

River Water Diversion in India: Case Study

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Abstract— Our project name is River Water diversion in India. For a people reviling in discord, Indians have become increasingly one when it comes to sharing the dread of their water-scarce future. Also visible with this increasing concern is a growing sense of popular disenchantment with the inadequacy and apathy of governments in dealing with recurrent cycles of flood and drought occurring all at once in different parts of the country. The main scope of our project is to provide excess water from perennial river to the non-perennial river by providing a perfect channel between like canal or water tunnel so that both there area can be benefited with these and the harm caused to the human, property and animal life due to over flooding can be avoided. The places which are drought can be benefited with this project. If this project implemented properly is very much beneficial for human life and economic growth and food production also increases.

Key words: River Water Diversion, Farakka Barrage

I. INTRODUCTION

Our project is basically based on sharing the river water. We have done research on the sharing the water of Ganga river. It lies on the border of both India and Bangladesh, so it is very diplomatic issue. This issue has remained conflict for 35 years with several bilateral agreements and rounds of talks failing to produce results. However, a comprehensive bilateral treaty was signed by ex-Indian Prime Minister H.D.Deve Gowda and then Bangladeshi Prime Minister Sheik Hasina Wajed on December! 2, 1996 in the Indian capital of New Delhi. The treaty established a 30-year water-sharing arrangement and recognized Bangladesh's rights as a lower-level riparian.

II. BACKGROUND

Descending from India's northern plains, the Ganges River forms a boundary of 129 kilometres between India and Bangladesh and flows for 113 km in Bangladesh. At Pakaur in India, the river begins its attrition with the branching away of its first distributary, the Bhagirathi River, which goes on to form the Hooghly River. About 10 kilometres from the border with Bangladesh the Farakka Barrage, built in 1974, controls the flow of the Ganges, diverting some of the water into a feeder canal linking the Hooghly to keep it relatively silt-free.

After entering Bangladesh, the main branch of the Ganges is known as the Padma River until it is joined by the Jamuna River, the largest distributary of the Brahmaputra River, which descends from Assam and Northeast India. Further downstream, the Ganges is fed by the Meghna

River, the second-largest distributary of the Brahmaputra, and takes on the Meghna's name as it enters the Meghna estuary. Fanning out into the 350 km wide Ganges Delta, it finally empties into the Bay of Bengal. A total of 54 rivers flow into Bangladesh from India.

III. EFFORTS AT RESOLUTION

The ex-Indian Prime Minister Indira Gandhi and Bangladesh's founding leader Sheikh Mujibur Rahman signed the wide-ranging Indo-Bangladeshi Treaty of Friendship, Cooperation and Peace on March 19, 1972; as per the treaty, the two nations established a Joint River Commission to work for the common interests and sharing of water resources, irrigation, floods and cyclones control.

IV. FARAKKA BARRAGE

The Farakka Barrage is a dam on the Bhagirathi river located in the Indian state of West Bengal, roughly 10 km (6.2 mi) from the border with Bangladesh. India uses it to control the flow of the Ganges river. The dam was built to divert the Ganges River water into the Hooghly River during the dry season, from January to June, in order to flush out the accumulating silt which in the 1950s and 1960s was a problem at the Kolkata Port on the Hooghly River. Bangladesh claims that its rivers were drying up because of excess drawing of water by India].In May 1974 a joint declaration was issued to resolve the water-sharing issue before the Farakka Barrage began operation. This was followed by an interim agreement in 1975 to allow India to operate feeder canals of the barrage for short periods.

However, India withdrew from the process of negotiations by September 1976 as both nations grew apart after the killing of Sheikh Mujib and establishment of military rule. Bangladesh protested India's unilateral action at a summit of the Non-Aligned Movement (NAM) and at the 31st session of the U.N. General Assembly. At the urging of other nations and the U.N., both India and Bangladesh agreed to resume dialogue, but with no results.

A. Temporary Agreements:

Bilateral relations had improved in 1977 during the governments of the then-Prime Minister Morarji Desai of India and the then-President Ziaur Rahman of Bangladesh; in 1977 both leaders signed a 5-year treaty on water-sharing, but this duly expired in 1982 without being renewed. Bangladesh attempted to internationalize the affair by lobbying the U.N. General Assembly and the South Asian Association for Regional Cooperation (SAARC) without result at all.



Fig. 1: A Map showing major rivers in Bangladesh, including the Padma River

V. ASSESSMENT

The 1996 treaty established a long-term solution and considerably eased the strains in Indo-Bangladeshi relations. The 1996 treaty has been attacked by the Awami League's main rival, the Bangladesh Nationalist Party (BNP), which is regarded as hostile to India, but it did not renege from the treaty when it came to power in 2001. The BNP and other Bangladeshi political factions allege that India is drawing excessive water and the amount allocated to Bangladesh is unjust and insufficient. India in turn complains that the water allocated to Bangladesh leaves it with less water than necessary for the functioning of the Kolkata Port and the National Thermal Power Corporation in Farakka.

Other critics have also stressed environmental reasons for India to reconsider its drawing of water at Farraka. Alarming increases in deforestation and erosion at the upper levels of the Ganges river increases the deposition of silt at the lower level, which is already measured at 2 million tonnes annually, along with increased salinity have also led to desertification. In Bangladesh, the diversion has raised salinity levels, contaminated fisheries, hindered navigation and posed a threat to water quality and public health. Such silt levels are believed to be adversely affecting the Hooghly River and the Kolkata Port.

A. 1996 TREATY:

The formation of an Awami League government under Sheikh Hasina Wajed, the daughter of Sheikh Mujib, in 1996 led to a fresh thaw in bilateral relations and both nations restarted negotiations. Both leaders met in the Indian capital on December 12, 1996 and signed a 30-year, comprehensive treaty.

Both nations were able to cooperate in harnessing the water resources; the treaty also permits the construction of barrages and irrigation projects in Kushtia and the Gorai-Madhumati River in Bangladesh, draining the south-western districts and thus preserving the environment, natural and economic resources.

VI. CONCLUSION

The paper has been developed an analytical research framework on benefits of water supply of the Ganges water to both the countries. It also shows that sharing water between both countries helps in making friendly relationships and helping each other during various natural calamities it also provides significant and necessary to continuously implementing sharing of water.

It is good for both's country economic benefit. The future research will focus on the ecological and social benefits of the project.

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