Wetland Management Strategies in MSDP Area Professor Ishrat Islam Department of Urban and Regional Planning, BUET

Wetland is considered as one of the most important ecosystems on earth. Many of the ancient civilizations flourished along the rivers and economically benefited from wetlands. Traditionally, they practiced a harmonious living pattern with wetland around them.

Most universally accepted definition has been set by the Ramsar Convention. Bangladesh is one of the signatory of Ramsar Convention. According to Ramsar Convention wetlands are defined as follows:

Wetlands include a wide variety of habitats such as marshes, peatlands, floodplains, rivers, and lakes, and coastal areas such as salt-marshes, mangroves, and sea grass beds but also coral reefs and other marine areas no deeper than six meters at low tide, as well as human made wetlands such as waste-water treatment ponds and reservoirs (Ramsar Convention Bureau, 2000)

The multifarious functions and value of wetland is still in the process of unearthing. Benefits of wetland are classified the into two groups (i) services it performs (a list of 20 services) and (ii) goods it provides (14 goods are obtained from wetland). Such as production of agriculture, transportation, ground water recharge and discharge, floodwater alteration, sediment stabilization, aquatic and wildlife diversity/abundance, recreation etc.The human race enjoyed enormous benefit of wetland and developed a harmonious way of life accommodating wetland and other natural resources. But over the ages, the notion towards wetland changed with the change of technology, life style and certainly to cater increasing demand of urbanization. Wetlands are often considered as wasteland and are converted into other uses.

Mymensingh Strategics Development Plan (MSDP) area is blessed with various categories of permanent and temporary wetlands which includes river, khals, irrigation canal, *dighi*, ponds, *gher*, marshy land, ditch area and lakes. Even within Mymensingh Paurashava area, there are different types of waterbodies. Thus it is very important to develop management strategies for conservation of these wetlands considering the socio-economic context and institutional aspects.

Mymensingh is located beside Brahmaputra River. Mymensingh region has developed by deposition of Brahmaputra river system. Hydrology is an influencial factor for agricultural development of this flood plain area. Also cultivation of fish in ponds and *Ghers* is an important activity. Mymensingh town and its north western and north east side is at comperatively elevated other than south east and south western side. Figure 1 shows different categories of waterbodies in the MSDP area. Inventory, classification and function of these water bodies need to be identified. From management perspective, it is necessary collect data on ownership of lands under water body category. Detail information is required regarding fish and

agricultural cultivation. It is also important to have information on degradation and loss of water bodies in the area over the years to understand the trend of development.



Figure 1 Categories of water bodies in MSDP area (rural)

Mymensingh Pourashava is not normally affected by external flood. Mymensingh pourashava don't have any flood problem from the overflow of the *khals* or river. But internal flood or water logging is experienced in number of wards during peak monsoon time with high rainfall for long duration. This Water logging situation is the major issue for this Pourashava which requires be resolved through Pourashava Master Plan. Major reason of water logging includes absence of proper drainage system and blockage of existing drains, haphazard expansion of settlements which obstructs the natural drainage system, poor and inadequate maintenance of existing river, *khals, kutcha* and *pucca* drains, due gradual increases of the unplanned construction of residential, commercial buildings, failure to preserve "right of away" for drains by Mymensingh Pourashava and disposal of solid wastes and garbage into the existing drainage system. A drainage master plan has been prepared under the Second Urban Governance and Infrastructure Improvement (Sector) Project (UGIIP-II)for Mymensing Pourashava to provide planned development of the drainage system in Pourashavas, to integrate storm water runoff, wastewater and road drains through primary, secondary and tertiary drains and natural streams so that they all function as an integrated system to prevent inundation of roads, houses and properties during heavy storms and to reduce environmental contamination from wastewater. Implementation of this plan is definitely a challenge for the city. Mymensingh Pourashava also has a good stock of waterbodies (Figure 2). It is definitely an asset for the city. In addition to planning to conserve these waterbodies, it is more crucial to determine implementation strategies to save these natural resources, particularly if it is owned by private entities. Pourashava is located along the river. Saving the river from encroachment and pollution should be a primary concern because most of the rivers of Bangladesh are under threat of encroachment and pollution. The river front can be developed as a scenic site of the city.



Figure 2 Categories of water bodies in MSDP area (rural)

Policy Intervention to Ensure Wise Management of Wetland in MSDP area

Conservation approach towards any natural resources raises some basic issues. While undertaking wetland conservation program the policy makers would face the following basic queries.

- ➤ What areas should be conserved?
- What would be the size/shape of conserved area
- > What would be the management strategies for the conservation area?
- ➤ When and how to adopt the strategies?
- ➤ Who would carry out the strategies?

Extensive research work is needed for first two questions to be answered. It is expected MSDP would come up with the actual size, location and demarcation of wetland. Various socio-economic issues are associated with wetland management. Moreover legal and institutional strength and setup is a prerequisite to manage waterbodies. To develop wetland management strategies it is necessary involve the local people and different stakeholders because they are the users, beneficiaries, protectors or exploiters of wetland.