



CSEAS, GU OCCASIONAL PAPER No.1

Geopolitics of Water and India-China Ties

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Published on : June, 2020

Published by : Centre for South East Asian Studies
Gauhati University, Gopinath Bardoloi Nagar,
Guwahati, Assam- 781014
Email: cseasgu@gmail.com
Website: www.cseasgu.in

Printed at : Arindam Offset & Imaging Systems
Rajgarh, Guwahati-3



Geopolitics of Water and India-China Ties

Any prospect of a standoff between India and China would less likely hinge on Tibet than over the control of trans-Himalayan water resources. This is the stark reality. And, as the economies of both India and China grow, the need to control water resources has assumed greater significance and will potentially risk heightening of geopolitical conflict in the Himalayas.

Previously deemed too remote to exploit, the Chinese have been lately looking at Tibet's primordial water resource to solve the country's numerous dilemmas. According to Chinese sources, the Tibet Autonomous Region (TAR) alone is said to be having 354.8 billion cubic meters (BCM) of surface water resources (13.5 percent of the nation's total) and 330 BCM of glacial water resources.¹ The figure is 448.2 BCM according to the Tibetan government-in-exile in Dharamshala.²

What concerns India is the annual flow of estimated 354 BCM water from Tibet into India, of which 131 BCM is accounted for by the Brahmaputra.³ The fear has been

that China is seeking a water-diversion plan by damming the Tsangpo (Brahmaputra) at the Great Bend at Shuomatan Point as a bumper solution to tap the water and divert it towards the north.

In August 2006, the news of China's river plan sent shockwaves in India especially in Assam and Arunachal Pradesh.⁴ Some Western writers were convinced that work had already begun.⁵

The news of China building a 510 MW hydro-electrical project at Zangmu was confirmed in March 2009. The Indian government was then trying to ascertain the fact. But India's own National Remote Sensing Agency (NRSA) confirmed that the construction was indeed underway. Indian intelligence agency, National Technical Research Organisation (NTRO), had even claimed that it had alerted the Government in May 2008 about the project 'moving from discussion to planning stage'.⁶ It had pinpointed activities on nine suspected locations near the Great Bend on the Chinese side.

1. "China through a Lens", <http://www.china.org.cn/english/features/67817.htm> (Accessed on March 3, 2020).
2. "Water Security for India: The External Dynamics", IDSA Task Force Report, New Delhi, 2010, p. 44, quoted from DIIR publication, <http://www.tibet.net/en/pdf/diirpub/environment/4/chap-2.pdf>.
3. Ibid., p.44.
4. Indrani Bagchi, "China's River Plan Worries India", The Times of India, October 23, 2006; "Opening the Sluice-gates of Controversy", Financial Times, November 8, 2006.
5. Arthur Thomas, "Diverting the Brahmaputra: Start of the Water Wars?", On Line Opinion: Australia's e-Journal of Social and Political Debate, May 2, 2008, <http://www.onlineopinion.com.au/view.asp?article=7310&page=0> (Accessed on March 5, 2020).
6. "Brahmaputra Dams: Govt Was Alerted, Didn't Move", Indian Express, October 17, 2009.



Beijing said it was a run-of-river project and assured New Delhi that the dam would not impact downstream flow of the river. However, China's actions since then have caused confusion and even sparked off an emotive public response in India. What has added to India's edginess has been China's opaque position on the matter. The official Chinese organs though denied the diversion project but its hydropower lobby was then seen pressing for a mega project to meet China's water woes.

Diversion Plans

Surely, the diversion plan had been on the drawing board of Chinese planners for several decades. Chinese hydrologist Guo Kai was the first to moot the idea of Shuo-tian (reverse flow) plan to divert Brahmaputra⁷ water to end chronic water shortages in China's north and northwest regions. The idea inspired others, such as the former PLA officer Li Ling who wrote a book in 2005, *Tibet's Water Will Save China*.⁸ This resulted in Jiang Zemin issuing a vision document 'xibu da kaifa' (Great Western Extraction) in 1998 that gained support from 118 PLA Generals,

politburo members, NPC deputies and the engineering community.⁹ Since then, hundreds of media reports, op-eds and anecdotes have been making the rounds in support of the diversion project.

The diversion idea gained new currency in the mid-2000s possibly because of China's growing domestic water crisis arising from the industrial upsurge. It appeared as if water would become a potential catalyst for domestic turmoil in China at some stage. The stakes were huge as the Chinese also desired to turn millions of arid hectares into arable land.¹⁰

The diversion project was part of China's \$62-billion South-North Water Transfer Project (SNWTP), a dream of Chairman Mao Zedong that was given the go-ahead in 2002.¹¹ The aim was to send 45 BCM of water annually from the Yangtze and Yellow Rivers to the arid north.¹²

The first phase of the SNWTP was completed in March 2013. The middle route was to feed water to the north by 2014. A section of the route was completed to meet water requirements during the Beijing Olympics.¹³ The third stage involves

7. Xhau Wei, "Divided Waters in China", *Chinadialogue*, 2011, <https://www.chinadialogue.net/article/4539-Divided-waters-in-China> (Accessed on March 6, 2018).
8. Cited by Jesper Svensson, "Managing the Rise of a Hydro-Hegemon in Asia China's Strategic Interests in the Yarlung-Tsangpo River", *IDS Occasional Paper No. 23*, April 2012, p. 23.
9. Claude Arpi, "Water War in South Asia? Brahmaputra: Dam and Diversion", *South Asia Politic*, October 2003.
10. Read more about the project from the site of the Bureau of South-to-North Water Transfer Planning and Design Ministry of Water, <http://www.mwr.gov.cn/english1/20040827/39304.asp> (Accessed on March 16, 2018).
11. Emma Young, "China Approves Colossal River Diversion Plan", *NewScientist.com News Service*, November 26, 2002.
12. Scott Moore, "Issue Brief: Water Resource Issues, Policy and Politics in China", *The Brookings Institution*, February 12, 2013 (Accessed on October 23, 2018).
13. Kevin Holden Platt, "China Diverting Major River to 'Water' Beijing Olympics", *National Geographic News*, February 28, 2008.



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the Tsangpo's diversion. The aim was to build a dam for generating 40,000 MW of hydropower and to divert 200 BCM water annually to the north.

The news reports of the Brahmaputra's diversion suddenly came into the limelight following the completion of the Qinghai-Tibet railway in 2006. Even while the Indian government had adopted a cautious approach, the media and a section of think-tank experts set the alarm bell ringing.

It was difficult to ascertain the status of the diversion plans because of conflicting information from different sources.¹⁴ But media reports suggested the project would involve an enormous engineering complexity on the scale of the Tibet railway and the Three Gorges Dam.¹⁵

An imaginary threat perception was built about China's manipulation of the river as a subtle coercive measure if not a politico-military tool vis-à-vis India.¹⁶ Such perceptions might have emanated from the

Western world, though Indian pundits like Brahma Chellaney argued that the building of dams on the headwaters of the Brahmaputra, and the Indus “implies environmental devastation of India's Northeastern plains and thus be akin to a declaration of water War”.¹⁷

Similarly, Tibet activists such as Claude Arpi have been pushing the argument that if China goes ahead with the diversion project it would risk India's national security and would practically be considered a 'declaration of war' against India.¹⁸

Abruptly, an old report of China's plans to use nuclear explosives to divert the river that had originally appeared in the *Scientific American* in June 1996 was pulled out in an attempt to tantalize the issue.¹⁹ Scores of articles have been giving credence to the publication along with other such study reports that originated from the West.²⁰

14. Jessica Williams, “The International Implications of China's Water Policies”, E-International Relations, February 15, 2013 (Accessed December 15, 2018)
15. The Tsangpo gorge is eight times steeper and three times larger than the Colorado in the Grand Canyon. It makes a dramatic U-turn towards India at The Great Bend. It descends 3,000 meters in just 200 kilometres thus making it the greatest hydropower potential in the world. It has a generating capacity of 67,000 megawatts.
16. Brahma Chellaney, “China-India Clash Over Chinese Claims to Tibetan Water”, *The Asia-Pacific Journal*, Japan Focus, July 3, 2017.
17. Quoted by Jonathan Holslag, “Assessing the Sino-Indian Water Dispute”, *Journal of International Affairs* Vol. 64, No. 2, Sino-Indian Relations (SPRING/SUMMER 2011), pp. 19-35, published by Journal of International Affairs Editorial Board, <https://www.jstor.org/stable/24385532> (Accessed on 12 March, 2018).
18. Claude Arpi, “Diverting the Brahmaputra, Declaration of War?” *Rediff Special*, October 23, 2003.
19. “Peaceful Nuclear Explosions”, *Scientific American*, June 1996, http://www.sciamdigital.com/index.cfm?fa=Products.ViewIssuePreview&ARTICLEID_CHAR=2D0B01AD-FC0F-45C4-B084-0A8DC1C060E (Accessed on June 6, 2018).
20. Read more on this subject from the blog: Claude Arpi, “The Feasibility of Diverting the Brahmaputra”, March 17, 2014, <http://claudearpi.blogspot.com/2014/02/the-feasibility-of-diverting-brahmaputra.html> (Accessed on June 6, 2018).



In fact, Indian media reported that the Chinese conducted several nuclear blasts near the Great Bend in 2005. No details were found but the Indian government had shared the information with the then American defence secretary, Robert Gates, in 2008 who had admitted the complete failure of US satellites in detecting the blasts.²¹ According to the report, China's plan for building a 200-km-long canal passing through Mount Namcha was first presented by experts in December 1995 at the Chinese Academy of Engineering Physics.

The Great Bend and Other Projects

One cannot ignore the point of the Tibetan mythological angle.²² The area around the Great Bend is called as Tsari (Pure Crystal Mountain) and Pemakö (Array of the Lotus).²³ This is considered a sacred mountain and major pilgrimage site for the Tibetans – among the three holiest places along with Mount Kailash and

Lapchi. The area has significance to the Tibetan Buddhists as the abode of Tantric protector deity, Dorjee Phagmo (Vajrayogini).

Intensification of other large-scale infrastructural projects, including roads, railways, airports, and dams on the Tibetan Plateau, also meant increased thrust on India along the borders. In fact, such media reports²⁴ have continued to come as recently as in 2017 that tunnels were being tested to transfer water from the Yarlung Tsangpo to Tarim Basin in Xinjiang, although China denied such a plan on account of engineering difficulties and high-cost implications.²⁵

But what really heightened Indian edginess included China's ravenous exploitation of the Himalayan Rivers having perilous downstream impact. Fears were raised that the Great Bend was at a geologically fragile knick-zone with very rapid bedrock exhumation rates.²⁶ The seismic rate

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21. "China Conducted 3-4 Nuclear Blasts in Tibet in 2005 to Divert Brahmaputra", Times of India, August 29, 2013.
 22. Water is adding to China's conflict with the Tibetans. The Dalai Lama has been deploring China's water plans.
 23. Elizabeth McDougal, "Drakngak Lingpa's Pilgrimage Guides and the Progressive Opening of the Hidden Land of Pemakö", https://www.academia.edu/25285911/Drakngak_Lingpas_Pilgrimage_Guides_and_the_Progressive_Opening_of_the_Hidden_Land_of_Pemak%C3%B6 (Accessed on March 6, 2019).
 24. Stephen Chen, "Chinese Engineers Plan 1,000km Tunnel to Make Xinjiang Desert Bloom", South China Morning Post, October 29, 2017.
 25. "China Denies Report of Tunnel Plan to Divert Brahmaputra River", http://economictimes.indiatimes.com/articleshow/61357594.cms?from=mdr&utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst (Accessed on July 9, 2018).
 26. Peter Zeitler, Anne Meltzer, Brian Zurek, Lucy Brown, Noah Finnegan, Bernard Hallet, Page Chamberlain, William Kidd, and Peter Koons, "Surface-tectonic Coupling at the Namche Barwa-Gyala Peri Massif and Geologic Hazards Associated with a Proposed Dam on the Yarlung-Tsangpo River in SE Tibet", *Himalayan Journal of Sciences (Online)*, Vol. 5, No. 7, September 2008
<http://www.nepjol.info/index.php/HJS/article/view/1348/1328> (Accessed on June 8, 2017).



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beneath the massif is believed to be exceptionally active.²⁷ In case of an earthquake, there could be ominous consequences for millions living in downstream areas.

Other fears include upland diversion offsetting the silt and nutrient-rich sediments-flux that could affect livelihoods of riparian areas, apart from destroying the biodiversity of the downstream Assam plains and Bangladesh's delta. It would also cause the sea water to encroach.²⁸

The fear that it would enhance Chinese engineering capability to turn the taps on or off, leaving India at the mercy of China to release water during the off season, and for prevention of floods during the monsoons cannot be ignored.

From India's perspective, China is entitled to take up any upstream projects, so long as the existing flow of 79 billion cubic meters (BCM) water into India remains unimpeded. Most of the Brahmaputra's catchment area, providing annual average

runoff of 585.60 BCM, almost 80 percent, falls within Arunachal Pradesh.²⁹ The volume becomes 10 times higher during the monsoon. Allowing China to divert a constant volume of water during that period could help mitigate floods in India and Bangladesh. Non-consumptive exploiting of water by China for power generation may also be beneficial for India, as the flow is expected to increase by 10-20 percent during the dry season.

But India's key concerns stemmed from environmental threats. Suspicions and fears have also been caused by sudden rise and fall of water levels of Brahmaputra. There have been also reports of increasing incidents of landslides and deluge in the Himalayan rivers.

Until 2005, India was unaware about the Zada dam on the Sutlej basin and even appeared clueless when the Chinese announced they were building dams at Dagü, Jiacha, and Jiexu. In 2000, Pare-Chu deluge created havoc in Sutlej, leaving a trail of destruction.³⁰ The cause of June 2000 floods in Arunachal Pradesh is still not

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27. The abstract of the study "Surface-tectonic Coupling at the Namche Barwa – Gyala Peri Massif and Geologic Hazards Associated with a Proposed Dam on the Yarlung-Tsangpo River in SE Tibet" presented at the 23rd Himalayan-Karakoram-Tibet Workshop held in 2008 in India summed up by stating that any dam placed there would be at high risk due to pronounced seismic hazards and focused deformation. Peter Zeitler, Anne Meltzer, Brian Zurek, Lucy Brown, Noah Finnegan, Bernard Hallet, Page Chamberlain, William Kidd, & Peter Koons, *Himalayan Journal of Sciences*, Vol. 5, No. 7, September 2008, 10.3126/hjs.v5i7.1348.
 28. "Fresh water flow is decreasing...upland diversion of water impacting on agriculture due to desertification", according to Quamrul Islam, former Chairman of the Global Water Partnership, South Asia. Sarah Stewart, "Asian Rivers Being Choked by Detritus of Breakneck Development", AFP, February 22, 2007, http://www.spacedaily.com/reports/Asian_Rivers_Being_Choked_By_Detritus_Of_Breakneck_Development_999.html (Accessed on June 5, 2017).
 29. Central Water Commission, <http://cwc.gov.in/water-info#3> (Accessed on June 5, 2017).
 30. "Raging Sutlej Threatens Kinnaur", Pioneer News Service, June 28, 2005.



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known. Probably, more such hydropower projects may have come up in the Sutlej tributaries.³¹ Also, little is known about Shiquanhe and Zhikong projects on the Indus. Locals have observed the Singe-Tsangpo too has been tapering over the years. Therefore, fear remains that the Chinese would be able to repeat manipulation of water flow into India at a much bigger scale.

India managed to sign a Memorandum of Understanding (MoU) with China on data sharing on over trans-boundary rivers in 2002 and an Expert-level Committee was set up in 2006 for monitoring hydrological activities along the trans-border rivers.³² In 2014, a new provision for sharing data twice a day from May 15 to October 15 was added.³³

However, it is not clear whether these mechanisms have fully mitigated the problems including those of floods. In fact, Beijing has been at times showing reluctance to exchange data with India.

During the Prime Minister's visit to China in 2008, Beijing only assured the 'protection and rational use' of water

resources in the trans-Himalayan rivers.³⁴ It also refused India's requests to set up two additional hydrological monitoring stations for the Brahmaputra.

The diversion threat since then has become a recurring theme of debate in India and also in Bangladesh,³⁵ but certainly not serious enough to become a central agenda point of the India-China ties. The Indian government appeared hesitant to raise the issue forcefully with Beijing. At the same time, it never tried to push the issue aside either.

For the first time, the issue featured in the Indian official strategic thinking in 2008 when the then External Affairs Minister, Pranab Mukherjee, was outlining India's security challenges at the National Defence College. He said that China was a security 'challenge and a priority' and not as an opportunity. He admitted that India was not fully equipped to deal with the challenges that China poses. Importantly, he cited an instance that "during Prime Minister Manmohan Singh's visit to China

31. The character of silt in the Sutlej has changed and is causing problems for the Nathpa Jhakri Project in HP.

32. In 2002, India and China signed a MoU for sharing of hydrological information on Yaluzangbo/Brahmaputra River. The Chinese side is providing hydrological information (water level, discharge and rainfall) in respect of three stations, namely Nugesha, Yangcun, and Nuxia, located on river Yaluzangbo/Brahmaputra from 1 June to 15 October every year. The data are utilized in formulation of flood forecasts by Central Water Commission. A similar agreement for hydrological data on Sutlej (Langqen Zangbo) was signed in 2005.

<http://wrmin.nic.in/printsearchdetail1.asp?skey=china&lid=372> (Accessed on June 9, 2017).

33. "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", Indian Ministry of External Affairs, October 23, 2013.

34. "Chinese Assurance on Trans-border Rivers", Times of India, January 15, 2008.³⁵ Experts and environmentalists felt that Bangladesh would turn into a desert if the water flow of Brahmaputra is diverted. Read "China Plans to Divert Brahmaputra Waters", <http://www.bangladeshnews.com.bd/2007/05/08/china-plans-to-divert-brahmaputra-waters/> (posted on May 8, 2007), (Accessed on June 5, 2017).

35. Experts and environmentalists felt that Bangladesh would turn into a desert if the water flow of Brahmaputra is diverted. Read "China Plans to Divert Brahmaputra Waters", <http://www.bangladeshnews.com.bd/2007/05/08/china-plans-to-divert-brahmaputra-waters/> (posted on May 8, 2007), (Accessed on June 5, 2017).



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in October 2008, he told journalists that his conversation with Chinese President Hu Jintao focused a lot on the future of trans-border rivers...While India does not articulate this concern often, it's clearly very high priority.”³⁶

Yet, there was certainly no evidence of the Chinese diverting the waters of the Brahmaputra. Successive Indian governments continued to allay fears of Chinese projects affecting India's water usage. In November 2009, Indian External Affairs Minister, S.M Krishna, clarified in the Parliament that “China is a responsible country and would never do anything to undermine any other country's interests.”³⁷

In April 2010, China finally admitted to building a hydropower project on the Brahmaputra. The reports suggested that the 510 MW Zangmu run-of-the-river project was being built by China's Gezhouba. The Chinese admission, however, came against the need for cooperation from India at the 2010 climate summit at Cancun.

However, when Prime Minister Manmohan Singh proposed a joint mechanism for verification in March 2013 at Durban, President Xi Jinping gave no

clear answer except reiterating that China would bear in mind its responsibilities and the interests of riparian states.

A Threat Multiplier

Indian apprehensions further grew when, in 2013, China completed a vital Medog motorway in Nyingchi Prefecture – 30 kilometres from the Indian border in Arunachal Pradesh.³⁸ Obviously, China's assurances had been taken with a pinch of salt. In 2013, an inter-ministerial panel report had asked the government to closely monitor China's plan for a series of cascading run-of-river projects in the middle reaches of the river. Again, in February 2014, the then External Affairs Minister, Salman Khurshid, admitted that the ministry of water resources has been asked to verify whether the dams built on Yarlung are run-of-river or storage dams.³⁹

In December 2015, the then External Affairs Minister, Sushma Swaraj, responded to a question in the Parliament by stating that the “Government, in close cooperation with various State Governments, continues to carefully monitor the water flow in river Brahmaputra for early detection of abnormality so that corrective and preventive measures are taken to safeguard livelihood of peoples of these States of Union of India.”⁴⁰

36. “Finally, Pranab Calls China a Challenge’, Times of India, November 5, 2008.

37. Ibid.

38. Ma Danning, “A Lifeline to Tibet's Medog County”, chinadaily.com.cn, October 21, 2014. Medog was the last county in China to have a road. Highway construction to Medog had begun in 2008. Medog (lotus flower) is located on the southern slope of the Namjagbarwa Peak. Monba and Luoba living in Medog are akin to Cona Monba in Arunachal. Nyingchi's seven counties: Nyingchi, Mainling, Gongbo'gyamda, Medog, Bome, Zayaand Nang.

39. Amitava Mukherjee, “China and India: River Wars in the Himalayas”, Geopolitical Monitor, April 2014, p.1 (Accessed on June 16, 2018)

40. See Question No.52: Dam on Brahmaputra by China, Rajya Sabha, December 3, 2015 (Accessed on January 17, 2019).



The same reply was repeated on December 26, 2018, by the Minister of State for External Affairs, as he also said that the Government has consistently conveyed its views and concerns to the Chinese authorities, including at the highest levels, and has urged them to ensure that the interests of downstream states are not harmed by any activities in upstream areas.⁴¹ He informed the House that “the Chinese side has conveyed that they are only undertaking run-of-the-river hydropower projects which do not involve diversion of the waters of the Brahmaputra.”

The government reassured that various issues relating to trans-border rivers are discussed with China under the ambit of Expert-level Mechanism and under the MoU on sharing hydrological data that was renewed in June 2018.⁴²

The Zangmu dam was completed in 2015, but three more dams are currently under construction at Dagu (640 MW), Jiacha (320 MW) and Jeixu.

However, the threat of an imminent water-war is a premature assessment because there is no evidence of China having given approval for the river-diversion projects.

However, India does have a genuine strategic concern for the reason that China could possibly link the water issue to a border settlement.

In fact, soon after India and China signed the Strategic Partnership Agreement in 2006, a prominent Chinese writer, Wang Weiluo, asked a provocative question in an article: “The Chinese government's desire to solve its northern water shortages depends on projects that in the long term will require the use of water resources currently under the de facto control of India. I can only ask our policymakers, what should China do?”⁴³

The contention of Wang Weiluo's statement meant that the actual catchment area of the Tsangpo basin (92,000 square kilometres) falls under the de facto Indian control, hence going ahead with the SNWTP is meaningless. During the same year, the Chinese Ambassador to India, Sun Yuxi, made the assertion that “in our position, the whole of what you call the state of Arunachal Pradesh is Chinese territory ... we are claiming all of that.”⁴⁴ Since then, China's position on Arunachal Pradesh has only hardened. The fear of water becoming a threat multiplier thus

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41. Question No. 2520: Dam on Brahmaputra by China, Lok Sabha, December 26, 2018 (Accessed on January 17, 2019).
 42. “China Begins Sharing Crucial Brahmaputra Data”, Hindustan Times, May 17, 2018; also see “India China Sign Two MoUs on Sharing of Brahmaputra River Data and Supply of Non-Basmati Rice”, PTI, June 9, 2018.
 43. Wang Weiluo, “Water Resources and the Sino-Indian Strategic Partnership”, 45 China Rights Forum No. 1, 2006, https://www.hrichina.org/sites/default/files/PDFs/CRF.1.2006/CRF-2006-1_Water.pdf (Accessed on March 5, 2019).
 44. “Arunachal Pradesh is our territory: Chinese envoy”, <https://www.rediff.com/news/2006/nov/14china.htm> (accessed on December 23, 2018).



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draws merit.

In fact, the occasional flaring up of dispute along the border tends to overshadow the sharing of hydrological data. For example, China went ahead to sign the extension of the 2002 MoU on data sharing even after the border-incursion incident in the Depsang Plain in 2013. However, it stopped sharing hydrological data in 2017 after the 73-day long Doklam standoff.⁴⁵

While the Chinese side cited technical reasons such as the upgradation of hydrological stations, Bangladesh continued to receive discharge-level data of the Brahmaputra from China. China resumed providing hydrological only after Prime Minister Modi and President Xi held detailed discussions on bilateral and global issues at their informal summit in Wuhan in May 2018. While refusing to share data during the Doklam border standoff, China demonstrated its intentions to use water for political leverage.

The runoff of 629 BCM water on the Indian side provides a huge potential for hydropower and irrigation schemes. Logically and to pre-empt any future move by China, India will have to start building

storage capacities if it wishes to strengthen its rights on the Brahmaputra downstream. Otherwise, China would have a right to divert the water.

India has commenced construction of 14 hydropower projects in Arunachal Pradesh as an effort to establish its 'lower riparian right' to counter China's first-use priority rights. However, except for one project, other projects continue to remain stuck due to non-issuance of required environmental clearances.⁴⁶

An interesting observation made by a journalist was that “while the concerns regarding Chinese diversion plans may be genuine, India also maintains the 'China threat' to a certain extent to veil its own administrative lapses and justify dam-building activities to its domestic audience.”⁴⁷

Nothing much can be done on the matter as China is not a signatory to any important treaty governing trans-border management. There are some international laws, but China would not abide by them.⁴⁸ Beijing has refused to join the Mekong River Commission. China has also not ratified the UN Convention on Non-Navigable Use of International

45. Navin Singh Khadka, “China and India Water 'Dispute' after Border Stand-off”, BBC World Service, September 18, 2017.

46. Anil Sasi, “As Clearances Turn into Hurdles, Brahmaputra Edge Lost to China”, The Indian Express, <https://indianexpress.com/article/india/india-news-india/as-clearances-turn-into-hurdles-brahmaputra-edge-lost-to-china/> October 21, 2015, (Accessed June 20, 2018).

47. Sonali Mitra, “The Brahmaputra Conundrum”, Indian Express, December 4, 2017.

48. According to Joseph W. Dellapenna, there is an international agreement that “only riparian nations – nations across which, or along which, a river flows – have any legal right, apart from an agreement, to use the water of a river”, UNESCO Courier, “Custom-Built Solutions for International Disputes”, as quoted by Roman Kupchinsky, “World: Water Could Become Major Catalyst for Conflict”, September 16, 2005, <https://www.rferl.org/a/1061446.html> (January 20, 2019).



Watercourses (1997), which requires the states to share information relating to the use of international water courses. But, China believes the Convention adequately takes care of the interests of upstream states. But underlying intentions of both China and India of not signing the UN Convention is driven by geopolitical considerations.⁴⁹

As a result, other riparian states too are worried about China's plans. The Xiaowan dam on the Mekong has been stirring up passions across Southeast Asia. Last to join the chorus is Myanmar, vehemently opposing China building the Myitsone mega-dam on the upper Irrawaddy. The project could potentially rupture China's longstanding bonhomie with Myanmar. In Central Asia, diversion of several trans-border rivers, including Illy and Black Irtysh by China, have caused concerns. Tragically, the countries like Kyrgyzstan, Kazakhstan, and Tajikistan neither have the courage nor a public protest culture to raise their voice against China.

Currently, India has very little leverage with China. The only option is diplomacy – but in most cases, diplomacy has failed due to suspicions emanating from a host of contentious bilateral and international issues. Past experiences have shown that a denial by China cannot be taken seriously. Even if an agreement is signed, there is no

guarantee that China will honour it.

While many experts suspect that the reason for China's gesture for cooperating to share hydrological data with India is only part of its political strategy of portraying an image of a 'responsible neighbour'. From China's perspective, it has no obligation at all, but is doing it out of a sense of 'trust'.⁵⁰ So, essentially cooperation with India remains a goodwill gesture from the Chinese side.

Clearly, both China and India will be water-stressed in the coming years because of the rising demand for food security and clean drinking water. Even if China does not go ahead with the project, cross-border tensions over water seem likely as China builds more reservoirs for drinking supplies.

The way out should be to prevent water from becoming a catalyst for future conflict. In the absence of a treaty or some other protective mechanism, water issues could become a destabilizing factor especially when unilateral actions are undertaken by one side.

It becomes more challenging when the countries sharing common rivers carry unresolved political issues. While border disputes are generally of great significance, water becomes a matter of life and death. But in the case of India–China, both the problems seem intertwined. It is here that China's persistent claim over Arunachal

49. Beth Walker, "India and China Ignore UN Watercourses Convention", China Dialogue, August 18, 2014 (Accessed on January 30, 2019).

50. 'China Admits to Brahmaputra Project', <http://www.2point6billion.com/news/2010/04/22/china-confirms-brahmaputra-river-projects-5423.html> (Accessed on April 22, 2010).



Pradesh seems linked to its water agenda, especially in terms of seeking to leverage its position over boundary negotiation. In fact, Chinese planners had conducted the Tsangpo's feasibility studies project when India–China relations had already entered into a higher gear.

Hydro-related infrastructure in Tibet would enhance China's military capability that would finally enhance China's manoeuvrability of negotiating on the boundary issue. Therefore, some security analysts have suggested that disputes over water potentially tend to become a 'threat multiplier' in fragile regions.⁵¹

The Indus

The Himalayan river conflict is also potentially exacerbated by the strategic nexus between China and Pakistan. In fact, little is known about Chinese hydro projects on the Singge-Khabab Tsangpo or the Indus.

What is being widely reported is that China has built a dam on the Indus opposite the Indian border point of Demchok. It was first reported by Alice Albinia, a British journalist and author of the book, *Empires of the Indus*, as a hydroelectric installation. It seems the Sengye Tsangpo Hydropower Station located in Ali produces 6,400 kilowatts of power.

Ali town (Gar) is a major military settlement. It is surrounded by arid land. The storage of water is, therefore, essential

for irrigation and agriculture. Gar is the capital of Ngari Prefecture that borders the Aksai-Chin and Demchok areas of Ladakh. The area is strategically located on the Tibet-Xinjiang Highway and critical for the Chinese military to manage deployments on the border with Ladakh, Aksai-Chin, Himachal Pradesh, Uttarakhand, and Nepal. It is suspected that more dams will be built in the area with the aim to promote tourism because of its location near the Mount Kailash, a favourite destination for both religious and adventure tourists. In the coming years, Gar is likely to become a major hub for air connectivity for flights to Kashgar, Lhasa, Chengdu, and other major cities in western China.

People in Ladakh have observed the Singge-Tsangpo too has been tapering over the years. Therefore, fear remains that the Chinese would be able to repeat manipulation of water flow into India at a much bigger scale.

In fact, a more serious matter was earlier reported by Western commentators. This relates to the possible diversion of water from the Indus river in western Tibet to the Tarim Basin in Xinjiang to become a part of China's grand Western Diversion Route.

Claude Arpi wrote a piece about a smaller 'pilot' project to divert the Indus River towards Xinjiang.⁵² The main conclusion is that the diversion will help maintaining long-term stability in Xinjiang.

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51. Gareth Evans, "Conflict Potential in a World of Climate Change", International Crisis Group, August 29, 2008, <https://www.crisisgroup.org/global/conflict-potential-world-climate-change> (Accessed on June 4, 2017).
52. Claude Arpi, "Diverting the Indus River to Xinjiang: A 'Pilot' Project!", Foundation for Non-Violent Alternatives, December 13, 2014, <https://fnvaworld.org/portfolio-item/diverting-the-indus-river-to-xinjiang-a-pilot-project/> (Accessed on August 10, 2018).



In 2015, Arpi reported yet another proposal for diverting the Yarlung Tsangpo or Brahmaputra to Xinjiang that was mooted by about 20 scholars of the Urumqi Xinjiang University of Finance and Economics. Arpi quoted a Professor from the University, Ren Qunluo, as saying, “Water from rivers such as the Yarlung Zangbo River can help turn the vast deserts and arid lands into oasis and farmlands, alleviate population pressure in the east, as well as reduce flood risks in the countries through which the river travels downstream.” Ren Qunluo was quoted in the *Global Times* saying, “Xinjiang has 1.1 million square kilometers of plains, but less than 70,000 square kilometres are not arable due to a shortage of water. If all these plains are greened, another China will have been created.”⁵³

A concern for India is that the Indus Waters Treaty it has signed with Pakistan involves the China factor even though China is not a party to the Treaty. In fact, this makes it geopolitically more threatening than the Brahmaputra.

Much has been said about India possibly making a case for the abrogation of the Indus Water Treaty or blocking the flow of water to Pakistan from its eastern rivers in order to punish it for abating terrorism in India. There have been no responses officially from China in this regard. But Beijing has been quietly sending subtle messages to India through think-tanks and

conversations on the cocktail circuit that any alteration to the Treaty to punish its friend Pakistan will entail consequences for India as well.⁵⁴

What it means is that China will be under no obligation to allow water from the Indus or Sutlej rivers to flow should India abrogate the Treaty with Pakistan. Inevitably, any such action by China would mean that a large area of north India will be deprived of water and this would also impact the flow into the Bhakra dam, the Karcham Wangtoo hydroelectric project, and the Nathpa Jhakri dam, all of which generate colossal amounts of electricity.

Alarming reports have emerged indicating rapid depletion of the Himalayan cryosphere or its glacier space due to climate change. According to recent reports, rising temperatures would lead to the Himalayas losing two-thirds of its glaciers by 2100.⁵⁵ As a result, countries will be 'stressed' for water, and it will be water, not oil, which could become the world's next biggest catalyst for conflict.

It is here that India and China would feel the greatest impact. Some interesting observations in this regard have been made by Geoff Dabelko, Director of Environmental Change and Security Program at the Woodrow Wilson International Center for Scholars in Washington, D.C., that “Water is seen as a strategic asset for China...nearly two

53. Claude Arpi, “Diverting the Indus ... or the Yarlung Tsangpo to Xinjiang”, *Indian Defence Review*, August 11, 2017, (Accessed on August 10, 2018).

54. K.P. Nayar, “Water Weapons Cuts Both Ways: China Factor in Indus Card”, *Telegraph*, September 24, 2016.

55. Philippus Wester, Arabinda Mishra, Aditi Mukherji, and Arun Bhakta Shrestha, eds, *The Hindu Kush Himalaya Assessment: Mountains, Climate Change, Sustainability and People*, Springer, Cham, 2019.



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billion people are dependent on the Tibetan water...by definition, that makes it high politics and critically important in a politically strategic sense.”⁵⁶ Similarly, for Aviva Imhof, the Campaign Director of International Rivers Network, “Pressure on the Asian rivers is going to get worse before it gets better.”

There is simmering doubt about political issues swirling around Tibet and China getting more complex, and for Rajendra K. Pachauri, “...a staggering number of people will be affected in the near future by the declining glacial flows on the Tibetan Plateau.” Sandra Postel of the Global Water Policy Project once predicted that conflicts over water could ricochet across Asia.⁵⁷

It has been proven that water scarcity has historically worked in favour of cooperation rather than conflict between states.⁵⁸ The Indus Water Treaty is a case in point, and there are other examples.

Any forward movement on ensuring hydro-security in the Brahmaputra basin would require a long-term understanding between the two countries. India's hydro-

diplomacy thus faces the daunting challenge of engaging China in a sustained dialogue and securing a water-sharing treaty that serves the interests of both the countries.

While the demand for Tsangpo's diversion may get louder in China, growing environmental disasters are also fuelling mass protests in the country against mega projects.⁵⁹ In fact, the greater resentment to manipulating the Shuomatan Point could emanate from China. India should evolve a comprehensive strategic plan, which cannot be handled by the Water Resources Ministry alone.

While India–China relations have shown a significant upswing fuelled by burgeoning trade and investment, the dispute over water could add to existing mistrust emanating from a variety of issues. It is prudent that both India and China strive to set up a water governance regime with a binding legal agreement.⁶⁰ Both countries should also jointly explore prospects of ecological cooperation to save the Himalayas and to mitigate the threat posed by climate change.

56. Geoffrey Dabelko, “Talking Water and Opportunities for Environmental Peace-making”, Circle of Blue/WaterNews, May 8, 2008, <http://www.circleofblue.org/waternews/world/africa/geoffrey-dableko-talking-water-and-opportunities-for-environmental-peace-making/> (Accessed on August 10, 2018). Also read “Dam the Consequences”, Guardian Weekly, April 6, 2007.
57. Kevin Holden Platt, “A Competition for Water”, Bangkok Post, March 18, 2008.
58. Gareth Evans, “Conflict Potential in a World of Climate Change”, Address to the Bucerius Summer School on Global Governance 2008, Berlin, August 29, 2008, <http://www.crisisgroup.org/home/index.cfm?id=5648&l=1> (Accessed on 21 January, 2019). Also read Jannik Boesen and Helle Munk Ravnborg, “From Water Wars to Water Riots?: Lessons from Trans-boundary Water Management”, Proceedings of the International Conference, December 2003, DISS Copenhagen, Published as DISS Working Paper No. 2004/6.
59. Samantha Hoffman and Jonathan Sullivan, “Environmental Protests Expose Weakness in China's Leadership”, Forbes, June 22, 2015. Also read Charlton Lewis, “China's Great Dam Boom: A Major Assault on Its Rivers”, Yale Environment 360, https://e360.yale.edu/features/chinas_great_dam_boom_an_assault_on_its_river_systems (Accessed on January 10, 2019).
60. P. Stobdan, “As the Brahmaputra Bends”, Indian Express, April 17, 2013 <http://archive.indianexpress.com/news/as-the-brahmaputra-bends/1104650> (Accessed on January 14, 2019).



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About the Centre for South East Asian Studies, Gauhati University

The Centre for South East Asian Studies, which was established in 2017 under the annual budget (2016-2017) of Government of Assam in the Gauhati University and currently being located in the Department of Political science, is the first of its kind in North East India. The North East India region has assumed crucial significance with regard to India's emerging relationship with South East Asian countries particularly in the context of India's Act East Policy. Against this backdrop the Centre for South-East Asian Studies has been designed to further dialogue and generate knowledge network to understand the challenges and opportunities faced by the India and particularly North-East India in relation to East and South East Asia. In order to act as a knowledge hub for promoting India's relation with South East Asia, the Centre has proposed to undertake number of academic activities which includes organizing regular seminars and symposia, publication of peer reviewed books, monograph and journals by research scholars and faculty members, liaison with scholars and students in various universities of North-eastern region, promoting inter university research programme on themes of trans-border challenges and opportunities.

Objectives of CSEAS

The CSEAS strives to achieve the following objectives:

1. To generate knowledge and develop understanding about East and South East Asian region.
2. To produce insights on India's relation with East and South East Asian nations and provide policy inputs for deepening and strengthening their mutual relations.
3. To understand the significance and concerns of North East India in the context of emerging relationship between India and South East Asia and the need to integrate the interests of the region in this evolving pattern of relationship between them.
4. To facilitate the track I and track II diplomacy between India and East and South East Asian nations for a more engaged and sustained mutual relationship between them by establishing and developing contacts/networks of their institutions, academicians, students, civil society etc. through mechanism like students exchange programme.

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ISBN 978-93-5416-853-6



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