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India-China Brahmaputra River Dispute: A Legal Framework Based on International Law

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Abstract: ***The dispute between India and China regarding the Brahmaputra River (Yarlung Zangbo/Tsangpo in China) is a complex issue driven by strategic interests and water resource concerns, with implications for regional stability. Although India and China are not signatories to the 1997 United Nations Convention on the Law of Non-Navigational Uses of International Watercourses (UNWC), this paper explores how principles of international water law can be effectively applied to resolve this dispute. The key principles of equitable and reasonable utilisation and the obligation not to cause significant harm are examined in the context of their applicability to the actions of both nations. China's management of the Brahmaputra, including dam construction and water allocation, raises questions regarding compliance with these international norms. The principle of equitable utilisation requires both countries to use the shared watercourse fairly and reasonably, considering each state's needs and circumstances. Similarly, the obligation not to cause significant harm mandates that China's upstream activities not adversely affect downstream countries, which rely heavily on the river for water needs. By focusing on international law, this study aims to provide a framework for resolving the Brahmaputra River dispute, highlighting the importance of adherence to established water-sharing principles.***

Keywords: Brahmaputra River, China, India, United Nations Convention on the Law of Non-Navigational Uses of International Watercourses.

1. Introduction

The India-China Brahmaputra River dispute arises from the shared use of the Brahmaputra River, also known as the Yarlung Tsangpo/Zangbo, in Tibet, China. This transboundary river originates from the Tibetan Plateau and flows through India and Bangladesh before emptying into the Bay of Bengal. The dispute centres on China's dam construction and water management practices in the upper reaches of the river, which have raised concerns for India about water availability, flood control, and hydropower generation. China's construction of dams, such as the Zangmu Dam, which is close to the India-Bhutan border, has raised concerns about potential impacts on downstream flows, water quality, and sediment transport. Again, on 25 December 2024, China officially announced the construction of a mega-dam on the Great Bend of the Brahmaputra River at Medog County in Tibet, creating uneasiness in India.

Further, it is complicated by geopolitical tensions between India and China, particularly regarding border disputes and strategic competition in South Asia. The lack of a formal water-sharing agreement between the two countries accentuates the issue, as both nations have differing views on how the river's resources should be managed. The Brahmaputra River dispute is a multilateral and regional issue with ramifications for South Asia's water security, environmental sustainability, and peace. The Brahmaputra River dispute between India and China highlights the challenges of managing shared water resources between nations, especially when geopolitical tensions and strategic interests are merged.

China's Strategic Interests

The construction of dams on the Brahmaputra River, particularly in the lower reaches, including the Great Bend section, is part of an infrastructure-driven program to consolidate China's claims over disputed territories such as Arunachal Pradesh. China views the transboundary rivers as sovereign resources within its jurisdiction that can be utilised as it sees fit. Control over the river's flow gives China a geopolitical advantage over lower riparian states like India and Bangladesh, which depend on the river for agriculture, industry, and daily livelihoods (Manhas & Lad, 2024).

There are also fears of China's control over the Brahmaputra's water flow, which could impact India's freshwater resources and hydropower potential. The dam is located in a seismically active area, raising concerns about natural disasters like earthquakes and floods. The potential for flash floods during monsoon seasons poses a significant threat to downstream communities in India. China's control over the Brahmaputra could be a strategic tool against India, potentially diverting water before it reaches Indian territory. Past incidents, such as withholding hydrological data during the Doklam standoff, highlight the potential for China to use water as a weapon (Singh, 2025).

China's unilateral approach to water management and reluctance to engage in multilateral treaties exacerbate these concerns. There is potential for these dam projects to be used as a bargaining chip in broader geopolitical negotiations, particularly in the context of the Sino-Indian border dispute. The impact on the Tibetan environment is significant, given that the plateau is home to the largest perennial ice mass after the Arctic and Antarctica, and changes here can affect rainfall patterns and water availability in the region (Johri et al., 2021). Given the strategic significance of these projects, there is a pressing need for robust transboundary water governance mechanisms to ensure equitable resource distribution and mitigate the risks of unilateral exploitation. Without such frameworks, China's dam-building initiatives may contribute to heightened geopolitical tensions, undermining regional stability and cooperation.

Due to severe water scarcity and uneven distribution of water resources within China, the Yarlung Tsangpo is a potential source of water that can be diverted to arid northern regions. This is driven by the need to address the growing water demand for drinking water, irrigation, energy production, and other uses (Palmo, 2022). This approach aligns with the principles of the Harmon Doctrine, a principle of international water law that asserts the right of an upstream country to utilise the waters of a river flowing through its territory without considering the effects on downstream states. Named after American Attorney General Judson Harmon, who applied this idea in an 1895 dispute between the United States and Mexico over the Rio Grande River, the doctrine supports the concept of "absolute territorial sovereignty," allowing an upstream nation to exploit a river's flow within its boundaries regardless of the impact on neighbouring countries (Bhattacharya, 2018). China's water diversion strategies, particularly concerning the Yarlung Tsangpo, reflect elements of this doctrine, raising concerns among downstream nations such as India about potential reductions in water availability and the broader geopolitical implications of unilateral water management policies.

China's policy towards the Brahmaputra River is characterised by minimal cooperation and limited transparency. China signed Memorandums of Understanding (MoU) with India in 2002, 2005, and 2008 to share hydrological data, but the implementation has been inconsistent. China has not been forthcoming about its dam-building activities on the Brahmaputra, often acknowledging projects only after construction has begun (Yangtso, 2017). Since 1954, there have been 82 agreements/treaties/joint declarations between China and India, with 13 specifically concerning transboundary water cooperation. Notably, the Expert Level Mechanism (ELM) was established in 2006. Territorial disputes and long-term mistrust between China and India have significantly impacted water cooperation. The ELM serves as a technical decision-supporting organisation to facilitate transboundary water cooperation, with a limited working scope influenced by Sino-Indian diplomatic relations. It has held 11 meetings since its establishment, discussing hydrological data sharing and emergency management (Feng et al., 2019).

China's lack of an independent transboundary river strategy raises India's concerns. China instead oversees transnational rivers as part of its foreign strategy (Donnellon, 2023). The MoU indicates that both nations saw value in maintaining this agreement and inclination towards cooperation. However, China's South-to-North River Diversion Project aims to divert water from rivers originating in Tibet to address water scarcity in its drier northern region, potentially leading to a water crisis in India's northeastern region. The diversion of the Brahmaputra River could significantly reduce downstream water flow, impacting agriculture, fishing, and livelihoods in India and Bangladesh, leading to floods and salinity issues (Nair, 2011).

India's Concerns

Nilanjan Ghosh coined the term *Brahma-hypothesis* in a short article published in *The Hindu Business Line* to describe the concerns and fears in India, particularly in the North East Region (NER), regarding China's unilateral management of the Brahmaputra River's waters. This hypothesis encompasses three main components: first, the fear that China might construct large-scale dams and implement water diversion projects upstream, potentially reducing water availability for India; second, the apprehension that the collapse of such dams could trigger sudden and catastrophic floods downstream; and third, concerns that China's appropriation of the river's waters could significantly alter the floodplains of Assam and Bangladesh, leading to adverse ecological and socio-economic consequences. By encapsulating these anxieties, the *Brahma hypothesis* underscores the potential risks to downstream populations and ecosystems, amplifying regional insecurity and highlighting the geopolitical tensions surrounding transboundary water management (Deka, 2021).

India's concerns regarding China's actions on the Brahmaputra River stem from several incidents that have raised alarms about the country's water security. China's unilateral construction of dams and water diversion projects on the Brahmaputra River has heightened fears in India about the potential impact on its water resources. Further suspicion arose in 2018 when the Siang River, a tributary of the Brahmaputra, changed colour before entering India, with China attributing the change to an earthquake. However, India harboured doubts about possible water contamination. Additionally, India is concerned that China's infrastructure development on the Lhasa River, a tributary of the Brahmaputra, could potentially divert river resources away from India, adversely affecting the northeastern plains (Mahla, 2020).

India's response to the Brahmaputra River dispute, particularly in light of China's plans to build a mega-dam on the lower reaches of the Yarlung Tsangpo near the Line of Actual Control (LAC) in Tibet, is characterised by vigilant monitoring and a cautious approach. India is particularly concerned about the potential negative impacts of the proposed dam on Arunachal Pradesh, given its location in Medog County of the Tibet Autonomous Region (TAR). India advocates declassifying transboundary flow data to facilitate objective analysis and effective regional decision-making. India's response is cautious, focussing on understanding potential impacts and promoting transparency in data sharing (Ghosh, 2020).

India's response to the Brahmaputra River dispute reflects a strategic balance between collaboration, development priorities, and cautious threat perception regarding China's activities. India emphasises the importance of working with China on shared concerns such as water resource management, climate change research, and ecological protection. India's participation in cooperative initiatives with China, such as hydrological data sharing since 2006, shows its commitment to managing the dispute through dialogue and cooperation while deliberately avoiding provocative actions and refraining from securitisation rhetoric to maintain stability in the region (Ho et al., 2019). India and China can take cues from international law to manage the Brahmaputra River dispute and avoid any miscalculations.

International Water Law Framework

The United Nations Convention on the Law of Non-Navigational Uses of International Watercourses (in short, UN Watercourses Convention - UNWC), adopted in 1997, emerged from a growing recognition of the need for a comprehensive legal framework to manage and protect international watercourses. As global water scarcity became more pressing and conflicts over water use more common, the UN took the initiative to address the issue. The convention's origins can be traced back to the work of the International Law Commission (ILC), which began studying the legal aspects of international watercourses in 1970. After nearly three decades of deliberations, consultations, and drafting, the General Assembly adopted the convention on May 21, 1997. The convention seeks to establish principles for the equitable and sustainable use of transboundary watercourses, emphasising cooperation between states and the protection of ecosystems while also addressing the prevention and resolution of disputes over water resources. This convention came into force on August 17, 2014, and 36 states ratified it. India and China are not signatories of this convention.

The Convention applies to the uses of international watercourses and their waters for purposes other than navigation and measures related to protecting, preserving, and managing those watercourses and their waters. Watercourse states must utilise international watercourses equitably and reasonably, aiming for optimal and sustainable utilisation while considering the interests of all involved states. Watercourse states must take appropriate measures to prevent causing exceeding harm to other states when utilising international watercourses, and in case harm occurs, they should work to eliminate or mitigate it. Watercourse states must cooperate in good faith to achieve optimal utilisation and protection of international watercourses, considering mutual benefit and good faith. In disputes, parties should seek peaceful settlement through negotiation, mediation, conciliation, or arbitration, as outlined in the Convention (United Nations, 2014).

The UNWC is applicable in transboundary rivers as it can strengthen regional cooperation, align with existing conventions, and provide mechanisms for conflict resolution. The UNWC helps improve transboundary water cooperation, addresses gaps in existing agreements, and promotes sustainable water management. The Convention's provisions cover equitable use, water allocation, transboundary harm prevention, planned measures, data exchange, conflict settlement, environmental protection, and fact-finding procedures (Garane, 2008). These comprehensive provisions offer a valuable framework for countries sharing international watercourses, ensuring that water resources are managed collaboratively and sustainably.

The 'equitable and reasonable' use principle empowers riparian states by allowing upstream and downstream riparian states to utilise their shared transboundary water resources fairly and sensibly within their respective sovereign territories. This principle ensures a balance of interests that accommodates the needs and uses of each riparian state by considering factors like geography, hydrology, population dependence, economic and social needs, existing water usage, future needs, climate, ecology, and availability of other resources. It provides a framework for the fair and just allocation of shared water resources, enabling riparian states to negotiate agreements that promote cooperation, prevent conflicts, and sustainably manage transboundary water resources for all parties involved (Moahmmed, 2022). Thus, international legal frameworks define rules for water use, promoting equitable utilisation, encouraging cooperation, offering mechanisms for dispute resolution, promoting benefit-sharing, supporting the establishment of basin organisations, monitoring compliance, recognising human rights to water, addressing environmental protection, and encouraging regional economic development (Wouters, 2013).

The Principle of Equitable and Reasonable Utilisation enshrined in the UNWC requires fair water allocation among riparian states, considering factors like population, hydrology, and climate. India advocates for "equitable use," but as an upstream power, China follows an absolute sovereignty approach (favouring unilateral dam construction) and requires upstream states to avoid causing significant harm to downstream users. India claims that China's hydropower projects may reduce downstream flows and disrupt agriculture. However, without a legal framework, China cannot be halted. The Brahmaputra lacks legal dispute-resolution mechanisms, leading to political tensions over unilateral projects (Yasuda et al., 2017).

The international water law principles, particularly those outlined in the UNWC 1997, have been used as a framework for negotiations in the case of the Nile River. Historically, colonial-era treaties, particularly those signed in 1929 and 1959, granted Egypt and Sudan disproportionate rights to the Nile's water while excluding upstream countries, such as Ethiopia, from major water allocations. Despite contributing approximately 85 per cent of the Nile's water through the Blue Nile, Ethiopia was historically sidelined from the decision-making process. The principle of equitable and reasonable utilisation has played a crucial role in challenging historical power imbalances and advocating for a fairer distribution of the Nile's water. Ethiopia's Grand Ethiopian Renaissance Dam (GERD) has been a focal point of tensions with Egypt, yet international water law has facilitated dialogue and technical cooperation between the concerned nations. While disagreements persist, international water law has provided a legal basis for negotiations, steering nations toward diplomatic rather than unilateral actions. The involvement of the UN and the African Union (AU) in mediating discussions underscores the role of legal principles in managing transboundary water conflicts peacefully (Phillips, 2017).

2. Conclusion

The India-China Brahmaputra River dispute highlights the intricate and delicate balance between transboundary water management and geopolitical rivalry. The Brahmaputra River, which supports millions of people in India, China, and Bangladesh, is increasingly caught between conflicting priorities: the pursuit of national development and the necessity for cooperative management. China's extensive hydropower projects and water diversion plans have raised concerns for downstream countries, especially India,

regarding water security, environmental impacts, and regional stability. At the same time, India's cautious approach reflects an effort to balance development goals with an emphasis on environmental sustainability and cooperation, although suspicions linger over China's transparency and intentions.

International water law under UNWC, particularly the principles of equitable and reasonable utilisation and the obligation not to cause significant harm, offers a valuable framework for managing shared water resources responsibly. However, with neither India nor China a signatory to the UNWC 1997, these norms remain largely aspirational, with implementation dependent on mutual willingness to cooperate. Bilateral agreements like the MoU for hydrological data sharing signify some progress. Yet, challenges in data transparency and concerns over China's unilateral actions persist, threatening the fragile trust between the two nations.

A long-term resolution to the Brahmaputra dispute likely hinges on enhanced bilateral cooperation, supplemented by regional and international mediation. Establishing a comprehensive water-sharing framework that considers equitable access, environmental sustainability, and economic needs could prevent further escalation of tensions. Ultimately, successfully managing the Brahmaputra's resources depends on both nations' commitment to cooperation, transparency, and adherence to international norms.

China should adopt a more transparent and cooperative approach to managing the Brahmaputra River to address India's concerns and those of other downstream countries. This includes sharing hydrological data, conducting environmental impact assessments, and engaging in meaningful dialogue with affected countries. On the other hand, India should continue to advocate for its rights and interests while pursuing diplomatic channels to resolve the dispute amicably. A cooperative approach, based on mutual respect and understanding, is crucial to ensure the sustainable management of the Brahmaputra River. Both countries should prioritise the region's long-term interests and work towards a win-win solution for all stakeholders. By building trust, fostering dialogue, and adhering to international norms, India and China can pave the way for a more harmonious and sustainable future for the Brahmaputra River basin.

As responsible global powers that recognise the importance of international legal frameworks, India and China must refrain from unilateral actions that could escalate tensions and undermine regional stability. Instead, they should embrace multilateralism by fostering cooperation, transparency, and dialogue through legally binding agreements. Establishing a formal water-sharing treaty under UNWC will ensure that the interests of all stakeholders, including downstream nations like Bangladesh, are accommodated. The UNWC can be a paradigm on which the Brahmaputra River dispute could be based.

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