

Water management challenges and plans of bangladesh

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Bangladesh is a riverine country and the water resource is a very big sector for the development. For the water management BWDB was formed and for further development, five years' strategic plans were set up, the strategic plan 2009-2014, action plan and implementation plan were included in Annex-C, D and E respectively. Mean annual rainfall is 2360 mm and about 80% of the rainfall occurs in June to September but there has hardly three major rivers to drain 1. 72 million sq. km area where as only 8% of this area lies in Bangladesh. This imbalance in water incoming and drainage produces water logging in the riparian country Bangladesh and besides that withdrawal in upstream area exacerbates the situation to water scarcity in dry season and flood in wet season. However, the rivers carry sediments from uplands which help us land reclamation to some extent. The Bay of Bengal, situated in the south, divided into three parts eastern, central and western and the areas are Feni to Badar Mokarm, Feni to Tetulia river and Tetulia river to Hariabhangha respectively, whereas eastern, central and western parts are classified as Pacific type, most active and dynamic delta. Although presently Bangladesh is focusing on the expansion of industrial sector, a major portion of trades in Bangladesh is dependent on agriculture. So, a consistent Water management is very necessary for Bangladesh to meet up the necessity in the economic, agricultural and development sector of Bangladesh.

The water management was prioritized since the Mughals as for the agriculture and navigation. In the colonial period it was a bit developed but after the English intervention the priority on water management is reduced as they focused more on industries. After colonial period water management

was started developing since forming of East Pakistan Water and Power Development Board in 1959. After the emerging of Bangladesh in 1972 with the assistance of World Bank small irrigation and FCD/FCDI projects were implemented. Then focus shifted to multi sector from mono sector and Master plan organization was created National water plan-1 and national water plan-2 but those were not comprehensive. After 1987 and 1988 flood, a comprehensive study named Flood Action Plan was done and the outcome was Bangladesh water and flood management strategy 1995. Basing on that National Water policy in 1999 and National Water management plan in 2004 were established.

The challenges Bangladesh is facing are, although the population increasing rate is slowed down but the population is increasing and the population may rise up to 181million by 2025 and 224 million by 2050 which possess a thread to the water resource. The poverty is pushing the water management to more challenging sector. Without a proper water management, agricultural condition is weakening down and which may result to food insecurity. Increasing population, river erosion and other natural calamities are reducing the agricultural land. The country faces acute shortage of surface water in dry season due to upstream withdrawal and flood in wet season. Abstraction of groundwater is restricted due to geological, technical issue. Constant floods and river erosion are threatening the rivers. For the extreme salinity intrusion into water and soil the biological diversity of Bangladesh and more specifically Sundarban is suffering to extinction of valuable biodiversity. For the climate change the changes in the important

natural factors has become very frequent and the natural events are occurring frequently. Flood, Cyclone, river erosion, salinity intrusion and droughts are threatening the water management of Bangladesh.

There are 15 ministries and 26 departments in water sector besides many other local administrations, research organization, NGOs and CBOs. The mission of the water management bodies is to ensure sustainable development with proper management of the existing resources.

Vision is development and management of the water resources, management of land resources to combat river erosion and other harmful natural events and management of water related disasters.

The goals are to alleviate poverty and securing food, public health by economic development and ensure living standard. For the regulation of the system many policies have been adopted by the government since 1998 to 2006. National Water Management plan was established in 2004 for guiding IWRM. NWPo recognizes a legislative framework for establishing IWRM. A National Strategy for Economic Growth, Poverty Reduction and Social Development known as Interim Poverty Reduction Strategy was completed through adopting a comprehensive approach which visualized Bangladesh's targets to achieve by 2015. The last five-year plan before this was 1997-2002 and from 2003-04 government was following Three Year Rolling plan instead of five years' plan. For economic growth govt. introduced Medium term Budgetary Framework in 2005-06 and for efficient allocation and utilization of resources MTBF linked between annual budget and PRSP. MTBF

was formed for the development of overall water resource management. BWDB implemented 721 schemes and out of this FCD/FCDI schemes is 506. The impacts of implementation of BWDB schemes were poverty reduction, communication etc. For managing the water crisis of 21st century, BWDB was reformed and BWDB Task force was formed. The BWDB Act 200 has created an environment for reforming BWDB. In November 2000, MoWR, GoB and Ministry of Transport, public works and water management, Netherlands signed Twinning arrangement 2001-2005 for providing technical supports.

In the 21st century, usable, fresh and drinking water utilization is the main challenges of Bangladesh and the whole world as well. The Five year strategies plan was a successful initiative and a comprehensive study on the water management by BWDB.