

China's Weaponization of Water in Tibet

A Lesson for the Lower Riparian States

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Abstract

Tibet, dubbed “Asia’s water tower,” boasts eight major transboundary river systems, including the Brahmaputra, Indus, and Mekong rivers, vital to three billion people in South and Southeast Asia. As an upper riparian state, China has contemplated dam construction and river diversion since 1989. Driven by internal economic motives and aspirations for regional dominance, China seeks to control water flow, impacting lower riparian states such as India, Bangladesh, Nepal, Bhutan, Myanmar, Thailand, Cambodia, Laos, and Vietnam. With approximately 87,000 dams built, China poses a historic threat, having already dammed most internal rivers. This article examines China’s potential weaponization of Tibetan water, offering insights for lower riparian states to prepare for contingencies and devise long-term strategies.

Water, an essential resource sustaining life, plays a crucial role in the economic development of nations. The management and control of water resources have often sparked contention among riparian states, fueling diplomatic tensions and conflicts. In recent years, China’s strategic maneuvers in Tibet, particularly its weaponization of water resources, have heightened concerns among lower riparian states in South Asia and Southeast Asia. China’s Tibet Autonomous Region harbors the largest reserve of fresh water outside the North and South Polar Regions, supplying water for approximately 20 percent of the world’s population. Because of this, it is often referred to as the Third Pole of the planet.¹

The most critical river basins, formed by rivers originating from the Tibetan plateau and the Himalayas, include the Ganges–Brahmaputra–Meghna basin, the Indus basin, and the Mekong basin. Almost all these basins, including the Brahmaputra, the Indus, and the Mekong, are transboundary in nature. The exceptions are the Yangtze and the Yellow Rivers, which flow entirely within the borders of China itself.

¹ “The Earth Is on Fire: Tibet Is Melting,” *Tibet 3rd Pole*, 29 November 2019, <https://tibet3rdpole.org/>.



Figure 1. Map of rivers flowing out of Tibet. (Source: Thincat, Creative Commons, 20 August 2014, [https://commons.wikimedia.org/.](https://commons.wikimedia.org/))

Tibet fell under the direct control of the Chinese Communist Party following the region's invasion in 1950. It was forcibly incorporated into the People's Republic the following year through the signing of the Seventeen-Point Agreement between the Beijing-based Central People's Government and the Lhasa-based Tibetan Government.² It is estimated that more than 700 billion cubic meters of water flow out of Tibet, Xinjiang, and Inner Mongolia to neighboring countries each year, with about 48 percent of that water flowing into India.³ More than 50 transboundary rivers feed into Bangladesh, constituting the second largest river basin in the world. According to Brahma Chellaney, in his 2012 book *Water: Asia's New Battleground*, China may assume the role of "Asia's water hegemon" in the

² Tsewang Gyalpo Arya, "The 17-Point Agreement—What China Promised, What It Really Delivered and the Future?," Central Tibetan Administration, 23 May 2019. [https://tibet.net/.](https://tibet.net/)

³ Ameya Pratap Singh and Urvi Tembey, "India-China Relations and the Geopolitics of Water," *The Interpreter*, 29 October 2019, [https://www.lowyinstitute.org/.](https://www.lowyinstitute.org/)

near future, driven largely by its favorable geopolitical position.⁴ Economic imperatives and Beijing's global and regional hegemonistic ambitions would largely shape China's foreign policy calculations in this century.

The transboundary river systems originating in Tibet play a crucial role in the countries they traverse. These rivers provide irrigation, potable, and industrial water, as well as contribute to climate regulation and flood prevention. They are vital to the economies and ways of life of the inhabitants of the countries they pass through, and essential for the preservation of ecosystems and biological diversity. As the demand for water increases and the effects of climate change become more pronounced, the significance of these transboundary river systems is likely to grow even further in the future.⁵

China boasts a rich history of dam construction and river diversion projects, which have significantly influenced the country's water resource management, flood control, and hydroelectric power generation. One of the oldest and most remarkable examples is the Dujiangyan Irrigation System, constructed over 2,000 years ago during the Qin dynasty.⁶ In the twentieth century, China's dam-building program accelerated. The Three Gorges Dam, completed in 2006, stands as the largest dam in the world. It serves as a hydroelectric power plant, aids in flood control, and enhances navigation on the Yangtze River. In a 1952 speech, Mao Zedong also declared, "Dams are the key to the development of our country. They will help us to control floods, generate electricity, and irrigate our fields. They will also help us to improve transportation and communication. We must build dams on all of our major rivers."⁷

China's control over water flow presents a substantial concern for lower riparian states, as it holds the potential to affect water security, economic development, environmental stability, and geopolitical relations. Such control could adversely impact the water security of these states. This article endeavors to illuminate China's weaponization of water in Tibet by examining its motivations and actions, identifying potential threats to lower riparian states, elucidating lessons that can be gleaned by these states, and proposing long-term strategies to safeguard their water security. It concludes with a summary of findings.

⁴ Medha Bisht, "Water: Asia's New Battleground by Brahma Chellaney," *Strategic Analysis* 36, no. 4 (July 2012): 690–92. <https://doi.org/>.

⁵ Bisht, "Water."

⁶ "Go West, Young Han," *The Economist*, 21 December 2000, <https://www.economist.com/>.

⁷ Narendra Sisodia et al., *Water Security for India: The External Dynamics*, IDSA Task Force Report, MP-IDSA, 2010 (New Delhi: Institute for Defense Studies and Analyses, September 2010), <http://www.indiaenvironmentportal.org.in/>.

China's Motivations and Actions

The motives and drivers behind Chinese-linked hydropower investments abroad are varied and complex. Economic, political, geopolitical, and reputational considerations all contribute to these investments. Chinese companies and banks pursue overseas hydropower investments to further their economic interests, access new markets, or secure advantageous trade agreements. Such investments may also align with broader political strategies, such as the “going-out strategy,” which encourages Chinese businesses to expand their global presence and influence.⁸ From a geopolitical perspective, numerous factors, particularly in Southeast Asia, contribute to Chinese-linked hydropower investments. Factors such as geographic proximity, political ties, and cultural affinities between China and host countries significantly influence Chinese investment decisions in the hydropower sector.⁹

China's ambition for a dominant position over lower riparian states, especially concerning water resources, has sparked concern and debate in international relations. This geographical advantage has granted China perceived leverage and influence over water resources, eliciting apprehension among lower riparian states. Jayantha Dhanapala, a former UN undersecretary-general, contends that China's “water diplomacy” is often viewed as coercive and raises suspicions about China's intentions.¹⁰ Such concerns have been voiced by lower riparian states like Vietnam and India, which accuse China of leveraging its water resources to exert political pressure. Vietnam, for instance, alleges that China's construction of dams on the Mekong River aims to divert water away from Vietnam, while India accuses China of building dams on the Brahmaputra River to diminish water flow into India.¹¹

China refutes these allegations, asserting that it employs its water resources solely for legitimate economic and environmental purposes. However, the arguments of experts and the concerns voiced by lower riparian states have raised concerns about the potential for water conflicts in the future.¹²

China's concept of hydro-hegemony extends to its administration and control of rivers within its borders, notably the Mekong River and the Yarlung Tsangpo

⁸ Audrye Wong, “China's Economic Statecraft under Xi Jinping.” *Brookings*, 22 January 2019, <https://www.brookings.edu/>.

⁹ Wong, “China's Economic Statecraft under Xi Jinping.”

¹⁰ Mathieu Duchâtel et al., “Protecting China's Overseas Interests: The Slow Shift away from Non-interference,” *SIPRI*, June, 2014, <https://core.ac.uk/>.

¹¹ Manash Pratim Gohain, “Fearing ‘water war’ by China, government puts Arunachal dams on Fast Track,” *Times of India*, 19 January 2023, <https://timesofindia.indiatimes.com/>.

¹² PK Khup Hangzo, *Implications of China's Hydro-Hegemony on River Yarlung Tsangpo: Another Lever of China's Expansionist Tactics into India's East*, VIF Paper (New Delhi: Vivekananda International Foundation, October 2021, <https://www.vifindia.org/>).

River. Due to its management policies and approaches concerning transboundary rivers, China has been labeled a “negative hydro-hegemon” by several scholars. These strategies may involve coercion, pressure, and exploitation of power imbalances. From this perspective, China is seen as exerting control over rivers originating within its borders to gain an advantage in water resources and associated geopolitical interests over other countries.¹³

However, an alternative viewpoint, proposed by other scholars, suggests that China can be viewed as a positive hydro-hegemon regarding the Mekong River. They argue that China has taken proactive steps to foster collaboration among mainland Southeast Asian countries, leading to the expansion and development of the Mekong region. This perspective emphasizes China's efforts to promote regional cooperation and mutual benefit through various cooperative mechanisms, countering the negative portrayal of China as a hydro-hegemon.¹⁴

The construction of dams on the Yarlung Tsangpo River, particularly in the lower reaches including the Great Bend section, serves as part of an infrastructure-driven program aimed at consolidating China's claims over disputed territories such as Arunachal Pradesh. This policy seeks to enhance China's influence in these contested regions. Scholars suggest that these dam projects could have strategic implications, strengthening China's position along the border with India.¹⁵

China regards transboundary rivers as sovereign resources within its jurisdiction, to be utilized as it sees fit. Consequently, China perceives international water conventions and legally binding treaties concerning transboundary rivers as contrary to its national interests and sovereignty. This stance is exemplified by China's refusal to sign the United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses in 1997, which aims to establish norms for cooperation and management of transboundary rivers among riparian countries based on principles of mutual benefit and cooperation. China's rejection of this convention underscores its position.¹⁶

China's hydrological dominance over these rivers prompts debate over whether its actions are detrimental or beneficial, particularly regarding the Mekong River and the Yarlung Tsangpo River. It highlights China's reluctance to engage in in-

¹³ Hangzo, *Implications of China's Hydro-Hegemony*.

¹⁴ Stephen Chen, “Chinese Engineers Plan 1,000km Tunnel from Tibet to Xinjiang,” *South China Morning Post*, 30 October 2017, <https://www.scmp.com/>.

¹⁵ Chen, “Chinese Engineers Plan 1,000km Tunnel.”

¹⁶ Eleanor Albert, “Water Clouds on the Tibetan Plateau,” *The New Politics of China, India, and Pakistan* (blog), 9 May 2016, <https://www.cfr.org/>.

ternationally recognized conventions and treaties related to transboundary rivers, signaling a preference for maintaining control over these resources.¹⁷

Potential Threats to Lower Riparian States

China's idiom 得天独厚 (dé tiān dú hòu, translated as "benefiting from the gifts of nature") underscores China's advantageous position as a riparian state in the vast Himalayan watershed. This position enables China to reap the benefits of the natural endowments bestowed upon it. It highlights China's control over the headwaters of rivers traversing its territory and the resulting power asymmetry it holds in the region, both economically and militarily. This power dynamic poses a significant challenge for efforts aimed at achieving fair water distribution in the region.¹⁸

The construction of dams by China on the Mekong River commenced in 1986, and since then, these dams have had numerous adverse effects on downstream countries, including Myanmar, Thailand, Laos, Cambodia, and Vietnam. Among these unintended consequences is the reduction of water levels, disrupting the natural flow of water and sediment. This disruption has negatively impacted fisheries' health, significantly affecting populations reliant on fishing along the Mekong River, particularly in Thailand.¹⁹

In 2019, China's dams in the upper Mekong River basin retained a record amount of water, setting a new record despite experiencing above-average rainfall in the region during the wet season. Consequently, countries downstream faced an unprecedented drought during this typically wet season.

This isn't the first instance of China's dams causing unintended repercussions downstream on the Mekong River. Over the past two decades, drought conditions have worsened and become more frequent in the lower Mekong basin, likely due to a combination of factors, including climate change and dam construction in China.

Since 2019, Thailand, Cambodia, and Vietnam have endured the most severe and prolonged drought on record. This has severely harmed the region's economy and ability to ensure food security. Farmers have lost crops, fish populations have dwindled, and reservoir levels have dangerously decreased.

¹⁷ Department of Water Resources, River Development & Ganga Rejuvenation, "India-China Cooperation," 12 February 2024, <https://jalshakti-dowr.gov.in/>.

¹⁸ Ananth Krishnan, "Study on China Dams Brings the Brahmaputra into Focus," *The Hindu*, 29 April 2020, <https://www.thehindu.com/>.

¹⁹ Brahma Chellaney, "China Is Weaponizing Water and Worsening Droughts in Asia," *Nikkei Asia*, 28 October 2019, <https://asia.nikkei.com/>.



Figure 2. Mainstream Mekong River dams. (Source: Brian Eyler and Courtney Weatherby, "Mekong Mainstream Dams," Stimson Center, 23 June 2020, <https://www.stimson.org/>.)

The debate surrounding the construction of dams on the Mekong River remains contentious. Many argue that dams are vital for clean energy production and ir-

rigation purposes, while others assert that they have detrimental effects on the river's ecosystem and the communities relying on it.

The situation is complex, with no clear-cut solution. However, it is undeniable that dams constructed in China contribute to downstream droughts. China must increase transparency regarding its dam operations and collaborate with affected countries to mitigate their negative impacts.²⁰

Moreover, agriculture downstream has been severely affected by the dams. For example, the Mekong River Delta in Vietnam heavily relies on river water for irrigating crops, particularly rice, which contributes 16 percent to the country's annual gross domestic product (GDP).²¹ Leaders from several Southeast Asian countries have criticized China for disregarding the downstream impacts of its dam projects.

In 1995, Cambodia, Laos, Thailand, and Vietnam established the Mekong River Commission (MRC) as an intergovernmental organization to collaboratively develop and manage shared water resources. This initiative aimed to address water security concerns. Southeast Asian states have consistently urged China to fully engage with the MRC. Currently, China is obligated to provide water-level data from its Jinghong and Manwan dams under a 2010 agreement with the MRC. Nevertheless, China continues to withhold crucial information regarding water quality, pollution, and irrigation water usage.

Full membership of China in the MRC would foster improved transparency and cooperation, leading to better understanding of the impacts of dam construction and supporting equitable water resource management in the region.²²

In South Asia, China's proposal to construct seven dams along the main course of the Brahmaputra River has sparked concern in both India and Bangladesh. This apprehension stems from the river's vital role as a lifeline for farmers in both nations. China's current Fourteenth Five-Year Plan (2021–2025) prioritizes the rapid development of hydropower bases along the middle reaches of the Brahmaputra River. China asserts that these dams will operate as “run-of-the-river,” meaning they will align with the natural flow of the river and avoid significant alterations to water storage upstream.²³

²⁰ Brian Eyler, Regan Kwan, and Courtney Weatherby, “New Evidence: How China Turned Off the Tap on the Mekong River,” Stimson Center, 13 April 2020, <https://www.stimson.org/>.

²¹ *Mekong Delta Plan: Long-Term Vision and Strategy for a Safe, Prosperous and Sustainable Delta* (Hanoi: Government of Vietnam, December 2013), <https://www.wur.nl/>.

²² Eyler, Kwan, and Weatherby, “New Evidence.”

²³ Ananth Krishnan, “China Gives Green Light for First Downstream Dams on Brahmaputra,” *The Hindu*, 8 March 2021. <https://www.thehindu.com/>.

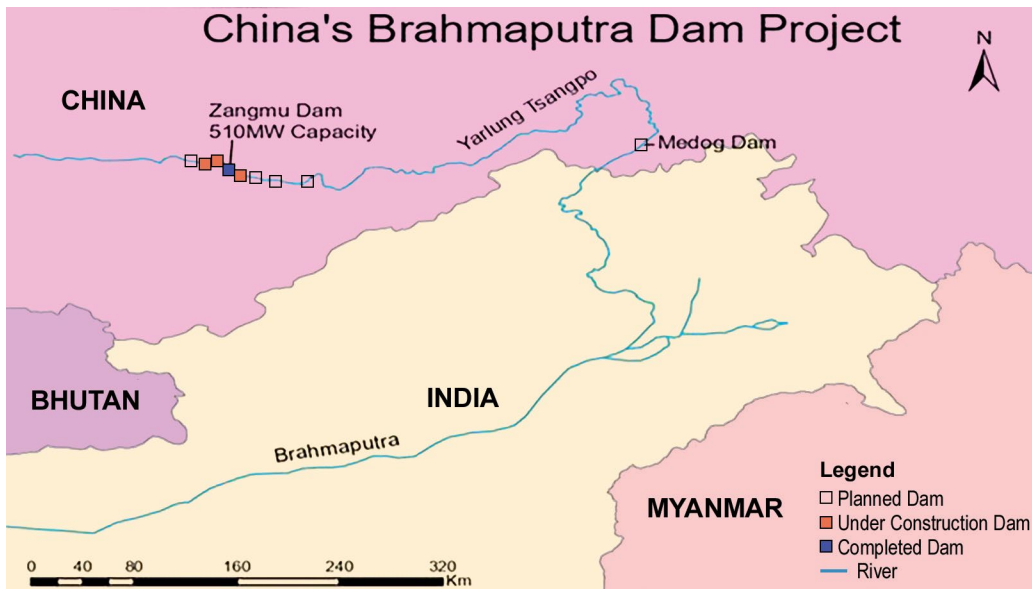


Figure 3. China's dam projects on River Yarlung Tsangpo (Brahmaputra). (Source: Generated by Arc GIS using data found at "China's Brahmaputra Dam Project," Graphic News, 1 November 2021, <https://www.graphicnews.com/>.)

However, India has expressed concern that China might redirect additional water from transboundary rivers to its arid northern regions to meet the water demands of China's coal and grain production centers. Compared to China's other main rivers, the Brahmaputra River has the lowest rate of hydropower utilization. Consequently, China has been actively constructing dams on the Brahmaputra River to generate hydroelectricity and enhance irrigation.

The Zangmu Dam in Tibet became China's inaugural hydropower project to commence operation in 2015, situated on the Brahmaputra River. Additionally, the Dagu Dam, Jiexu Dam, and Jiacha Dam are three other dams currently under construction. The Medog Dam, the latest addition to this region's dam infrastructure, commenced operation in 2023 and lies only 30 kilometers from the Indian border.²⁴

The construction of dams on the Brahmaputra River has faced opposition from various environmental specialists concerned about the potential impact on the surrounding ecosystem. Nonetheless, China has defended its dam-building program, emphasizing its significance in meeting the country's growing energy demands.

²⁴ Mohd. Hussain Naik, "Transboundary Implications of Damming River Brahmaputra and Response of Indian Government" (dissertation, Central University of Punjab, June 2014), <http://kr.cup.edu.in/>.

While research continues to elucidate the potential effects of China's dam construction on the Brahmaputra River, it's highly probable that these dams will significantly impact both the river's environment and the livelihoods of those dependent on it. Alterations to water flow timing and distribution caused by the dams may disrupt fish migration patterns, leading to decreased water accessibility for drinking and agricultural purposes.

The issue of dam construction on the Brahmaputra River is complex, lacking straightforward solutions. However, to make informed decisions regarding the dams' future, a comprehensive understanding of their potential impacts is imperative.²⁵

The series of dams erected on the Yarlung Tsangpo River poses a significant threat to various water-dependent activities in downstream countries, with India expressing valid concerns about their repercussions. The Yarlung Tsangpo River, known as the Brahmaputra in India, plays a critical role in supplying water to India's northeastern region, with estimates of India's dependence ranging from 7 percent to as much as 40 percent.²⁶

The Government of India staunchly opposes China's proposed Medog project, asserting that it encroaches upon its rights as a lower riparian state and raises serious concerns about adverse impacts on water availability, especially during the lean season. These concerns are warranted, as the Brahmaputra serves as a lifeline for millions in India's northeastern states, supporting agriculture, industry, and daily livelihoods.

Bangladesh, another lower riparian country, shares India's concerns. About 70 percent of Bangladesh's population resides in the Brahmaputra River basin. Any alteration in the river's flow due to upstream dam construction could lead to severe consequences for Bangladesh, including potential water shortages, disruptions to agriculture, and adverse effects on citizens' livelihoods. India, in particular, perceives this as a violation of its rights as a lower riparian state, underscoring the necessity for diplomatic dialogue and international cooperation to address these urgent issues.²⁷

According to certain reports, the proposed western route of the South-North Water Transfer Project aims to transfer water from the Yangtze River in southern China to the Gobi Desert in the north. Construction of the project's east and central canals has already commenced, with the completion of all three channels

²⁵ Krishnan, "China Gives Green Light for First Downstream Dams."

²⁶ Nilanjan Ghosh, "Chinese Dam on Yarlung Tsangpo/Brahmaputra: Should India Be Concerned?," *Observer Research Foundation*, 1 December 2020, <https://www.orfonline.org/>.

²⁷ Nilanthi Samaranyake, Satu Limaye, Joel Wuthnow, *Water Resource Competition in the Brahmaputra River Basin: China, India, and Bangladesh* (Arlington, VA: Center for Naval Analyses, May 2016), <https://www.cna.org/>.

anticipated by 2050.²⁸ The potential involvement of the Brahmaputra River in this project raises concerns about its impact on downstream water availability in India and Bangladesh. Despite sharing the major transboundary river, the Brahmaputra, India and China lack a formal water-sharing agreement, exacerbating worries and uncertainties surrounding China's dam construction activities.²⁹

The deteriorating water quality of rivers within Chinese territory has the potential to become a contentious issue between China and downstream countries in the near future. There is growing apprehension that China might deliberately degrade the water quality of transboundary rivers, rendering them unsuitable for various uses. An indicative incident occurred in 2017 when the Siang River, known as the Brahmaputra between the Indian states of Arunachal Pradesh and Assam, exhibited sudden signs of contamination, turning muddy and black. This event raised suspicions regarding upstream activities in Chinese territory.³⁰ Subsequent water quality testing revealed elevated turbidity levels, indicating an increased presence of suspended particles. This surge in turbidity had detrimental consequences, including a significant decline in fish populations due to the clogging of their gills by these suspended particles, severely impacting the local fishing community and agricultural production in the Siang Valley.

This instance highlights the vulnerability of the Brahmaputra basin to potential conflicts over water resources. The region faces significant risks to water security, further compounded by the lack of established institutional mechanisms to address the challenges of transboundary water security. Consequently, there is an urgent requirement for diplomatic initiatives and cooperative agreements to tackle these issues and ensure the sustainable management of shared water resources.

China's Attempt to "Isolate" India in South Asia

India, due to its strategic geographical location, occupies a central role in the management of transboundary rivers in South Asia. As a regional power, India's involvement in river management is regarded with suspicion by neighboring countries, many of which share river systems with India.³¹ This dynamic has prompted China, an influential player and extended neighbor in South Asia, to undertake

²⁸ Nivedita Khandekar, "Why India Must Push for a Water-Sharing Agreement with China," *dailyO*, 31 October 2017, <https://www.dailyo.in/>.

²⁹ Khandekar, "Why India Must Push for a Water-Sharing Agreement."

³⁰ Neeraj Singh Manhas and Hari Yadav G, "Relooking India-China Water Relations: A Major Concern?," *Financial Express*, 2 October 2022, <https://www.financialexpress.com/>.

³¹ Richa Singh, *Trans-Boundary Water Politics and Conflicts in South Asia: Towards "Water for Peace"* (New Delhi: Heinrich Boll Foundation, December 2008,) <http://www.indiaenvironmentportal.org.in/>.

actions that seem to challenge India's leadership in the region. These activities by China, aimed at offsetting India's influence, are evident in various instances.³²

In 2016, China announced that it had obstructed the flow of the Xiabuqu River, a Brahmaputra tributary located in Tibet near the Sino-Indian border. This obstruction was executed to facilitate the operation of the Lalho hydropower project.³³ Notably, this action occurred while India was contemplating a review of the Indus Waters Treaty with Pakistan following the Uri attack. It suggests a collaborative effort between upper and lower riparian states to undermine India's water-related interests. This trend signifies the potential "weaponization" of transboundary water resources, posing a significant threat to regional stability in South Asia.³⁴

Moreover, China has exhibited a discriminatory approach in sharing hydrological data between India and Bangladesh. Following the Doklam military stand-off, China abruptly ceased sharing hydrological data for the Brahmaputra River with India, despite previous agreements. In contrast, Bangladesh continued to receive uninterrupted data from China. This behavior by China reflects its intent to utilize water resources as a political tool against India within the South Asian context.³⁵

China's indirect efforts to exert pressure on India within its own sphere of influence, particularly regarding water resources, present a significant risk and are profoundly concerning for the long-term security of the region. Such actions have the potential to escalate tensions not only between India and China but also with other neighboring nations that depend on shared rivers for their water requirements.³⁶

Preparing for the Worst-Case Scenario

Extracting vital lessons from China is crucial for lower riparian states in effectively managing shared water resources. When dealing with China's water resources and transboundary river systems, lower riparian states can adopt several key strategies.

³² Antara Ghosal Singh, "China's Evolving Strategic Discourse on India from Doklam to Galwan and Beyond," Stimson Center, May 2022. <https://www.stimson.org/>.

³³ Neeraj Singh Manhas, "A Comparative Analysis of Water Management Issues and Challenges for India and China," Centre for Joint Warfare Studies, December 2022. <https://cenjows.in/>.

³⁴ Wini Fred Gurung and Amit Ranjan, eds., *Emerging Security Challenges and Water Politics in the Himalayas* (Singapore: Institute of South Asian Studies, NUS, March 2023). <https://www.isas.nus.edu.sg/>.

³⁵ Neeraj Singh Manhas, "A Fragile Lifeline: India and China Must Collaborate on Water," *The Interpreter*, 21 November 2023, <https://www.lowyinstitute.org/>.

³⁶ Brahma Chellaney, "China's Escalating Water War: On Top of Other Asymmetric Tactics, Brahmaputra Mega-Project Is a New Threat India Faces," *Times of India*, 16 March 2021. <https://timesofindia.indiatimes.com/>.

First and foremost, recognizing the importance of bilateral and multilateral cooperation is paramount. Establishing transparent channels of communication and nurturing diplomatic relationships can foster trust and facilitate negotiations over shared water resources.

Second, a thorough understanding of international water law and related agreements is essential. Embracing principles such as equitable and reasonable utilization, prior notification, and consultation can provide a robust legal framework for resolving water-related disputes.

Third, investing in sustainable water management practices is imperative.³⁷ Lower riparian states can prioritize efficient water resource utilization, advocate for conservation measures, and implement eco-friendly approaches to mitigate potential conflicts.

Additionally, participating in knowledge-sharing and capacity-building initiatives can enhance technical expertise and decision-making processes related to water governance.³⁸

Long-Term Strategies for Lower Riparian States

China underscores the necessity to reassess its dam-development policies and improve the transparency and thoroughness of environmental and social impact assessments. Other Asian nations should put aside their bilateral disputes and strive for a unified stance concerning Chinese upstream dam development. The impacts of climate change on the Himalayan watershed highlight the importance of establishing frameworks for water sharing and enhancing the effectiveness of water and energy management.³⁹

Chinese policy makers ought to enforce existing water management objectives and laws and enhance effectiveness by fostering a deeper understanding of the water-energy-food nexus. This could entail implementing regulations, conducting public awareness campaigns, and enforcing stricter enforcement measures. It is urged to transition into a full-fledged member of the MRC rather than remaining a dialogue partner.⁴⁰

³⁷ Department of Water Resources, River Development & Ganga Rejuvenation, "India-China Cooperation."

³⁸ Department of Water Resources, River Development & Ganga Rejuvenation, "India-China Cooperation."

³⁹ Aaron T. Wolf, "Conflict and cooperation along international waterways," *Water Policy* 1, no. 2 (1998): 251–65, <http://cawater-info.net/>.

⁴⁰ Yumiko Yasuda et al., *Transboundary Water Cooperation over the Brahmaputra River: Legal Political Economy Analysis of Current and Future Potential Cooperation* (The Hague: Hague Institute for Global Justice, 2017), <https://siwi.org/>.



Figure 4. Map of the Mekong Basin (Source: Shannon1, Creative Commons, 5 January 2015, [https://commons.wikimedia.org/.](https://commons.wikimedia.org/))

In the South Asian context, it is imperative that China commits to a water agreement with India to build trust. This entails increased transparency in data sharing and informing downstream neighbors of dam construction plans. It is

advisable for China to broaden regional dialogues on water security to encompass renewable energy sources like solar and wind.⁴¹

Centering on topics such as dam construction, environmental impact assessments, water management, regional collaboration, transparency, and sustainable energy, China will stress the importance of proactive measures to tackle these issues, fostering regional harmony and sustainable development.⁴²

Institutional Approaches to deal with China

In South Asia, there are two potential institutional approaches to engage with China regarding transboundary river management. Firstly, inspired by the MRC, South Asian nations could unite as lower riparian countries to negotiate collectively with upper riparian China concerning shared water resources. In this initiative, a regional organization, primarily South Asian Association for Regional Cooperation (SAARC), should take an active role in convening all lower riparian countries under a common platform. This unified stance would amplify their collective voice in discussions with China.

Moreover, to ensure that China's engagement in regional institutions aligns with the interests of South Asian countries, it is essential to consider China's participation in organizations where it holds representation. The Shanghai Cooperation Organization (SCO), initiated by China, includes South Asian nations sharing transboundary rivers facing various challenges. China's influence over the management practices of such organizations could indirectly impact shared water resources.

China's inclination to lead negotiations on shared water resources might be framed within contemporary concepts like climate change rather than direct reference to water sharing. If the SCO delves into climate change issues, it would inevitably address transboundary water concerns, given that many key rivers, such as the Indus and the Brahmaputra, originate in Chinese-controlled territory. This geographical advantage grants China significant influence. With SAARC encountering challenges and no other regional institution adequately equipped to manage transboundary water issues, this power vacuum could lead to an expanded role for China in hydro diplomacy within South Asia.

Consequently, incorporating China into the management of cross-border rivers within institutions led by South Asian countries could signify a positive stride toward achieving a peaceful and lasting resolution to transboundary river water

⁴¹ Aditya Gowdara Shivamurthy, ed., *India-China Competition: Perspectives from the Neighbourhood*, ORF Special Report No. 197 (New Delhi: Observer Research Foundation, August 2022), <https://www.orfonline.org/>.

⁴² Santosh Chaubey, "Water Imperialism and Future Water Wars—Why China Has Colonised Tibet," Central Tibetan Administration, 3 March 2021, <https://tibet.net/>.

management issues in South Asia. This approach would underscore collaboration and collective decision-making, thereby addressing the concerns of all parties involved.

Conclusion

The imperative to address the threat of China weaponizing water in Tibet cannot be overstated. Immediate action is essential to safeguard the water resources of lower riparian states. Proactive measures are crucial for anticipating future disturbances and implementing enduring policies to protect these vital resources. Drawing lessons from other regions, fostering regional cooperation, diversifying water sources, engaging in diplomatic dialogue, and garnering international support are paramount strategies for mitigating the risks posed by China's actions.⁴³ Leveraging open-source satellite data can further enhance these efforts.

Should existing bilateral or regional mechanisms prove ineffective or non-existent, lower riparian countries must advocate for multilateral solutions to counter any single country's dominance over transboundary rivers. With only about one percent of Tibet's hydropower potential currently exploited, the potential for further dam-building and hydropower development on Tibetan rivers looms large.⁴⁴ China's ability to manipulate the flow of water from Tibet's rivers for geopolitical leverage poses a significant concern for lower riparian states, potentially shaping future conflicts.

The future of continental Asia's hydro-politics hinges on institutionalized cooperation, transparency, the establishment of new regional frameworks for water sharing, and robust mechanisms for dispute resolution. Such measures are imperative for ensuring the sustainable management of transboundary river systems, benefiting millions of people in South Asia and Southeast Asia alike. ✪

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⁴³ Chaubey, "Water Imperialism and Future Water Wars."

⁴⁴ Uttam Kumar Sinha, *Riverine Neighbourhood: Hydro-politics in South Asia* (New Delhi: Pentagon Press, 2016), <https://idsa.in/>.

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