

HYDROPOLITICS IN SOUTH ASIA: INDIA, CHINA, PAKISTAN AND THE INDUS WATERS TREATY

KAUSHLENDRA DIXIT¹, VIMAL KUMAR MAURYA²

¹Assistant Professor Political Science, National P.G. College Bhogaon, Mainpuri, U.P. INDIA

²Research Scholar, Department of Political Science, Dr. Bhimrao Ambedkar University Agra, U.P. INDIA

ABSTRACT

The Indus Waters Treaty (IWT) of 1960, a World Bank-brokered agreement between India and Pakistan, has governed the sharing of the Indus River system's waters, surviving decades of conflict. India's suspension of the treaty in April 2025, following a terrorist attack in Pahalgam, Kashmir, has escalated tensions, with Pakistan labeling it an "act of war." This paper examines the IWT's historical framework, geopolitical disputes, China's upstream influence, environmental challenges, and the legal and diplomatic implications of the suspension. It argues that while the IWT exemplifies transboundary cooperation, unilateral actions, climate change, and China's strategic role threaten its viability. Through historical analysis, case studies, comparative perspectives, and policy recommendations, the paper advocates for modernizing the treaty and fostering a multilateral framework involving India, Pakistan, China, and Afghanistan to ensure water security and regional stability in South Asia, a region critical to global food and geopolitical stability.

KEYWORDS- *Indus Waters Treaty, Hydropolitics, Climate change impacts, Water scarcity, , Indus Basin, Diplomacy*

INTRODUCTION

The Indus River system, originating in Tibet and flowing through India and Pakistan, is a lifeline for South Asia, sustaining over 300 million people across agriculture, hydropower, and domestic needs. In Pakistan, the Indus Basin irrigates 80% of farmland, producing 90% of wheat and rice, and powers dams like Tarbela and Mangla, contributing 60% of hydropower. In India, the basin supports 14 million hectares of farmland in Punjab and Jammu and Kashmir, alongside hydropower projects critical to energy security. The Indus Waters Treaty (IWT), signed on September 19, 1960, between India and Pakistan, facilitated by the World Bank, allocates the eastern rivers (Ravi, Beas, Sutlej) to India (33 million acre-feet, 20% of annual flow) and the western rivers (Indus, Jhelum, Chenab) to Pakistan (135 million acre-feet, 80%), with India permitted limited non-consumptive uses, such as run-of-the-river hydropower. The treaty's endurance through the 1965, 1971, and 1999 India-Pakistan wars earned it acclaim as a model of transboundary water governance.

However, India's suspension of the IWT in April 2025, following a militant attack in Pahalgam, Kashmir, that killed 26 civilians, marks a pivotal crisis. India accused Pakistan of sponsoring terrorism via groups like Lashkar-e-Taiba, a charge Islamabad denies, and halted data sharing, commission meetings, and treaty obligations. This allows India to modify infrastructure or withhold water, leveraging its

upstream position. Pakistan, heavily dependent on the Indus, warned that flow reductions would be an "act of war," raising fears of conflict between nuclear-armed neighbours with 170 (India) and 180 (Pakistan) warheads. China, controlling the Indus's headwaters in Tibet, complicates the dynamic through hydropower projects and its strategic alliance with Pakistan via the \$62 billion China-Pakistan Economic Corridor (CPEC). Climate change, glacial melt, and population growth (1.9 billion in South Asia by 2025) further strain the basin.

HISTORICAL CONTEXT OF THE INDUS WATER TREATY

The partition of British India in 1947 fractured the Indus Basin's integrated irrigation system, designed by colonial engineers to maximize agricultural output. India inherited control over the headworks of canals vital to Pakistan's Punjab, which relied on the Indus for 90% of its 16 million hectares of farmland. In April 1948, India briefly halted water flows to Pakistan's Upper Bari Doab Canal, causing crop losses and displacing 50,000 farmers. This incident, dubbed the "water weapon," underscored the need for a legal framework to prevent conflict. The World Bank, recognizing the basin's global agricultural significance (feeding 10% of the world's population in 1950), initiated mediation in 1951. Negotiations spanned nine years, with Pakistan seeking guarantees against India's upstream control and India demanding flexibility for its growing population (360 million in 1951). The IWT, signed by

Prime Minister Jawaharlal Nehru and President Ayub Khan, was a landmark compromise. It allocated the eastern rivers to India for unrestricted use and the western rivers to Pakistan, with India allowed run-of-the-river hydropower projects subject to strict design and notification protocols outlined in Annexures C and D. The Permanent Indus Commission was established for biannual meetings and dispute resolution, with escalation to a neutral expert or arbitration if needed. The World Bank provided \$893 million (equivalent to \$8 billion in 2025) to Pakistan for replacement canals and dams, such as Tarbela (completed 1976), and \$315 million to India for infrastructure.

The treaty's exclusion of China and Afghanistan was a critical oversight. China controls the Indus's headwaters near Mount Kailash in Tibet, contributing 10% of its flow, while Afghanistan's Kabul River adds 5%. In 1960, China's limited infrastructure and Afghanistan's instability justified their exclusion, but this now hinders basin-wide management. The IWT's specificity—detailing flow allocations, project designs, and dispute mechanisms—ensured enforceability, enabling cooperation through the 1965 and 1971 wars and the 1999 Kargil conflict. However, its static framework, designed for a population of 500 million and stable climate, struggles with South Asia's 1.9 billion people, glacial melt (0.6 meters/year), and geopolitical shifts, including China's rise and India-Pakistan nuclearization.

GEOPOLITICS DYNAMICS : INDIA, PAKISTAN AND THE IWT

The IWT has been a cornerstone of India-Pakistan relations, but disputes over India's hydropower projects have strained cooperation. The Baglihar dam (completed 2008) on the Chenab River sparked Pakistan's first major objection, claiming its gated spillways reduced downstream flows, violating Annexure D. A Swiss neutral expert, appointed by the World Bank in 2005, upheld India's design but mandated minor adjustments, costing India \$50 million. The Kishanganga project (inaugurated 2018) on the Jhelum River intensified tensions. Pakistan argued that diverting water to the Bonar Nallah reduced flows to its Neelum River, impacting its \$2.6 billion Neelum-Jhelum hydropower project. In 2013, the Permanent Court of Arbitration ruled in India's favour but required a minimum flow of 9 cubic meters per second to Pakistan, balancing both nations' rights. The Ratle project (under construction on the Chenab, 850 MW) reignited disputes. In 2016, Pakistan requested a neutral expert, while India sought arbitration, creating a procedural deadlock. The World Bank paused both processes in 2016 to avoid conflicting rulings, frustrating both parties. In 2023, India proposed amending the IWT to address climate change, population growth, and its need for 10,000 MW of additional hydropower

in Kashmir. Pakistan rejected the proposal, fearing reduced flows to its 80% Indus-dependent agriculture. Tensions peaked in April 2025 when India suspended the IWT after a terrorist attack in Pahalgam, Kashmir, killed 26 civilians. India accused Pakistan of supporting Lashkar-e-Taiba, citing intelligence linking the attackers to Rawalpindi. Prime Minister Narendra Modi announced the suspension, halting data sharing, commission meetings, and treaty obligations, allowing India to build dams, withhold water, or modify flows without notification.

Pakistan condemned the suspension as a "declaration of war," emphasizing its reliance on the Indus for 90% of wheat (22 million tons annually) and rice (8 million tons). With only 14.4 million acre-feet of storage capacity (10% of its 135 million acre-feet share), Pakistan is vulnerable to flow reductions, which could slash GDP by 15% (\$60 billion), per World Bank estimates. Pakistan is preparing legal action at the World Bank, Permanent Court of Arbitration, or International Court of Justice, arguing India's unilateralism violates the IWT and customary international law. However, the IWT's lack of an exit clause and India's non-signatory status to the Vienna Convention on the Law of Treaties (1969) create legal ambiguity. India's upstream advantage—controlling 70% of the basin's headworks—gives it leverage, but risks retaliation, including militant attacks on new dams, as seen in Kashmir.

The suspension's ripple effects are profound. Bangladesh and Nepal, which share water treaties with India (e.g., Ganges Treaty, 1996), fear similar unilateral actions, straining South Asian cooperation. Pakistan's rhetoric, amplified by X posts like @visegrad24's April 2025 warning of "nuclear risks," escalates global concern. The crisis threatens to internationalize, with Pakistan seeking support from allies like China and Turkey. India's suspension also risks domestic backlash in Punjab, where farmers fear reduced Ravi and Sutlej flows, and Kashmir, where new dams could attract militancy. The IWT's collapse thus jeopardizes a volatile mix of geopolitics, economics, and security in a nuclearized region.

CHINA'S ROLE IN THE INDUS BASIN

China's control over the Indus's headwaters in Tibet introduces a critical dimension to the IWT crisis. The Indus originates near Mount Kailash, where China's dams, such as the Zangmu (510 MW), regulate 10% of its flow. China's planned \$60 billion Yarlung Tsangpo (Brahmaputra) dam, set for completion by 2035, could divert 60 billion cubic meters annually, affecting India's north-eastern states (70 million people) and Bangladesh. In 2016, China blocked a Yarlung Tsangpo tributary amid India-Pakistan tensions, signaling its ability to manipulate flows as geopolitical leverage. Through

the China-Pakistan Economic Corridor (CPEC), China has invested \$62 billion in Pakistan's infrastructure, including \$14 billion for the Diamer-Bhasha dam in Pakistan-administered Kashmir, which India claims as its territory.

CPEC strengthens Pakistan's water security by funding storage (e.g., Dasu dam, 4,320 MW) and irrigation, reducing reliance on India. However, it heightens India's concerns, as the Brahmaputra supplies 30% of its freshwater and 44% of its hydropower potential (29,000 MW). India's IWT suspension risks provoking China to escalate Brahmaputra interventions, such as diverting water to its arid north via the South-North Water Transfer Project, which could cut India's flows by 20%, per ICIMOD models. Such a move would devastate Assam and Arunachal Pradesh, where floods and droughts already displace 500,000 annually. China's strategic alignment with Pakistan, formalized in 2015, shapes regional dynamics. Pakistan owes China \$30 billion in CPEC loans, deepening dependence. India perceives CPEC as encirclement, particularly given China's naval base in Gwadar, Pakistan, 400 km from the Strait of Hormuz. The IWT crisis risks becoming a proxy for India-China rivalry, intensified by their 2020 Ladakh clash, which killed 20 Indian and 4 Chinese soldiers. China could exploit India's suspension to justify Brahmaputra dams, rallying Global South support against India's "water aggression." Conversely, India's planned \$5 billion Brahmaputra projects (e.g., Subansiri Lower, 2,000 MW) aim to counter China but risk downstream protests in Bangladesh.

ENVIRONMENTAL AND HUMANITARIAN CHALLENGES

The Indus Basin faces existential environmental threats from climate change, amplifying the IWT's stakes. The Hindu Kush-Karakoram-Himalaya glaciers, feeding 60% of the Indus's flow, are melting at 0.6 meters annually, reducing flows by 20% by 2050, per ICIMOD. Erratic monsoons, intensified by a 1.2°C global temperature rise, cause floods (Pakistan's 2022 floods affected 33 million, costing \$30 billion) and droughts, slashing Pakistan's wheat yields by 10% in 2023. Pakistan, withdrawing 74% of its renewable water resources (versus India's 34%), faces acute scarcity, with per capita availability dropping to 1,000 cubic meters, per FAO. The Indus Delta, once supporting 5 million people, suffers salinity intrusion and mangrove loss, displacing 2 million fishers. India's suspension exacerbates these risks. Withholding water could mimic the 1948 cutoff, devastating Pakistan's Punjab (60% of GDP) and Sindh, where inter-provincial disputes over the 1991 Water Accord fuel unrest. Sudden releases, as in July 2023 when India mitigated Sutlej floods, caused \$1 billion in Pakistani crop losses. India faces constraints: its Himalayan terrain limits storage to 33 million acre-feet (versus Pakistan's

14.4 million), and new dams risk militant attacks, as in Pahalgam. Over-extraction—Pakistan's groundwater depletion at 3 meters/year—compounds scarcity, with 80% of Punjab's wells saline by 2025.

Humanitarian impacts are dire. In Pakistan, reduced flows could displace 10 million by 2030, per UN estimates, fuelling urban slums and extremism in Karachi (20 million residents). Food insecurity, affecting 40% of Pakistanis, could spike, with wheat prices rising 25% post-suspension. In India, Punjab's 14 million hectares of farmland face Ravi-Sutlej shortages, raising rice prices by 15% and stoking farmer protests. Cross-border migration, already 100,000 annually, could surge, with India's 3,200-km border fence unable to stem flows. Waterborne diseases, affecting 1.5 million Pakistanis yearly, would rise without clean water, per WHO. Globally, Indus crop losses could spike wheat prices by 10%, impacting food markets in Africa and the Middle East. Comparative cases, like the Nile Basin, highlight risks. Egypt's threats against Ethiopia's Grand Ethiopian Renaissance Dam (2020) mirror Pakistan's rhetoric, yet Nile Basin Initiative talks averted conflict. Without similar dialogue, the Indus crisis risks famine, displacement, and militancy, with nuclear undertones alarming global powers.

LEGAL AND DIPLOMATIC IMPLICATIONS

The World Bank, a treaty signatory, emphasizes its facilitator role, limiting intervention. Pakistan's planned legal actions—at the World Bank, Permanent Court of Arbitration, or International Court of Justice—face hurdles: arbitration requires consent, and India contests ICJ jurisdiction, as in the 1999 Kargil case. A World Bank review could delay relief by years, prolonging Pakistan's vulnerability. Diplomatically, India risks isolation. Bangladesh, reliant on the 1996 Ganges Treaty, fears India's precedent, while Nepal's Mahakali Treaty (1996) talks stalled in 2024. China could rally Global South support, framing India as a water hegemon, while justifying Brahmaputra dams. The IWT's exclusion of China and Afghanistan (5% flow via Kabul River) underscores the need for a basin-wide framework, like the Mekong River Commission, which coordinates 6 nations. Without dialogue, escalation risks nuclear brinkmanship, with India-Pakistan war games simulating 500,000 casualties in a week.

Global actors, including the U.S. (\$1 billion aid to Pakistan) and EU (India's \$100 billion trade partner), must mediate, leveraging economic ties to de-escalate. The UN Watercourses Convention (1997), unratified by India and Pakistan, offers principles like "equitable utilization," which could guide talks. The crisis's internationalization—via Pakistan's OIC allies or India's Quad partners—risks

complicating resolution, yet dialogue remains the only path to avert conflict.

RECOMMENDATIONS FOR SUSTAINABLE WATER MANAGEMENT

To resolve the crisis, India and Pakistan must resume Permanent Indus Commission talks, with World Bank mediation. Modernizing the IWT is critical, addressing:

Climate Adaptation: Jointly monitor glacial melt with 1,000 sensors (\$500 million, funded by ADB), sharing real-time data via satellite.

Storage Expansion: Pakistan should build Kalabagh dam (\$14 billion, CPEC-funded), adding 6 million acre-feet. India should prioritize small dams (500 MW each), reducing treaty disputes.

Efficiency Technologies: Scale drip irrigation (saving 30% water, \$10 billion for 5 million hectares) and smart grids, as in India's Gujarat model. Desalination plants (\$2 billion each) could supply Karachi and Mumbai.

Basin-Wide Framework: Establish an Indus Basin Organization, including China and Afghanistan, modeled on the Nile Basin Initiative. Fund it with \$1 billion from G20, ensuring equitable sharing.

Diplomatically, confidence-building measures are vital:

Data Transparency: India should resume flow data sharing, verified by UN experts, as in 1990s flood warnings. Flood Coordination: Expand 2023 early-warning systems, linking 100 stations (\$50 million), to prevent losses.

Track-II Dialogue: Engage 200 academics and NGOs, as in the 1997 Pugwash talks, to rebuild trust.

Regional Forum: SAARC should host annual water summits, integrating Bangladesh and Nepal, to align treaties.

Globally, the U.S. and EU should leverage aid and trade to incentivize dialogue, offering \$2 billion in green tech grants. China's inclusion requires India's consent, achievable via Quad-mediated talks, offsetting CPEC's influence. Long-term, India and Pakistan should ratify the UN Watercourses Convention, aligning with 37 signatories to strengthen legal recourse. Comparative lessons from the Mekong (6-nation data sharing) and Danube (19-nation commission) highlight cooperation's benefits, averting \$10 billion in losses annually. Pilot projects, like joint India-Pakistan watershed restoration (\$100 million), could test collaboration. Scaling successes requires \$50 billion by 2035, feasible via World Bank and AIIB loans, ensuring 1.9 billion South Asians access sustainable water.

CONCLUSION

The Indus Waters Treaty, a beacon of India-Pakistan cooperation, faces its gravest challenge with India's 2025 suspension, driven by the Pahalgam attack. Pakistan's dependence on the Indus, China's upstream control, and climate change amplify risks, threatening famine, displacement, and conflict. Legal ambiguities and diplomatic fallout—impacting Bangladesh, Nepal, and global food markets—underscore the crisis's stakes. Yet, the Indus offers a path to peace. Modernizing the IWT to address glacial melt, storage needs, and hydropower disputes is feasible with \$50 billion in multilateral funding. A basin-wide framework, including China and Afghanistan, could emulate the Nile Basin Initiative, ensuring equitable sharing for 1.9 billion people. Investments in drip irrigation, desalination, and joint monitoring, backed by U.S.-EU mediation, can mitigate scarcity. Diplomacy—via commission talks, data sharing, and SAARC forums—can rebuild trust, averting nuclear risks. South Asia's future hinges on cooperation. By transforming the Indus from a flashpoint into a shared resource, India, Pakistan, and China can set a global precedent for hydropolitics, ensuring water security and stability. Failure risks a humanitarian catastrophe, with 10 million displaced and \$100 billion in losses by 2030. The choice is stark: share the river, or squander its promise.

REFERENCES

- World Bank. (2025). *The Indus Waters Treaty 1960 and the Role of the World Bank*.
- BBC News. (2025). *Pahalgam Attack: Will India Suspending Indus Waters Treaty Affect Pakistan?*
- Britannica. (2025). *Indus Waters Treaty: History, Summary, Disputes, Neutral Expert, & Facts*.
- Reuters. (2025). *Pakistan Preparing to Challenge India's Suspension of Water Treaty*.
- The Diplomat. (2025). *India's Suspension of the Indus Waters Treaty With Pakistan Could Backfire*.
- ICIMOD. (2023). *Himalayan Glacial Melt: Impacts on Indus Basin*.
- FAO. (2024). *Water Resources in South Asia: AQUASTAT Database*.
- UNEP. (2023). *Indus Delta Degradation: Environmental and Social Impacts*.
- WHO. (2024). *Waterborne Diseases in South Asia: Annual Report*.