



Water Sharing Geopolitics between India and Bangladesh: Recent Trends

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ABSTRACT

The partnership between India and Bangladesh according to water sharing is complex by traditional, geographical, political, sociological, and economical issues. Understanding the present dynamics in water-sharing geopolitics is necessary for understanding the pathways of their bilateral partnership and the conjugation for regional sustainability and improvement. Both countries share almost 54 rivers for example Teesta, Ganges, Brahmaputra, and Meghna. These rivers are lifelines for Bangladesh and India, providing essential irrigation water, communication, and indigenous consumption. However, the unequal distribution of water and the influence of climate change have increased challenges over water management procedures. While both countries have contracted diverse treaties and agreements to manage shared rivers, implementation hazards and occasional breaches of trust have channeled their partners. Subsequently, the increasing demand for water due to population enrichment and industrialization shapes modern challenges for stable water mechanisms. This research aims to describe the present dynamics in water-sharing geopolitics between India and Bangladesh, examining the evolving trends, key factors, and their conjugations for regional sustainability and collaboration. By extending the complexities of this critical view of their partnership, this study seeks to contribute to a deeper realization of South Asia's geopolitical arena and prosecutorial dynamics for cooperative water distribution strategies.

INTRODUCTION

Water sharing has originated as a significant geopolitical issue between India and Bangladesh in South Asia. With the super flow of several rivers containing their borders, water management issues have become a major point of a complex scenario, collaboration, and resolution between these neighbor states. The partnership between India and Bangladesh regarding water sharing is complex by traditional, geographical, political, sociological, and economical issues. Understanding the present dynamics in water-sharing geopolitics is necessary for apprehension the pathways of their bilateral partnership and the conjugation for regional sustainability and improvement. Both countries share almost 54 rivers for instance Teesta, Ganges, Brahmaputra, and Meghna. These rivers are lifelines for Bangladesh and India, providing essential irrigation water, communication, and indigenous consumption. However, the unequal distribution of water and the influence of climate change have increased challenges over water management procedures. Bangladesh almost faces a lack of water, particularly during the dry season, controlled to the disputes over upstream water position and dam formation by India. Present dynamics in water-sharing geopolitics in both states reflect a mix of collaboration and conflicts. While both countries have contracted diverse treaties and agreements to manage shared rivers, implementation hazards and occasional breaches of belief have channelled their partner. Subsequently, the enhancing demand for water due to population enrichment and industrialization shapes modern challenges for stable water mechanism. This research purpose is to describe the present dynamics in water-sharing geopolitics between India and Bangladesh, examining the evolving trends, key factors, and their conjugations for regional sustainability and collaboration. By extending the complexities of this critical view of their partnership, this study seeks to contribute to a deeper realization of South Asia's geopolitical arena and dynamics prosecutor for cooperative water distribution strategies.

LITERATURE REVIEW

Table 1. Theoretical Framework

	Cooperative Game Theory	Securitization Theory	Hydro-hegemony Theory
Primary Objectives	<ul style="list-style-type: none"> a. Gaining mutual facilities for all actors involved. b. Increasing collaboration and trust. c. Dispute resolution and competition 	<ul style="list-style-type: none"> a. To understand the emerging phenomena of security concern within a state or society. b. To describe the procedure of security 	<ul style="list-style-type: none"> a. To realize and describe pathways of power in water mechanism and distribution. b. To point out the major roles in

		threat measures.	water policies and governance.
		c. To examine the influence of security on politics and other norms.	c. To mention sustainability in the trans boundary water mechanism. d. To examine the influence of hydro- hegemony on environmental management
Major Actors	Individuals, Group, Institution	State, Governments, Intelligence agencies, News outlets, United Nations, Advocacy organ.	a. Dominant states, Legitimate think-tank included in water diplomacy. b. Local or indigenous people. c. Upstream and downstream states.
Main strategies	Treaty, Coalition form, Communication, Bargaining	The institutional procedure, Framing of alliance, Media propaganda, Emergency protocols.	a. Diplomatic relations and agreements. b. Increasing economic, political, and military power.
Values	Stability, Fairness, Reciprocity	Trust, Security, Sovereignty, Legitimacy, Dialogue, Responsibility.	Equity, Sustainability, Collaboration, Human rights, Peace and Conflict

Cooperative game theory targets how players can partner to gain mutually positive outcomes. In the backdrop of water sharing both Bangladesh and India have a vested interest in active management of shared water areas, especially rivers for instance Teesta, Ganges, and Brahmaputra. Recent Trends separate a shift ahead extended collaboration between Bangladesh and India in formulating water resources. There are several factors like bilateral treaties, Trans boundary collaboration, hydro-diplomacy, infrastructure improvement, and environmental concerns. Overall this theory delves into the dynamics for Bangladesh and India to access a win-win solution in water-sharing geopolitics. Water Sharing Geopolitics between India and Bangladesh has been enhanced affected by the securitization theory which extensive issues as the security matter. This theory has been especially logical in the backdrop of Trans boundary river disputes for instance Teesta water conflict. This theory has been framing the water security matters. India and Bangladesh both countries have several time occurred to their national security crisis through the water sharing conflict. Securitization of water matters has been leading to the growing tensions between states. In the context of Bangladesh and India, conflicts over water management's treaties have controlled to diplomatic tensions. This theory also emphasize the role of state organ and diplomatic ties in controlling water sharing conflicts. Both Bangladesh and India have joined in bilateral and multilateral agreements for instance the Joint river commission to mention water oriented obligates. Overall this theory to water sharing geopolitics between India and Bangladesh hesitate the complex inter play between national interest, control water resource management and regional stability. The Hydro-hegemony Theory provides a lens through which we can realize the pathways of water sharing geopolitics between Bangladesh and India, especially in present times. This theory establish that states with important management over the trans boundary water matters can extensive dominance and impact over downstream countries, founding political engagements and power dynamics in the complex area. Both Bangladesh and India have introduced the significance of collaboration in controlling the water resources sheared. Present times have seen extended efforts in hydro diplomatic ties for instance Teesta water sharing treaty and Ganges water sharing treaty. These treaties visible to acknowledge the interdependence between Bangladesh and India purpose to introduce water management issues through the mutual collaboration rather than disputes. These theory also provides the power asymmetry circulation between upstream riparian state and downstream state in water sharing resource management. The water sharing geopolitics between Bangladesh and India are also impacted by the extended regional dynamics involving partnerships with other besides states for instance Bangladesh and India.

Hypothesis

1. As water shortage increases in South Asia, there will be an intensify in geopolitical tensions between India and Bangladesh over water sharing treaties.

2. Current shifts in climate patterns will conduct to variation in water availability, influencing the resolution progress between India and Bangladesh on water sharing policies.
3. Economic development initiatives in both countries will impact the range of water resource governance, infecting the issuance and distribution of water between India and Bangladesh.
4. Political stability and diplomatic ties between India and Bangladesh will directly influence the efficacy and enforcement of water sharing treaties, shaping the collaboration or conflictual nature of water management in the arena.

METHODOLOGY

Methodological Approach

The study adopts a descriptive research approach with a cross-sectional design. It employs a mixed-method approach, integrating both quantitative and qualitative research methods from diverse sources.

Sources of Data

Data for the study were gathered using both quantitative (numerical) and qualitative (narrative) methods.

Secondary Data

A various array of secondary data, including books, publications, articles, journals, periodicals, and newspapers sourced from official and academic websites on the internet, were also utilized.

Data Editing

Extensive processing and verification were conducted on all the data to ensure their reliability.

RESEARCH RESULT AND DISCUSSION

India-Bangladesh Hydro-politics

Table 2. India-Bangladesh Hydro-politics

Eras of politics	Global politics	Local politics
Mujib-Indira Gandhi era	✓ India-Bangladesh converse. JRC constructed in 1972.	✓ West Bengal drives for 40,000 cusecs at farakka, as New Delhi is uncertain to devote to an amount.
	✓ 1975 treaty.	✓ Mujib's liquidation. Stand up President Zia's anti India politics.
	✓ Farakka is implemented. Infraction of the 1975 treaty.	
	✓ A deadlock over Ganges/Farakka.	✓ Bashan's Farakka

		march
Zia-Desai era	<ul style="list-style-type: none"> ✓ President Zia's globalize of Farakka at UNGA. ✓ 1977 treaty. 	<ul style="list-style-type: none"> ✓ Zia's anti-India and anti-Farakka strategies. Bashan's long March. ✓ PM Desai's more friendly foreign strategy.
Ershad-Indira Gandhi era	<ul style="list-style-type: none"> ✓ 1977 treaty run out and 1982 MoU inscribed. 	<ul style="list-style-type: none"> ✓ Indira Gandhi back to power and is complex of Desai's strategy. ✓ Ershad taken power and required to authorize his regime.
Ershad-Rajib Gandhi era	<ul style="list-style-type: none"> ✓ Bangladesh-India discussion on Ganges/Farakka. 1985 MoU inscribed. JCE created. A find out for a new enlarge motion. ✓ Modern enlarge plan schemed. Studies in Nepal. ✓ 1985 MoU run out. No new treaty. ✓ India's unilateral withdrawal at Farakka. 	<ul style="list-style-type: none"> ✓ Rajib Gandhi comes to power with a more negotiation process to Ganges politics. ✓ Bangladesh rejects the modern motion. Lack of Political and technophile hold up. ✓ Indian bureaucrats against a multilateral process to the Ganges. ✓ 1988 historic flood in Bangladesh.
Zia-Rao era	<ul style="list-style-type: none"> ✓ Bangladesh drives for both water sharing and Ganges enlarge, while India creates it's enlarge motion a pre-condition for water sharing. ✓ No treaty. 	<ul style="list-style-type: none"> ✓ PM Zia comes to power. Farakka removal and enhanced attention to

	<ul style="list-style-type: none"> ✓ Zia's afraid globalization of Farakka. ✓ No treaty 	<ul style="list-style-type: none"> environmental humiliation
Hasina-Gowda/Gujral	<ul style="list-style-type: none"> ✓ 1996 Ganges agreement inscribed for 30 years. 	<ul style="list-style-type: none"> ✓ Hasina comes to power, wants to promote ties with India and solution Ganges/Farakka conflict. ✓ Gujral principle on foreign strategy
Hasina-Singh	<ul style="list-style-type: none"> ✓ In the 2010 joint communique, India convinces Bangladesh on Tipaimukh. ✓ CM Banerjee opt-out of pm singh's 2011 visit to Bangladesh. ✓ No Teesta treaty. 	<ul style="list-style-type: none"> ✓ Tipaimukh site rescued in India. ✓ Activists groups deploy in India and Bangladesh. ✓ Indian government leases a architect without notifying Bangladesh. ✓ CM Banerjee fail to agree with Teesta water sharing. ✓ Bangladesh establishes atrai rubber dam. ✓ Khaleda zia visits India to exchange her party's view and need Indias hold up for election aims.
Hasina-Modi	<ul style="list-style-type: none"> ✓ No Teesta treaty during the visited in 2019. ✓ Feni River MoU inscribed in October 2019. 	<ul style="list-style-type: none"> ✓ PM Modi and CM Banerjee visit Bangladesh in 2015. CM Banerjee still fail to agree on Teesta. ✓ Tripura confronting water deficit for years. ✓ Bangladeshi student killed by

Despite the extensive cooperation between Bangladesh and India, water sharing remains a contentious issue. The recent visit of Bangladesh Prime Minister H.E. Sheikh Hasina to India from 5-8 September 2022 received significant media attention in Bangladesh, particularly regarding the benefits for Bangladesh. Water was a central topic on the agenda, considering the 54 Trans Boundary Rivers shared between the two countries. As India controls many major upstream streams, this has led to various disputes. Unsurprisingly, water was prominently discussed in the "India-Bangladesh Joint Statement during the State Visit of Prime Minister of Bangladesh to India. While water sharing often strains Bangladesh-India relations, there were positive developments outlined in the joint statement. Specifically, it acknowledged the signing of a MoU on water sharing for the Kushiara River during the 38th Ministerial Meeting of the Joint Rivers Commission in August 2022. This agreement aims to benefit Bangladesh's irrigation while supporting water projects in South Assam. Additionally, the joint statement emphasized India's commitment to expediting the interim Feni water-sharing agreement, considering the urgent irrigation needs of Tripura. The statement also recognized Bangladesh's assistance in implementing the 2019 MoU on withdrawing water from the Feni River for drinking purposes. Moreover, the decision of the Joint Rivers Commission to broaden cooperation by including more rivers for data exchange and formulating interim water-sharing agreements was applauded. Notably, the formation of a Joint Technical Committee to study the optimal utilization of water received by Bangladesh under the Ganges Water Sharing Treaty of 1996 was welcomed. Hydro politics between India and Bangladesh is a multifaceted interplay of interests, challenges, and cooperation centered around the shared rivers that flow between the two nations. The relationship between the two countries regarding water resources is intricate, influenced by historical, geographical, economic, and political factors. This analysis explores the dynamics of hydro politics between India and Bangladesh, examining key issues, challenges, and opportunities. The equitable sharing of river waters is a perennial issue between India and Bangladesh. The Farakka Barrage, built by India in 1975, diverts water from the Ganges, affecting downstream flow into Bangladesh during the dry season. This has led to disputes over water sharing and concerns about water scarcity in Bangladesh. Both countries face seasonal flooding, particularly in the Brahmaputra and Ganges basins. Disagreements over flood management strategies, including dam construction and river diversion, have strained bilateral relations. Bangladesh often accuses India of not providing adequate flood control measures, exacerbating the impact of floods on its territory. The navigability of shared rivers is crucial for transportation and trade between India's northeastern states and Bangladesh. Dredging and maintenance of

waterways are essential for ensuring smooth navigation, but disagreements over dredging activities and infrastructure development have arisen, leading to tensions between the two countries. The signing of bilateral treaties and agreements, such as the Ganges Water Sharing Treaty (1996), has provided a framework for water sharing and cooperation between the two countries. These agreements aim to ensure equitable distribution of river waters and address concerns of both parties. The India-Bangladesh Joint River Commission facilitates dialogue and cooperation on river management and water sharing. Through the JRC, both countries discuss issues related to flood control, riverbank erosion, navigation, and hydropower development, fostering mutual understanding and collaboration. India's hydropower projects in the northeastern states have the potential to impact downstream flows into Bangladesh. However, collaborative initiatives, such as sharing hydrological data and conducting environmental impact assessments, can mitigate adverse effects and promote sustainable development of hydropower resources. Both countries are members of regional organizations such as the South Asian Association for Regional Cooperation (SAARC) and the Bay of Bengal Initiative for Multi-Sectorial Technical and Economic Cooperation (BIMSTEC). These platforms provide opportunities for broader regional cooperation on water management, climate resilience, and disaster risk reduction.

Complex Factors of Water Sharing Dispute

India's Lack of Interest

Harsh Vardhan Shringla, India's former High Commissioner to Bangladesh, authored an article titled 'India-Bangladesh Relations: An Indian Perspective' in *Strategic Analysis* (2018). While addressing various aspects of the Bangladesh-India relationship, such as economic, energy, trade, and development issues, Shringla notably omitted discussion on the water sharing matter, indicating India's apparent lack of seriousness in resolving the dispute. Despite nearly three decades of negotiations, the Ganga water treaty was signed in 1996 for a 30-year period, leaving the Teesta water-sharing agreement, which Bangladesh has long pursued, unresolved. The absence of progress can be attributed to India's apparent disinterest. Although bilateral ties between Bangladesh and India have strengthened across various fronts, the water dispute remains a significant unresolved issue. A peaceful resolution to this conflict could usher in new opportunities for deeper cooperation between the two nations. Notably, during a Parliamentary Question and Answer session in November 2011 (Rajya Sabha), the Bangladesh-India water issue was raised. Instead of discussing water sharing, India appears to prioritize inland water transit and trade. In a Lok Sabha Question and Answer session on December 18, 2002, Digvijay Singh, India's Minister of State in the Ministry of External Affairs, addressed the status of the Protocol on Inland Water Transit and Trade (PIWTT) between India and Bangladesh, emphasizing the use of Chattogram Port for transporting commodities to India's North East region. Similarly, in April 2018, the status of the PIWTT was revisited in a Rajya Sabha Parliamentary Question-Answer session. The lack of prioritization of the

Bangladesh-India water sharing issue in Indian Parliamentary discussions suggests a lack of urgency on India's part to resolve it promptly. Furthermore, despite detailed discussions on border management, security, energy cooperation, and cultural cooperation in an article published by the Indian High Commission in Dhaka on October 11, 2018, there was no mention of the Teesta water sharing issue or other river sharing issues apart from the Ganga treaty, indicating India's disinterest in resolving the matter. Some argue that India uses the excuse of Mamata Banerjee or the federal system to avoid sharing water. If India were genuinely committed to resolving the issue, it would have been settled much earlier. Bangladesh has even shown goodwill by addressing the demand for drinking water for the people of Tripura's Sabroom town during Sheikh Hasina's official visit to New Delhi in October 2019, signing a MoU allowing India to withdraw water from Bangladesh's Feni River. However, there has been no progress on Bangladesh's water sharing during Hasina's 2019 visit to New Delhi, leading to her expression of disappointment and her call for the early signing and implementation of the Framework of Interim Agreement for sharing Teesta waters, as agreed upon by both governments in 2011.

Insufficient Awareness/Understanding of Water

Among the various challenges in Bangladesh-India relations, water has been identified as the most significant (Kashem and Islam, 2016). However, the lack of proper water knowledge exacerbates the issue's complexity. Himanshu Thakkar highlights that one of the primary challenges facing India's water sector is the absence of credible 'water information,' including data on water storage, groundwater, water flows, and even rainfall and snowfall levels. This lack of knowledge about water availability, coupled with inadequate water governance, poses a significant obstacle in Bangladesh-India water sharing disputes. Thakkar emphasizes that access to accurate water information could enhance understanding of the risks and urgency of the situation, leading to more informed decision-making (Thakkar, 2019, p.12).

Internal Political Affairs

Water is frequently wielded for political leverage in Bangladesh-India relations (Islam, 2012; Kashem and Islam, 2016). Mamata Banerjee's reluctance to agree to a water sharing agreement with Bangladesh stems from her concern about losing voter support. This was evident in 2011 when, at the eleventh hour, the Teesta water sharing treaty was thwarted due to Mamata's opposition. According to Mamata Banerjee, maintaining friendly relations with Bangladesh should not come at the expense of West Bengal's people (The Statesman, 2013). Despite a meeting between Sheikh Hasina and Mamata Banerjee on April 6, 2017, in New Delhi to discuss Teesta water sharing, Mamata Banerjee remained steadfast in her refusal, citing Teesta's vital role in supplying water for northern West Bengal's drinking and irrigation needs (The Daily Star, 2017). Similarly, in Bangladesh, political parties like the Bangladesh Nationalist Party (BNP) and Jamaat E Islami utilize water issues as a bargaining chip in their dealings with India (Islam, 2012). Even when the Ganga water

treaty was signed in 1996, the BNP opposed it (Subedi, 1999). Ainun Nisat remarked that water sharing between Bangladesh and India is not solely a technical matter but a deeply political one (quoted in Islam, 2012, p.40). Notably, Mamata's stance on Bangabandhu, the founding father of Bangladesh, underscores the political intricacies surrounding water issues in the region. During a visit by Bangladesh parliamentary members to Kolkata, assurances were given to assist Bangladesh in reaching a Teesta water-sharing agreement (Daily Ittefaq, 2014). Mamata Banerjee, in March 2015, stated that following her recent visit to Bangladesh, she briefed the Prime Minister and External Affairs Minister Sushma Swaraj on the details of the Teesta water issue and Indo-Bangla relations (The Daily Star, 2015). Gowher Rizvi, foreign policy adviser to Prime Minister Sheikh Hasina, explained in an interview with The Hindu that the Teesta water-sharing agreement remained unsigned due to domestic reasons within India. However, he noted that repeated assurances were given by the Indian Prime Minister that the treaty would be signed soon (Bagchi, 2018).

Political Insight in Farakka Dispute

The birth of Bangladesh marked a pivotal shift in the resolution of the Farakka barrage dispute, with Punam Pandey detailing five phases of the conflict between India and Bangladesh. These phases begin with Bangladesh's independence and culminate in the signing of the Ganges Treaty. Bangladesh, upon gaining independence in 1971 with India's support, maintained strong relations with India, as evidenced by the Treaty of Friendship, Cooperation, and Peace signed in 1972. Under this treaty, a Joint Rivers Commission (JRC) was established to address water sharing and related issues. Initial political discussions between the two countries occurred in 1973, with an agreement to resolve the Ganges water sharing at a summit. However, tensions arose as India revealed plans to commission the Farakka barrage in 1974, raising concerns about water diversion and irrigation. Despite ministerial meetings in early 1975, the issue remained unresolved, leading to the barrage's operation in April 1975. The interim agreement stipulated varying discharge rates, causing discontent in Bangladesh, which felt betrayed by the lack of progress towards a permanent solution. This dissatisfaction, compounded by perceived political challenges, contributed to the cancellation of a ministerial visit and strained relations between Bangladesh and India. Criticism of Prime Minister Mujibur Rahman's handling of the situation, coupled with his close ties to India, may have played a role in his assassination in August 1975. The second phase of Farakka barrage politics commenced following Mujibur Rahman's assassination and General Zia Ur Rahman's assumption of power, leading to strained relations between India and Bangladesh. Despite the expiration of the Interim Agreement in 1975, India continued water withdrawal at Farakka, sparking protests from Bangladesh in early 1976. Zia Ur Rahman's Bangladesh Nationalist Party (BNP), supported by Islamic elements, adopted policies favouring Pakistan and the US, contrasting Mujibur Rahman's stance. Zia's government blamed India for Bangladesh's woes and sought international support for resolving the water-sharing dispute,

accusing India of jeopardizing Bangladesh's independence and sovereignty. Despite Bangladesh's efforts to internationalize the issue, no resolution was achieved until a change in India's government in 1977 under Morarji Desai. Desai's administration took a different approach to foreign policy, leading to the signing of a five-year agreement with Bangladesh in September 1977. This agreement outlined water-sharing arrangements and long-term river flow management at Farakka. The fourth phase of Indo-Bangladesh water politics began in 1980 with the Congress party coming to power in India. Despite initial pledges to revoke the 1977 agreement, Indira Gandhi's government maintained it. After General Ershad's coup in Bangladesh in 1982, a provisional MoU was signed for Ganges flow during the dry seasons of 1983 and 1984, omitting the 80 percent flow guarantee to Bangladesh. Rajiv Gandhi attempted to renegotiate the Farakka issue in 1985, signing another MoU similar to the 1982 agreement. However, political negotiations failed to resolve the long-term water-sharing problem. Bangladesh continued to blame India for domestic issues, including the devastating floods of 1988, exacerbating tensions. In 1996, with new governments in both countries, a fresh approach to the water-sharing issue emerged. India's non-Congress coalition government, led by Devi Gowda, sought stronger bilateral relations with Bangladesh. The Awami League's return to power in Bangladesh facilitated negotiations, with both sides aiming for a permanent solution to the Farakka dispute. Indian Minister of External Affairs, Inder Kumar Gujral, sought assistance from Jyoti Basu, the Chief Minister of West Bengal, for a permanent solution. Basu's cooperation was crucial due to West Bengal's influence on Indian politics. This collaborative effort aimed to address the Farakka issue and strengthen Indo-Bangladesh relations. Basu fulfilled his promise by providing utmost cooperation and assistance to the Central Government in resolving the Ganges water sharing dispute. Despite West Bengal standing to lose the most from negotiations, Chief Minister Basu's efforts, framed around the shared history of Bangladesh and West Bengal, were notable for fostering trust. In September 1996, after several visits by Foreign Ministers and the establishment of a Joint Committee, India and Bangladesh reaffirmed their commitment to reaching a fair agreement on Ganges water sharing before the next dry season. The resulting treaty, signed by the Prime Ministers of both nations on December 12, 1996, was valid for thirty years. Given the fluctuating nature of India-Bangladesh relations, achieving a thirty-year agreement seemed improbable. While previous short-term agreements and MoUs addressed water sharing, they often strained relations and fell short of a lasting resolution.

FARAKKA WATER SHARING TREATY		
Availability at Farakka	Share of India	Share of Bangladesh
70,000 cusecs or less	50%	50%
70,000 – 75,000 cusecs	Balance of the flow	35,000 cusecs
75,000 cusecs or more	40,000 cusecs	Balance of the flow

Figure 1. Farakka Water Sharing Treaty
 Source: Ganga water sharing treaty 1996



Figure 2. Farakka Barrage Now a Threat to India
 Source: TBS

Geopolitics of Teesta Water Insight

The Teesta River meanders along the Sikkim-West Bengal border before coursing through various districts in West Bengal, including Darjeeling, Kalimpong, Jalpaiguri, and Cooch Behar. It transitions from a fast-flowing, narrow mountain stream to a slow, expansive, braided river upon reaching the plains at the Coronation Bridge in Sevoke, approximately 22 kilometers from Siliguri. Continuing for 142 kilometers, it eventually crosses into Bangladesh near Mekhliganj. In Bangladesh, the Teesta traverses the districts of Gaibandha, Kurigram, Lalmonirhat, Nilphamari, and Rangpur, all situated within the Rangpur division, covering a distance of 121 kilometers before merging with the Brahmaputra near the town of Chilmari. In this region, the river's braided

path expands even further, with widths ranging from 300 to 550 meters (Islam M. F., 2016). The Dalia barrage, situated in Lalmonirhat district approximately 16 kilometers south of the Indo-Bangladeshi border, is a gravity irrigation project. It forms a part of Bangladesh's Teesta Barrage Project, aiming to irrigate a total area of 540,000 hectares, nearly double the size of Hong Kong. The projects estimated cost is Rs. 1,400 crores (around USD 220 million). Initiated in 1960, Phase I concluded in 1990, providing irrigation to about 1/5th, or 111,406 hectares, of land. Similarly, the Gajaldoba barrage, located in Jalpaiguri district about 66 kilometers north of the border, is part of the Teesta Barrage project. Begun in 1976 at a cost of Rs 69.7 crore, it aimed to irrigate 92268 hectares and generate 67.5 MW of hydropower. Completed in 1990, the project, by 2011, had spent Rs 1,200 crores (roughly USD 185 million), irrigating only 66,000 hectares (less than 8%) and producing 20 MW of electricity. Two canals from Gajaldoba transfer Teesta's water to two other river basins: one west to the Mahananda River and the other east to the Jaldhaka River.

Table 3. Total Area and Length of the Teesta River Basin

	Sikkim	Rangpur	West Bengal
Total Area	57%	17%	26%
Total Length	151km	121km	142km

Table 4. Irrigated area of Gajaldoba and Dalia Barrages on the Teesta

	Irrigated area	Percentage
Gajaldoba Barrage	9.22 lakh hector	7.6%
Dalia Barrage	5,40,000 hector	20.63%

Table 5. Source of water in Bangladesh

Rainfall	11%
Groundwater	5%
Trans boundary Rivers	84%

The Indo-Bangladesh Joint Rivers Commission (JRC)

Following the establishment of Bangladesh in 1971, discussions between the two nations resumed regarding the sharing of rivers such as the Ganga, Teesta, and 52 others. In 1972, India and Bangladesh formed the Indo-Bangladesh Joint Rivers Commission (JRC) with the aim of collaboratively managing shared rivers for the mutual benefit of their peoples, initially focusing on the Ganga river basin. Article 4 of the JRC's Statute outlines its functions:

- a. Maintaining communication between the participating countries to ensure optimal joint efforts in maximizing the benefits from common river systems.
- b. Formulating flood control projects and suggesting collaborative implementation.
- c. Developing comprehensive plans for early flood alerts, flood predictions, and cyclone alerts.

- d. Analysing flood control and irrigation initiatives to ensure fair water resource usage for both nations' populations.
- e. Creating plans for joint research on flood control issues impacting both countries.

Additionally, the JRC could undertake any other tasks as mutually agreed upon by their respective governments. However, during its initial 25 years, the JRC faced limitations in its effectiveness, primarily due to the exclusive focus on the Ganga Treaty until its signing in 1996. General meetings occurred biennially until 2010, with Standing Committee meetings continuing until 2005. Technical discussions on water sharing began as late as 2009. Despite occasional meetings for flood management, scientific studies, and engagement with other riparian nations, significant progress was elusive, with negotiations on rivers like the Teesta overshadowed by Ganga discussions. Talks on the Teesta only gained momentum after the Ganga Treaty was finalized. The Joint Committee of Experts (JCE) for Teesta water sharing convened its inaugural meeting in August 1997, followed by seven subsequent meetings. The Joint Technical Group (JTG) held its first meeting in 2004, followed by four meetings until 2005. Meanwhile, Bangladesh and China initiated discussions on Brahmaputra cooperation in 2006, prompting India and Bangladesh to intensify technical level meetings on the Teesta in 2007 and 2008. However, disagreements persisted, notably over West Bengal's proposal to allocate only 25% of water from the Gajaldoba barrage, leading to increased tensions. India proposed modifying the 1983 ad-hoc agreement to allocate 52% and 48% of Teesta's flow to India and Bangladesh, respectively, disregarding the river's health and ecosystem sustainability. Fortunately, this proposal was not implemented. In 2010, the JRC focused on determining Teesta water sharing during its 37th meeting in Dhaka.

The Breakdown in the Teesta Negotiations

The planned visit of then Prime Minister Manmohan Singh to Bangladesh, accompanied by West Bengal Chief Minister Mamata Banerjee in September 2011 to sign a deal with Bangladeshi Prime Minister Sheikh Hasina, was disrupted when Banerjee withdrew from the delegation at the last minute. She protested against changes made to the agreement that she neither approved nor was allegedly informed of. Banerjee had initially agreed to share Teesta waters with Bangladesh at a rate of 708 m³/s, but the final agreement proposed a much higher allocation, averaging 935 m³/s up to 1699 m³/s, with no apparent scientific justification. Consequently, Banerjee canceled her participation, leading to the collapse of talks between New Delhi and Dhaka, and the agreement remained unsigned due to the central government's dependence on Banerjee's Trinamool Congress. Later, in the same year, the Government of West Bengal commissioned a study of the Teesta River, the results of which were submitted in December 2012 by hydrologist Kalyan Rudra. However, the report was never made public. In 2014, despite the change in government at the center, the complexities surrounding the signing of the

Teesta deal persisted due to political tensions between the center and the Banerjee-led government. Prime Minister Modi's visit to Dhaka in 2015, aimed at concluding the land boundary agreement, did not address the Teesta issue, despite reminders from Prime Minister Hasina. Renewed hopes emerged for a Teesta agreement during Hasina's visit to India in 2017, where several MoUs were signed between the two countries. However, Banerjee continued to oppose the current terms of the agreement, suggesting alternative river systems to meet Bangladesh's needs. This proposal received little enthusiasm, and Hasina returned to Bangladesh without a Teesta deal, facing criticism from opposition leaders for allegedly prioritizing India's interests over Bangladesh's.

Current Scenario of Water Sharing

Teesta River

Relations between Bangladesh and India may be at their peak, yet the Teesta River remains a point of dispute. Despite assurances from two Indian prime ministers to allocate Bangladesh its rightful share of the river's waters, West Bengal Chief Minister Mamata Banerjee remains opposed. She argues that the Teesta lacks sufficient water during this dry season, but circumstances shift. On the Indian side of the Gazaldoba dam, the river is full, while sandbars have formed at the entry point into Bangladesh. As a result, the Teesta, now reduced and sluggish, flows into Bangladesh.



Figure 3. Rainy season of Teesta River in Lalmonirhat
Source: The Daily Star



Figure 4. Dry season of Teesta River in Lalmonirhat
Source: The Business Post



Figure 5. Teesta at Sikkim in India with Huge Water
Source: The Diplomat

Feni River

Conversations have been ongoing with Bangladesh regarding the sharing of Teesta and Feni rivers' waters, as well as six other shared rivers: Manu, Muhri, Khowai, Gumti, Jaldhaka, and Torsa. The Indian government is actively working towards finalizing an agreement with Bangladesh for the equitable distribution of water from Teesta and Feni rivers, ensuring the satisfaction of all involved parties and safeguarding the interests of all stakeholders. On October 5th, 2019, a Memorandum of Understanding was signed between the Ministry of Jal Shakti, Government of India, and the Ministry of Water Resources, Government of Bangladesh, concerning the withdrawal of 1.82 cusecs of water from the Feni River by India for the drinking water supply scheme in Sabroom town, Tripura, India. Similarly, another Memorandum of Understanding was executed on September 6th, 2022,

between the Ministry of Jal Shakti, Government of India, and the Ministry of Water Resources, Government of Bangladesh, regarding the withdrawal of up to 153 cusecs of water each by India and Bangladesh from the shared border river Kushiyara during the dry season to meet the consumptive water needs of both countries.



Figure 6. A Map of the Feni River Layout across the Two Borders

Existing Issues Priority between Two Countries People

Table 6. Issues Priority

Indian people	Bangladeshi people
1. Yaba trafficking in the border	1. Water sharing issues
2. Migration from Bangladesh	2. Border killing
3. Firing at the Border	3. Trade Imbalance
4. Water sharing treaty on teesta river	
5. Trade Imbalance	

Source: National Defence College

CONCLUSIONS AND RECOMMENDATIONS

Recent trends in water sharing geopolitics between India and Bangladesh underscore the critical need for cooperative frameworks to address mutual concerns. Sustainable solutions must prioritize equitable access, environmental preservation, and diplomatic dialogue to ensure regional stability and prosperity.

1. Creating negotiate mindset of Mamata Banerjee(the chief minister of west Benge).
2. Escalating to sub-regional cooperation.
3. Potential basin-wide approach building.
4. Empowering joint Rivers Commission (JRC) to a real bilateral body.
5. Highly awareness building must be both Indian and Bangladeshi populations.
6. Empowering diverse fields between two countries like agriculture,hydropower,flood control, navigation, trade and tourism.
7. We must have an overall plan for all our transboundary rivers.

8. We should have our own plan to utilize the water received through Ganges.
9. Teesta water sharing dispute must be Sensitization at all level as quickly as possible.

ADVANCED RESEARCH

This research still has limitations so further research is still needed on the topic "Geopolitics of Water Sharing between India and Bangladesh: Recent Trends."

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