Experience with Operation of Participatory Water Management: Country Paper – Bangladesh

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ABSTRACT

Water for food, health and environment has been identified as a scarce economic good world over. Saying of the day is - "we must rethink water management"; and, "Participatory Management" involving users, planners and policy makers at all levels is the new approach for good planning, and implementation, sustainable operation and maintenance, proper monitoring and evaluation of the projects, and, above all ensuring water to all its users. It is important to appreciate that "the issue of water users' participation" is not just a technical (engineering and agricultural), economic or sociological issue, but more a management issue and is beset with strong challenges - encompassing strategic approach, institutional issues and psychographic elements of various actors. Participatory Approach subscribes a new and essentially important role for the water users' institutions as, well as a fundamentally changed role for the state agencies. The whole business requires a fresh perspective and a paradigm shift.

Keywords: Water, management, participatory, challenges, role, institution.

1. INTRODUCTION

Bangladesh, a land of about 157,000 sq. km, is one of the largest deltas of the world, formed by the most complex river system of the Ganges, the Brahmaputra and the Meghna, and situated in the tropical zone. The country is crisscrossed by as many as 458 small and big rivers with their innumerable connecting khals (small channels), beels (small depressions) and haors (large depressions on the North-Eastern part). Many of these water bodies including the major and big rivers are perennial, but mostly are seasonal.

Water regulates the social life, economic activities and culture of her people. It facilitates bio-diversity and maintains environmental balance and to a great extent supports poor people to have access to common property resources.

Agriculture is the mainstay of Bangladesh's economy, generates about 60% of the total...
employment of the country, and shares 36 per cent of the GDP. So in order to meet the food requirement for a faster growing population in Bangladesh and for overall national development, water sector became key-important and the Government attached high priority to integrated water management activities. The water management in Bangladesh includes activities related to flood protection and management, erosion control and management, facilities for irrigation and drainage management. The Government has so far completed around 550 Flood protections, erosion control, irrigation and drainage projects to protect about 2,844 million ha of land from upland and tidal flood hazards and bring 192,000 ha of cultivated land under irrigation. Many of these projects are have almost spent out their life.

Presently, more than 50% of the completed projects are not performing well – many due to inadequate planning, many needing rehabilitation or remodeling, but mostly due to lack of proper operation and maintenance. Moreover, some have several negative impacts like loss of fisheries, navigation and soil fertility, and the exacerbation of drainage problems. Lack of stakeholders’ participation is considered as one of the most important factors for this. On the backdrop of this scenario, participation of the stakeholders and for that purpose establishment of water institutions has attained importance in Bangladesh. Following the Dublin principles (1992) of water management that “water development and management should be participatory, involving users, planners and policy makers at all levels”, the Bangladesh National Water Policy (1998) has emphasized on the establishment of stakeholders’ participation for ensuring direct input from people and their fruitful participation at all levels of the water resources development and management through establishing water users institutions.

This paper is an attempt to present the Bangladesh experience in participatory water management in Bangladesh. A brief history of the evolutionary process of the water institutions, the Policy and legal framework for water institutions, the institutional arrangements and results of case studies have been briefly described in Section-2; Section-3 presents the challenges to be reckoned in the process of establishment of the water institutions and their sustainability; Section-4 winds up this paper with the conclusion that establishment of water institutions, assumption of their attributed role and their sustainability require a fresh perspective and a paradigm shift towards the new role of stakeholders, changed role of state agencies and finally putting the water users first.
2. BANGLADESH EXPERIENCE WITH PARTICIPATORY WATER MANAGEMENT

2.1 The Evolutionary Process

Water management, particularly irrigation, in Bangladesh is as old as the "Gangetic Civilization". It is learnt from the Vedic literature and epics of the time that about 3000 years ago, the rulers of Bengal (of which Bangladesh was a part) introduced irrigation and handed over the responsibility of distribution of water to the local boards (indigenous institutions). The local boards worked through the peasantry to ensure that water reaches to every field, although existence of permanent water institutions cannot be traced back in history.

In late 1970s, the concept of beneficiaries’ participation and for that purpose formation of water institutions with the beneficiaries first came up in the Land Reclamation Project (LRP, 1978) and the Delta Development Project (DDP, 1981), two projects under the Netherlands Technical Assistance Program. This author had the privilege of working in both the projects. DDP was a pilot project for rehabilitation of an polder, with the introduction of water management at farm level through the establishment of water users’ association with the beneficiaries of the project. “Irrigation Inlet Groups” for planning, execution and operation and maintenance of the water infrastructures (two 5ft x 6ft gated sluices and 45 nos. 10-inch irrigation gated pipe inlets) were established for their operation and maintenance. These irrigation inlet groups paid small fund for the operation and maintenance of the inlets. Unfortunately, these initiatives took place rather in isolation from the mainstream activities in the sector and did not find enough support due to resistance from local elites on social reasons (impact on prevailing patron-client relationship). Both DDP and LRP started dwindling and finally lost their drive by the late 1980s.

The issue was re-born in the early 1990s when the idea of peoples’ participation in the management of development projects emerged as a strategy for poverty alleviation. The idea of introducing stakeholders’ participation has attained priority in the agenda of water resources projects during the last decade, and lots of efforts are being made to operationalize this. A number of Guidelines have been prepared under different projects as well as by the Government itself in the nineties and these are being tried in some Flood Control, Drainage and Irrigation (FCDI) projects.

In view of too many guidelines, an Inter-Agency Taskforce Committee reviewed all approaches in this regard and prepared Guidelines for Participatory Water Management, which has been approved by the Government in November 2000.
2.2 Policy Framework
The National Water Policy (1998), which constitutes the policy framework for the participatory process in integrated water resources management states, “The participation of all project affected persons, individually, and collectively, will be ensured in the planning, design, implementation, and operation and maintenance (O&M) of publicly funded surface water resources development plans and projects. Local governments (Parishads) will be the principal agencies for coordinating these efforts.”

2.3 Legal Framework
To start with, the water institutions were formed under the aegis of BWDB and LGED projects and were only acknowledged by them. Presently, Water Management Associations (WMAs) are registered under the Cooperative Societies Act 1986, and for that purpose the Cooperative Societies Rules have been modified (1987). Nevertheless, the existing system of registration and its operation under this legal framework is quite complicated. Need for a simplified legal framework is under discussion and an initiative for this is in the process.

2.4 Institutional Arrangements
2.4.1 At National Government Level
Bangladesh Water Development Board under the Ministry of Water Resources is the main national Government agency to implement water resources development projects. There is a Directorate of Land and Water Use (DLWU) in BWDB, which is staffed by agricultural graduates, soil science graduates, fishery graduates – all doing agricultural extension related activities. They perform the task of establishment of the water institutions at farm level on project basis with the help of NGOs. Department of Local Government Engineering is the other organization, which implements projects under 1,000 ha. Bangladesh Agricultural Development Corporation under the Ministry of Agriculture deals irrigation. These agencies are dominated by engineers, agricultural graduates and are in charge of the planning, implementation and operation and maintenance of the projects.

2.4.2 At Water Users’ Level
The institutional arrangements at farm level have been going through a process of trials. Water Users’ Associations, following the Guidelines for Peoples’ Participation are being established in a number of projects – primarily financed by donors like the World Bank, Asian Development Bank and the Netherlands Government. The institutional arrangements in a few projects are being briefly described in the following paragraphs.
CADP under PIRDP and MDIP

Pabna Irrigation and Rural Development Project (PIRDP) and Meghna-Dhonagoda Irrigation Project (MDIP) are two projects, constructed earlier for protection against flood and provide irrigation to agricultural land. Unfortunately, flood protection objective was realized, but only about 10% of the project areas were provided with irrigation systems. So, a new project - Command Area Development Project (CADP) has been taken up to realize full potential of the irrigated areas of 18,870 ha in PIRDP and 13,602 ha in MDIP through participatory management. So all emphasis have been put on establishment of water users’ institutions at farm level.

The principle stakeholders of the irrigation system are the farmers who use the canal water for irrigation. The other stakeholders for irrigation are the fishermen. For drainage, the stakeholders include the entire population residing within the project area. These stakeholders have been organized in water users’ organizations (WUOs) for the purpose of planning, implementation and co-ordination regarding O&M of the main flood control and drainage facilities. This committee also oversees collection of a flood control and drainage services charge.

The first tier is called the Water Users’ Group (WUG) and is the basic organization of the water users at farm level, and is the bottom tier. The WUGs are formed one for each turnout area where they operate and maintain.

The second tier is called the Water Users Committee (WUC), who operates and maintains minor level canals of the irrigation system.

The third tier is called the Water Users Associations (WUA), who shares the responsibility with BWDB (the government agency) in operating and maintaining the main irrigation canals.

The fourth or the top tier is the Federation of water Users Associations (FWUA). The FWUA is to manage the entire irrigation system, and, participate in updating the O&M manual, O&M procedure, provide comments on drafts and co-sign an agreed O&M procedure.

Apart from these, A Joint Management Committee is formed with BWDB staff and members of the FWUA, which acts as the interface between the water users and the government agencies. This Committee meets every month and deal with policy matters, planning, implementation and co-ordination regarding O&M of the main flood control and drainage facilities. This committee also oversees collection of a flood control and drainage services charge.
Summary of the Water Users' Institutions in PIRDP and MDIP

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Status of Irrigation (Jun. 03) 11,000 ha 11,500 ha
Status of Cost Recovery (Jun. 03) Tk.3.4 mln Tk.1.6 mln

Procedure for Election to Different Committees:

1) Preparation of Stakeholders List: First the chawk (basic unit area) wise stakeholders (farmers, fishermen, landless/sharecropper) list was prepared.

2) Chawk Wise Meeting Plan: To form the ChWMCs 1 - 5 meetings were held depending on the size of chawk(s), geographical situation and numbers of stakeholders etc.

3) Issuance of the Invitation Letter for Joining the Meeting: In every family there are male and female members. So, invitation letters (signed by the Team Leader of CPP) were issued to all stakeholders individually (18 years and above) for joining the meeting, mentioning the day, date, time, venue, etc.

4) Conduct of Meeting(s): Normally venue of the meeting(s) was the premises of house, school / location.

5) Nomination: The participants, who wish to become members of the forum, nominated themselves. The number of nominations was more than one for the positions of the Chawk Water Management Committee (ChWMC). Among the nominees, the male and female members were selected in the secret election. The nominees were selected from each ChWMC.

Representation of the Societies (SCWMCs)

The SCWMCs were eligible for representation on the nomination list. The male and female members of the SCWMC, eligible, were selected in the resolution of the society.

The same procedure was followed for the nomination of the SCWMCs in the same order:

3. CHWMC

3.1 Both male and female members were eligible for the election. In the secret election, the pre-defined number of the male and female members were selected in the Chawk Water Management Committee/Forum (CWMC) from the list of the eligible members.

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school / madrasa building. Usually the discussion issues included - what is CPP, objectives of CPP, role of committee members, eligibility of committee members etc. The forum was open for free and frank discussion.

5) Nomination/formation of committee: At the end of the meeting, nominees from among the participants for selecting/electing the ChWMC were elected. If there was plan for more than one nomination meeting then 11-26 nominees (depending on chawk size and stakeholders) were (s)elected by the participants from among farmers, landless, male, female population. In most of the cases the women representatives were (s)elected by the women, but in some cases male participants imposed their decision. Later on, the final formation meetings were arranged with the nominees for that chawk. The nominees (s)elected the ChWMC members by consensus, although sometimes it was decided by an open / secret election. After that, the office bearers (at least one woman) were (s)elected by the ChWMC members. Where there was plan for only one meeting for formation of one ChWMC sometimes it was done by direct election and sometimes it was done after nominees were first chosen from among the participants and then nominees made the final (s)election from among themselves.

Representation of ChWMC (1st Tier) to Sub-compartment Water Management Committee (SCWMC) - 2nd Tier

The SCWMC representatives were elected by the ChWMC. All members of ChWMC are eligible for representation in the SCWMC, there is no special reservation made for the nomination of the President or Secretary of the ChWMC. In general, a total of 3 members (2 male and 1 female) are nominated from each ChWMC; for fishermen - 1 member (male/female) was nominated. Election of the ChWMC representatives for SCWMC was done in the full ChWMC meeting. The decision of the ChWMC are laid down in a resolution and signed by all ChWMC members.

The same procedure was followed for (s)electing Representation from SCWMC to Compartment Water Management Committee (CWMC) - 3rd Tier.

3. CHALLENGES TO BE ADDRESSED

3.1 Bottom–up Approach

In many, if not most cases, establishment of water institutions are being agency-administered, highly directed, target oriented, deadline driven to form a pre-determined hierarchy of Water Users' Organizations (WUOs) - with the institutional structure, composition, tasks, and modus operandi - each predetermined. This is essentially "top-down", which limits the scope for participation.
It is important to note that the "participatory approach", which is "bottom-up" is a democratic process, which must follow the democratic principle - "of the people, by the people, for the people". The "bottom-up" approach of the people and by the people is a time consuming process that demands more effort than the "top-down" approach. The most important aspect of such strategies is to encourage and support the spontaneity and creativity of the people, instead of ignoring them. Instead of teaching them, the "development practitioners" should learn from them - their way of thinking, logic, experience and success stories. For this the university graduates who are used to work on the drawing boards and computer screens have to go to the people at the farm level when they are young and before they become overtly technocratic. The first initiative to achieve this condition must come from the Government, and be developed as a social movement, instead of a bureaucratic routine job.

3.2 Conscientization and acceptance of the new roles

World Bank (1996) has defined participatory water management as "a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them". This implies that the stakeholders are actively involved, following transparent and systematic procedures, in the planning, implementation, operation and maintenance of water management infrastructure and resource utilization processes. By definition, role of the water users' institutions bring a new dimension in project management. Identification of works and their prioritization, preparation of the investment plans and supervision of works -which were previously done by the government agency staff, will now be done by the water users' institutions. Role of the government agencies change from controlling position to the position of facilitator, whose main responsibility will be to render technical advice to the water institutions, help in formulating and processing government financing and help in mediating conflicts. In the new context, the government officials lose their prevailing control, authority and the privileges, which they have so long enjoyed. There is great reluctance among the government agency staff to accept this situation.

3.3 Sustainability and incentives

Sustainability of the water users' institutions is a real challenge. The general experience with the water institutions in developing countries in recent decades is that they cease to function during the operation and maintenance stage. In Bangladesh, many water user groups/cooperatives were formed on canal irrigation systems, which functioned as long as "loans" were available." In CPP also, the WUOs stopped functioning after the project was complete and the donors left. It is yet to be seen what happens to PIRDP and MIRDP. It is important to note that there are other factors than the sense of ownership of the project,
which are crucial for the sustainability of the water users’ institutions. Those are, in the words of the Project Director of the CPP, “Two equally crucial factors for the sustainability of the water users’ institutions are – guarantee of fund (resource mobilization) for O&M activities and execution of minor works by the water institutions (incentive)”. Reference of the ‘incentive’ issue is available in concerned literatures also. Oakley et al (1994) writes, “Dependable incentives are important in sustaining the participation... Participation evaporates when the incentives fail to materialize”.

In another project (Sreenagar-Bhagyakul-Mawa Project - 3200 ha) where this author worked for three years and established water users’ institutions to introduce participatory operation and management, the issue of incentives came up again and again in discussions and meetings. They suggested that timely mobilization of a minimum fund for O&M, effective participation of the water users’ institutions in the management of the investment plan and control over the expenditure. However, the existing rules require necessary modifications.

In CPP, execution of minor physical works up to Tk. 0.15 mln (US$ 3000) and 25% of the construction works done by the Landless Contracting Societies (LCS) were executed through the water institutions to give them the incentive.

Incentives for the concerned government agency staff to compensate for the authority, power and privileges which they lose, is also equally important, as success of the participatory approach is integrally linked with, as well as dependent on the attitude and support of the Agency staff. Such incentives often are suggested to be - preference in the event of promotion, better position in the future etc., but yet to be accepted as a matter of bureaucratic principle.

3.4 Training

Participatory approach is “essentially a method” and its application requires skill (Technical, Human, Conceptual, and Design). Training, oriented towards the acquisition of need-based knowledge and skills, should be considered to be a tool, rather than a component of the project to make it attractive for selling. Government staff and the leaders of the stakeholders, who are the ‘agents of change’, have to appreciate the necessity of and have the motivation to acquire the knowledge and skills, and use those.

It is important to note that nowadays training to develop institutional capacity has become a regular component of a development project and a considerable amount of money is being spent. Nevertheless, the quality of performance or attitude is not improving. The reason must be that the trainings are not being effective and efficient. Very little concern has been
observed among the sponsors of the projects about the quality of the training and their effectiveness.

The capacity and quality of the trainers – their knowledge, practical experience in the field of lecturing issues and their training skill - are extremely important for the effectiveness to the training program. Trainers’ performance should be regularly reviewed and evaluated. There should be mechanism for continuous monitoring, evaluation and efforts to improve the training contents, method, outcome and the effectiveness of the programs.

A general conscientization of the stakeholders about expected global water crisis, proper utilization of the scarce irrigation water, general overview of the project, recognition by the stakeholders themselves of the importance and need for their participation and sharing of O&M cost by local resource mobilization; problems they may expect to encounter in performing their tasks, the skill (problem solving, communication etc.) to handle those problems in an effective and efficient manner, should be the focus of the training program.

3.5 Cost Recoveries and Political Consensus

Cost recovery, cost sharing, sharing of O&M costs by farmers and other stakeholders are being discussed quite often, but very little progress has been achieved. The farmers don’t even pay the ‘irrigation tax’ because they think that they can live without paying those. In fact, they do live well. Political will and commitment is a key issue in this context. It is important to note that imposition and collection of the irrigation tax is a very sensitive issue and no government should like to take a political risk. So general political consensus among all the political parties at national level, whether in the government or in the opposition is an essential condition for any effective attempt to collect the ‘irrigation tax’.

4. CONCLUSION

It may be noted that the participatory approach breaks the conventional "top-down" approach. Transition from the conventional “top down” to “bottom up” participatory approach is not easy, the concept being new and 'strange', as it is alien to the conventional education, training, practice and vision of doing things.

To accomplish this challenging task, the government agencies and the facilitating staffs must be willing to do the job, be well oriented to stakeholders, possess problem-solving ability, communication skills and empathy, as well as integrity and honesty.

Establishment of water users’ institutions, assumption of their attributed role and their
sustainability require a fresh perspective and a paradigm shift towards the new role of stakeholders, changed role of state agencies and finally putting the water users first.
REFERENCES