hygiene.

National situation on Water Resource Management (WRM)

According to GED 2015, the proportion of total water resources used in Bangladesh was 2.9% 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% 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%) is used by agriculture, 3.60 km³ (10%) by municipalities and 0.77 km³ (2%) by industries. About 28.48 km³ or 79% of total water withdrawal comes from groundwater and 7.39 km³ or 21%, from surface water.

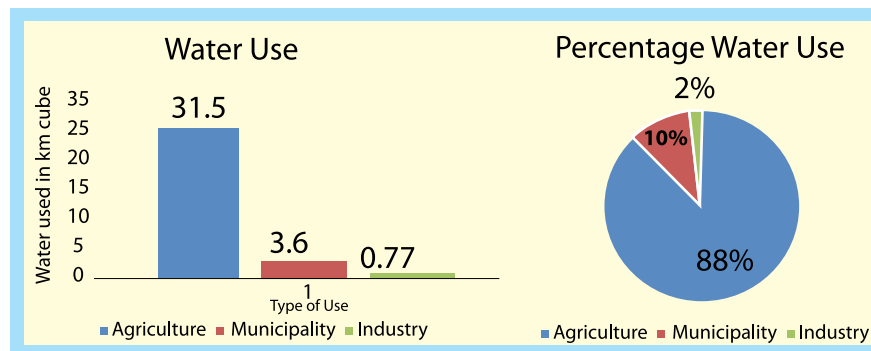


Fig 1 - Use of water in Bangladesh



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 the 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 top 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 for developing the National Water Resources Database and building up WARPO's environmental capacity and other NMWP consulting groups.

There are 3 water supply agencies 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 to be integrated through intersectoral coordination and priorities.





Focus Group Discussion (FGD) Results

18 Focus Group Discussions were conducted total in 2 unions of Bhola Sadar Upazila- one in each ward of the union. Each discussion had from 16 to 25 members, comprising of Ward members, major CSO representatives, community leaders, functionaries of government departments responsible for the management of surface and groundwater resources, village elders who have significant knowledge on the subject, members of the Water User Associations, ward committee members especially women, farmer, fishermen, and teachers. The participants of the FGD at ward level were mostly the people living in the catchment areas. . The members of Union Parishad from the wards were asked to select the participants and they jointly did so.

Degradation of the wetlands

All the respondents indicate that the dependency on wetlands as a source of water for domestic use has declined, and that communities have started neglecting the wetlands which led to the increase in degradation of the wetlands. The major sources of degradation are pollution due to dumping of waste, direct discharge from toilets, deposition of leaf litter and aquaculture as shown in Fig-2 below.

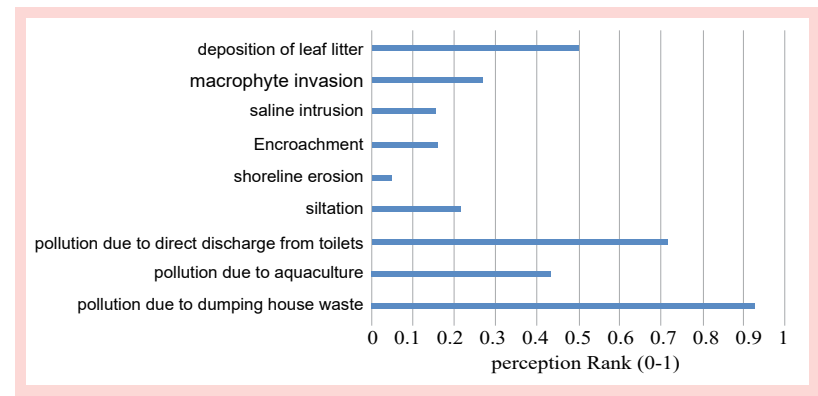


Fig 2 - Degradation of the Wetlands

According to the participants, though waste discharge has reduced substantially over the past few years due to increased awareness amongst the communities, this is still a major source of pollution in the wetlands. Wards that are located near the coast particularly in the Dhania union have saline intrusion in the rivers as a major threat,. Pollution due to aquaculture is increasing, as to increase the production of fishes more fertilizers are being used which is directly impacting the condition of other wetlands in the region. Encroachment is not a major problem in the region. Only 3 unions in the Vedia union have reported construction activities claiming the wetlands.

Limited clarity on management responsibility

Wetlands are degraded due to lack of dedicated body for management, limited awareness on the benefits and ineffective management. The lack of management is also identified as a cause for the degradation of privately owned wetlands. However, ownership does not always mean that people are aware of their role in management. Reasons for degradation with management responsibility are shown in Fig-3.

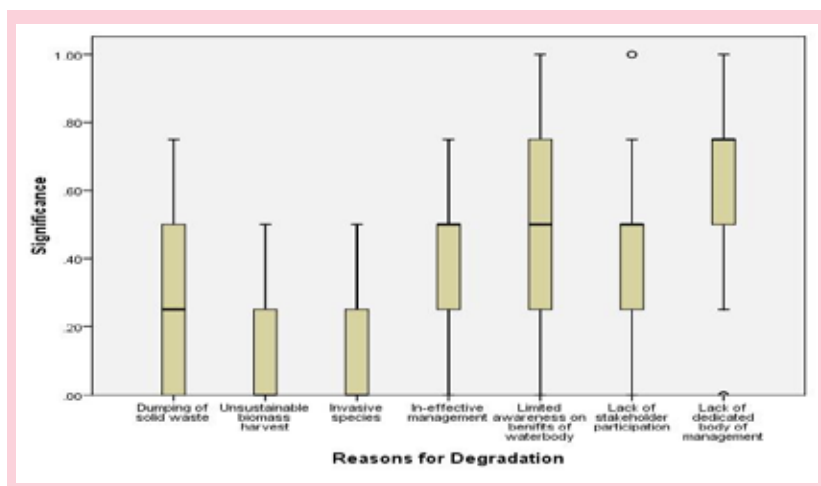


Fig 3 - Reasons for degradation of wetlands

Recommendation for the Government

The major recommendations highlighted by the communities for the government are shown in Fig 3. Creation of new water bodies and re-excavation of existing wetlands was a high priority and the drying up of a lot of the wetlands that are uses by the communities in summer is identified as a major problem. Other major recommendations were - to regulate pollution by introducing and enforcing laws, to construct sluice gates and strengthen existing embankments to prevent salt water ingress and mixing of good quality water with wetlands that are polluted.

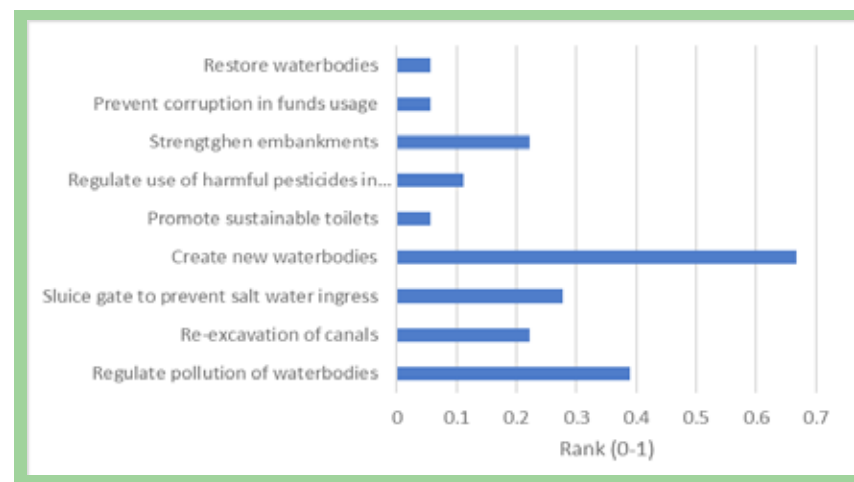


Fig 4 - Role of Government in conserving wetlands

Recommendation for the communities

The respondents think that they as community can also do substantial work to conserve the wetlands which are highlighted in Fig 4. Creating awareness on the values of wetlands by conducting awareness workshops was the main recommendation so that people can understand the importance of wetlands. Highlighting the problems to higher authorities who have the ability to take decisions and appropriate actions can act as another major step towards the conservation of wetlands.

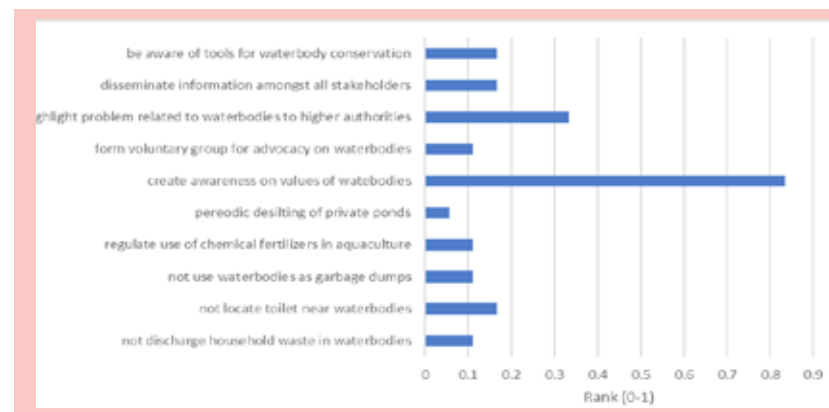


Fig 5 - Role of community in conserving wetlands

Sub-District Plan: WASH and IWRM on Ground

There are 2 Unions where Watershed program is being implemented. We worked with a multidisciplinary group of stakeholders on IWRM – WASH planning in a workshop. They mapped (see photos) challenges and opportunities regarding IWRM and WASH.

The workshop was organized by Wetlands International, supported by DORP (Development Organization of the Rural Poor), WaterAid Bangladesh and IRC WASH.

The Union Parishads also have planned to address the IWRM issues and the suggestions of the CSOs have been taken into account while mapping the areas. These are as follows :



Veduria Union:

Veduria group 1

Challenges: river channels, roads, ponds

- 1) There not enough shelter homes
- 2) Not enough sluice gates
- 3) Nor enough ponds
- 4) Canals are not deep enough/ does not have enough water

Needed Actions:

- Build cyclone centers
- Canals should be dug out
- Canals are important for irrigation
- Stop pollution of ponds
- Construct more bridges and roads

Veduria group 2

Challenges:

- 1) 3 canals – southern is long and getting bigger
- 2) Draining of sewerage in the canals

Needed Action:

- Protect communities along the canals
- Raise awareness on drainage





Dhania Union:

Dhania group 1

Challenges River channels, roads, ponds:

- 1) Not enough deep tube well – 2nd and 4th ward has just one. No. 7 has none.
- 2) The ground level water too deep (50 feet)
- 3) Ponds are not deep enough
- 4) Canals do not have enough water
- 5) Sanitation is not good

Needed Actions:

- Protect communities along the canals
- Raise awareness on water pollution

Dhania group 2

Challenges River channels, roads, ponds:

- 1) Huge river erosion problem
- 2) Tube wells are depleting groundwater
- 3) The canal is becoming useless – not enough flow.
- 4) Every year the dam/embankment breaks

Needed Actions:

- Maintenance of channels
- Stop filling of ponds
- Use surface water to reduce pressure on ground water
- Embankment to be monitored
- Cyclone shelters to be built



Analysis of WASH and IWRM in Bhola

1. Channels:

In Bhola, there are many channels and streams through river and canals. Sometimes parts of these channels are being leased and sometimes they are blocked to catch more fish. The CSO members have seen people throwing waste in the river and some have mentioned that there are open toilets in the villages. Taking cattle to bath in the canal is very common. Farmer lose his crop as water cannot drain during the monsoon and Water development board is responsible to ensure this. Public health is also a part of this system. Water Development Board (WDB) and BADC have almost solved all the problems of irrigation in Bhola but now many of these channels are filling up and require dredging.

2. Tube wells

A brief description of the groundwater sources for WASH in Bhola which are tapped through tube well :

- 1) In Bhola, there are three main aquifers.
- 2) The deep aquifer from 200 – 300 m (600 – 900 feet) is the only one with fresh water
- 3) This aquifer gets its water from the north of Bhola.
- 4) This water is dated around 3,000 – 20,000 years.

Another learning scenario is that most of the toilets are being constructed beside the water bodies connected to the aquifers. Besides, there are a considerable number of toilets ring slab being broken by the users and toilet wastes being discharged into the water bodies directly and indirectly.

3. Ponds

Still a huge number of the village women are using the surface water bodies for their daily household activities. Daily use of water from the water bodies usually are - taking bath, washing cloth, taking water for other WASH services. One of the major problems is that cattle are being raised on the pond embankment. Naturally, cow dung and urine keep contaminating the water bodies. As groundwater is not guaranteed forever, we need to think and use other sources of water where possible. Upazila Union has the mandate to make a pond in each Ward. However, fish farming is destroying the ponds (because of antibiotics etc.), which is very difficult to tackle because of the commercial interest (IWRM principle 4). It was a major discussion around the main usage of these ponds, as the economic use of ponds like fisheries, potentially conflicts with WASH usage like washing. Also, most of the pond owners do not follow the guidelines of aquaculture. As a result, occasionally, ponds water ends up being unusable.

Discharging household waste into the water bodies is also very common. There are not stairs to climb up from ponds. As women are the biggest users of the water bodies, especially old women have the biggest risk of accident while climbing up from the bank with heavy water pitchers.

4. Embankments and sluices



There has been a discussion on the need of embankments and sluices along with the role of BWDB followed by a discussion on how to use them against floods and erosion. Initially the embankments were 10 feet high and 80 feet slope and 15 feet wide. Now slope is no longer there, but action needed to make it stronger. In Dhania, they have put cement blocks and sand bags to make it stronger. People who are living on the embankment often damage it. If they repair the central embankment, it would be very useful. Saving the channel has been considered as a “citizens’ action” and now even the MP has said he will be looking after it. When a 15 km embankment was to be strengthened – by the time funds became available, already 2.5 km of it collapsed. All of us know what to do. But resource, political will, corruption limit the development.

Service Providers Initiative

Bhola district, a coastal district and the only island district in Bangladesh, is an ideal place for Watershed Program a few strong Integrated Water Resources Management projects are already being implemented here 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 (Razapur and East Elisha) during the period 2016 – 2020. The main activity of the project is to conserve the river bank with Geo Bags and CC Blocks. The project is benefiting 408,994 people of 13 Unions of the Bhola Sadar Upazila. People have already started to get benefitted from the project as the river erosion has decreased and people have been able to use the land for productive purposes.

The 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 called ‘Water Supply project in the Rural Area’ from 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 every 50 people and will cover 13 Unions of Bhola Sadar Upazila.

Canal at Bhola



The focus of local Government Engineering Department (LGED) is primarily on building rural infrastructures in Bangladesh. In Bhola the institution has developed a project titled “Re-excavation of Kumari Canal” at 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 around 5,000 people living by the banks of Kumari Canal.

Each fiscal year the Ministry of Disaster Management and Relief (MoDM&R) implements 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 aims to benefit the poor people.. The approximate budget for the project in the last 2years was Tk 8,00,00,000 . The activities of the project are- establishing sanitary toilets for 512 families, cyclone centres with toilets and water facilities, and culvert for water drainage.

The Upazila Agricultural Extension Department (DAE) is the primary institution for providing all types of agricultural support to the farmers and people who are dependent on agriculture as a profession. The objective of the programs they are working on for next 3 years is to increase the use of surface water through different projects. Mainly Low Lift Pump (LLP) will be promoted and provided to the farmers; along with 200 to 500 meters long irrigation pipe; the buried pipe irrigation system for 200 meter will be established as a pilot; water withdraw system of (Low lift Pump) LLP and buried pipe irrigation through using solar energy will be introduced.

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 planned 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 are working to transform all unhealthy toilets to sanitary toilets in every Ward.

Hygiene:

- The two Union Parishads are implementing a program to raise awareness about the necessity of washing hands among people in all the villages .
- The two Union Parishads are implementing hygiene program for children in all schools/ Education institutions.
- The two Union Parishads are implementing a program for providing sanitary napkins for adolescent girls.



the service providers and service recipients have indicated 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 each for BWDB, LGED and DPHE and most of the points show a moderate situation with a balance of both good services and services that need improvement.

Citizen Scoring

From the beginning of 2017 till June 2018, the civil society initiated and carried out the scoring by using Citizen Scorecard- CS in Bhola to evaluate government WASH and IWRM services. The exercise gathered citizens' 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 been visualized in year 2018 which shows the improvement and commitment of services of the respective departments. This has been reflected in the citizen scoring eventually. Both



Recommendation

There are initiatives that can be taken by CSO and governments. Here are few recommendations.

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

For CSO

- 1) Equal participation in IWRM should be ensured
- 2) Reduce waste of water
- 3) Raise awareness about the use of safe water and encourage recycling and reuse of water.

For government

- 1) Lobby with the authorities and responsible parties to repair the ponds
- 2) Making embankments – lobby with BWDB
- 3) Lobby with local government for pure drinking water

Principle No.2: *Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels.*

For CSO

- 1) Lobby to dig up canals
- 2) Work to have tube-wells distributed equally
- 3) Pure drinking water and awareness of this in community

For government

- 1) Every village should have one pond and be well maintained
- 2) Budget allocation to ensure pure drinking water for everyone

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

For CSO

- 7) Raise awareness within the community about pollution
- 8) Need to make the women aware so that they do not pollute water sources
- 9) Lobby with government for government-owned ponds

For government

- 6) Dig and manage a pond for each community
- 7) Ensure pure drinking water and tube wells for all
- 8) Take actions to save channels

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

For CSO

- 10) Lobby for Government-owned ponds
- 11) Create awareness to avoid wastage of water
- 12) Protect all the other water sources (aside from tube well)

For government

- 9) Initiate training for water use
- 10) Use media to create awareness (initiate discussion that this is actually CSO's role)



Action Plan of Union Parishad

To overcome the WASH and IWRM problems in the two unions of the intervention area, two meetings have been held to prepare an action plan. In the meeting, the chairmen of the two unions have given their inputs on the action plan. Besides, other participants of the meeting also have shared their thoughts on it. However, as a new field on water, Integrated Water Resource Management, is also not vastly understood by the stakeholders. Local people will be come together to resolve the problems on surface water bodies. Furthermore, they will take initiatives in which the issues will be brought to the concerning government departments to resolve. This will be done following the 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 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

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. Digging a pond at the Cluster village of ward number 7.	May-June 2019 July –December 2019	Union Parishad 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

Commitments by Government Participants in the Workshop

Chameli Begum- Ministry of Women affairs

Gender inclusion is very much needed. Women have always been deprived from any decision-making process.

Matritto kalin vata - Women related affairs

Empower women but we need more allocation of budget to improve the situation.

DPHE sub-assistant Engineer

It is possible to achieve all the targets by the deadline in June, but it is important to know about the resources. Also, it needs to be clear who will do the maintenance of the assets after it's been set up. CSOs and general population need to be aware who the responsible authority is. Raise awareness on this and a specific database should be made.

Assistant Engineer LGED

We try to complete all the work for this fiscal year. Sometimes we have to extend 1 or 2 months. For repair work, we have certain budget allocated, which we can spend instantly.

Social welfare Ministry

We are relentlessly working towards mainstreaming of marginalized populace of the area. Gender equity is one of our prime targets in water security and other household issues.

District sanitary inspector

Throwing plastic bags in ponds or canals is making the situation worse and destroying the nature life cycle of that resource. Even when there was a fire accident in few months back, we saw firemen struggled to get water from the pond due to plastic waste in the ponds.

Family planning

It is better to make a documentary on IWRM and water management which we can show to people at the grass root level to raise awareness.

Management Efforts for Conservation of Wetlands

Due to the degradation of wetlands in the region, effective management is urgently required for their conservation. But as per the discussions, participants have not seen the conservation of water bodies as a part of political manifesto of the government. Conservation of water bodies 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.

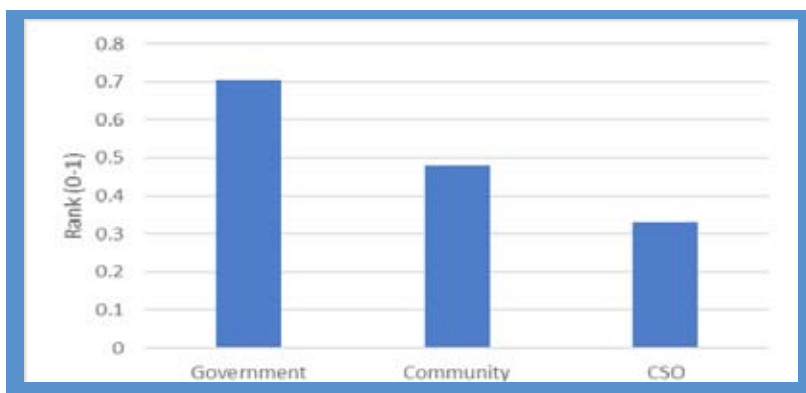


Fig 6 - Conservation of wetlands responsibility

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. Though since the initiation of tube well technology the dependence on wetlands has decreased, not everyone has access to tube wells, 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 the groundwater is declining, and if the surface water continues to degrade, WASH services cannot be guaranteed in the near future.

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. Discharge of blackwater and greywater into the wetlands increases the nutrient content in the water which will lead to killing the waterbody due to eutrophication. 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 through workshops which can help them in the advocacy to enhance political ownership against the degradation of wetlands. Priority wetlands in each ward were identified which will be surveyed in detail to identify management efforts to conserve the wetlands and help acquire water security. The criteria for identification were:

- High status of degradation over the past years.
- Large numbers of people are dependent on the wetland.
- Should constitute of different ownership status and compare how different kind of ownerships effect the situation of water bodies.
- Wetlands that should be given high priority in management according to the community.

Conclusion:

We have planned to have a water security plan to improve the sector. We should focus on strengthening institutions. The share of budget allocated to the WASH sector in the national budget is insufficient. Achieving WASH goals will not only require higher budget allocations, but also 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 spark the much-needed momentum.

Awareness among people about the symbiotic relationship of surface water (wetlands) and groundwater is important in to execute conjunctive use of the same. 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. A perfect synergy between public, private and government organisations will help in achieving the WASH goals. Cooperation from development partners and international sources are required to encourage water efficiency and support treatment technologies in developing countries like Bangladesh.



পানি, স্যানিটেশন ও হাইজিন এবং সম্বন্ধিত পানিসম্পদ ব্যবস্থাপনা বিষয়ক

“প্রশিক্ষণ কর্মশালা”

Training Workshop on WASH and IWRM with CSO and Government Stakeholders

স্থান: ভোলা সদর উপজেলা

তারিখ: ২২ -- ২৫ এপ্রিল, ২০১৯

