



The post-2015 development agenda

Bangladesh stakeholder perspectives on a water goal and its implementation

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1 Comments on proposed SD Goal and Targets for Water

Bangladesh National Consultation on the Sustainable Development Goal and Target for Water in the Post-2015 Development Agenda – Phase II was organized by Bangladesh Water Partnership (BWP) on 15 March 2014 at Dhaka. The number of participants was sixty-five representing the government and semi-government agencies, universities, research organizations and NGOs involved in the water sector. The present consultation is a follow-up of the earlier consultation held in the last year on water in the Post-2015 Development Agenda. Some participants also attended the earlier consultation in 2013. This report is prepared on the basis of the national consultation.

1.1 Purpose of the Consultation

The objective of the consultation is to contribute to the SDG consultation process as well as to the discussions on the post-2015 development agenda at large.

The specific objectives are to:

- i. Obtain views from 30 key countries on the post-2015 development agenda for water and sustainable development.
- ii. Build awareness and examine the recommendation presented in the UN-Water paper on a dedicated goal for water from the country perspective.
- iii. Influence the global policy dialogue to ensure water is not neglected in the future development agenda.
- iv. Examine implications of adopting the goal and targets

1.2 Organization of the Consultation

The day-long National Consultations had two sessions. The morning session started with a welcome address and a power-point presentation entitled “*A Potential Global Goal for Water: National Consultations*”. This presentation was followed by four background papers entitled: i) “Status of Drinking, Sanitation and Hygiene in Bangladesh and future needs”, ii) “Status of Water Pollution and Water Quality in Bangladesh and future needs”, (iii) “Status of Water Resources and Water Governance in Bangladesh and future needs” and iv) “Status of Water Related Disasters in Bangladesh and future needs”. Following these presentations, the participants took part in an open discussion and shared their views.

In the afternoon session, the group discussions took place on i) “The setting of sustainable development goal and target for water for Bangladesh in the Post-2015 Development Agenda” and ii) “The implications of the proposed targets”. This was followed by group presentations and open discussion on the group observations. The group discussions were centred on water resources management, water governance, water-related disasters, water supply, sanitation, waste water and water quality.

1.3 Discussion of the preferred approach on the global and nationally set targets

The national consultation was planned to obtain views from the participants on the post-2015 development agenda for water and sustainable development in the context of the national needs. The participants were divided into groups to give feedback on the five proposed targets of UN-Water, which were:

- i. Achieve universal access to safe drinking water, sanitation and hygiene;
- ii. Improve by (x%) the sustainable use and development of water resources in all countries;
- iii. All countries strengthen equitable, participatory and accountable water governance;

- iv. Reduce untreated wastewater by (x %), nutrient pollution by (y%) and increase wastewater reuse by (z%);
- v. Reduce mortality by (x%) and economic loss by (y%) from natural and human-induced water-related disasters.

The participants examined the implications of adopting the goal and targets as well as the indicators of the target. In the following sections, the summary of the discussions was presented as per the guideline.

1.4 Achieving universal access to safe drinking water, sanitation and hygiene

Target of Water Supply: Bangladesh has achieved a substantial success in providing pathogen free water. This was achieved by promoting simple hand pump tube wells. But later the arsenic contamination in the ground water as well as in tube wells has become a major health risk. Around 22% of all hand pump tube well is arsenic affected. Only 10% of population has piped water supply, while in urban area the figure is 31%, and in rural area the figure is 1% only.

In order to achieve universal access to safe drinking water including the urban, rural, slum, and hard to reach area 100% by 2030, the targets are set for different areas as:

- Hard to reach area by 2030, while the present status is 20% - 30%
- Rural area by 2030, while the present status is 64%
- Slum area by 2025, while the present status is 48%
- Urban area by 2020, while the present status is 88%

Target of Sanitation: Around 55% population has improved sanitation coverage. Reaching to the hardcore poor (29 million people) is the major barrier in achieving the national goal of 100% sanitation for all by 2013, which could not be achieved.

Targets, as recommended during the consultation, are to achieve 100% sanitation for all including urban, rural, slum, and hard to reach area by 2025 as follows:

- Urban area by 2020, while the present status is 93%
- Hard to reach, slum and rural areas by 2020, while the present status is 40%, 50%, and 70% respectively

Target of hygiene: The conventional sewerage is absent in all urban areas except Dhaka, where only 20% population has access to sewerage, though not hygienic; the majority of the so-called septic tank systems are also not hygienic. The present status of hygiene is in coastal areas and offshore islands about 20% (2010); water logged and haor areas 29%; char areas 12%; hilly areas 17%. Open defecation in these areas is higher than national average.

Target has been recommended is 100% hygiene for all by 2030 and will be achieved by:

- Hard to reach area by 2030, while the present status is 30%
- Slum, rural and urban area by 2030, while the present status is 45%, 55% and 70% respectively.

1.5 Improving the sustainable use and development of water resources

- i. **Water Resources Management:** The major water related issues are flood, drought, reduction of transboundary flows, river erosion, water logging, sedimentation, water

pollution, Arsenic in ground water, cyclonic storms and surges, water and soil salinity etc. The climate change is aggravating all those disasters. The coastal region is now being faced by the inundation due to sea level rise and salinity ingress. In Bangladesh, the water resources management necessarily includes i) flood management; ii) drought and irrigation management; iii) river and erosion management & iv) drainage and water logging management.

- ii. **Flood management:** Flood management is very crucial to Bangladesh. At present, 60% land is under full or partial flood control. The future target is to bring the whole of Bangladesh under the coverage of flood protection measures by 2030. The preferred approach will be to provide full flood protection to urban and industrial areas and partial or full flood protection to agricultural lands. Instead of the present practice of providing full or partial flood protection, the control flood management approach needs adoption in order to minimize flood risks and raising the land levels.
- iii. **Drought and irrigation management:** In order to combatting the drought, the present extent of the irrigation systems needs to be reinforced and network to be widened as well as the coverage of supplementary irrigation is expanded. The present irrigation facilities coverage is 58%, out of which, the share of ground water is 90%. The ground water potential has been exploited to a large extent and its arsenic contamination is also posing health concerns, as such, the surface water utilization may be enhanced. This may be achieved through by building barrages across the Ganges and the Brahmaputra and the recommended target is to increase the irrigation coverage to 65%. The present irrigation efficiency is 40% and the target may be increased to 60%. To maintain the present use of GW, the ground water recharge target may be fixed to 85% of its potential.
- iv. **River and erosion management:** The frequent shifting of the rivers is a major issue, requiring huge resources in relocating the existing water management infrastructures as well as other infrastructure. Therefore, the stabilization of river courses is very vital. The river and erosion management is done through developing advanced erosion prediction and warning tools for all the rivers and its dissemination to the community, the stabilization and protection of river banks, sustainable management of rivers by increasing conveyance capacity by dredging. At present, the river stabilization facilities covers about 10% of the total length of the river courses, the recommended target may be to extend it to 30%.
- v. **Drainage and water logging management:** The removable or reducing drainage impediments to drainage and water logging may be achieved by improving drainage systems, dredging/excavating rivers and canals, implementing Tidal River Management, where applicable. The recommended target is to remove drainage congestion in 50% areas.
- vi. **Salinity management:** The protection from salinity intrusion may be achieved by increasing fresh water flow, introducing salinity tolerant crops and rain water harvesting and increasing the use of surface water and rain water in soils affected by soil salinity.

1.6 Strengthening equitable, participatory and accountable water governance

Bangladesh formulated the National Water Policy in 1999. To operationalize the policy directive, the National Water Management Plan was formulated in 2004. It seeks to rationalize as well as decentralize the management of water sector. Being a framework plan, the line agencies and other organizations are expected to plan and implement their own activities in a coordinated manner. The implementation of the plan is to be monitored regularly and the plan is to be updated every five years. Bangladesh Water Development Board, being the major implementing agency, is following the plan. Although, ten years have passed, the plan has not been updated.

As per the legislative framework, the water governance should be participatory. There is a Guideline for Participatory Water Management to ensure effective participation of the community in water management. However, the practice of effective governance and community participation is a subject of criticism by media, practitioners and experts.

The recently enacted National Water Act 2013, based on the National Water Policy, is designed for integrated development, management, extraction, distribution, usage, protection and conservation of water resources in Bangladesh. The Act provides for the formation of the National Water Resources Council with the Prime Minister as the head and an Executive Committee under the Ministry of Water Resources to implement the decisions taken by the Council. The Act has the provision to take initiatives for a basin-scale, integrated water resources management of transboundary rivers, and exchange of data on flooding, drought, and pollution with co-riparian countries.

The recommended targets are:

- i. Implementing the provisions of the Act by 2030 and preparing the National Water Resources Plan by updating NWMP in line with the Act.
- ii. Strengthening the capacity and functioning of community based organizations
- iii. Ensuring regional cooperation by forming joint river/basin commission for each trans-boundary river with appropriate policies and political commitments and formalizing water sharing for each major trans-boundary river by 2030

1.7 Reducing untreated wastewater, nutrient pollution and increase wastewater reuse

Only few major cities have the limited facilities for treating sewage and waste water and managing solid wastes. Most of the industrial waste water goes untreated due to weakness in enforcing and monitoring by the relevant authority.

The recommended targets are:

- i. **Sewage:** Untreated sewerage shall be reduced to 0 (zero) by 2030 in urban areas, while presently 80% of sewerage goes untreated.
- ii. **Solid waste:** Unmanaged solid waste shall be reduced to 0 (zero) by 2030 in urban area while presently 98% of solid waste goes unmanaged.
- iii. **Industrial wastewater:** Untreated industrial wastewater shall be reduced to 0 (zero) by 2030 while presently 90% waste goes unmanaged.
- iv. **Wastewater:** Untreated wastewater load (mostly nutrient) from agricultural land shall be reduced to 40% by 2030, while presently 85% of waste water from agricultural lands goes untreated.

- v. **GW contaminated by Arsenic:** Arsenic contaminated GW based water supply shall be reduced to 0 (zero) by 2030, presently 35% of GW based water supply system is arsenic contaminated.
- vi. **Water Pollution:** Polluted surface water shall be reduced to 0 (zero) by 2020. At present 20% of the surface water is polluted

1.8 Reducing mortality and economic loss from natural and human-induced water-related disasters

Being a low lying deltaic and tropical-subtropical country, Bangladesh is prone to several natural disasters, such as monsoon flood, flash flood, drainage congestion, water logging, erosion, cyclone and storm surge, salinity intrusion, and droughts. The nature and types of the disasters vary geographically within the country. The country is vulnerable to climate change.

About 230 numbers of the natural disasters occurred in the country between 1980 and 2010, causing death to 0.19 million people, livelihood loss of 320 million us dollar and economic loss of 550 million US dollar. In terms of death, the cyclonic storm is the most devastating disaster that caused 87% of total deaths. And in terms of livelihood and economy, flood is the worst disaster that caused 75% of total affected people.

Water logging due to clogging of drainage channels through sedimentation is one of the worst disasters in the coastal region of Bangladesh that causes damage to crop, roads and infrastructure, livestock, health, sanitation etc. About 565 000 households and 755 000 people have been affected in the south-west region. The situation is aggravating day by day.

The reduction of mortality rate and economic loss from natural and human induced water-related disasters can be achieved through the activities mentioned underneath.

Reducing flood risks by:

- Providing flood forecasts and warning in 10 day advance
- Flood preparedness by engaging the community
- Improving regional cooperation by sharing flood information
- Improving flood resilience
- Flood proofing in char lands and haor areas
- Building infrastructure for flood protection

Reducing cyclone risks by:

- Strengthening cyclone warning systems
- Building cyclone shelters and killas
- Strengthening coastal polders

Reducing drought risks by:

- Providing supplementary irrigation
- Drought proofing of rural water supplies

Reducing erosion risks by:

- Building erosion control measures
- Long-term erosion prediction and warning

2 Key implications identified for achieving the Goal and Targets over the period 2015-30

During the national consultation, the initiatives were identified for achieving the goal and target over the period 2015-30, however, the costs of these initiatives could not be assessed, except for the building of the Ganges Barrage, which is about 4 billion US dollars.

National Water Management Plan (2004) has 84 programs under eight clusters-i) Institutional development, ii) Enabling environment, iii) Main rivers, iv) Towns and rural areas, v) Major cities, vii) Disaster management, viii) Agriculture and water management and viii) Environment and Aquatic resources.

The investment cost of the entire Plan was estimated in 2004 to be 18 billion US dollar. The percentage of overall NWMP budget is 2.2% for institutional development, 0.4% for enabling environment, 24.4% for main rivers, 29% for towns and rural areas, 34.1% for environment and aquatic resources.

The Post 15 water agenda for Bangladesh include most the programs of the NWMP. Considering the fact that some investments made in implementing NWMP programs between 2004 and 2013 will offset the price escalation during this period as well as the devaluation of dollars, the investment costs of the programs as proposed may be taken as 18 billion US dollars.

The Department of Public Health Engineering has formulated a 30-year plan (2011-40) for water supply, drainage, sanitation and solid waste management for 146 municipal towns covering an area of 2020sq km with a projected population of 9.5 million. The estimated cost for water supply is 450 million, for drainage system 450 million and for sanitation and solid waste management 200 million US dollar. The total estimated cost is 1100 million US dollar.

3 Concluding comments specific to the country

During the National Consultation, the formulation of the Bangladesh Delta Plan 2100 was also discussed. The reason for the preparation of this plan is that the country is currently facing the complex problems of safety, security, population pressure and is prone to natural calamities like floods, cyclones, and drought. There is an urgent need to improve flood and fresh water resources management to protect valuable land and improve the food production. Moreover, there is already a high pressure on the available land and water resources. At present the population growth is about 2 million people per annum. Due to population growth, economic development and climate change, the pressure will increase in future. Salt water intrusion is affecting drinking water quality and limiting food production in the coastal zone. These problems are likely to become worse due to urbanisation and population growth, sea level rise, subsidence and more frequent droughts and floods.

Bangladesh, therefore, has undertaken the formulation of Bangladesh Delta Plan 2100 to achieve long term (50 to 100 years) sustainable development through adaptive governance, based on long term analysis and scenarios as well as the integration of relevant policy sectors and creation of adequate institutional arrangement and capacity. The plan will be ready by 2016. The plan will seek to improve the living conditions through the better water management and governance. During the consultation, it was pointed out that the Delta Plan has created an opportunity to integrate the Post-2015 water development agenda in it.

Annex 1 : List of Participants

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