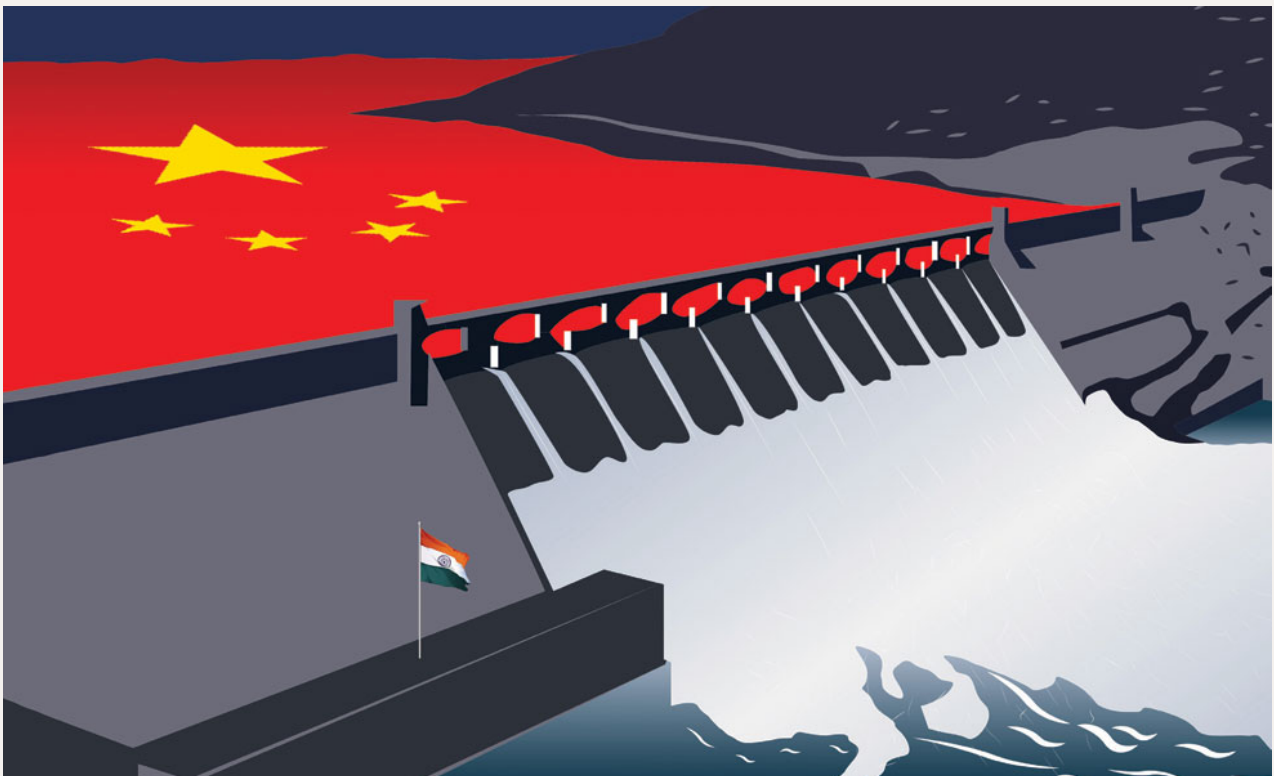


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Xi Jinping's Third Term: Implications for Global Order & India

Conference Paper

China's Water Wars in the Himalayan Basin
States (India, Nepal, Bhutan, Bangladesh,
Pakistan & Tibet): A Trans-boundary Security
Threat



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China's Water Wars in the Himalayan Basin States (India, Nepal, Bhutan, Bangladesh, Pakistan & Tibet): A Trans-boundary Security Threat

August 11, 2023

Introduction

The 14th Five-Year Plan (2021-25), authorised by the Chinese Plenary in March 2021, envisions some of the country's most ambitious goals to be accomplished over the following three decades, raising worries around the world, particularly in India. One of the declared goals was to build a large 60 GW hydroelectric dam on the Yarlung Zangbo (Tsangpo) river near the Arunachal Pradesh border. Given India's perpetually strained relationship with China since Doklam (2017), the Galwan collision (2020), the Eastern Ladakh standoff (2021), China's ongoing assertion in the South China Sea, and new overtures in the Taiwan Strait, Indian concerns appear legitimate. The sheer scope of the project and its possible use for politico-military purposes has alarmed India and other neighbours in the region, including Bhutan, Nepal and Bangladesh. India's response, to build its largest dam in Arunachal Pradesh, just 150 kilometres away, and to restart several of its stalled projects in the region, reflects its concern and urgency to quickly prepare to mitigate any potential 'Water Wars' by China.

This is not something that China has started recently. China has been building dams in the 'Tibet Autonomous Region' for some time now, with the goal of diverting water from Tibet in the south to mainland China in the north via more than 1500 kilometres of canal work. Due to limited media access, full information about most projects is not available, much alone the government's objective. According to some estimates, the number of dams in China is approaching 100,000. China has nearly 20% of the world's population but just 7% of the available fresh water. Tibet is where the most water is available, and water insecurity is understandable to some extent. However, its ambitions to be a superpower in every sense and compete with the US shoulder to shoulder have fueled its desire to expand its footprint in every field, from the economic to the military, all over the world. Its overtures to all of its neighbours and other world powers demonstrate this intent. Its claim to Taiwan, border issues, and engagements with India are of particular importance. Now that China's ultimate strategy has come to light, it appears that the Doklam issue and China's invasions into Eastern Ladakh may be linked.

Genesis of the Substantial Water and Energy Demand

The genesis of planning and execution of huge infrastructure for meeting its ever increasing demands of water and energy lies in its geography and population distribution. Northern and eastern China, which is major industrial base with majority of the Chinese population, have water deficiency, while parts of southern China including Tibet, have surplus water. Therein lies the motivation for one of the most ambitious engineering projects in human history, to divert water on a massive scale from southern China to northern China.

By 1949, the Communist Party of China (CCP) had largely taken control of the country, rebranding it as the People's Republic of China. As the CCP industrialised the country, it became obvious that northern China had significantly less water than southern China. This limited northern China's industrial capacity and access to drinking water. This was especially true in northeast China, where the northerly Yellow River did not quite reach. In some parts of northeast China, the lack of water is quite severe, leading to perpetually drought-prone arid land. In contrast, there is sometimes flooding in southern China, caused by an abundance of rain and water bodies. A potential solution to this issue came in the form of a statement commonly attributed to CCP leader Mao Zedong in 1952: *'There is more water in the south and less water in the north. If possible, it is okay to borrow a little.'*

The concept lingered with CCP leadership for decades, which gave rise to '**The South-North Water Transfer project**'. The project envisaged construction of series of water canals and reservoirs to link the rivers. The planning became reality in 2002 when construction actively began to transfer water from Yangtze river and its tributaries from south to drier areas in north. **Yangtze River, the longest river in Asia**, sometimes called the Blue River, spanning around 6,300 kilometres, begins in the Tanggula Mountains in Tibet and flows across the country into the East China Sea.

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South-North water Transfer Project: image Courtesy water-technology.net

As per an article in ‘*Water-Technology*’, ‘this massive scheme has already taken 50 years from conception to commencement and is expected to take almost as long to complete. Planned for completion in 2050, it will eventually divert 44.8 billion cubic metres of water annually to the population centres up north. When finished, the work will link China’s four main rivers – the Yangtze, Yellow River, Huaihe and Haihe – and requires the construction of three diversion routes, stretching south-to-north across the eastern, central and western parts of the country. The complete project is expected to cost \$62bn; more than twice as much as the country’s controversial Three Gorges Dam’. On 23rd August 2002, 50 years later – after extensive research, planning and discussion, the project was approved by the State Council and work began on the eastern route of the project in December, construction commencing on the central route a year later.¹

¹ Excerpts of an article in *Water Technology*, “South to North Water Diversion Project”, https://www.water-technology.net/projects/south_north/. Accessed on Jul 23,2023.

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Three Gorges Dam on Yangtze River: Image courtesy eurasiantimes.com

An article by Keith Schneider in *'Circle of Blue; Water News'*, indicates the massive tunnelling work undertaken for the project. The update on the work indicates tunnel under yellow river completed in January 2012 and central canal opened in 2014, which is meant to take water right up to Beijing.² 'Project of diverting water in the South to the North' is a multi-decade infrastructure mega-project comprising three routes:

- The Eastern Route through the course of the Grand Canal;
- The Central Route from the upper reaches of Han River (a tributary of Yangtze River) via the Grand Aqueduct to Beijing and Tianjin
- The Western Route which goes from three tributaries of Yangtze River near the Bayankala Mountain to provinces like Qinghai, Gansu, Shaanxi, Shanxi,
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² Keith Schneider, "A Dry and Anxious North Awaits China's Giant, Unproven Water Transport scheme", *Water News-Circle of Blue*, March 1, 2011 <https://www.circleofblue.org/2011/world/a-dry-and-anxious-north-awaits-china-giant-unproven-water-transport-scheme/>. Accessed on July 27, 2023. March 1, 2011 by

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Tunnel under Yellow River and Yangtse river: Image Courtesy@ Aaron Jaffe/Circle of Blue

Major water works have also been undertaken on the Mekong river. Stretching nearly 5,000 kilometres from the Plateau of Tibet to the South China Sea, the Mekong is a farming and fishing lifeline for tens of millions as it swirls through China, Laos, Myanmar, Thailand and Cambodia before reaching Vietnam. Meanwhile China, eager to boost its renewable energy capacity to reduce its reliance on coal, has already built at least 95 hydroelectric dams on tributaries flowing into the Mekong (called the Lancang in China). Another 11 dams have gone up since 1995 on the main river itself in China – including five mega-dams each standing more than 100 metres tall – while China has helped to build two in Laos. State-owned Huaneng Lancang River Hydropower, tasked with developing the river's resources, aims to double the network's 21.3 gigawatt capacity by 2025. Wunonglong dam, northern most dam became operational in 2018.³

A detailed article on effect of these projects on downstream countries in *'The Third Pole'* stipulates that any hydrological intervention on Mekong puts all downstream countries under water related and environmental stresses. China is the upstream and most powerful country in many transboundary river basins. It has therefore been called an 'upstream superpower'. In the Mekong and elsewhere, China has so far been disinclined to sign water treaties or set up

³ Kanupriya Kapoor, Simon Scarr Clair Trainor and Manas Sharma, "Starving the Mekong, Reuters, December 15, 2022, <https://www.reuters.com/graphics/GLOBAL-ENVIRONMENT/MEKONG/egpbyyadnvg/index.html>. Accessed on July 23, 2023.

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river basin organisations.⁴ This is indicative of China's intention of harnessing every single drop of water for its advantage even at the cost of interest of other countries or environmental concerns.

Out of 38 Dams in the world with installed capacity of 3000 MW and above, China accounts for 14 of them with largest in the world being 'Three Gorges Dam'(completed in 2012) with capacity 22500 MW. Second largest Baihetan Dam(2022) with installed capacity of 16000 MW is also from China. Most of these dams have been completed in last one decade.



Dams at Mekong River(2015): Image courtesy [www.thethirdpole](http://www.thethirdpole.net)

In comparison, India's highest capacity dam is Tehri Dam with 2400 MW capacity. The rapid construction of dams with large installed capacities and supporting infrastructure of roads and railways network spanning the entire country is with the single intent of achieving strategic objectives as early as possible. These are also linked with more than a decade old 'Belt and Road Initiative' (BRI) meant for trade and rapid economic growth.

⁴ Sebastian Biba, "China Drives Water Cooperation with Mekong Countries", The Third Pole, February 01,2016, <https://www.thethirdpole.net/en/energy/china-drives>. Accessed on July 23, 2023.

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The south to north project has been a top down approach and it has seen its own share of criticism even from China's own Government officials. As far back as in 2014, an article in *Forbes* brought out such criticism from a Chinese minister. It writes "China's poker-faced party cadres are not known for speaking publicly against the country's great engineering feats. Yet a Chinese minister has publicly called for an end to the South-North Water Diversion project, a \$62 billion investment designed to channel water from southern China to the arid north through three canal systems. "China tries to solve its water shortage problem by diverting water. But such a way is, to some extent, now mired in difficulties," writes Qiu Baoxing, vice minister of the Ministry of Housing and Urban-Rural Development. The ambitious diversion project will be rendered irrelevant if one in three buildings in Beijing could recycle more wastewater and collect more rainwater, Qiu writes in an article published in the February issue of *Water & Wastewater Engineering*. The project, which officially started in 2002, is considered controversial because of its high cost, environmental impact and massive displacement of local population".⁵



South–North Water Transfer Project Central route starting point taocha in Xichuan County, Nanyang, Henan : Image Courtesy en.wikipedia.org

Moore describes China's concerns about climate change and the associated effect of water scarcity as a direct danger to its national interests. Droughts and flooding are projected to

⁵ Yue wang, "Chinese Minister Speaks out Against South-North Water Diversion project", *Forbes*, February 20, 2014, <https://www.forbes.com/sites/ywang/2014/02/20/chinese-minister-speaks-out-against-south-north-water-diversion-project/?sh=6bb127347d83> .Accessed on July 28, 2023.

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worsen in many locations, and melting Himalayan glaciers are expected to result in dramatic long-term losses in water availability in China and other South Asian countries such as India and Bangladesh. These shifts in water availability have significant ramifications for the Chinese government's goals at home and overseas. It is a major cause of concern as China pursues its 'peaceful rise' policy, knowing that it already has contentious relations with its neighbours over transboundary water resources, particularly those of the Mekong River. These situations will be exacerbated by future climate change consequences, while the Chinese government launches huge infrastructure projects on its trans-boundary rivers, such as mega hydroelectricity and river diversion projects. China's worries about the decreasing availability and rising demand for water have most likely resulted in overly ambitious projects being planned one after the other in a well-coordinated manner.⁶

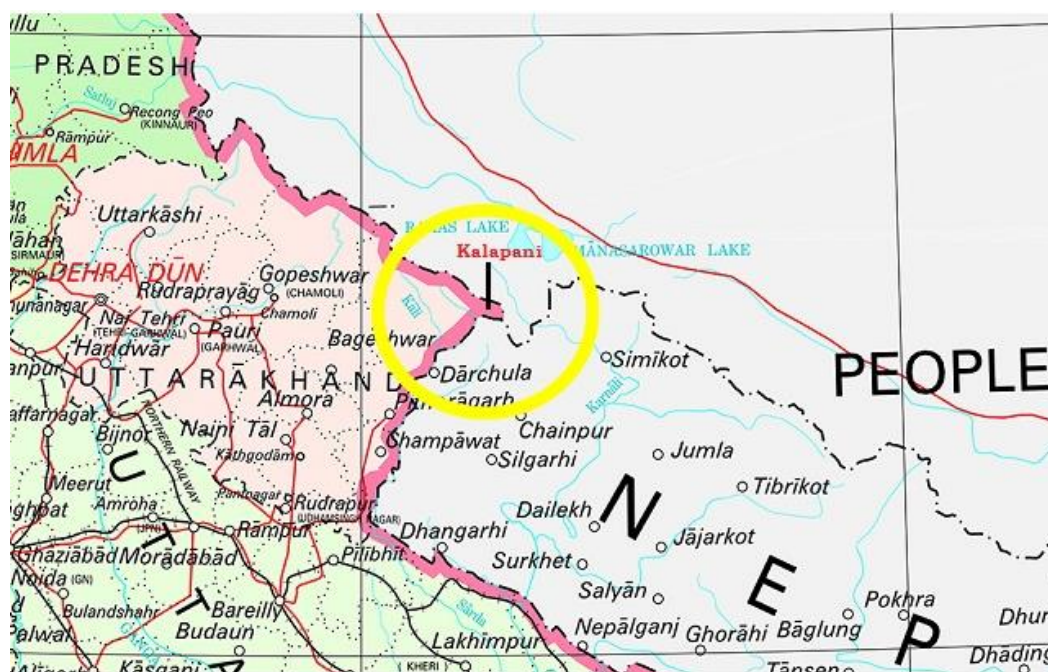
Recent Infrastructural Developments along International Border

Concerning India specifically, new indications of hydropower projects being built very close to Indian international borders are grounds for alarm. Aside from the mega dam near the Arunachal border, considerable building activity has been observed along the China-Nepal border as well, quite close to the Nepal-India border. In her article in the Eurasian Times on July 17, 2023, strategic analyst Vaishali Basu Sharma writes that in January this year, geospatial researcher Damien Symon confirmed through satellite imagery that one of these smaller dams is being built just a few kilometres north of the Indian-Nepali-Chinese border tri-junction, on the Mabja Zangbo (Tsangpo) river in Tibet's Burang county. The photographs depict the construction of an embankment dam with a reservoir.⁷ This dam is around 16 km north of the tri-junction, opposite the Kalapani area of Uttarakhand. The Mabjo Zangbo river is a Ganga tributary. This river goes into Nepal's Ghaghra river before joining the Ganga.

⁶ MOORE S. (2009) Climate Change, Water and China's National Interest, *China Security*, 5 (3), pp 25-39.

⁷ Vaishali Basu Sharma, "Amid Boiling LAC, China's Construction of World's Largest Dam on Brahmaputra", *The Eurasian Times* Jul 17, 2023 at <https://www.eurasiantimes.com/new-boiling-lac-chinas-constructing-of-worlds-largest-dam/>. Accessed on Jul 22, 2023

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Location of the Dam: Image Courtesy www.drishtiias.com

Vaishali Sharma expresses her concern in her article, on reports of China building a “super” dam on the lower reaches of the Yarlung-Tsangpo River close to the Line of Actual Control (LAC) in Tibet. She elaborates that China’s mega project, with a planned capacity of 60 GW, close to its heavily militarized frontier with India, will supersede both in size and capacity with its own ‘**Three Gorges Dam,**’ currently the world’s largest hydroelectric facility. She traces the news in Chinese media and writes “When reports of the dam re-emerged in November 2020, the Chinese state run tabloid *Global Times* said, “China will build a hydropower project on the Yarlung-Tsangpo River, one of the major river in Asia that also passes through India and Bangladesh.”⁸

In contrast to the previous emphasis on economic growth and restructuring, China's 14th Five-Year Plan emphasises on the sustainability of growth and the quality of living. The Plan calls for continued efforts to bridge the urban-rural divide, as well as a goal of peaking carbon dioxide emissions by 2030 and reaching carbon neutrality by 2060. These goals are supported by the PRC's Vision 2035, which lays out a plan for the country to become a

⁸ Ibid.

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moderately developed country and a global leader in innovation by 2035. One of the plan's quantifiable goals is the development of a 60 GW hydropower facility.⁹

Yarlung Zangbo (Tsangpo) originates from Chemyang Dung Glacier known as Kailash in India and covers 1675 Km in Tibet before entering India at Namcha Barua. It flows for 918 Km in India as Brahmaputra (Siang in Arunachal Pradesh) and enters Bangladesh at Dulri, where the river is known as Jamuna. It then runs 337 Km in Bangladesh before entering the sea. The 3,969-kilometer transboundary tributary Yarlung-Tsangpo/Brahmaputra is a major river system that includes contrasting climatic and hydrologic zones. Originating in the Tibet Autonomous Region(TAR), the Yarlung Zangbo flows through distinct regions.



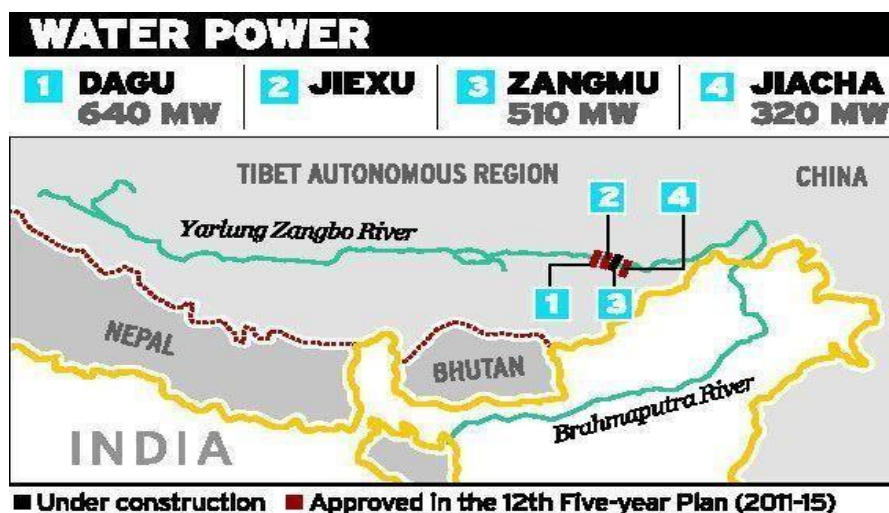
Site of the Proposed Dam: Image Courtesy www.news.com

Near the Line of Actual Control (LAC), the river turns suddenly to the northeast and cutting a course through a succession of great narrow gorges between mountainous massifs at the eastern end of the Himalayas, it turns southward, crossing the China-India LAC with canyon walls that extend upward for 5,000 meters or more on either side forming a deep gorge (the “Yarlung Tsangpo Grand Canyon”) as it enters India. Out of approximately 3000 Km length, more than 50 percent of its basin lies in Tibet and approximately 35 percent in India.

⁹ Asian Development Bank Publication, “The 14th Five-Year Plan of the People’s Republic of China-Fostering High Quality Development” June 2021, <https://www.adb.org/publications/14th-five-year-plan-high-quality-development-prc>. Accessed on July 23,2023.

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However, in terms of volume of water it gathers more than 75 percent of water in India, primarily during monsoons season as there are many contributing tributaries in India. China mainly has water from glacial melt down, therefore primary source during lean season. It is ninth-largest river in the world, in terms of water discharged (19,825 cubic feet per second).



Dams on Yarlung Zangbo : Image Courtesy www.insightsonindia.com

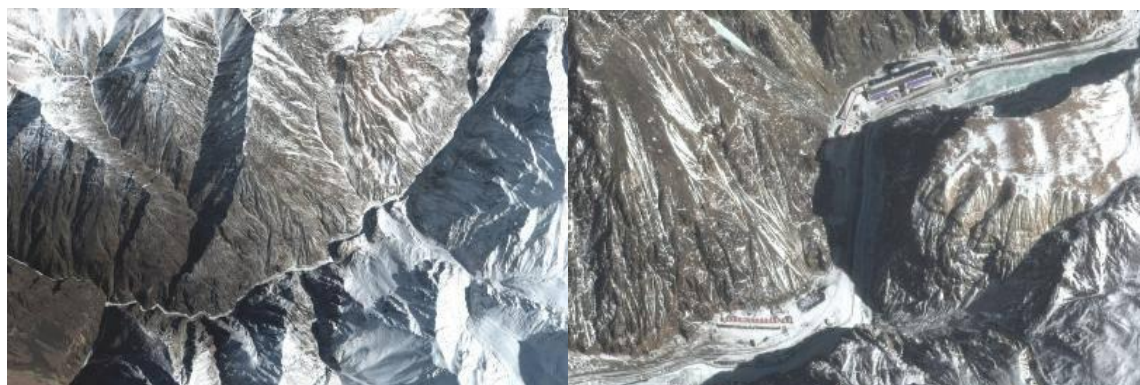
The construction of a series of Dams over Brahmaputra River in Tibet region has raised concerns in India and Bangladesh. It has been a long-standing part of the grand ‘South-North Water Transfer Project’ conceptualised as early as in the 1950s by Mao Zedong. Noted strategic analyst Brahma Chellany expresses his concern that northward rerouting of the Brahmaputra waters (known as Yarlung Tsangpo in Tibet) from the Tibetan borders through constructions of dams would lead to drying up of river downstream in Assam and Bangladesh.¹⁰

Besides the dams along the borders, there has been rapid military infrastructure seen in Aksai chin region as well as along the LAC in north eastern Himalayas across Sikkim and Arunachal Pradesh. Many strategic analysts opine that sudden rise in land-grab attempts at borders after Doklam crisis of 2017 and hydro-hegemony of China in recent years is a serious cause of concern. After Doklam incident, similar offensive posturing of China was seen in Galwan Valley in 2020 where 20 Indian soldiers and unknown number of soldiers of China

¹⁰ Insights IAS, “Brahmaputra Issue”, <https://www.insightsonindia.com/international-relations/india-and-its-neighborhood/india-china-relations/brahmaputra-issue/>. Accessed on July 29,2023.

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died in violent clash. A satellite picture of the Galwan Valley below, was taken in February 2023. The valley lies in a snowy, mountainous region that highlights the inhospitable nature of the land contested by the two sides. China has started massive infrastructure build up in the area. In the centre of the image, number of Chinese positions along the Galwan River banks, are visible.



Site of Galwan Valley Clash (2020). Infrastructure Developed Recently:

Image courtesy Satellite image ©2023 Maxar Technologies

The Chatham report by Damien Symon analyses the situation and indicates that “where once there were scattered People’s Liberation Army (PLA) checkpoints and rudimentary positions on the Chinese side of the poorly demarcated LAC, now there is an established Chinese presence”. The report claims that China has built an extensive set of installations, establishing an ecosystem to support its deployments of PLA troops. The images show expanded roads, outposts and modern weatherproof camps equipped with parking areas, solar panels and even helipads. In Raki Nala, a river valley south of the contested Depsang Plains, Chinese outposts are visible. These can potentially block Indian patrols in the area. Meanwhile at Pangong Tso, a saline lake surrounded by jagged peaks and unforgiving ridgelines, a bridge is nearing completion. When finished, it will allow the rapid deployment of Chinese forces from the PLA’s Rutog military garrison to the contested mountain ridges overlooking the lake.¹¹

The second development concerns the proposed Chinese G 695 motorway, which would connect Xinjiang and Tibet. It will span the length of Aksai Chin, across the Depsang Plains,

¹¹ John Pollock and Damien Symon, “Are India and China bound for another Deadly Border Clash”, Chatham House report, June 01, 2023, <https://www.chathamhouse.org/publications/the-world-today/2023-06/are-china-and-india-bound-another-deadly-border-clash> . Accessed on July 23, 2023.

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south past Galwan Valley, and towards Pangong Tso, and is expected to be completed in 2035. It is a key artery that will connect the contested region to mainland China and provide a fresh supply route for the PLA. The route might also be interpreted as a signal from Beijing to New Delhi that Aksai Chin will remain a part of China.

Threat Analysis of Mega Dam and Counter Balancing by India

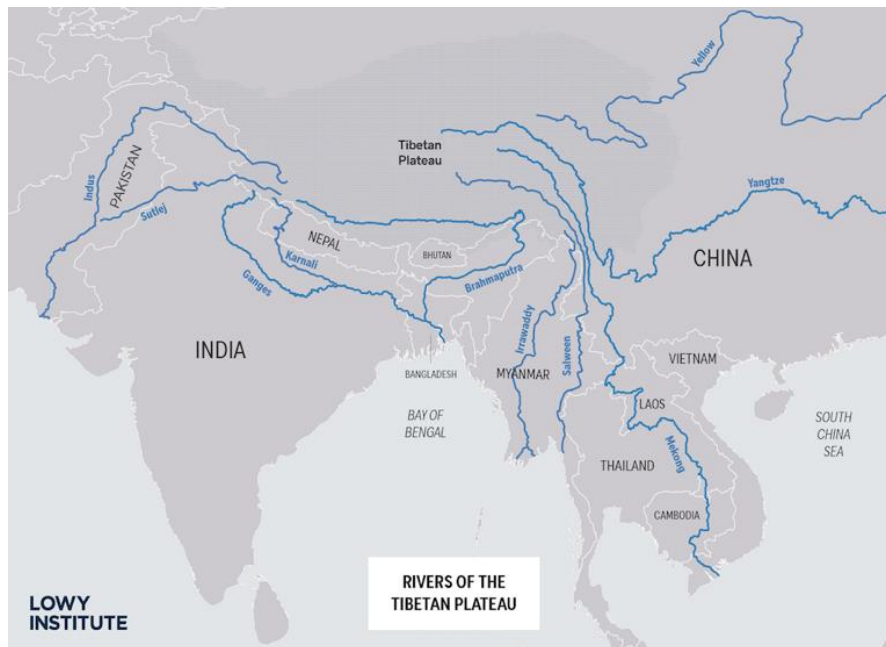
Building the Dams at rapid pace on all its rivers particularly in the south, without any concern to its neighbours, rapid construction of military infrastructure in Aksai chin and northeast along the LAC, and modernisation of its military with its orientation to win wars, sends alarm bells to all its neighbours. China has started being more guarded about sharing information and being more assertive in its military posturing. China and India had established an expert-level mechanism on trans-border rivers in 2006 and also signed a MoU on strengthening Cooperation on trans-border rivers in 2013. China till 2017 Doklam crisis, was in fact providing the hydrological information of the major trans-border rivers in flood season. It had since stopped sharing the data while continuing to share the data with Bangladesh. The reasons behind China's sudden aggressive actions across the LAC are still hotly debated. Given the opaque nature of Chinese policymaking under Xi, the true motives are probably only known in the highest echelons. Whatever drove the decision, the PLA is now firmly ensconced in Aksai Chin and the north eastern region, and looks set to remain there.

This could also possibly be to show the military strength to indicate that the construction activity on all rivers across the LAC will continue regardless. In view of the constant offensive posturing of China in all spheres of international dealings, China's intent to build the world's biggest and most ambitious megadam at the Great Bend, causes serious concern of its likely usage of water for strategic gains as hydro weapon. Even in normal course, stopping or disrupting the water flow downstream during summers and releasing excess water during monsoons can cause havoc downstream. Any such actions may deteriorate already tens relations.

Many analyst raise worries that considering the remote region it is almost impossible to access with the heavy equipment needed to build a megadam, and it lies in a heavily active seismic area that is not far from the epicentre of one of the biggest earthquakes ever recorded. Deadly landslides are also commonplace in this part of the world and would only be

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exacerbated by a huge construction project. Experts also believe that the project will create severe ecological harm to one of the world's most biodiverse regions, ruin sacred sites for Tibetans, and have devastating consequences for those living downstream.



China Rivers Map: Courtesy www.lowyinstitute.org/the-interpreter

China's reasoning of such massive project towards achieving its green energy goals, seems ironic given the massive ecological damage the structure would cause. India's response to build the dam in Upper Siang in Arunachal Pradesh to mitigate the likely impact of China's actions, is considered as master stroke by many. This multi-purpose storage project at Yingkiong is likely to cost more than one lakh crore. The storage project will be able to store 9-10 billion cubic meter of water.



The Great Bend : Image Courtesy China National Tourist Office Singapore

Possible Remedies

China is in no hurry to address water sharing and river control issues over the Brahmaputra, while India and Bangladesh press for a comprehensive and sustained solution. China has assumed political overtones and past and present posturing on sharing of the Mekong waters with Myanmar, Thailand, Vietnam, Cambodia and Laos, remaining fraught with riparian contestations, give the keys to analyse its behaviour. Nevertheless, diplomatic endeavours must be pursued to work out a framework to reap mutual benefits of this scarce resource by effective management and monitoring mechanisms in place.

India and China must participate constructively in co-managing the region's rivers, ensuring that the region's development is not hampered by excessive posturing on the delicate water problem, which will undoubtedly have an impact on other bilateral issues between the two neighbours. The whole of Sino-Indian bilateral relations and mutual economic cooperation will be mainly determined by how they handle the issue of water, which, given both countries' massive demographic increase, will become scarcer. China and India should work together to find a solution based on functional rather than political criteria, and rise above the current atmosphere of mutual suspicion and ambiguity.

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Regional water sharing on shared river systems will benefit from coordinated river basin management and development. Various community and non-state stakeholders in the upper riparian (China), middle riparian (India), and lower riparian (Bangladesh) countries should come together at the international level to offset the hardened stances in their respective bilateral engagements and bring about an honourable, equitable, and sustainable solution to the Brahmaputra water sharing and river control issue. Joint research studies on the Brahmaputra River's hydrological cycle should be done. Such collaborative research investigations will aid in assuaging the concerns of local community stakeholders in all basin countries. It will lay the groundwork and structure for future transboundary water management initiatives, as well as assist their implementation. It will lay the groundwork and framework for future trans-boundary water management processes, as well as promote the establishment of a formal legal regime for the region's trans-boundary rivers.

The frameworks have been tried and are working to some extent. According to the web site of the Ministry of Water Resources, in the year 2002, the Government of India had entered into a 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 during monsoon season (15th May to 15th October every year). MoUs in this connection was further renewed in 2008, 2013 and 2018. During the visit of Hon'ble Prime Minister of India to China in October 2013, both the countries also signed another separate "MoU on Strengthening Cooperation on Trans-Border Rivers" on 23rd October 2013, in which inter-alia the scope of provision of hydrological information of three hydrological stations was enhanced.¹²

The signing of the Memorandum of Understanding (MoU) was followed by the signing of the Implementation Plans (IP). The latest IP on the Brahmaputra was signed on June 13, 2019 in Ahmedabad, during the 12th Expert Level Mechanism (ELM) meeting between India and China, which took place on June 12-13, 2019. Every year, the ELM meetings alternate

¹². Official website Department of Water Resources, "India-China Cooperation" <https://jalshakti-dowr.gov.in/india-china-cooperation/>. Accessed on August 01, 2023.

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between India and China. So far, thirteen ELM meetings have taken place (twelve physically, alternately in India and China). The 13th ELM meeting was held through video-conferencing on May 18, 2022.¹³ Despite the mechanisms in place, there is reluctance in implementing the processes and the meetings are shrouded by mutual suspicion. There is a need to honestly abide by the processes for mutual benefit in a more transparent manner.

Conclusion

Developing infrastructure at borders at breakneck speed and creating modern villages close to the border with all amenities despite negligible residents in those areas, is clear indication of its military intent to dominate India and exert pressure. Planning an airport next to the dam sites indicates its clinical planning. Its diplomacy and support to Nepal and Bangladesh in addition to Pakistan, seems an attempt to encircle India, whom it sees as a competitor. India's emergence in the new world order and positive economic outlook also seems to worry China and it is doing everything that it can, to contain India. India's closeness to the USA and certain US companies moving the base away from China to India, in recent times has probably infuriated it further.

Mr. Connor Dilleen explains China's compulsions and goals in his article for the Australian Strategic Policy Institute. He noted that water demand in Chinese families climbed elevenfold between 1980 and 2010, while industrial sectors increased threefold, but per capita available water in China is barely a fourth of the world average. Climate change, he believes, will make China more vulnerable to water scarcity. The average annual temperature in China has risen faster than the global average, and regional and seasonal patterns have shifted dramatically across the country, badly harming the country's drier north. More importantly, climate change is causing glacial retreat in the Himalayas, resulting in a reduction in total water volume in major river systems in China.

Some consider the new dam, one of at least eleven planned along the Yarlung Tsangpo, to be a critical component of Beijing's strategy to attain net-zero emissions by 2060. When finished, it will be capable of producing up to 60 GW of power. Mr Connor opines that nonetheless, given the possibility of the project being incorporated into China's South-North

¹³. Ibid.

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Water Transfer Project, China's choice to proceed constructing the dam makes sense. This project aims to ease China's northern water scarcity by transferring water through 1,500-kilometer-long canals. The completed eastern and middle pathways of the transfer project have a capacity of 20.9 billion cubic metres of water per year. Beijing began investigating options for the project's contentious western route in 2018. Tens of millions of cubic metres of water could be diverted from the Yarlung Tsangpo and other transnational river systems in Tibet to the Yellow River as a result of this.¹⁴ However, this has caused great concern in India and Bangladesh because the dam's water will be diverted up north, wreaking havoc on the riverine ecology. Besides utilising this as a hydro-weapon in times of conflict, China may also utilise this as a political tool for all strategic deliberations.

¹⁴ Connor Dilleen, "China's Problematic Solution to its Water-security Woes", *The Strategist*, March 19, 2021, <https://www.aspistrategist.org.au/chinas-problematic-solution-to-its-water-security-woes/>. Accessed on August 02, 2023.