



G3: Water Governance and Community Based Management

Literature review

SWOT analysis of Bangladesh's key water policy documents

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1. Introduction

Water is one of the most critical problems in Bangladesh. The Government of Bangladesh (GoB) acknowledges water as a finite resource with tremendous importance for the environment and livelihoods in its National Water Policy (GoB, 1999). The National Water Policy provides a comprehensive policy framework for pressing water issues in Bangladesh such as river basin planning, water rights and allocation, delineation of public and private domains, water supply and sanitation, preservation of the natural environment and the developmental concerns of fisheries, navigation and agriculture. The policy also provides guidance on its economic and financial management (water pricing), participation by stakeholders, decentralized management and delivery structures. In essence, the NWP is the cornerstone that guides water management in the polders of coastal Bangladesh.

The Challenge Program on Water and Food (CPWF) has commissioned a researched study titled *G3: Water governance and community based management of the coastal areas of Bangladesh*. Though the main research focuses on water management in the polder areas specifically, the broader National Water Policy is a key document in trying to understand the different modes of governance and institutions working in the area. Furthermore, the Guidelines for Participatory Management, GPWM (GoB, 2001) operationalize the focus on community based management in water as envisaged in the NWP. This SWOT analysis attempts to investigate the strengths, weaknesses, opportunities and threats of the NWP from 1999. Based on the findings from this SWOT-analysis, G3 is enabled to design its own research activities in a way that examines how policy is being translated into practice in the coastal areas. The ultimate aim of such a research approach is to share the findings with the Government of Bangladesh through participatory dissemination workshop both at polder and central levels.

2. Strengths

Comprehensive approach of viewing water governance

The National Water Policy (GoB, 1999) is an ambitious and well-developed policy document in many ways. It attempts to link various water management problems underneath its wings, taking a cross-sectoral approach from agriculture and industry to fisheries and energy. In this sense, it was before its own time as water has often been segmented from its use in various sectors. In addition, the NWP already in 1999 stated that water is a basic human right and explicitly recognized the socio-economic equity dimensions of water. This was not formally recognized by the international community until 2011 – 12 years afterwards. Thirdly, it also takes a broad view of water, mentioning not only surface and groundwater, but also rainwater – something that has been receiving increasing attention as a source of safe water. Furthermore, when many countries worldwide were unquestionably following rapid privatization in the late 1990s, Bangladesh government urged for a balance between private investments in the water sector and the need for public sector involvement in large, bulk capital investments that require economies of scale.

One of Bangladesh's main problems relating to water is related to upstream flows. Bangladesh is the lower-most riparian state and the NWP recognizes Bangladesh's weak position on controlling its own water flows. Siltation, water logging, salinity are three major problems in the coastal areas that are all

linked to decreasing flows from upstream flows. Although melting mountain peaks would reduce the water flow in the long term, the artificial creation of dams has already started this process. It is therefore admirable that the NWP places River Basin Management and seeking cooperation, collaboration and coordination with co-riparian basin states as the first policy element.

Furthermore, the GoB (1999) recognizes that the process of planning and managing water resources requires a comprehensive and integrated analysis of relevant hydrological, topographical, social, political, economic, environmental and institutional factors across all water using systems. In the NWP (p5-6) it delineates the responsibilities for the key agencies involved, where the Executive Committee of the National Water Resources Council (ECNWRC) will resolve any interagency conflict in terms of regional and local water management plans. Considering the importance of cross-sectoral coordination, designating a special government unit tasked to resolve such tensions is therefore a practical prevention measure. In terms of the division of labor between the Bangladesh Water Development Board (BWDB) and the Local Government Engineering Department (LGED), responsibility is divided based on the size of the land. However, the unit for any interagency dispute these two is not clear, nor does it discuss the issue that BWDB is under the Agriculture and Water Resources division of the Planning Commission, while LGED is under the division for Physical infrastructure, roads and bridges. Nevertheless, it is specified that the Government will frame the rules and procedures for combining water and land use, showing a holistic approach. Furthermore, it also stated that the NWP will be revised when necessary, demonstrating a flexible attitude. Overall, for planning and management the NWP is thinking long-term and trying to practically address the multifaceted uses of water in the country, both today and for the future. This perspective and outlook on water governance and water management is arguably the NWP's greatest strength.

Needs assessment: understanding the problems before starting an intervention

The NWP highlights the importance of needs assessment, requiring a 'true multi objective analysis of water needs of an area'. Thus, water resources projects must be designed as multipurpose projects with an integrated multi-disciplinary approach from planning to implementation to monitoring (4.5.a). Planning and feasibility studies must be completed for all projects. In addition they must follow the Guidelines for Project Assessment (GPA), the Guidelines for People's Participation (GPP) and the Guidelines for Environmental Impact Assessment (EIA). Furthermore, analytical procedures and evaluation methods (modeling, cost-benefit and risk analysis, and multi-criteria decision making) should be used in project planning and appraisal processes. It is also stipulated that the interests of low-income water users and women are adequately protected in water resource management. This is a thorough and well-thought out stipulation, with clear operational guidelines on how to conduct these steps. Yet it is not clear how to make the projects multi-purpose, nor to what extent.

G3 could during its research examine:

- Are projects designed to be multi-purpose? In what sense?
- To what extent is an 'integrated multi-disciplinary approach' used? How and by whom?
- To what extent are planning and feasibility studies conducted? To what extent do they follow the stipulated guidelines?

- How are the relevant agencies and WMOs attempting to protect the interests of low-income water users and that of women? To what extent has it been successful?

3. Weaknesses

Lack of cross-sectoral guidelines for multiple water uses in rural areas

In terms of water supply and sanitation, the NWP provides a good identification of the different problems related to lack of quality of drinking water that range from general pollution to arsenic, as well as from agro chemicals to salinity intrusion (GoB, 1999:10). Yet the policy prescription envisaged seems to have an urban focus. For instance, it mentions preservation of natural depressions and water bodies in major urban areas, as well as drainage and wastewater treatment by public water and sewerage institutions. Very little is mentioned in reference to more remote rural areas and their water situation, except that local governments have the mandate to create ‘awareness among the people in checking water pollution and wastage’ (p. 11). Considering how agriculture and aquaculture have a tremendous impact on drinking water quality and that the NWP explicitly acknowledges these challenges, it is a weakness that it does not provide guidance and guidelines on how to coordinate water supply and sanitation issues. This is especially a problem in the rural areas where the Department of Public Health, is not as strongly present as for instance the Union Parishads and BWDB/LGED. Yet none of these have a mandate to interact with Department of Fisheries or Department of Agricultural extension on their potential negative effects on drinking water. “Water governance is defined by the political, social, economic and administrative systems that are in place, and which directly or indirectly affect the use, development and management of water resources and the delivery of water service delivery at different levels of society. Importantly, the water sector is a part of broader social, political and economic developments and is thus also affected by decisions outside of the water sector” (UNDP Water Governance Facility, 2012). Water governance is thus not just limited to the governance of polders and sluice gates. Considering the lack of attention to the interlinkages between productive uses of water (agriculture, fisheries) and drinking water supply, G3 will commission a case study looking at the intersection of productive and domestic uses of water, where drinking water and gender issues lie at the heart of the research.

The NWP does not specify what institution is responsible for water issues in agriculture, industries, fisheries or the environment. Though there is a view that the Executive Committee of the National Water Resources Council (ECNWRC) will resolve any interagency conflict in terms of regional and local water management plans, it is not made clear how this would work in practice when these different ministries and departments work on their own issues and for their own goals. After the publication of the NWP and the Guidelines for Participatory Water Management (GoB, 2001), GPWM, the Integrated Planning for Sustainable Water Management (IPSWAM) was created for five years in 2003. The IPSWAM program was co-funded by the Government of Netherlands and aimed to assist the Bangladesh Water Development Board (BWDB) to find a practical way to introduce realistic, affordable and sustainable participatory and integrated water resources management in the southern coastal zones of Bangladesh. In IPSWAM’s institutional analysis study (GoB, 2005), a first step was suggested in coordinating the ministries of Water Resources, Fisheries and Agricultural Extension, where IPSWAM could take the responsibility to facilitate the drafting of MoU between the BWDB and these other two departments to

improve coordination of activities at field level and strengthen the operation of WMOs. It is, however, not clear whether or how this worked out in practice and at field level. G3's problem identification will therefore also investigate issues of institutional coordination and the division of responsibilities in water related issues, i.e. is it working the way people want it to work or are there institutional and management issues that need changing.

G3 could during its problem identification explore:

- To what extent was IPSWAM able to promote coordination and cooperation with other government agencies? What were the effects in the short and long term? What are the challenges?
- Are there any other government initiatives on coordination and collaboration in water management? How have they worked?
- What are the different coordination and collaboration issues on water management? How does this relate to drinking water and sanitation?

4. Opportunities

Participation and involving local stakeholders

The NWP is comprehensive and trying to address many relevant aspects of water management. One key focus of the NWP is that of stakeholder participation, where all stakeholders are to “actively and fruitfully participate in water management decision making at all stages” (GoB, 1999:18). In order to operationalize this, the policy document Guidelines for Participatory Water Management (GPWM) (GoB, 2001) was created. The GPWM aims to:

- Increase/improve stakeholder participation/involvement in water management
- Give local stakeholders a decisive voice at all stages of water management
- Raise environmental awareness among the local stakeholders and the implementing agencies involved with participatory water management

The scope is broad as it states that participation should be applied to all stakeholders for participatory water management – local stakeholders, Water Management Organizations, Local government institutions, NGOs, community level self help groups, private sector providers, implementing agencies and other public sector agencies. This is a true opportunity as it opens up the possibility of wider stakeholder consultation. Furthermore, stakeholder participation is stated to be applied to flood control, drainage, irrigation and other surface/ground water management activities. However, it is not clear whether the latter activities also include drinking water.

On the other hand, the GPWM has developed a very inclusive definition of local stakeholders: “inhabitants of an area who are directly or indirectly affected by water management”. It also developed the concept of ‘Project Affected Person’ (PAP). According to GPWM, PAPs are to be appropriately consulted for any loss or negative effect of water management activities. PAPs are defined as women and men belonging to households of farmers, fishermen, small traders, craftsmen, boatmen, landless, destitute women, or any other member of the local community. This is an opportunity for more

inclusive water management as it allows people that might be negatively affected without much influence, to have a voice.

G3 could investigate:

- What do different officials and community members perceive as 'local stakeholders', is this in line with the GPWM definition?
- How well do people know about the PAP definition?
- Are PAPs consulted? If so, through which mechanisms?

Equity and Gender

From a poverty and development perspective, one of the most admirable traits of the NWP is its strong focus on equity and gender. It explicitly recognizes that women have a particular stake in water management as they are the principal providers of water, main caretaker of the family's health and participants in many stages of pre- and post harvest activities. The importance of gender is highlighted in the mandate of IPSWAM and BWDB, as well as in the Government of Bangladesh (2006) *Gender Equity Strategy and Related Action Plan 2006-2011*. In IPSWAM's *Institutional Analysis Study* (GoB, 2005) a key emphasis was on mobilizing the female population at the community level and ensuring their inclusion and voice in Water Management Organizations. One key requirement was the presence of BWDB female field staff, as well as a gender integrated approach within BWDB and its activities¹. The strategy to achieve these ends can be found in the BWDB Gender Equity Strategy and Related Action Plan (GoB, 2006). This plan defines 'gender equity' as fairness and justice in the distribution of benefits and responsibilities between women and men, recognizing the different needs of men and women.

However, it does not delve deeper into why needs between different genders would be different, nor does it differentiate different needs among women. There is little, or even no, discussion on women and class. Yet poorer women, especially single female headed households, in the cultural context of Bangladesh are more vulnerable and in many instances less influential than more well off and married women. In that sense, the gender components still have some scope for improvement. Nonetheless, many appropriate suggestions on how to improve the integration of gender issues into participatory water management have been suggested. This thus serves as a first step and opportunity to give voice to women's real voice in water decision making and management.

G3 may want to check whether the following recommendations by the gender policy documents have taken place:

¹ WARPO (2001) argues that several BWDB projects are performing below expectations, while the organizational culture of BWDB remained practically unchanged. This in turn has led to an absence of an enabling environment for more participatory water management, leading to few advances of the GPWM. "The culture of a consultative process in the management of water resources could not permeate through the rank and file, and the top down approach continued".. It has been that BWDB must reorient itself more towards merits, innovation, team work, gender, transparency and community participation, where the communities' voices are listened to. The BWDB reform process to shape BWDB has been ongoing since the reorganization plan of 1998, where the BWDB was supposed to reduce its staff from 18000 to 8000, yet staff numbers seem stagnant (GoB, 2005). It is not clear how far the reform processes has proceeded, what the institutional barriers are and in what way this delay is affecting water management at the field level.

- Has there been an increase of BWDB women field staff?
- Have women's activities in water been isolated from rest of project programs?
- Has gender disaggregated data been collected? Do men and women receive equal pay?
- Are 25% of earthworks done by LCS/Landless, and are at least LCS 30% of LCS members women? What percentage of WMO members are women and who do they represent?
- Do women participate effectively in all phase of the project (Social organization, pre-planning, planning, implementation, O&M, M&E)? Which women participate and who are excluded?
- Do women feel they are effective and that their opinions are being heard in decision making? How can this be verified?
- What support is needed to increase numbers of women who participate in all phases of projects and to make their participation effective? Is there any gender focused training?

5. Threats:

Lack of mechanisms to prevent capture in Water Management Organizations (WMOs):

WMOs are defined as the institutional framework in which the local stakeholders will participate for water management. WMOs should comprise of Water Management Groups (WMGs), Water Management Associations (WMAs) and Water Management Federations. These WMOs are intended to function as the institutional mechanism at various levels of the local stakeholders for participatory water management. They are intended to hold decision-making power at all stages of local water resource management and are responsible for planning, implementing, operating and maintaining local water schemes. However, it could be argued that the definition and responsibility given to WMOs is susceptible to capture of vested interests. The definition of local stakeholders is broad and inclusive and would include a diverse group of interests. In many ways, WMOs pose a real opportunity. However, in the GPWM (GoB, 2001), it is not made clear how WMOs in their structure can prevent capture of decision-making power and how they in practice would make sure that the composition of members is inclusive. This lack of mechanisms to prevent capture is a threat. Furthermore, WMOs are formal institutions created by the state and the NWP does not acknowledge the extent of informal management structures that are already in place and how they work relative to WMOs.

G3 could investigate:

- (How) do WMOs adequately operationalize the definition of 'local stakeholders' in GPWM?
- Do WMOs consult with PAPs, in that case how?
- To what extent are WMGs, WMAs and Water Management Federations functioning?
 - What is their real level of decision making?
 - How do they perform in terms of planning, implementing, operating and maintaining local water schemes in a sustainable way?
 - (How) do they communicate and interact with local communities and PAPs when deciding these issues? Why or why not? How are local stakeholders (broad definition) involved in the project cycle (from pre-feasibility to O&M)
- Do they receive any support, facilitation, coordination from any government agencies?
- Is there wide and effective dissemination of information on potential interventions?
- Do WMOs assess and recognize social, agricultural, fishery, livestock and environmental issues prior to an intervention? Why or why not?

- Do the WMOs look at alternative solutions and proposals so that public funds are spent on widely beneficial and sustainable interventions?
- Is there a coordinating discussion forum where concerned implementing agency, local parishads, interest groups, GOB officials at Upazila and District levels, PAPs and local stakeholders openly and freely discuss with each other? Are there any problems with arranging such a forum? What are the benefits?
- Are at least 25% of all earth works carried out by disadvantaged groups? If so, how are they involved in such coordinating discussions? What is their level of influence on the planning of the work they will be engaged in?
- What formal systems are supposed to be in place and what informal systems are in place in reality?
 - Who manages those private water governance structures (polder, drinking water etc.)?
 - What other mechanisms are there to manage a crisis etc?

6. Conclusion:

The main strengths of the National Water Policy (GoB, 1999) is that it takes a comprehensive approach of viewing water governance. Furthermore, through emphasizing needs assessment, it also underlines the importance of understanding the problems before starting an intervention. The weakness on the other hand, is that though there is an explicit recognition of inter-agency coordination for effective water governance there is a lack of cross-sectoral and multi-agency guidelines for multiple water uses in rural areas needed to tackle Bangladesh's water problems holistically. Siltation, salinity, reduced water flows, drinking water (currently under Department of Public Health) are all complex and multi-causal problems that cannot be solved through infrastructure solutions or community management alone. There must be a strategy that links agencies with the multiple uses and consequences of water.

The NWP and the supplementary GPWM and Gender Action Plan provide many opportunities. They see water as a common resource with multiple uses for various different stakeholders that may be negatively or positively affected by different project interventions. The definitions of local stakeholders and Project Affected Persons are two important first steps of ensuring that community participation also involves giving voice to a wider group of people rather than a selected few. In that sense, it is a real opportunity. The threat is rather the way WMOs have been phrased to represent all local stakeholders, but without clear mechanisms of accountability and transparency to prevent the WMOs from being captured by vested interests. Considering the local power structure in Bangladesh, this is a real risk.

In theory, these policies and guidelines are trying to create, or reform, water management institutions to become more inclusive, participatory, meritocratic, gender sensitive and multi-disciplinary. However, the BWDB is a powerful institution and changes to its organizational culture and behavior have been slow (WARPO, 2001). If BWDB itself is not interested in ensuring well-functioning WMOs that act in accordance with GPWM and Gender Action plan, it will be difficult to ensure that what Ministry of Water Resources is trying to achieve in theory, will actually happen on the ground. Overall, the key strengths are that these policies are trying to stipulate a way forward. Future research may therefore try to evaluate how much of these different steps have been successful on the ground, or why they have not been able to take off in the first place.

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