

# Teesta river dispute: A geopolitical issue of India and Bangladesh

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## ABSTRACT

Teesta is a 414 km long river originating in Sikkim which flows through North Bengal and Bangladesh. It is the fourth largest transboundary river between India and Bangladesh with total catchment area of 1.75 million square kilometres.(mirchandani 2016) Teesta is the lifeline of North Bengal as approx. six districts of West Bengal are dependent on the waters of Teesta. According to the report of Asian foundation in 2013, its flood plains covers about 14% of the total cropped area of Bangladesh and provides direct livelihood opportunities to approximately 73% of its population(mirchandani 2016). The Less geographical, more political and intemperate burden of the overgrowing needs of the habitation leads to the water dispute between India and Bangladesh. Both the countries have different needs, demands and perspectives regarding the water sharing issues. It is estimated that Teesta River has a mean annual flow of 60 billion cubic meter and out of which significant amount flows in the wet season between June to September later. There is scant flow wherein the average flow gets reduced to about 500 million cubic meters per month. (mirchandani 2016)This creates issues of equitable sharing during lean seasons. Historically, the progress of both the countries is hinged on the water sharing issues therefore, for a robust relationship to develop between two countries, a resolution to the dispute is the need of the hour.

## 1. Introduction

History has witnessed that great civilizations of this world flourished in the cradle of river valleys. From the past to the present and still in the future, rivers act as the main lifeline. Any form of life needs water directly or indirectly. India is a country of diversity in physical and cultural aspects. There are several perennial rivers like Ganga, Indus, and Brahmaputra etc. Apart from these main rivers there are several life giving tributaries of these rivers like Ravi, Hooghly, Teesta etc. Humans create boundaries on land and between themselves but can't control the flow of nature. Rivers are one of them beyond any boundary or are trans boundaries. Himalayan region is the origin of the world largest river basins like Indus, Ganga and Brahmaputra. Not only these great rivers flow dynamically but their tributaries follow the same path. Teesta, the main right bank tributary of Brahmaputra River originates in Sikkim and joins Brahmaputra River in Rangpur district of Northern Bangladesh. After the division of Indian subcontinent, habitants of both the sides share the territorial assets of nature which also includes sharing percentage of river water. Expansion in the population pressure on availability of irrigated land is huge and is increasing gradually. To curb this menace, initially, government from both the sides agreed on sharing of Teesta water for a period of time with a provision that at any moment in the future the agreement could be modified or replaced. Bangladesh emerged as a sovereign independent country in December 1971. The People's Republic of Bangladesh is surrounded by Indian Territory with 4094 km of border from three sides. India and Bangladesh signed a 25 years treaty of friendship for co-operation and peace on March 19, 1972. (TIWARI n.d.) The dispute was started regarding the sharing of the river water when West Bengal government began constructing barrage on the river in 1979 mainly for irrigation purpose. Bangladesh government opposed it and argued that the major rice producing areas of Bangladesh, especially Rangpur region, would be left with

scarcity of water, which would consequently lead to low production and high unemployment and poverty.

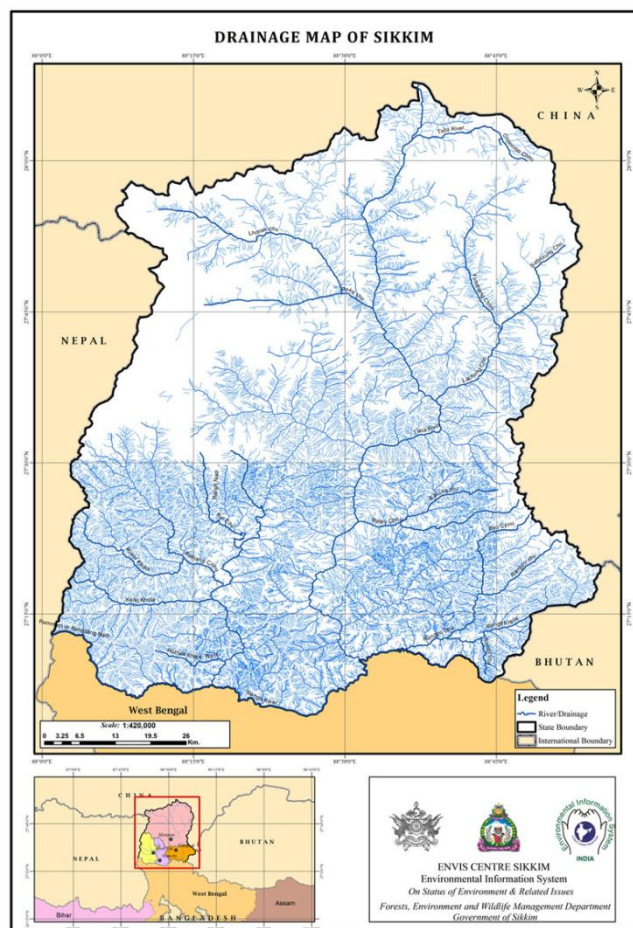


Fig: drainage map of Teesta River in Sikkim (source – ENVIS SIKKIM)

## 2. About Teesta

The word "Teesta" has been derived from the Sanskrit word *Trisrota* means three currents. According to Hindu mythology, it is said to flow from the breast of the goddess Parvathi (Rahman et al 1994). As per Environmental Information System (ENVIS), Teesta River originated as ChhombocChhu from a glacial lake KhangchungChhu at an elevation of 5280m above mean sea level in the north eastern corner of the state. Teesta is 414 km long from its source to mouth, out of which 150 km lies in Sikkim, 123 km lies in West Bengal and rest lies in Bangladesh (Mirchandani et al 2016). The total catchment area of Teesta River is 12,159 km out of which 10,155 km is in India and 2004 km lies in Bangladesh. In terms of hilly and plain region, hilly region holds about 8051 km and lies in the state of Sikkim and West Bengal while plain region of West Bengal and Bangladesh holds approx. 4108 km (Envis report). The River receives drainage from its number of tributaries from left and right banks. Left bank tributaries consist of LachungChhu, ChakungChhu, DikChhu, Rani khola, RangpoChhu originated from semi-permanent and smaller snow fields and right bank consist of ZemuChhu, RangyongChhu, Rangit river originates from large snow fields. The average annual rainfall in Sikkim is 2534 mm. The perhumid climate of Teesta basin supports broad leaf, luxuriant and dense forest. Basically, two major multi-purpose projects were constructed; one in India at Gajaldoba barrage and in Bangladesh, Dalia barrage for irrigation and power supply in the respective area i.e. six districts of North Bengal and seven districts of Rangpur in Bangladesh (Noolkar et al).

## 3. Background of the dispute

Among 54 rivers shared by India and Bangladesh, Teesta is the fourth largest transboundary river in Bangladesh after Ganga, Brahmaputra, and Meghana. It is the main river in the northern parts of Bangladesh. As already known, Bangladesh is an agrarian economy like India, so supply of water is indispensable for agriculture and other related activities. According to the report of Asian Foundation 2013, the flood plain of the river in Bangladesh covers about 14% of the total cropped area i.e. 2750 square kilometre and provides for direct livelihood opportunities to approximately 8.5% of the Bangladeshi population which is roughly 10 million (Rahman et al 1994). Teesta is a Perennial River; about 90% of the river flow occurs during rainy season from June to September and remaining 10% occurs during rest of the eight months under the influence of glacial bounds (Noolkar et al.). Bangladesh is a lower riparian country which is fully dependent on India for river flow. India, on the other hand, as the upper riparian country keeps the flow apposite, by building number of dams from north to south, up to 14 meter cubic per second (noolkar et al) in dry season which adversely affects thousands of livelihood in Bangladesh and releases water during rainy season which causes flood and a number of other menaces. In Bangladesh, five districts were severely impacted during the lean seasons due to the withdrawals of water by India. Bangladesh wants 50% share of water flow during dry seasons (Rahman et al 1994). Negotiations on Teesta River is going on from decades, a number of ad hoc agreements have been signed between the two countries but no fair decision has yet been taken and the problem still persists. Now it is being used as a political game for mass appeasement for regional and central political parties.

However, like Ganga water Treaty, Teesta water dispute can also be resolved.

### **Issues in the context of India:**

According to a report by the Institute for Defence Studies and Analyses published in 2010, due to changing demographics, economies and environmental shifts, India is expected to become water-stressed by 2025 and water-scarce by 2050. A massive 80 percent of the subcontinent's annual rain is immensely critical to ensure that the river flourishes during the annual monsoon. With ever expanding population and increasing food consumption, the desideratum of Adam's ale is intensifying. Indian economy is also based on agriculture like that of Bangladesh. In the northern region of West Bengal, agriculture is the main source of livelihood. Situation in India is also complex from the Hilly tracts of Sikkim to the plain area of Jalpaiguri till Gazaldoba barrage where the total catchment area of the river is 8500 square kilometres. The barrage was built with the aim to provide water supply to six districts in north Bengal. Today, it supplies water to only 66,000 hectares out of 9 lakh hectares of land. (mirchandani 2016) The farmers and the owners relinquished the possession of their lands for Gazaldoba barrage under an assurance that they would be provided with adequate water supply for their needs and they are still found wanting. The West Bengal government has been insisting that the state is unable to share more than 25 percent of the water available at Gazaldoba barrage with Bangladesh. (TIWARI n.d.) It claims that beyond the volume, the upstream areas of the state would be adversely affected. Shortly after the 2103 deal fell through the Chief Minister of West Bengal Ms. Mamta Banerjee stated "Teesta has dried up, there is an acute drinking water problem. Yet the centre was giving away Teesta River. The objection to equal sharing are because in lean season West Bengal is reportedly left with insufficient water flow to meet its own irrigation needs. How can we give Bangladesh more water without meeting our own needs?" (das 2015) West Bengal State Irrigation Minister Mr. Rajiv Banerjee claimed in 2013, "Not enough water flowing into Teesta to meet our irrigation need, how can we give Bangladesh more water without meeting our own needs? That's why we are opposed to the Teesta treaty and we cannot let our farmers suffer" (the Hindu). There is no denying of the fact that Chief Minister of West Bengal Ms. Mamta Banerjee is scrupulous in her intentions and genuinely concerned about the interest of West Bengal.

### **Issues in the context of Bangladesh:**

India and Bangladesh signed a treaty in 1972 for 25 years. The dispute was started regarding the sharing of river water when West Bengal government began constructing barrages on the river in 1979 mainly for irrigation purpose. (TIWARI n.d.). Bangladesh government opposed it and argued that the major rice producing areas of Bangladesh especially Rangpur region which is known for its rice production because it lies in Brahmaputra Teesta basin will drastically suffer. Construction of Gazaldoba barrages in the upper riparian country (India) would lead to scarcity of water for irrigation and low rice production in the lower riparian country (Bangladesh) (ISLAM 2016). Immediate effects of barrage are as follows. First, reduction in agriculture production in dry season and over

flooding in rainy season. Second, reduction in fish production. Third, fertile agricultural land of Bangladesh will become wasteland due to the shortage of water and over 21 million lives are directly devastating economically and environmentally. (ISLAM 2016). In contrast to Gazaldoba barrage by India Bangladesh also constructed Dalia barrage a gravity irrigation project in Lalmornihat district of northern Bangladesh. The minimum discharge is 4000 cusec and maximum discharge is 35000 cusec (WSP27). It was argued that the construction of Gazaldoba barrage and the diversion of waters have drastically reduced water availability at Dalia barrage particularly in the dry season.

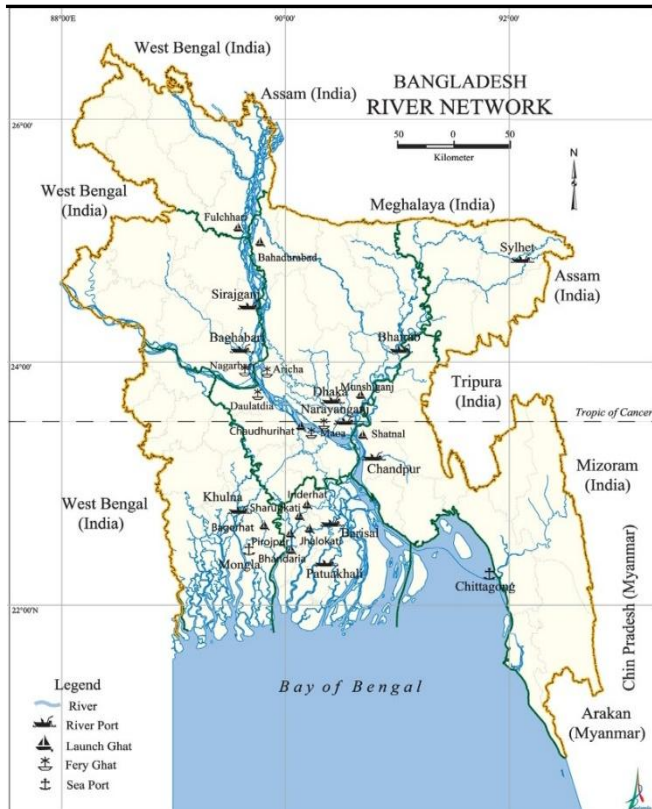


Fig: Bangladesh river network (source: (Md. Rabiul Islam n.d.))

#### 4. Political outcome till now

Negotiations on the water sharing issue between India and Bangladesh can be traced back in the 1950's and 1960's, when the authorities of India and East Pakistan (before division) began discussing projects on the river. After Bangladesh came into being in 1971, an Indo- Bangladesh Joint River Commission (JRC) was constituted in 1972 in the Indo Bangladesh Treaty of Friendship. (MITTAL 2016) In the

year 1983, an ad-hoc agreement, valid till 1985, came into being on the sharing of Teesta river water. (mirchandani 2016) According to this agreement, 39 percent of water was allotted to India, 36 percent was allotted to Bangladesh and rest 25 percent was left for future determination and as natural flow. (MITTAL 2016) In 1988, Bangladesh started Teesta barrage project. From 1997 to 2004 a series of meetings were held on the water sharing issue but no permanent or transitional conclusion came into being. Subsequently, a joint technical group was formed in 2005 for scientific assessment of river, but it failed to conclude anything on the issue. Later, joint river water commission came to the conclusion that lean season flow of Teesta will not meet the demands of both the countries. Hence, any sharing should be based on sharing sacrifices. It had proposed a new basis of water sharing, i.e. 42.5 percent for India and 37.5 percent for Bangladesh and 20 percent as natural flow. However, deal couldn't be materialised due to the strong opposition of the Chief Minister of West Bengal (MITTAL 2016). In the year 2011, a proposal came into being regarding the equal sharing of water only in dry seasons but owing to a rigid stand of the Chief Minister of West Bengal, the proposal didn't get its structure. The Chief Minister of West Bengal pointed out that treaty will dry the north Bengal and offered the valid water sharing of Torsa, Manshai, Sankosh and Dhansai Rivers. (Financial express)

#### 5. Conclusions and Suggestions

At the core of the dispute is the proposition that there is a lack of confidence in the data collected by the institutional mechanisms of both sides which were constituted to look into the flow of water data at critical times. There is the need for common protocol to generate data because the generated data of both the countries do not often match. The technical group to JRC at Dalia barrage and Gazaldoba barrage needs to obtain and exchange the water data among themselves so that any decision could be made. The final data would be given preference by both countries, then only a transitional or permanent solution can be developed. Once any agreement comes into being, it will open the way for a joint investment plan in the Teesta basin to augment water flow in the lean period and store flood water, for retrieval in dry months. Introducing of drought resistant crops would also help. The government needs to break from traditional statistics method of conducting water diplomacy and direly needs to adopt mechanisms based on the state of the art technology. The need of the hour is a bi- lateral agreement which should co-opt the consensus of the inhabitants.

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