

## Historic Perspectives of the Indian River-linking Project

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There has been much talk and discussion in the news media about the proposed Indian river-linking project over the last several months both in Bangladesh and India. The representatives of the Govt. of Bangladesh, including the Prime Minister, voiced their concerns and made their views clear on this issue. The message is loud and clear - the people of Bangladesh oppose the unilateral decision by the Govt. of India to divert water from the Brahmaputra to the Ganges via artificial canals. Much has been discussed about the possible adverse consequences on the environment and economy of Bangladesh that will result should the project is implemented as proposed. This is the largest trans-boundary and inter-basin water control project ever. Based on the knowledge about river dynamics, the geologic roles rivers play in formations of floodplain and delta plain, maintaining complex ecosystems and sustainability of agricultural and other economic endeavors, it is safe to conclude that, should this project realize the well being of Bangladesh will be jeopardized. Whether India has the means and popular support needed to implement a mega-project of this magnitude remained to be seen.

In the recent Joint River Commission's (JRC) meetings held in New Delhi in October the Bangladeshi delegates wanted to discuss the proposed river-linking project in detail. However, the Indian delegates insisted that the proposal was just a proposal, and it was premature to discuss anything in detail. As a result, the issue did not find its place in the list of regular agenda, but was included as a "miscellaneous" item in the agenda instead. The Bangladeshi delegates took satisfaction in their accomplishment of being able to pursue the Indian delegates to record the issue in the meetings' agenda. Since the last JRC meetings the issue of Indian river-linking has fizzled out of the Bangladeshi news media. However, this issue is too important to set aside for long.

Although the Govt. of India insists that the proposal is in its infancy, and refuses to discuss details of the proposal with its Bangladeshi counterparts, the reality indicates otherwise. This is not a new proposal, neither it is in its infancy. To better understand the background of the proposal we need to take a close look at chronology of historic events associated with this plan. Some proponents of the Indian river-linking proposal (for example, Dr. Pingle, Chairman, Public Policy Area, Administrative Staff College of India and Dr. S. Kalyanaraman, Director, Sarasvati Nadi Shodh Prakalp are among such proponents) argue that the proposal to create a network of rivers and canals was made in meticulous detail way back in 1881, by Arthur Cotton

during the British rule and that the Indian Govt. is just going back to the original idea with a few modifications. However, what they don't mention is the fact that Arthur Cotton's idea was rejected by the then government and by water resources specialists on scientific and technical merits. They also overlook the fact that the British Govt. ruled India for additional 66 years after the submission of Cotton's proposal, but the authority did not take any initiatives to implement the proposal. It is worthwhile to mention that, our understanding of the hydrodynamic processes and the intricate nature of ecosystems supported by rivers, which would be affected by implementation of such a mega-project is much different than that of Arthur Cotton back in the 19<sup>th</sup> century. Therefore, this argument does not hold much water.

A note on the National Water Grid was earlier prepared by the then Central Water & Power Commission (around 1972) of India, and three possible alignments for the Ganga-Cauvery link along with other links were brought out. Further studies were made by Dr. K.L. Rao who advocated one of the alignments for the Ganga-Cauvery link along with a few other links including the Brahmaputra and Ganga Link to transfer 1800 to 3000 cumec (cubic meters per second) with a lift of 12 to 15 m. These amounts correspond to 63,558 cfs and 105,930 cfs (cubic feet per second). The average flow the Brahmaputra during lean season the average lowest flow of the Brahmaputra is 176,550 cfs. It is very easy to see how much water will be left in Brahmaputra after Indian proposed withdrawal during the dry months. According to the current proposal, India wants to divert 173 BCM (billion cubic meters) per year from the Brahmaputra, amounting to 193,703 cfs, which is greater than the total flow in the Brahmaputra during the lean season.

The Indian original proposal from 1980s included construction of a 209-mile long link canal through Bangladesh to connect the Brahmaputra and the Ganges. Since they failed to convince the Govt. of Bangladesh to accept their proposal at various JRC meetings over the last couple of decades, they have modified the proposal. The most recent revised proposal shows the position of this link canal through the "goose neck" of India (i.e. connecting Assam and West Bengal).

The then Ministry of Irrigation (now Water Resources) formulated a National Perspective for Water Development in August 1980. The broad approach adopted in the National Perspective is as follows: "The perspective envisages developments within the frame-work of all the existing agreements between or amongst the States within the country as well as existing treaties with the neighboring countries". Bangladesh too believes that waters in all common rivers need to be shared in the context of the Ganges Water Sharing Treaty of 1996, which clearly states that "both Governments agree to conclude water sharing Treaties/Agreements

with regard to other common rivers". The expression "other common rivers" includes not only Brahmaputra but also other common rivers that flow through Bangladesh from India. It is very clear from this Article #9 of the Treaty that both countries are obligated to conclude water-sharing agreements of all common rivers. Nothing is left vague with regard to the sharing of common rivers of the two countries. According to this Treaty, India is supposed to inform of any project or plan taken in the upper reaches that have potential to adversely impact the environment and economy of Bangladesh. However, India decided unilaterally to plan the river-linking mega-project without ever consulting with Bangladesh. India refuses to include any third country in the discussion. India has signed numerous bi-lateral treaties with other countries, including China and Nepal.

The National Perspective Plan comprises of two components, namely, Peninsular Rivers Development and Himalayan Rivers Development. The list of proposed water transfer links (a total of 21) under the Himalayan river development component includes the following links that of Interest to Bangladesh: Brahmaputra - Ganga (Alternative - I), Brahmaputra - Ganga (Alternative - II), Brahmaputra - Ganga (Alternative - III), Farakka - Sunderbans, Farakka - Durgapur. Details about these links are not publicly available.

According to the information provided by the Ministry of Water Resources of India, the Govt. of India has considered it necessary that the scientific development of water resources should be taken up considering river basin/sub-basin as a unit. Bangladesh also proposed to develop an integrated water resources management plan that include all co-riparian countries (India, Bhutan, Nepal, China, and Bangladesh) in the Ganges-Brahmaputra-Meghna basin. Specifically, Bangladesh proposed to build hydel plants and water retention reservoirs in India and Nepal during many of the Joint River Commission (JRC) meetings in the past. India of the opinion that maximizing the availability of utilizable water may involve transfer of water from surplus basin to water-short basin in the overall interest of the country, to give much needed relief and distribute the benefits more evenly. Integrated development of water resources of both surface and groundwater, can optimize benefits resulting in economical use of the available water. To that end the Govt. of India formed the National Commission for Integrated Water Resources Development Plan of India, which has submitted its partial report to the Government of India on December 1, 1999.

The most important question that needs to be addressed is whether or not there is any "surplus" or "unused" water in Brahmaputra River. The concept of "surplus" or "unused" water is an ironic one. The water that flows in Ganges-Brahmaputra-Meghna (G-B-M) basin is the reason why there exists the deltaic country called Bangladesh to start with. The sediments laid down by these

rivers built the delta over millions of years that we call Bangladesh today. Needless to say that there is a very complex ecosystem, including the Sunderbans, that is supported by the freshwater flow in these rivers. Any diversion of water also means proportional diversion of sediments. Any lack of sediment flux to the delta and coastal plains will cause accelerated drowning the coastal region in the face of rising sea-level. In essence, it is already happening due to the impact of Farakka Barrage and will certainly accelerate if other barrages (e.g. the proposed Ganges Barrage, and Mowa Barrage). So, before we can decide what is the equitable share of India, we really need to take a close look at the natural dynamics of these rivers and the functions they perform.

According to a memorandum dated the 13th December, 2002 the Govt. of India has formed the National Water Development Agency (NWDA) as a Society under the Societies Registration Act, 1860 in 1982 to carry out the detailed studies and detailed surveys and investigations and to prepare feasibility reports of the links under the National Perspective Plan. NWDA has, after carrying out detailed studies, identified 30 links for preparation of feasibility reports and has prepared feasibility reports of 6 such links. The various basin States have expressed divergent views about the studies and feasibility reports prepared by NWDA. With a view to bringing about a consensus among the States and provide guidance on norms of appraisal of individual projects and modalities for project funding etc. the Central Government hereby sets up a Task Force with Shri Suresh Prabhu, MP of Lok Shobha as its Chairman.

According to a report by the BBC, a feasibility study is scheduled for completion in 2005, but given the concerns of other countries and Indian states it could take longer. Indian Prime Minister Atal Behari Vajpayee is very keen to pursue the project. In his Independence Day address this year, Mr Vajpayee said the scheme would "free India from the curse of floods and droughts". He promised that work on it would start by the end of the year.

There has been a new religious twist to this saga. Apparently, the archaeologists in India have discovered the existence of the mythic river called the Sarasvati in northern India. According to the information available on website for the Sarasvati, over 5000 years ago, the river flowed over a distance of over 1600 kms draining the North-west Bharat, through the states of Himachal Pradesh, Haryana, Punjab, Rajasthan and Gujarat, to reach the Sindhu Sagara at Prabhas Patan (Somnath) as described in the Mahabharata and other ancient texts. Tectonic and river-migration causes for the desiccation of the river about 3500 years ago have been established using satellite image analyses, geomorphological studies, Bhabha Atomic Research Centre findings based on tritium analysis of abundant ground-water resources discovered in the Sarasvati River Basin in the middle of the Rajasthan Marusthali

desert, which will enable the construction of over 1 million tube-wells for potable water, after recharging the groundwater aquifers using surface channels of the reborn Sarasvati river which is an integral part of the project to interlink national rivers of Bharat. On April 14, 2003, the President of India Dr. APJ Abdul Kalam has invited experts associated with River Sarasvati researches to Rashtrapati Bhavan for discussions. A delegation led by Dr. S. Kalyanaraman, Director, Sarasvati Nadi Shodh Prakalp and Shri Haribhau Vaze, National Organizing Secretary, Akhil Bharatiya Itihasa Sankalana Yojana met him and explained the Sarasvati Darshan exhibits comprising satellite images and archaeological artefacts. The President expressed his desire to visit Adi Badri to see the work in progress to ensure the flow of River Sarasvati all 365 days of the year for the benefit of pilgrims visiting tirthasthanas and to promote command area of irrigation in the region for the benefit of millions of farmers. The President also promised to consider the request made by the delegation to bring back the Sarasvati Pratimaa which was originally installed in Bhojashala at Dhar and now held in the British Museum.

It is evident from the chronology of events as described earlier that the idea of Indian river-linking plan is not a new one, and that the Govt. of India is relentlessly working on the targeted completion by the year 2016. In the context of the historic developments and the past experiences in dealing with India with regard to water sharing of the trans-boundary rivers, it is important that Bangladesh acts fast with its international allies, including the people and environmentalists from India and Nepal, to stop further attempts by the Govt. of India to unilaterally decide the fate of millions of people in Bangladesh and Nepal.

The people of Bangladesh, India, and Nepal living in the Ganges-Brahmaputra-Meghna basin share common history, heritage, and friendship that go back to the time immemorial. India as the largest country in the basin has the responsibility to protect the interests of her own people, as well as the interests of all her neighbors. The Govt. of India should take initiatives to develop an integrated water resources development plan based on the principles of equity and respect of her neighbors, which in turn will strengthen the regional stability, security, peace, and prosperity.