# Focus Asia Perspective & Analysis

February 2021

## WATER AS A POLITICAL SECURITY TOOL:

### The Himalaya's Strategic Conundrum

Anwesha Mohanty

Fresh water has no substitute, and its availability has been declining sharply around the globe. In Asia, China's role as a multidirectional and trans-border water provider is debatable. Analysis of China's behavior towards its trans-boundary rivers is, therefore, pivotal. This essay pits previously applied realist rationales against the more recent notion of de-securitization strategies. While de-securitization implies non- or de-escalation, it does not necessarily mean genuine long-term cooperation. The Brahmaputra River (BR) is an important trans-boundary river in South Asia, and its water resources are especially important to its four riparian countries, three of which are the most populous in the world. The future of Asia's shared waters may thus be a contentious one. This piece examines the water issues in the BR and among the riparian countries, especially on conflict or co-operation between China, India, and Bangladesh, in order to gain a more detailed understanding of Sino-India-Bangladesh water cooperation in terms of the BR.

#### Introduction

With India-China relations hitting its lowest point since the 1962 war, border infrastructure has come under intense scrutiny. Beijing's aggressive new plan to build mega-hydropower plants and dams across the 2,900-kilometer Yaluzangbu River, or Yarlung Tsangpo, with work on the projects scheduled to take 15 years, has been a repeated cause for concern for Indian officials and the local people, whose livelihoods and security depend on the river. Trans-boundary water interaction is inherently a political process, which is determined by the broader political context of riparian countries. Often in trans-boundary interactions, water acts as a medium through which politics occurs.<sup>1</sup>

The politics is driven by the state's ability to exercise sovereignty and to control its territory and the resources in its jurisdiction. Any trans-boundary cooperation requires the respective states to sacrifice some sovereignty. The relations between China and India, including on trans-boundary waters, have a core impact on regional peace and water security in the Brahmaputra River Basin (BRB). Therefore, the states are willing to accept some limitation on their autonomy only if they see certain gains in that bargain.<sup>2</sup> The Brahmaputra River flows through four countries: India, China, Bhutan, and Bangladesh. "Brahmaputra" here refers to the entire Yarlung-Zangbo-Brahmaputra-Jamuna basin area (see map). The basin is rich in biodiversity, with huge potential for irrigation development, livelihood opportunities, hydropower generation, and navigation. However, the riparian countries face major challenges relating to floods and droughts, infrastructural development, rising suspicion and distrust, and lack of open communication within and between countries. As a consequence, the river is inseparably linked with regional politics involving the four riparian countries, which are unequal in size and power.

### There have been several cases where dam building has run into major grassroots opposition in major Asian democracies.

The power asymmetry between the riparian countries of the BRB has made the task of accessing water resources data complex, although the states have signed bilateral memoranda of understanding to enable data and information sharing. Against this backdrop, this article examines the power interplay that affects the water interaction of the Brahmaputra's riparian countries, specifically focusing on bilateralism and data sharing. The imbalance of power between them also plays a crucial role in determining who wins the sovereignty bargain, since it is often argued that power asymmetries are the prime determinants of the degree of control over water resources that each sovereign state attains.<sup>3</sup> As Warner (2004) puts it, while up-streamers use water to get more power, down-streamers use power to get more water.<sup>4</sup> Water resources in the BRB are anticipated to worsen under climate change and increasing water demands, due to population growth and economic development. This article, thus, seeks to look at China for a better understanding of its projected behavior.

The **Institute for Security and Development Policy** is an independent, non-partisan research and policy organization based in Stockholm dedicated to expanding understanding of international affairs.

For enquiries, please contact: info@isdp.eu

No parts of this paper may be reproduced without ISDP's permission.

**Disclaimer:** The opinions expressed in this paper are those of the author only and do not necessarily reflect those of ISDP or its sponsors.

### China as an Upper Riparian State

China's plans to develop four hydropower dams on the Brahmaputra River and divert its waters increase India's suspicions of Chinese intentions.<sup>5</sup> China is seen as unilateral in its actions, particularly in building dams, and not forthcoming with information. Although since 2006, an Expert Level Mechanism has been established between India and China to discuss trans-boundary river issues, it is still unclear how it operates or what progress has been made.<sup>6</sup> Upper riparian China prioritizes harnessing the Brahmaputra's economic and energy opportunities, such as the generation of hydropower to develop its western regions and to invest in clean energy resources.7 In the near future, China is unlikely to pursue plans to divert the Brahmaputra to relieve domestic water shortages-which is a concern for Indian observers—given cost and logistical concerns. Looking at India's main domestic considerations, the focus primarily is on the management of and access to Brahmaputra waters for hydroelectricity, flood control, local development, and integration of isolated Northeast India into the rest of the country.8

This case on the BR exemplifies that dams and democracy do not sit well together. There have been several cases where dam building has run into major grassroots opposition in major Asian democracies, however, it continues unhindered in countries where grassroots empowerment is absent or ignored.<sup>9</sup> Within the Brahmaputra basin, there are the stereotypic conflicts of interest, between upstream and downstream riparian zones, related to water resources development and the water diversion plans of the upstream areas. The basin, with its massive hydropower potential and water flows, not only contributes to the economic development of its riparian countries but also triggers tension and disputes.<sup>10</sup> But other key concerns and challenges that are typical to the Brahmaputra basin countries are historical rivalries, political mistrust and suspicion, increasing nationalism, closed-door negotiations exclusively on water issues, absence of negotiation frameworks, and lack of open communication.<sup>11</sup> It is safe to say that conflict between India and China is often conflated with larger territorial and political issues.

#### Regional Implications of Chinese Dams: An Indian Perspective

For India, the one domain in which China's status as the "upper riparian" provides an almost insurmountable challenge is in ensuring shared access to Transboundary Rivers. And as the recent clashes on the India-China border have made clear, India needs to assess how China might "weaponize" its advantage over countries downstream. While trying to examine the possibilities, China could exploit these rivers in three ways:

First, it can "blockade or divert" them. China's large-scale infrastructure projects such as the South-North Water Diversion Project and West-East Power Transfer Project already threaten to do so. In addition to meeting its irrigation and power needs, as per China's Twelfth Five-Year Plan 2011–15,<sup>12</sup> the Chinese government plans to build 120 gigawatts of new hydropower plants on the Salween, the Upper Mekong, Upper Yangtze, and the Brahmaputra-"more than one new Three Gorges Dam every year for the next five years, and ... more than any other country has built in its entire history."13 China's endeavor of building five dams on the Brahmaputra River is feared to incorporate specific blasting techniques which could be used to divert the Brahmaputra north to China before it enters India through the state of Arunachal Pradesh."14 Further,

China has already blocked the flow of the Xiabuqu River, one of Brahmaputra's Tibetan tributaries, for the Lalho hydel project.<sup>15</sup> More recently, in the aftermath of border clashes between India and China in the Galwan Valley (May 2020), China has blocked the flow of the Galwan River, a tributary of the Indus which originates in Chinese-controlled Aksai Chin area, thus altering the natural course of the river to prevent it from entering India.<sup>16</sup>

### India needs to assess how China might "weaponize" its advantage over countries downstream.

Second, China could sabotage trans-boundary rivers by polluting them, rendering them unfit for use. The Siang River, which joins the Lohit and the Dibang downstream to form the Brahmaputra, turned muddy and "blackened" in 2017 raising concerns about China's upstream activities. The water became unfit for human consumption, with "up to ten inches of sediment accumulated on some stretches of the riverbed".<sup>17</sup> This episode severely affected agriculture production in the Siang valley, known as one of the rice bowls of the Indian state of Arunachal Pradesh, and it also had a detrimental impact on fishing communities.<sup>18</sup> Although China stated that an earthquake in November 2017 might have been the cause, the river waters reportedly changed before the quake struck.19

Third, China is touted to have access to valuable data that can help manage floods and fluctuations downstream.<sup>20</sup> India and China have signed two pacts since 2008 on data sharing for the Sutlej and Brahmaputra in order to better manage the shared watercourses.<sup>21</sup>

While these MOUs have had a positive effect on water management, and helped pre-empt and control flooding, this dependence can also be exploited by withholding hydrological data, accessible only to the upper riparian state. This undermined India's flood early-warning systems during the critical monsoon

India-China Cooperation <sup>22</sup>		
A) Memorandum of Understanding (MoU) on provision of Hydrological Information of the River Brahmaputra / Yaluzangbu	1) In the year 2002, the Government of India had entered into an MoU with China for five years upon provision of hydrological information on Yaluzangbu /Brahmaputra River during flood season by China to India.	In accordance with the provisions contained in the MoU, the Chinese side is providing hydrological information (water level, discharge and rainfall) to Indian authorities on regular basis. MoUs in this connection are being extended from time to time.
	2) Both the countries also signed a separate MoU on Strengthening Cooperation on Trans-Border Rivers on October 23, 2013.	Can be seen in which inter alia the scope of provision of hydrological information of three hydrological stations has also been enhanced.
B) Memorandum of Understanding on Hydrological Data Sharing on River Sutlej / Langqen Zangbo	During the visit of the Chinese Prime Minister to India in December, 2010, an MoU on provision of hydrological information of Sutlej/Langqen Zangbo River during flood season by China to India was signed with China on December 16, 2010 with a validity of five years.	The Implementation Plan containing technical details of provision of hydrological information, data transmission method and cost settlement etc. in respect of the MoU on River Sutlej was signed between the two countries in April 2011, in Beijing, China.
	During the recent visit of Vice President of the People's Republic of China in November 2015, an MoU has been renewed on November 06, 2015, with a validity of further five years.	Accordingly, implementation plan on River Sutlej signed on April 13, 2016 during the 10th ELM meeting held in New Delhi, India.
C) Expert Level Mechanism (ELM)	During the visit of the President of the People's Republic of China to India in November 20-23, 2006, it was agreed to set up an Expert-Level Mechanism.	To facilitate discussion, interaction and cooperation on provision of flood season hydrological data, emergency management and other issues regarding trans-border Rivers as agreed between them. Accordingly, the two sides have set up the Joint Expert Level Mechanism.
D) Memorandum of understanding on provision of hydrological information of the Brahmaputra river in flood season by China to India	Signed on June 9, 2018, between Ministry of Water Resources, People's Republic of China and Ministry of Water Resources, River Development and Ganga Rejuvenation, Republic of India.	The agreement enables the Chinese side to provide hydrological data in flood season from May 15 to October 15 every year. It also enables the Chinese side to provide hydrological data if water level exceeds mutually agreed level during non-flood season.

season in 2017. In India's Assam state, which suffered record flooding despite below-normal monsoon rainfall, many deaths were preventable.<sup>23</sup> The data denial was apparently intended to punish India for boycotting China's Belt and Road summits and for the border standoff on the remote Himalayan plateau of Doklam.Asia's water crisis, meanwhile, has given rise to grand but environmentally problematic projects such as China's South-to-North Water Diversion Project.<sup>24</sup> China has already completed two of the three legs of the world's most ambitious water transfer program, which is now diverting billions of cubic meters of river waters yearly to its parched north.

### China and India have shown marginal interest thus far in addressing water resource management at a multilateral level given both countries' preferences for bilateralism.

#### Domestic Considerations and Prospects for Multilateral Cooperation

As the middle riparian in the basin, India's concerns from upper riparian China, stand manifested, and further pose challenges, to lower riparian Bangladesh. While Bangladesh's greatest potential threat from the Brahmaputra comes from the outside, the country's most immediate challenges on the river exist within its borders. These challenges are primarily riverbank erosion, floods, and diminished water flow and groundwater availability in the dry season.<sup>25</sup> The country's capacity constraints, dense population, and dependence on external water sources exacerbate Brahmaputra-specific Bangladesh's challenges. Each riparian has national priorities with regard to Brahmaputra. Whereas China finds value in it for hydropower generation, Bangladesh's main domestic challenges encompass managing the physical impacts of the river. While Bangladesh stands to lose the

most from water diversion activities and poor water management from the upper riparian states, its relationship with India is more complicated out of its two bilateral relationships on the Brahmaputra.<sup>26</sup> India's considerations reflect a combination of these interests as well as a desire to promote domestic integration.

The three riparian states have taken modest steps at the bilateral level to cooperate in the Brahmaputra basin, such as limited water data-sharing and government dialogues between technical experts. Multiple options exist to expand cooperation across the basin. Bangladesh is most favorably dispersed to multilateral cooperation while China and India are cautious and selective. Bangladesh is the strongest advocate for basin-wide management of the Brahmaputra, given the cumulative impacts of activities by its upper riparian neighbors and Dhaka's limited capacity to address internal challenges.<sup>27</sup> China and India have shown marginal interest thus far in addressing water resource management at a multilateral level given both countries' preferences for bilateralism.28 Yet neither is opposed. There are precedents and space for New Delhi and Beijing to experiment with pursuing innovative approaches to the Brahmaputra with its neighbors. The only regional, multilateral framework where the three Brahmaputra riparian countries are members of equal status is the Bangladesh-China-India-Myanmar (BCIM) initiative. The BCIM seeks to expand regional connectivity, through investments in infrastructure and resources. This established framework provides a built-in opportunity to cooperate on Brahmaputra issues.<sup>29</sup> However the BCIM has struggled to emerge as a reliable grouping and has limited potential in engaging with issues related to river and water disputes.

There are ongoing discussions among political leaders and other stakeholders on regional multilateral cooperation for water management of the Brahmaputra basin, but very little progress has been made.<sup>30</sup> At the bilateral level, there is a memorandum of understanding (MoU) between India and China<sup>31</sup> and an agreement between India and Bangladesh on hydrological data sharing.<sup>32</sup> In spite of MoUs, neither India nor China has been forthcoming in sharing such

data with its neighbors. For example, China and India share hydrological data on the Brahmaputra River with India and Bangladesh, respectively, only during the flood season. Data sharing does not happen yearround, particularly during the lean period.<sup>33</sup> The 2013 MoU does not include any mechanism of dispute settlement related to data sharing. The overall scope of cooperation can be seen as very narrow, as it limits the legal reach of the MoU to just rivers, excluding other bodies of water.

Additionally, a sustained dialogue (e.g. Brahmaputra Dialogue) process might influence the Brahmaputra's riparian countries to identify common interests related to water and could also encourage India and China to behave as basin leaders rather than basin bullies, thereby leading the way to cooperation. Opportunities to expand cooperation at the multilateral level could include 1) technical exchanges on the development of hydrological tools, disaster management, and pollution control and 2) confidence-building activities through official and unofficial dialogues, especially by international organizations and extra-regional governments.

#### Conclusion

Dam building and other diversions, as has been maintained throughout, are often at the center of tensions and recriminations between states. From an Indian perspective, it is extremely difficult to predict India-China hydro-relations not only because of the uncertainty over the impacts of environmental change on rivers flowing from the Chinese territory to India but also due to the governance system of China that functions by and large in complete secrecy. Amid growing tensions between the two major regional powers, Bangladesh has so far carefully balanced both Indian and Chinese interests in order to benefit from their rivalry. In China's case that has translated into significant economic benefits, with China ramping up investment and trade. With India, however, Bangladesh has not only seen improved economic ties but has also gained negotiating leverage that it once lacked. While India's more conciliatory stance towards Bangladesh is no doubt welcome, the Teesta River issue is likely to remain intractable for the foreseeable future.

More broadly, even as threats to Asia's sustainable water supply are intensifying, geostrategic factors are raising the specter of water wars. While both China and India have the potential to initiate or engage in basin-wide cooperation, both nations primarily take a bilateral approach to trans-boundary rivers. This is another challenge for the Brahmaputra basin where multiple countries are involved. China is willing to pursue multilateralism when it is in its interest to do so and when there is more trust and engagement between China and the countries involved. In this light, its policies towards multilateralism over international river systems vary, and depend on the overall nature of its relations with the other riparian states.

### Author Bio

Anwesha Mohanty is a Research Intern with the Nontraditional Security Center at the Manohar Parrikar Institute for Defence Studies and Analyses (MPIDSA). Her research interests include Environment Politics, Habitat Studies and Human Security Concerns in South Asia . Her latest digital publication was with World Is One News (WION).

### Endnotes

- 1. A Mirumachi, N. "Transboundary water politics in the developing world", New York, NY, 2015, *Routledge*, Taylor and Francis Group.
- 2. Alam, U., Dione, O., & Jeffrey, P., "The benefit-sharing principle: Implementing sovereignty bargains on water", *Political Geography*, 28 (2): 90–100, 2009.
- 3. Zeitoun, M., & Allan, J. A., "Applying hegemony and power theory to trans-boundary water analysis", *Water Policy*, 10(S2), 3–12, 2008.
- Warner, J., Zeitoun, M., & Mirumachi, N., "How 'soft'power shapes trans-boundary water interaction", *In Global Water: Issues and Insights*, Q. Grafton, P. Wyrwoll, C. White and D. Allendes (eds). Canberra: Australian National University Press. 2014.
- Yasuda, Y., Aich, D., Hill, D., Huntjens, P., & Swain, A., "Transboundary Water Cooperation over the Brahmaputra River: Legal Political Economy Analysis of Current and Future Potential Cooperation", *The Hague Institute for Global Justice*. 2014.
- 6. See "China and India, 2006, Joint Declaration by the Republic of India and the People's Republic of China", <u>http://pib.nic.</u> <u>in/newsite/erelease.aspx?relid=22168</u>
- China has built one hydropower dam on the river and has plans for several more. See "China's dam plan in Tibet worries downstream India", *Asia Times*, December 01, 2020, <u>https://asiatimes.com/2020/12/chinas-dam-plan-in-tibet-worriesdownstream-india/</u>
- 8. India's northeast states, primarily concerned about physical impacts of the river, differ among themselves and with the central Government further exacerbating India's threat perceptions and policy quandaries. See Yang Fen, Wenling Wang, et al. 2019, "Dilemmas in and Pathways to Transboundary Water Cooperation between China and India on the Yaluzangbu-Brahmaputra River", *MDPI*, 11 (10), October 8, <u>https://www.mdpi.com/2073-4441/11/10/2096/htm</u>
- 9. Chellaney, B. "Water shortages could trigger Asia conflicts." *Nikkei Asia*, December 30, 2017, <u>https://asia.nikkei.com/</u> <u>Viewpoints/Brahma-Chellaney/Water-shortages-could-trigger-Asia-conflicts</u>
- 10. Liu, Y. "Transboundary water cooperation on the Yarlung/Sangbo/Brahmaputra-a legal analysis of riparian state practice", *Water International* 40(2): 354–374, 2015.
- Instances that can be substantiated include the China–India war of 1962 and their border disputes. See Biswas, A. K. "Cooperation or conflict in transboundary water management: Case study of South Asia", *Hydrological Sciences Journal* 56(4): 662–670, 2015.
- 12. See "China's Twelfth Five Year Plan (2011-2015)", *China Direct*, CBI, <u>https://cbi.typepad.com/china\_direct/2011/05/chinas-twelfth-five-new-plan-the-full-english-version.html</u>
- 13. Ibid.
- 14. "Why India is worried about China's dam projects on the Brahmaputra river." *Economic Times*, October 05, 2016, <u>https://economictimes.indiatimes.com/news/politics-and-nation/why-india-is-worried-about-chinas-dam-projects-on-the-brahmaputra-river/articleshow/54691589.cms?utm\_source=contentofinterest&utm\_medium=text&utm\_campaign=cppst</u>
- 15. Ibid.
- 16. "How China channeled Galwan river to claim territory." *India Today*, June 21, 2020, <u>https://www.indiatoday.in/news-analysis/story/how-china-channelled-galwan-river-to-claim-territory-1691142-2020-06-21</u>
- 17. Chellaney, B., "China Leverages Tibetan Plateau's Water Wealth", *Georgetown Journal of international Affairs*, June 16, 2020 <a href="https://gjia.georgetown.edu/2020/06/16/china-leverages-tibetan-plateaus-water-wealth/">https://gjia.georgetown.edu/2020/06/16/china-leverages-tibetan-plateaus-water-wealth/</a>
- 18. "The muddy Siang: what is happening?", *The Third Pole*, December 13, 2017 <u>https://www.thethirdpole.net/2017/12/13/the-muddy-siang-what-is-happening/</u>
- 19. Ibid., no.7.
- 20. Because this program's highly controversial third leg is to divert waters from rivers flowing to other countries from the Tibetan Plateau, China refuses to divulge any details about it. See "China's South-to-North Water Diversion Project", *Water*

Technology, https://www.water-technology.net/projects/south\_north/

- 21. Ibid., no. 4.
- 22. Table is original. Data used in the table is sourced from the following: 1) "Memorandum of Understanding between the Ministry of Water Resources, the Republic of India and the Ministry of Water Resources, the People's Republic of China on Strengthening Cooperation on Trans-border Rivers", Ministry Of External Affairs, October 23, 2013, <u>https://mea.gov.in/bilateral-documents.htm?dtl/22368</u>; 2) "India China sign Bilateral Agreements In Qingdao," *Ministry Of External Affairs*, June 09, 2018. <u>https://www.mea.gov.in/bilateral-documents.htm?dtl/29966/IndiaChina Bilateral Agreements signed in Qingdao China</u>;3) "India-China Cooperation," Department of Water Resources, River Development and Ganga Rejuvenation, *Government of India*, <u>http://jalshakti-dowr.gov.in/international-cooperation/bilateral-cooperation-with-neighbouring-countries/india-china-cooperation</u>
- 23. "Water shortages could trigger Asia conflicts." *Stagecraft and Statecraft*, December 31, 2017, <u>https://chellaney.net/2017/12/31/</u> water-shortages-could-trigger-asia-conflicts/
- 24. The South-to-North Water Diversion Project in China is the largest of its kind ever undertaken. The project involves drawing water from southern rivers and supplying it to the dry north. The complete project is expected to cost \$62billion—more than twice as much as the country's controversial Three Gorges Dam.Historically this has led to the over-exploitation of groundwater—often supplying urban and industrial development at the expense of agriculture—leading to severe water shortages in rural areas. In addition, land subsidence and the region's frequent sandstorms have also been linked to the excessive use of groundwater. See "China's South-to-North Water Diversion Project." *Water Technology*, <a href="https://www.water-technology.net/projects/south\_north/">https://www.water-technology.net/projects/south\_north/</a>
- 25. Roy, Shubhajit, "Explained: China twist in the India-Bangladesh Teesta river challenge." *Indian Express*, August 26, 2020, https://indianexpress.com/article/explained/china-twist-in-teesta-river-project-challenge-6563398/
- 26. "China plans dam on Brahmaputra: How it may impact India, Bangladesh." *Times of India*, December 2, 2020. https://m.timesofindia.com/india/china-plans-dam-on-brahmaputra-how-it-may-impact-india-bangladesh/amp\_articleshow/79528597.cms.
- 27. Sleet, P., "Bangladesh a Winner in India-China Rivalry but Water Dispute Settlement is Still a Long Way Off", *Future Directions International*, October 28, 2020, <u>https://www.futuredirections.org.au/publication/bangladesh-a-winner-in-india-china-rivalry-but-water-dispute-settlement-is-still-a-long-way-off/</u>
- 28. "India, China Sign Two MoUs on Sharing of Brahmaputra River Data, Rice Supply." *The Wire*, June 9, 2018, <u>https://thewire.</u> in/uncategorised/india-china-sign-two-mous-on-sharing-of-brahmaputra-river-data-rice-supply
- 29. The BCIM Economic Corridor is the most promising existing framework for multilateral cooperation on the Brahmaputra. Beginning cooperative efforts on water resources could pave way the way for a new entry—possibly a Brahmaputra Basin Commission—through which a water management and development accord could be designed and implemented. See "India support crucial for BCIM economic corridor." *Global Times*, July 8, 2019, <u>https://www.globaltimes.cn/content/1157204.shtml</u>
- 30. Bandyopadhyay, J., "A critical look at the report of the world commission on Dams in the context of the debate on large Dams on the Himalayan Rivers." *International Journal of Water Resources Development* 18(1): 127–145, 2002.
- 31. The 2013 MoU, which was signed after the expiry of the 2007 agreement on the Provision of Hydrological Information on the Yarlung Zangbo/Brahmaputra River in Flood Season by China to India. See "China and India, 2006, Joint Declaration by the Republic of India and the People's Republic of China." <u>http://pib.nic.in/newsite/erelease.aspx?relid=22168</u>
- 32. See "India & Bangladesh, Statute of Indo-Bangladesh joint river commission." 1972, <u>http://www.internationalwaterlaw.org/</u><u>documents/regionaldocs/indo-bangladesh.html</u>
- 33. See "China and Bangladesh, Memorandum of understanding upon provision of hydrological information of the Brahmaputra/Yalunzangbu River in flood season by China to Bangladesh." 2006, <u>http://shlx.chinalawinfo.com/newlaw2002/</u> <u>SLC/SLC.asp?Db=eag&Gid=100670807</u>