

PUNAM PANDEY

## Bangladesh, India, and Fifteen Years of Peace

### *Future Directions of the Ganges Treaty*

#### ABSTRACT

The Ganges River Treaty, one of the world's successful examples of a peaceful resolution to a long-drawn river water dispute, has completed half of its tenure. This provides an opportunity to evaluate the variables of its success and further understand how both India and Bangladesh are going to deal with emerging challenges.

**KEYWORDS:** Ganges water treaty, Indo-Bangladesh river water dispute, climate change, Indian federalism, Joint Rivers Commission

THE BANGLADESH-INDIA TREATY on Sharing of the Ganges Waters, signed in 1996, completed half of its 30-year term in December 2011. This is no small feat considering that all pre-1996 agreements and memorandums of understanding (MoUs) on the Ganges, taken together, had lasted for only 11 years. Though the uninterrupted operation of the treaty is certainly an achievement, old issues continue while new challenges are emerging that bear on the survival and further extension of the Ganges Treaty after 2026. This article evaluates the operation of the treaty and discusses the challenges it is going to face in future. Since this is a relatively peaceful time for the Ganges issue, this article suggests that it is best for both India and Bangladesh to evaluate, with cool heads, the challenges that the Ganges Treaty will face in future.

The first section of this article discusses the operation of the Ganges Treaty, including the functions of the Joint Rivers Commission (JRC). The second section examines the changing dimension of Indian federalism and its impact on the Indo-Bangladesh bilateral water relationship. The third section discusses the impact of climate change and other issues on the Ganges Treaty. The article concludes that contentious issues should be discussed now with

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different stakeholders, so that the Ganges Treaty can be extended beyond 2026, continuing to serve as a global model of peaceful resolution to trans-boundary river sharing disputes.

India and Bangladesh share 54 rivers; the prominent ones among them are the Ganges, Brahmaputra, Meghna, and Teesta. Bangladesh is constituted by the delta created by the Ganges, Brahmaputra, and Meghna. The Ganges River originates at the Indian town of Gangotri, on the southern slope of the Himalayas, and flows southeast through Bangladesh before reaching the Bay of Bengal. The Ganges splits into two main channels at the town of Farakka in West Bengal, India: the Bhagirathi-Hooghly, flowing south through India, and the Padma, the name of the Ganges as it flows southeast through Bangladesh. Including these two main channels, the Ganges traverses 2,510 km in its long journey through India and Bangladesh. The Padma channel of the Ganges, after covering a distance of about 112 km, joins with the Brahmaputra River in the heart of Bangladesh; their combined flow then runs south to empty into the Bay of Bengal.

The Ganges effectively divides India and Bangladesh as upstream and downstream riparian states, respectively. Two concerns have been central in the riparian relations between India and Bangladesh. First, a barrage or dam at Farakka, in the Indian state of West Bengal near the Bangladesh border, was constructed to divert water from the Ganges into the Hooghly, which in turn flushes out Kolkata (Calcutta) Harbor. Bangladesh claims that this reduced the flow of the Ganges into the Padma. Second, Bangladesh has been concerned with sharing the Teesta's river water. This common river originates in Indian Sikkim, crosses West Bengal on its way into Bangladesh, and then traverses 45 km before meeting the Brahmaputra. West Bengal and Sikkim are two states in India that depend on the Teesta for irrigation and hydropower generation. During the dry season, from September to March, Bangladesh requires the Teesta waters for agriculture.

#### EXPERIENCE OF THE GANGES TREATY

The 25 years of deliberations between India and Bangladesh over Ganges River water before 1996 can be characterized as cooperative as well as conflictual.<sup>1</sup>

1. For a historical description of the Ganges River negotiations, see B. M. Abbas, *The Ganges Water Dispute* (Dhaka: University Press, 1982); Ben Crow with Alan Lindquist and David Wilson, *Sharing the Ganges: The Politics and Technology of River Development* (New Delhi: Sage, 1995); B. G. Verghese and

After Bangladesh's 1971 independence, both countries concluded that the Ganges water was not sufficient for their needs. The JRC was created in 1972 to address all river water related issues. Subsequent negotiations about augmenting its flow, whether through river linkages or dams, were not successful. But when both neighbors began negotiation in 1996, they delinked the idea of water sharing from augmentation, which led to signing the Ganges Treaty. The focus below is limited to understanding the operation of the 1996 treaty and, further, how it has managed to achieve immunity from the polarized domestic politics of Bangladesh. For years, power there has swung alternately between the Awami League (1971–75, 1996–2001, 2008–present), a liberal secular party considered close to India, and the Bangladesh Nationalist Party (BNP) (1975–81, 2001–06), an Islamic party less friendly to India, amid periodic military coups.

The 1996 treaty has three parts: the preamble, the 12 articles, and the annexes. Unlike previous agreements, the 1996 treaty did not include any compulsory safeguards for Bangladesh, such as the 1977 “guarantee clause” reserving 80% of river water during the lean months or the 1985 “burden sharing” of water surplus or deficits. However, the 1996 treaty did make clear demands upon the government of India: “[E]very effort would be made by the upper riparian to protect flows of water at Farakka as in the 40 years’ average availability.”<sup>2</sup> This means that the water sharing schedule for each 10-day period for both countries is determined on the basis of average availability of river water from 1949–88. Moreover, when the flow goes below 50,000 cusecs (cubic feet per second) the treaty recognizes an emergency situation and provides for immediate consultation by the two governments. There is also a provision for review at the end of five years, or at the end of two years if either party desires. The treaty requires that, pending mutually agreed adjustment, India will release to Bangladesh not less than 90% of Bangladesh’s share, with the remaining 10% left for the river. The treaty also prescribes joint monitoring of flows, which should eliminate or minimize the

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Ramaswamy Iyer, eds., *Harnessing The Eastern Himalayan: Regional Cooperation in South Asia* (New Delhi: South Asia Books, 1994); K. Begum, *Tension over the Farakka Barrage* (Dhaka: University Press, 1987); M. R. Islam, *Ganges Water Dispute: Its International Legal Aspects* (Dhaka: Dhaka University Press, 1987).

2. *Treaty Between the Government of the People’s Republic of Bangladesh and the Government of the Republic of India on Sharing of the Ganga/Ganges Waters at Farakka*, <[http://www.jrcb.gov.bd/attachment/Gganges\\_Water\\_Sharing\\_treaty,1996.pdf](http://www.jrcb.gov.bd/attachment/Gganges_Water_Sharing_treaty,1996.pdf)>, accessed October 25, 2012.

possibility of disagreements over the data. A Joint Committee serves as the primary conflict resolution mechanism. If it is unable to resolve the dispute, the matter is then referred to the JRC; failing resolution at that level, the matter is referred to the two governments.<sup>3</sup>

All these provisions were tested immediately in the first "lean period" (the dry period every year from January to May) of 1997, barely two months after the treaty signing. The flow of the Ganges at that time was less than that scheduled by the treaty.<sup>4</sup> But the flow situation improved in August when both countries were planning to hold a JRC meeting to discuss the emergency. Subsequent years have been uneventful as far as the river flow is concerned.

Despite its success, the 1996 Ganges Treaty was initially strongly opposed by Bangladesh's then-opposition, the BNP. The party promised that, when it came to power, it would ask for a review of the treaty. But when the BNP came to power in 2001, it neither asked for review nor terminated the treaty. The data presented below will help explain how the treaty has remained immune from the country's contentious politics. The tables present the amount of river water released to Bangladesh from India during the periods 1989–95, 1997–2000, and 2008–12.

Table 1 provides the particular quantity of water expected to be available, suggesting that in each 10-day period, Bangladesh received more water from India after 1996 than in the years between 1989 and 1995 (except in one 10-day period in March 1997). People on both sides of the Ganges are simply in a better position post-1996. This explains the BNP's quietness about demands for review of the treaty's provisions when it came to power in 2001; the treaty was not controversial during a time of plenty. Another noticeable aspect is that only the Awami League governments provided data on river water received by Bangladesh from India. During the BNP government (2001–06), data were not released. This reinforces the degree of partisan polarization of Bangladesh politics toward India, with the Awami League friendlier and the BNP far more skeptical in the hopes of exploiting disputes with India to

3. For details of the provisions of the treaty, see *ibid.*

4. The division of river water in the Ganges Treaty has been done on the basis of an indicative schedule that has been prepared on an average of 1949–88 water availability in the Ganges. This regulates distribution of water each 10-day period to both countries. Farooq Sobhan, ed., *Bangladesh India Relations: Perspectives from Civil Society Dialogue* (Dhaka: Dhaka University Press, 2002), p. 63; Ramaswamy Iyer, "Conflict Resolution: Three River Water Treaties," in *Water: Perspectives, Issues, Concerns* (New Delhi: Sage Publications, 2003), p. 241.

TABLE 1. Ganges Flow in Bangladesh during the Dry Seasons of the Years 1997–2012 Compared with the Indicative Figures under the Treaty (in cusecs)

<i>Period</i>	<i>Indicative Treaty Figures (1989–95)</i>	1996	1997	1998	1999	2000	2008	2009	2010	2011	2012
<i>January</i>											
01–10	53,619	67,516	70,829	182,263	95,934	94,975	95,883	96,414	86,720	96,179	136,486
11–20	47,726	57,673	55,788	154,292	85,728	79,568	81,785	90,654	77,204	88,036	111,240
21–31	40,781	50,154	50,045	118,313	81,480	62,238	81,813	86,974	75,048	78,867	115,846
<i>February</i>											
01–10	33,417	46,323	48,430	88,363	64,873	55,903	85,113	81,650	76,266	66,516	111,872
11–20	26,868	42,859	38,319	73,584	61,760	53,292	73,520	73,272	68,108	64,189	102,583
21–28	24,559	39,106	25,689	54,242	53,185	46,909	67,446	64,858	64,824	65,086	92,815
<i>March</i>											
01–10	22,868	35,000	23,291	46,686	41,600	44,573	58,872	61,226	60,742	63,373	79,208
11–20	19,573	35,000	19,930	40,192	35,683	39,320	59,324	56,826	57,276	57,466	65,342
21–31	175,16	29,688	13,823	38,685	33,892	35,509	53,310	56,114	51,735	60,346	67,772
<i>April</i>											
01–10	17,177	35,000	17,857	43,960	35,376	37,026	56,474	55,211	53,696	57,848	69,192
11–20	19,578	27,633	24,559	53,241	30,725	35,528	52,519	54,219	52,191	59,442	80,864
21–31	21,759	35,000	27,695	53,627	34,738	41,535	59,532	56,329	53,652	56,819	72,927
<i>May</i>											
01–10	23,467	32,351	26,578	74,886	37,672	56,126	55,353	57,446	55,791	57,800	68,059
11–20	32,228	35,000	26,279	92,039	41,818	50,344	64,528	59,310	55,268	65,256	64,654
21–31	50,410	41,854	27,520	84,965	48,716	85,274	67,894	65,780	65,350	83,020	65,915

SOURCE: Partially adapted from Salman M. A. Salman and Kishor Uprety, “The Kosi River,” in *Conflict and Cooperation on South Asia’s International Rivers: A Legal Perspective* (New York: Kluwer Law International, 2002).

gain domestic political leverage.<sup>5</sup> Leaders are aware that “cooperation with India can be viewed as compromising national sovereignty and interest.”<sup>6</sup> If the BNP is not vocally concerned about the Awami League “selling out the interests of the country” in agreements concluded with India, this implies the BNP’s acceptance of the provisions of the treaty. Though after the 1996 treaty signing there have been two general elections in Bangladesh, in 2001 and 2008, the Ganges was not made an electoral issue by the BNP and its allies even though India broadly, and the Awami League’s agreements with India in particular, were an issue.

As far as the sharing and releasing of data are concerned, river water data are a classified subject in India—despite the fact that sharing figures about the water released to Bangladesh might boost confidence in the bilateral relationship. It makes sense to release water figures that would confirm, to the wider public, India’s adherence to the provisions of the treaty. One of the senior officials in India’s Ministry of Water Resources admitted, “[T]his issue of declassification [of river water data] has been discussed even at the Prime Minister level, but nothing has happened. . . . [N]obody is taking [a] decision on this issue.”<sup>7</sup>

The JRC has been an important institution, maintaining a regular interaction between India and Bangladesh over common river waters. The statutes of the JRC were signed on November 24, 1972; they are designed to address common river issues via its member-level Standing and Local Committees. Final approval for any proposal must come from the respective governments. In December 1977, the two countries agreed to upgrade the chairmanship of the JRC to the ministerial level within both their government cabinets. This gave the JRC more political prominence and authority in bilateral river water discussions.

Yet, political considerations have become decisive factors in the operation of the JRC. Statutorily, the JRC is supposed to meet four times a year. Yet, sometimes it fails to meet even once a year, largely because many Bangladeshis

5. Detailed description about the politicization of the Ganges River in Bangladesh has been described in Punam Pandey, *Environmental Security: Water Conflicts in West Asia and South Asia* (unpublished diss., Delhi University, 2011).

6. Arun P. Elhance, *Hydropolitics in The Third World: Conflict and Cooperation in International River Basins* (Washington, D.C.: U.S. Institute of Peace Press, 1999); Salman and Uprety, “The Kosi River,” in Salman and Uprety, *Conflict and Cooperation on South Asia’s International Rivers*, pp. 65–82.

7. Punam Pandey interview with government official, New Delhi, May 2012.

perceive that when the BNP is in power in Bangladesh the Indian Ministry of Water Resources is not proactive in convening the JRC meeting. For example, the JRC held its 31st meeting in Dhaka in June 1990; the next meeting took place seven years later. Not just the frequency but the substance of the meetings has changed, too. For example, until 1988, the JRC discussed *all* the rivers shared between India and Bangladesh. After 1988, the talks focused exclusively on the Ganges as a result of Bangladesh's environmental and economic concerns relating to the Farakka Barrage. The round of meetings of the JRC are provided in Table 2.

Generally, scholars suggest that when it came to power in 2001, the BNP government asked for a review of the treaty at the 36th JRC meeting, which was held in 2005.<sup>8</sup> But a reading of the minutes of this meeting, held between Bangladesh's ruling BNP and India's ruling United Progressive Alliance (UPA) governments, does not support this view.

The [Joint Rivers] Commission reviewed the progress of implementation of the sharing arrangements under the 1996 Ganges Treaty. In the meeting the Bangladesh side complained about receiving lesser quantity of Ganges waters during the dry season of 2005 as its share compared to the quantum shown in the indicative schedule of the Treaty in different 10 day periods and urged the needful should be done to ensure due shares to both countries.<sup>9</sup>

Bangladesh demanded that the augmentation of the river flow of the Ganges should be considered as recognized in 1996 Ganges Treaty. The Joint Communiqué reads further:

The Indian side pointed out that Article-II (i) of the Treaty specifies that sharing of water in any given year will be with reference to the formula as set out in Annexure-I of the Treaty and this has indeed been done. Article-II (ii) requires that "every effort" will be made by the upper riparian to protect flows as set out in Annexure-II. The Indian side stated that the average receipts in the past nine years by Bangladesh for each of the specified 10-day periods equalled

8. In conferences related to the Indo-Bangladesh river water issue, it has been claimed that the BNP government asked for review of the treaty when it was in power in 2001–06: "In the 36th Indo-Bangladesh JRC meeting, held in September 2005 at Dhaka, both countries agreed to review the operational implementation of the 1996 treaty as per the provisions of Article X," in M. M. Rahaman, "Integrated Ganges Basin Management: Conflict and Hope for Regional Development," *Water Policy* 11:2 (2009), p. 173.

9. Ibid.

TABLE 2. Joint Rivers Commission Meetings between India and Bangladesh

<i>Round</i>	<i>Year</i>	<i>Place</i>
1	June 25-26, 1972	New Delhi
2	September 28-30, 1972	Dhaka
3	December 11-13, 1972	New Delhi
4	March 29-31, 1973	Dhaka
5	July 19-21, 1973	New Delhi
6	November 8-10, 1973	Dhaka
7	February 28-March 2, 1974	New Delhi
8	June 6-12, 1974	Dhaka
9	July 17, 1974	Calcutta
10	August 29-September 2, 1974	Dhaka
11	September 28-October 4, 1974	New Delhi
	November 16-20, 1974	Dhaka
12	December 31, 1974-January 7, 1975	New Delhi
	Minister Level Meeting (Sernibat-Jagjivan)	Dhaka
	April 16-18, 1975	
13	June 19-21, 1975	Dhaka
14	January 20-24, 1978	Dhaka
15	July 5-11, 1978	New Delhi
16	November 6 and December 8-10, 1978	Dhaka
17	May 8-12 and November 16-20, 1979	New Delhi
		Dhaka
18	February 26-29, 1980	New Delhi
	April 26-29, 1980	New Delhi
19	July 9-11, 1980	Dhaka
20	August 29-September 1, 1980	New Delhi
21	February 26-28, 1982	Dhaka
22	August 28, 1982	Dhaka
23	December 22-24, 1982	New Delhi
24	February 2-4, 1983	Dhaka
25	July 18-20, 1983	Dhaka
26	February 13-15, 1984	New Delhi
	March 30-31, 1984	Dhaka
27	December 14-16, 1984	New Delhi
28	June 2-4, 1985	New Dhaka

(continued)



TABLE 2. (continued)

Round	Year	Place
29	May 11, 1987	New Delhi
30	April 18–19	New Delhi
31	June 21–22, 1990	Dhaka
32	July 19–20, 1997	Dhaka
33	April 10, 1999	New Delhi
34	January 12–13, 2001	Dhaka
35	September 29–30, 2003	New Delhi
36	September 19–21, 2005	Dhaka
37	March 17–20, 2010	New Delhi

SOURCE: By author.

or exceeded the flows indicated in Annexure-II except for one 10-day period of March. On the other hand the receipts by India have been less than the indicative flow for the entire period of February and March and two 10-day periods of May. This clearly established that India had made “every effort” as enjoined as Article-II (ii). . . . The Indian side pointed out that *if they so desire Bangladesh could seek a review of the sharing arrangements as provided for in Article-X*. . . . [R]eferring to the remarks of the Bangladesh side wherein the cooperation [by] India and Nepal on harnessing of water resources was raised, the Indian side emphasised that the JRC is a bilateral forum between India and Bangladesh and this forum cannot be diluted by raising issues pertaining to any other country.<sup>10</sup> (emphasis added)

Thus, no review of operations of the treaty was asked for in the JRC meeting held during the BNP government. During the 37th JRC meeting in 2010, Bangladesh demanded that the 40-year average rate should be maintained, while

. . . the Indian side also clarified that the schedule given at Annexure-II of the Treaty is only indicative. Thus it would match only in a year when the actual availability of water at the Farakka Barrage corresponds to the long term average flows of 40 years. Further, a close look of jointly observed flows of [the] last 13 years shows that [the] Bangladesh side has got, in fact, more water

10. *Record of Discussions of the Thirty-Sixth Meeting of the Indo-Bangladesh Joints Rivers Commission Held at Dhaka from 19th to 21st September 2005*, <[http://waterbeyondborders.net/files/Ind\\_ban\\_JRC\\_36\\_sep2005.pdf](http://waterbeyondborders.net/files/Ind_ban_JRC_36_sep2005.pdf)>, accessed June 17, 2012.

(16.34 billion cubic meters [bcm]) than its share (15.03 bcm) as per the indicative schedule of the treaty.<sup>11</sup>

Several Indian states have strong grievances against the continuation of the treaty with Bangladesh. The port of Kolkata in West Bengal, for example, has complained that the quantum of discharge of water from Farakka, especially during the dry season (January to May), has been declining, which influences transport patterns in the Hoogly River. Records reveal that the discharge from Farakka during the dry season fluctuates widely and on many days is much less than the desired amount.<sup>12</sup> It is important to underline here that the Kolkata port caters to large clients and serves the needs of both eastern and northeastern Indian states. Northeastern states have narrow connectivity with the rest of India because of the region's topography. If ship movement is affected due to siltation, this will hurt users such as the Indian Oil Corporation (importing crude for its Haldia and Barauni refineries in West Bengal and Bihar, respectively); the Tamil Nadu Electricity Board (importing, along the coast, over three million tons of thermal coal through Haldia); the Steel Authority of India, Ltd. (SAIL); and Tata Steel (importing large quantities of coking coal and exporting finished steel items). These firms are among many others in the hinterland covering vast areas in Uttar Pradesh, Bihar, Madhya Pradesh, West Bengal, the broader North Eastern Region, and even the neighboring countries of Nepal and Bhutan.<sup>13</sup>

The Bihar state government strongly protested the Ganges Treaty from the very beginning. Bihar was so enraged with the treaty that it issued a White Paper in 1996 containing an annexed collection of letters and documents exchanged between officials of New Delhi and Patna, Bihar's capital, before the finalization of the treaty. Bihar was concerned that Delhi signed the Ganges Treaty with Bangladesh without consulting the Bihar government. A part of Bihar's White Paper reads:

11. *Record of Discussions of the Thirty-Seventh Meeting of the Indo-Bangladesh Joints Rivers Commission Held at New Delhi from 17th to 20th March 2005*, <[http://waterbeyondborders.net/files/Ind\\_ban\\_JRC\\_37\\_mar2010.pdf](http://waterbeyondborders.net/files/Ind_ban_JRC_37_mar2010.pdf)>, accessed June 17, 2012. It has been mentioned in this respect that "the maximum quantity ever received was 30,000 cusecs."

12. S. N. Sau, "The Economics of Calcutta-Haldia Port Complex," *Economic and Political Weekly* 25:18-19 (May 1990), p. 1017.

13. Shantanu Sanyal, "Kolkatta Port: Government Support Vital," *Business Line* (India), November 19, 2001, <<http://www.hindu.com/businessline/logistic/2001/11/19/stories/0919c05s.htm>>, accessed July 2, 2012.