

Trans-boundary Catchments Conflicts and Resolutions: Bangladesh Perspective

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Bangladesh: Basic facts

Location: Southern Asia, bordering the Bay of Bengal, between Burma and India.

Geographic coordinates: 24 00 N. 90 00E

Area:

total: 144,000sq km

land: 133,910sq km

water 10,090sq km

Area-comparative: slightly smaller than Wisconsin

Land boundaries:

total: 4,246 km

boarder country: Burma 193 km, India 4,053 km

Coastline: 580 km

Climate: tropical; cool, dry winter (October to March); hot, humid summer (March to June); cool, rainy monsoon (June to October)

Terrain: Mostly flat alluvial plain; hilly in southeast

Elevation extremes:

lowest point: Indian Ocean 0m

highest point: keokradong 1,230m

Natural resources: natural gas, arable land, timber

Land use

arable land: 73%

permanent crops: 2%

permanent pastures: 5%

forests and woodland: 15%

other:5% (1993 east)

Irrigated land: 31,000 sq km (1993east)

Environment-current issues: many people are landless and forced to live on and cultivate flood-prone land; limited access to potable water; water-borne diseases prevalent; water pollution especially of fishing areas results from the use of commercial pesticides; intermittent water shortages because of falling water tables in the northern and central parts of the country; soil degradation; deforestation; severe overpopulation.

Water:

The key realities in the water sector of Bangladesh are too much water during the monsoon causing floods and too little or scarcity during the dry season. Being the lowest riparian in the Ganges–Brahmaputra–Meghna (GBM) river systems, this country bears the brunt of flood, discharging over 80 percent of the GBM basin wide runoff within the five months and receives residual flows from the Trans-boundary rivers during the lean season. Out of 57 Trans-boundary rivers of Bangladesh flow in the country from India and 3 from Myanmar.

The severe environmental disruptions in both West Bengal in India and Bangladesh set in motion by the infamous Farakka barrage on the Ganges are a bitter testimony to how devastating the consequences can be for those whose livelihoods depend on the land and waters of the affected areas. One erosion victim in West Bengal has aptly called Farakka ‘a devil delivered by Delhi’. The withdrawal of the Ganges water at Farakka has caused serious damage to the ecology and economy of southwestern districts of Bangladesh, including the unique mangrove forests along the Bay of Bengal.

The Farakka Barrage, built on the Ganges River, was completed in 1974 and subsequently was put into operation in 1975. India unilaterally diverted the flow of water during the dry season, depriving of its proper share, during the rainy season the swollen water was going unobstructed abruptly flooding Bangladesh. In fact Bangladesh is under Indian water aggression. Its impact of Bangladesh is disastrous and severe, both in the immediate and long term.

Further withdrawal of water of the Ganges and Brahmaputra, as envisioned by Indian River Link Project (IRLP), will threaten the entire country’s economy and ecology, meeting it impossible for Bangladesh to concede to this project. Apart from presenting a considerable technical challenge of having to transfer the Brahmaputra and the Ganges waters, it will contravene basic principles of international law and their standard practices, and would adversely impact its relationship with Bangladesh.

India's plan of inter-linking trans-boundary rivers to create a new "national water grid" seeks to provide increased amount of surface water from trans-boundary rivers to other parts in India. India has always conceived inter-linking rivers to transfer water from so-called "surplus" areas to so-called "deficit" areas within its territory.

India proposes to inter-link its peninsular rivers (Mahanadi-Godavari-Krishna-Pennar-Cauvery), without affecting its neighbors, Bangladesh has nothing to say as the rivers involved are within the territorial jurisdiction of India. But when India attempts to inter-link Himalayan rivers (Ganges-Brahmaputra-Meghna) without explicit agreement of

Bangladesh, it raises serious concerns from the point of view of two international law principles: (a) state responsibility, and (b) law of international rivers.

Besides the above principles of law, the plan comes within the ambit of Article 9 of the 1996 Ganges Water Treaty wherein both Bangladesh and India agreed "to conclude water sharing Treaties/Agreements with regard to other common rivers."

Mr. Harun ur Rashid, a former Bangladesh Ambassador to the UN and a member of Bangladesh team, involved in the negotiations of 1977 Ganges Water Agreement mentioned in his one article that "I distinctly remember that a senior member of India's delegation disclosed informally to me that if the India's canal link proposal (Jogighopa to Farakka) through Bangladesh, linking Brahmaputra with the Ganges, was not accepted, India eventually would transfer water from Brahmaputra to the Ganges through its territory above Bangladesh."

Political agenda?

At a conference on "Regional Cooperation on Trans-boundary rivers: Impact of the Indian River-Linking Project" held in Dhaka in December, 2004, many Indian speakers, mostly experts on water resources management, have expressed strong reservations on the India's inter-linking plan of rivers on serious technical and environmental grounds. Among them was an Indian eco-activist, Ms. Medha Patekar who leads the National Alliance of People's Movement, a network of over 150 mass-based movements. During an interview with a Bangladesh Daily *The Daily Star*, she revealed the real motives behind the inter-linking river plan. She said: "Water has become an electoral issue in India and river linking project is a political agenda. The government of India looks at the project as a sort of gift to the voters." Furthermore, it has been reported that the people of Bihar, Orissa, Assam, West Bengal, and Karnataka are opposed to the project.

India's High Commissioner to Bangladesh, Veena Sikri, at the conclusion session of the conference reportedly defended the linking plan. She argued that firstly it is a concept only, not yet a "project," and secondly India's share of water per capita is much less than that of Bangladesh (she has been quoted placing India at 2,200 cubic meters per capita versus Bangladesh's 19,600). It seems implicit from the statement of the High Commissioner that the plan or concept of inter-linking rivers is a step in the right direction to mitigate flood and drought situation in India.

Reverend Medha Patekar's comments, in particular that 'the people of India have become more aware of the devastating impacts of the project' and Indian Water Official Mr. Verghese's admission that there had been some discussions with the UNDP and the World Bank to seek funding (*The Daily Star*, 20 Dec. and 19 Dec, 04) should be enough to cancel out Indian High Commissioner to Bangladesh's claim of the project being only at 'conception' stage. The Conference Chairman's observation that the intervention of the Indian Supreme Court asking the authorities to carry ahead the project made Bangladesh and many in India really concerned is worth pondering over. Such a pronouncement from the highest court in India is hardly likely to be based on a matter of 'conception' and their

decision must have been based on the proposed project and definitive collateral evidence, rather than a concept.

Big power dynamics:

The attitude contained in the statement has reflected the dynamics of relations of big and small states that has been summed up by the Greek historian Thucydides (460-395 BC) as follows: " The strong do what they have power to do and the weak accept what they have to accept."

The project:

The project has two components. The Himalayan component and the Peninsular component have 14 and 16 links respectively (details of the components have been presented in poster). These two components together will form a 'water grid' for India. Many reservoirs, control structures, pumping stations and several thousand kilometers of canal systems will be developed.

The total cost of the project is estimated as US\$ 120 billion. In 1982, National Water Development Agency (NWDA) of India was formed to carry out the detailed studies and prepare feasibility reports of the links.

Impact on Bangladesh:

- There will be significant reduction in water availability throughout the year in the northwest, north central, southwest and south central region of Bangladesh. Around 20% of normal year flow and around 30% of dry year (1:5 year dry) flow would be diverted by India. The Teesta Barrage Project and proposed Kurigram Irrigation, which are mainly depending on Teesta, Dharla and Dudhkumar River flows in the months of September and October for supplemental irrigation, would be affected significantly.
- Due to reduced water availability during monsoon (especially at the later part) advent of dry season would be quicker than in the present condition.
- Due to withdrawal, water level in the Ganges and Brahmaputra Rivers is likely to be lowered by about 2 to 3 meters. This will affect the inland navigation completely. Moreover, due to the lowering of the waters in September and October, most of the water bodies in the northwest and north central region will be drained. This would have adverse impact on fisheries resources. Farmers would not get required quantity of water for irrigation, therefore crop production would decrease drastically.
- Due to the lowering of the water level in ,major rivers, all major offtakes like Gorai, Dhaleswari, Arial Khan, Old Brahmaputra would be threatened of being completely cut-off from the main rivers. As a result, the southwest and the north-central region will not receive freshwater supply from major rivers. This will disturb the entire eco-hydraulics of these regions. Some of the impacts would be irreversible.
- Salinity front intrudes about 80 km inside the country due to the withdrawal of water during the monsoon period. As a result, salinity in the Sundarbans would

- increase in a range of 2-3 ppt. Sundarbans the largest mangrove forest in the world a declared world heritage would virtually disappear in a few years time.
- In the Bay of Bengal, salinity would move upstream-about 30 km in the eastern areas and about 15km in the western areas-during monsoon. Salinity in the western part of the Bay increases by about 5ppt during maximum withdrawal. As a result desertification process of the riverine country would start. Millions of people would be forced to migrate from their homes and a social imbalance would be created.
 - Near the Jamuna Bridge site, large area would silted up due to withdrawal of monsoon water. This may threaten safety of the 12th largest bridge in the world due to sudden release of high flood flow. Sediment deposition in the Gorai river offtake would increase blocking entry of fresh water to south west region even in the monsoon.
 - The rivers surrounding the capital city Dhaka flush pollutants during monsoon. Due to withdrawal of water natural flushing would be disturbed. The dissolved oxygen (DO) concentration in the Buriganga River would drop by about 1 mg/l during monsoon due to reduced flow as per the withdrawal scenario. The aquatic life will be destroyed. Water supply from Sayedabad Water Treatment Plant may have to be abandoned.
 - Remarkable differences in contour patterns and flow directions of groundwater might take place due to diversion of water from Brahmaputra. During current scenario, flow occurs away from the river during monsoon but in Withdrawal Scenario flow moves towards the river due to fall or river stage. This flow reversal would deplete the groundwater reserves quicker. Study findings in a single district as Jamalpur has shown that the net loss of the groundwater resource would be 22% less.

Out of total water requirement of Bangladesh river Brahmaputra provides 65%. In case of withdrawal of water from this major river, 130 million people of Bangladesh would face severe consequences. Agriculture, Navigation, Fishery, Forestry, Ecology are likely to be devastated as a result of implementation of this Mega project by India.

In the days of global law and order, regulated by international law and bilateral treaties/agreements, strong states cannot do whatever they choose to do without having adverse impact on global order. The exercise of sovereign power within the territory is not unfettered and is subject to rules of international law and principles of good neighborliness, as contemplated in the UN Charter.

The plan of linking the mighty rivers of the Himalayas has caused grave concerns among people of Bangladesh mainly for two reasons: ignorance of the plan in its details and the size of the plan. India has not thought it fit to take Bangladesh into confidence as to the layout of the plan in respect of the Himalayan component, which comprises 19 diversion points, 16 reservoirs, and 19 water transfer links, despite the existence of the Indo-Bangladesh Joint River Commission and of the current bilateral friendly relations. Many in Bangladesh have reluctantly come to a view that the lack of providing information of

the plan at an official level to the Bangladesh authorities demonstrates that India is not keen for regional cooperation in the matter.

What can Bangladesh do?

Bangladesh does not wish to make the water issue an international one unless it is pushed back to the wall. In 1976, Bangladesh had to raise the issue of the sharing of the Ganges water at the UN General Assembly. Despite strong opposition from India, the General Assembly found the issue as one that might endanger peace and stability in the region. India realized that there was no way to get out of the issue and agreed to a Consensus Statement of the President of the General Assembly, rather than a UN General Assembly resolution. The statement of November 26, 1976, urged India to commence negotiations immediately in Dhaka with Bangladesh eventually resulted in the conclusion of the 1977 Ganges Water Agreement.

Internalization of the water issue does not seem to be a ready option for Bangladesh, given the current state of bilateral relations with India. India has only to abide by the provisions of the 1996 Ganges Water Treaty (following up the 1977 Ganges Water Treaty) and rules of international law on uses of international/trans-boundary rivers. This is not a big ask from India because India has to respond to the lawful right of Bangladesh on uses of waters of common rivers through cooperative basis.

Conclusion:

The people of Bangladesh are basically democratic minded, non-communal and value good neighborly relation. Bangladesh always proud to have a vast neighboring country like India with significant resources. India is perceived as “big brother” by its small neighbors. The people of Bangladesh always extended their hands of cooperation and goodwill in the past and they are ready to do so in the future. However, it is a universally accepted fact that good neighborly relation is not one way traffic. If the United States can show respect for a weaker neighbor like Mexico in resolving the issue of sharing water resources of Colorado River, India could show similar attitude towards Bangladesh.