The Indus Waters Treaty: Is Transboundary Water Governance a Geopolitical Tool?

There is an urgent need to establish strong international mechanisms to prevent the global water crisis from spiraling out of control. Water is our common future and it is essential to act together to share it equitably and manage it sustainably.

Audrey Azoulay, Director-General of UNESCO[1]

Introduction

The Indus Waters Treaty (IWT), brokered by the World Bank and signed in 1960 between India and Pakistan, has long been considered one of the most successful examples of transboundary water governance. Despite multiple wars, decades of hostility and recurring cross-border tensions, the treaty endured as a rare channel of cooperation, ensuring the division and management of the Indus River System. It not only regulated water sharing but also acted as a stabilising force in broader India-Pakistan relations, and is often cited as a firewall insulating water issues from geopolitical conflict.

However, in April 2025, India put the treaty on hold, citing Pakistan's continued support for cross-border terrorism and repeated disputes over hydroelectric projects. This marked a turning point for the treaty, raising questions about whether water governance frameworks can remain insulated from larger political and security dynamics. On the other hand, the suspension was not just as a reaction to persistent tensions but also a deliberate political lever – an attempt to use control over a vital resource to recalibrate bilateral relations and exert geopolitical pressure.

This case study examines the IWT as more than a technical water-sharing arrangement, exploring its role in managing one of the world's most contentious bilateral relationships. It raises critical questions: Can transboundary water treaties truly function as neutral instruments of cooperation, or are they inevitably geopolitical tools? And as climate change and water scarcity intensify, what lessons does the IWT's suspension offer for the future of global water governance?

Water, a Critical Strategic Resource

Water is a critical resource for life and economic development, yet climate change, population growth, urban migration and unsustainable consumption are placing unprecedented stress on freshwater systems. In 2025, two to three billion people are estimated to face water scarcity, threatening livelihoods, health, food security and energy access. The crisis is worsening – by 2050, the number of urban residents experiencing shortages is expected to double to 1.7–2.4 billion (nearly half the global urban population), up from 930 million in 2016.[2]

[1] UNESCO, "Imminent Risk of Global Water Crisis, Warns UN World Water Development Report 2023," March 22, 2023, https://www.unesco.org/en/articles/imminent-risk-global-water-crisis-warns-un-world-water-development-report-2023?hub=68313.

[2] UNESCO, "Imminent Risk of Global Water Crisis."

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As a common good, water requires collective stewardship, yet its uneven distribution has made it a strategic resource and a tool of political leverage. When rivers, lakes and aquifers cross provincial or national borders, water sharing among riparian regions often sparks disputes. Transboundary water conflicts commonly arise when different users clash over competing interests, or when the actions of one party reduce the quantity or quality of water available to another. Such conflicts often surface over dam construction, diversion projects or pollution, where upstream activities directly affect downstream access. In these cases, water becomes not just a shared resource but also a source of power asymmetry, heightening political tensions between riparian states.

Transboundary water governance agreements aim to foster cooperation in the management of such watercourses and set norms for usage and storage, but their effectiveness is complicated by the geographic, political and economic disparities between the nations involved.[3]

International Water Laws

Transboundary water resources are governed by several key international legal instruments developed under the United Nations (UN). These frameworks establish normative principles, procedural obligations and institutional mechanisms for cooperation among riparian states. Three of the most significant are:[4]

1. 1992 UN Economic Commission for Europe Water Convention: Initially regional to Europe and expanded globally in 2003, this convention emphasises ecosystem protection, pollution control and joint institutional mechanisms. It promotes integrated water resources management and data sharing, and has guided cooperation in major river basins such as the Danube, Dniester and Rhine.
2. 1997 UN Watercourses Convention: Providing a global framework for equitable and sustainable use, the principle of "no significant harm", and prior notification, this treaty was adopted by the UN General Assembly in 1997 and entered into force in 2014. While widely regarded as reflecting customary international law, it has been ratified by only 39 countries as of 2024.
3. 2008 Draft Articles on the Law of Transboundary Aquifers: These guidelines address the governance of shared groundwater resources, focusing on sustainable use, protection of recharge zones and cooperation between aquifer-sharing countries.[5]

Together, these instruments advance a rules-based approach that provides legitimacy and clarity for bilateral and multilateral treaties such as the IWT, the Mekong River Agreement and the Senegal River Basin Convention. They also offer a forward-looking framework to address the intensifying challenges of climate change, water scarcity and growing geopolitical tensions over water access and security.

Transboundary Water Cooperation

Over 60% of the world's freshwater flows through rivers that cross national borders, supporting the livelihoods of more than three billion people. Globally, there are around 313 shared river and lake basins and 468 aquifers, with 153 UN Member States relying on water sources that originate beyond their borders or flow into other nations.[6] However, most countries do not have all their transboundary basin areas covered by cooperative frameworks. According to a 2024 UN report, only 43 of the 153 countries with transboundary waters have

[3] UNESCO, "Imminent Risk of Global Water Crisis."
[4] UNESCO, *United Nations World Water Development Report 2024: Transboundary Water Cooperation*, March 22, 2024, https://www.unesco.org/reports/wwdr/en/2024/transboundary-cooperation?hub=2.
[5] UNESCO, *United Nations World Water Development Report 2024.*
[6] UN-Water, *Progress on Transboundary Water Cooperation: 2024 Update*, 2024, https://www.unwater.org/publications/progress-transboundary-water-cooperation-2024-update.

operational arrangements covering at least 90% of their shared rivers, lakes and aquifers, while more than 20 have none.[7]

Cooperation is more advanced in Europe, North America and sub-Saharan Africa, where nearly half of the nations (39 out of 84) have formal arrangements covering at least 90% of shared basins. In contrast, Asia, Latin America and North Africa lag behind, with only four of 69 countries achieving comparable levels of coordination.[8]

Some landmark transboundary water agreements are:

- the Boundary Water Treaty (1909) between Canada (upper riparian) and the US (lower riparian) that established the International Joint Commission for disputes management as a model for cooperation;
- the IWT (1960), brokered by the World Bank that has governed India (upper riparian) and Pakistan (lower riparian) water relations for decades;
- the Lake Chad Basin Commission (1964) among Cameroon, Chad, Niger and Nigeria sought joint management of a shrinking resource;
- the Mekong River Commission (1995) brought together Cambodia (lower riparian), Laos (mid riparian), Thailand (mid riparian) and Vietnam (lowest riparian) as members, and China (upper riparian) and Myanmar (upper/mid riparian) as dialogue partners;[9] and
- a series of Rhine conventions (since 1997) strengthened cooperation among European countries notably Switzerland, Germany, France, Netherlands and Luxembourg.[10]

Meanwhile, some treaties, such as the Nile Basin Initiative (1999) which is an intergovernmental partnership of 10 countries,[11] remain works in progress, reflecting the difficulties of reconciling diverse national interests.[12]

Leverage for Regional Stability

There is a strong link between transboundary water sharing and regional instability, as it directly impacts the economic and physical well-being of large populations. In Central Asia, disputes over the Amu Darya and Syr Darya rivers escalated into the worst violence in decades in 2021 between Kyrgyzstan and Tajikistan, leaving more than 50 dead, over 200 injured, tens of thousands displaced, and several houses, schools and shops destroyed in both countries.[13] In Southeast Asia, the large-scale development of hydroelectric dams across the Mekong River has displaced thousands and disrupted seasonal water flows, fish stocks and agriculture,

[7] UN-Water, *Progress on Transboundary Water Cooperation: 2024 Update*.
[8] UN-Water, "Progress on Transboundary Water Cooperation: 2024 Update (SDG 6.5.2 Indicator Report)," February 2025, https://www.unwater.org/sites/default/files/2025-02/sdg6_indicator_report_652_progress-on-transboundary-water-cooperation_2024_en.pdf.
[9] "MRC – For Sustainable Development in the Mekong River Basin," Mekong River Commission, https://www.mrcmekong.org/.
[10] International Commission for the Protection of the Rhine, "Convention on the Protection of the Rhine – Legal Basis of the ICPR," https://www.iksr.org/en/icpr/legal-basis/convention.
[11] The countries are namely Burundi, DR Congo, Egypt, Ethiopia, Kenya, Rwanda, South Sudan, Sudan, Tanzania and Uganda.
[12] "Nile Basin Initiative – Promoting Cooperation and Sustainable Development in the Nile Basin," Nile Basin Initiative, https://nilebasin.org/.
[13] The Third Pole, "Climate Nationalism, Unresolved Borders and the Pandemic Drove Kyrgyz–Tajik Conflict," *Dialogue Earth*, July 2023, https://dialogue.earth/en/justice/climate-nationalism-unresolved-borders-and-the-pandemic-drove-kyrgyz-tajik-conflict/#.

fuelling tensions among Laos, Thailand, Cambodia and Vietnam.[14] In Africa, the Nile continues to be a flashpoint, with Ethiopia's Grand Renaissance Dam in 2024 deepening disputes with Egypt and Sudan over downstream water access.[15] Similarly, Latin America has witnessed recurring disputes, from Nicaragua and Costa Rica's San Juan River skirmishes (mediated by the International Court of Justice in 2015) to Bolivia and Chile's decades-long conflict over the Silala River until 2022.[16]

These cases underline how water is never just a resource issue but also a geopolitical one. Water diplomacy, through inclusive and collaborative treaties, has therefore become a vital instrument for maintaining political stability. The IWT is one such example – conceived not only as a water-sharing framework but also as a deliberate confidence-building measure to manage political tensions between India and Pakistan.

The Indus Waters Treaty (IWT)

Historical Background

The partition of India in 1947 created a new geopolitical reality in which the Indus River System – the Indus and its five major tributaries: Jhelum, Chenab, Ravi, Beas and Sutlej (refer to Annex A for details) was divided between two sovereign nations, with India occupying the upper riparian position across all six rivers and Pakistan the lower riparian position. Even before partition, disputes had existed between Sind (now in Pakistan) and Punjab (now divided between the two countries) states over water claims. Partition deepened these tensions, as the new international boundary cut through the Indus Basin, turning a domestic issue into an international dispute.

A temporary Standstill Agreement in 1947 allowed continued water supply across the border, but it lapsed on 1 April 1948. This prompted urgent negotiations, resulting in the Inter-Dominion Accord of 4 May 1948, under which India agreed to provide water in exchange for annual payments. While this eased immediate pressures, it remained a stop-gap solution, and subsequent diplomatic negotiations failed to yield a long-term solution.[17]

In 1951, the World Bank intervened to mediate. By 1952, both countries accepted its involvement, and after nearly a decade of negotiations, the IWT was signed in 1960, establishing a long-term framework for sharing the Indus Basin (refer to Annex B for details on treaty provisions).[18] Beyond water sharing, the IWT established mechanisms for data sharing, technical cooperation and dispute resolution, enabling India and Pakistan to meet their agriculture and energy needs while striving for regional equity.

Geopolitical Driver

The IWT is disproportionately skewed in favour of Pakistan. Even though the rivers carrying bulk of the waters originate or flow through Indian territory, India (the upper riparian state) has been allocated only 19%, while

[14] "'Water Grabbing' the Mekong," East-West Center, February 2024, https://www.eastwestcenter.org/news/east-west-wire/%E2%80%98water-grabbing%E2%80%99-the-mekong.

[15] "Ethiopia's Mega Dam Has Taken 14 Years to Build: What It Means for the Nile's 11 River States, and Why It's So Controversial," *Down To Earth*, July 2024, https://www.downtoearth.org.in/africa/ethiopias-mega-dam-has-taken-14-years-to-build-what-it-means-for-the-niles-11-river-states-why-its-so-controversial.

[16] "World Water Day 2024: Water, a Conflict Trigger and a Tool for Peace," *Smart Water Magazine*, March 22, 2024, https://smartwatermagazine.com/news/smart-water-magazine/world-water-day-2024-water-a-conflict-trigger-and-a-tool-peace.

[17] "Indus Waters Treaty," Encyclopaedia Britannica, last modified 2024, https://www.britannica.com/event/Indus-Waters-Treaty.

[18] "Indus Waters Treaty Summary, World Bank Timeline," World Bank, 2023, https://timeline.worldbank.org/content/dam/sites/timeline/docs/migrated/event25-indus-summary-1787284.pdf.

Pakistan gets 81% share of Indus waters under the treaty. In comparison, Mexico (a lower riparian state) receives a far smaller share of water under its treaty with the US, highlighting the unusual Indus allocation.[19] In addition, under the IWT, Pakistan was paid US$900 million by donor countries – of which India contributed US$174 million – for development of its water infrastructure, despite India's GDP per capita in 1960 being more than 30% lower than Pakistan's.[20] Pakistan used that money to build two major dams, Mangla and Tarbela, along with an extensive canal system.[21]

The IWT's provisions do not allow for any modifications or abrogation by either country or the World Bank without mutual consent. As a result, it has not been updated to deal with current challenges. Why then did India accept such a lopsided agreement? India's motive was to achieve lasting peace in the region by fostering amicable relations with Pakistan, hoping it would allow Pakistan to feel more secure. At the time of signing in 1960, Indian Prime Minister Jawaharlal Nehru remarked,

> *We purchased a settlement, if you like; we purchased peace to that extent and it is good for both countries.*[22]

Yet, within a year he confessed his disillusionment, lamenting,

> *I had hoped that this agreement would open the way to settlement on other problems, but we are where we were.*[23]

Despite the early misgivings and its inherent imbalance, the IWT persisted for 65 years, even during multiple India-Pakistan wars and conflicts, becoming one of the few enduring bilateral agreements between India and Pakistan, and a global exemplar of transboundary water governance.

Growing Challenges

By 2025, however, the treaty stood at a crossroads. Increasing misalignment with evolving demographic and climate realities of the affected areas, inadequate infrastructure development, and years of legal disputes and political mistrust have exposed its inadequacies.

Environmental Pressures

Water Scarcity

As of 2025, India is home to over 18% of the world's population but has access to only 4% of global freshwater resources. This imbalance, compounded by the IWT, climate change and persistent mismanagement, has

[19] Abhijeet Kumar, "India Suspends Indus Waters Treaty with Pakistan: Impact on Agriculture, Power," *Business Standard*, April 24, 2025, https://www.business-standard.com/external-affairs-defence-security/news/india-suspends-indus-waters-treaty-pakistan-impact-agriculture-power-125042400376_1.html.
[20] Asit K. Biswas and Cecilia Tortajada, "Quo Vadis, Indus Waters Treaty?," *The Water Diplomat*, July 11, 2025, https://www.waterdiplomat.org/story/2025/07/quo-vadis-indus-waters-treaty.
[21] "Some Shocking Revelations about the Flawed Indus Treaty," *StratNews Global*, 2025, https://stratnewsglobal.com/world-news/some-shocking-revelations-about-the-flawed-indus-treaty/#google_vignette.
[22] Rahul Mahadeo Lad and Ravindra G Jaybhaye, "Peace at Stake: Is the Indus Water Treaty at the Crossroads?," *Global Water Forum*, June 1, 2023, https://www.globalwaterforum.org/2023/06/01/peace-at-stake-is-the-indus-water-treaty-at-the-crossroads/.
[23] Lad and Jaybhaye, "Peace at Stake."

intensified stress on water supplies.[24] India remains one of the most water-stressed countries globally, with per capita water availability at 1,486 cubic metres in 2021 – well below the Falkenmark Water Stress Indicator threshold of 1,700 cubic metres – and projected to further decline to 1,367 cubic metres by 2031.[25]

The situation is even more critical in states within the Indus Basin. Indian states such as Jammu and Kashmir, Himachal Pradesh, Punjab, Haryana, and parts of Rajasthan use nearly all their allocated share, yet continue to experience acute water shortages, particularly during the summer.[26] In these regions, the per capita water availability is alarmingly low, ranging between 500 and 1,000 cubic metres.[27]

Pakistan, despite its dominant share of Indus waters, also remains severely water stressed, with per capita availability of just 1,017 cubic metres in 2021.[28] The Indus River System is Pakistan's lifeline, irrigating about 80% of its arid land (16 million hectares), generating 28% of its electricity, and providing water for urban centres such as Karachi, Lahore and Multan.[29]

Population growth and rising economic activity have drastically escalated water demand across the basin. The total number of people living in the Indus Basin (India and Pakistan combined) has grown from 50 million in 1960 to over 320 million in 2025, and is expected to reach 611 million by 2050.[30] Urbanisation – rising from less than 20% to over 40% – and economic expansion (India's GDP per capita rose from US$313 in 1960 to US$2,698 in 2024, and Pakistan's from US$411 to US$1,647) have further intensified water demand, making scarcity one of the defining challenges of the Indus Basin.[31]

Climate Change

Climate change is significantly altering water availability across the Indus Basin. Rising temperatures have accelerated glacial melt in the Himalayas and disrupted precipitation patterns, lowering river discharges in the Ganges, Brahmaputra and Indus – together accounting for nearly 60% of India's renewable freshwater resources.[32, 33] The flow of the Indus alone is projected to decline by 50% by 2030, while the Ganges, which

[24] "World Water Day 2022: How India Is Addressing Its Water Needs," World Bank, March 22, 2022, https://www.worldbank.org/en/country/india/brief/world-water-day-2022-how-india-is-addressing-its-water-needs; "Water Crisis in India: Everything You Need to Know," Stockholm International Water Institute, 2024, https://siwi.org/latest/water-crisis-india-everything-need-know/.

[25] Monika Chaudhary, "India's Thirst for Improved Water Security," *East Asia Forum*, February 27, 2024, https://eastasiaforum.org/2024/02/27/indias-thirst-for-improved-water-security/#:~:text=India%20has%2018%20per%20cent,the%20depletion%20of%20water%20tables.

[26] Chaudhary, "India's Thirst for Improved Water Security."

[27] "Per Capita Water Availability, India Climate and Environment Data Portal," NITI Aayog, 2024, https://iced.niti.gov.in/climate-and-environment/water/per-capita-water-availability.

[28] Shahzaib Ahmad et al., "Impact of Water Insecurity Amidst Endemic and Pandemic in Pakistan: Two Tales Unsolved," National Center for Biotechnology Information (NCBI), August 24, 2022, https://pmc.ncbi.nlm.nih.gov/articles/PMC9464874/#:~:text=As%20per%20IMF%2C%20Pakistan's%20per%20capita%20annual,demand%2Dsupply%20gap%20of%20approximately%2083%20MAF%20%5B21%5D.

[29] Abhijeet Kumar, "India Suspends Indus Waters Treaty with Pakistan: Impact on Agriculture, Power," *Business Standard*, April 24, 2025, https://www.business-standard.com/external-affairs-defence-security/news/india-suspends-indus-waters-treaty-pakistan-impact-agriculture-power-125042400376_1.html.

[30] Ahmad et al., "Impact of Water Insecurity Amidst Endemic and Pandemic in Pakistan."

[31] Biswas and Tortajada, "Quo Vadis, Indus Waters Treaty?"

[32] USAID, "India Water Resources Profile Overview," Winrock International, August 2021, https://winrock.org/wp-content/uploads/2021/08/India_Country_Profile-Final.pdf.

[33] "India's Water Crisis: How Climate Change Threatens Water Resources and Future Sustainability," Give, 2024, https://give.do/discover/news/indias-water-crisis-how-climate-change-threatens-water-resources-and-future-sustainability/#:.

supplies water to 40% of India's population, is expected to decrease by 20% by 2050.[34] With 25–30% of the basin's water originating from glaciers and snowmelt, the system is acutely vulnerable to climate variability.[35] Increasingly erratic monsoon patterns, marked by more intense rainfall and longer dry spells, are already causing floods, droughts and disruptions to flow cycles. In addition to these hydrological changes, declining water quality threatens health, agriculture and biodiversity.

At the same time, global warming has brought unprecedented heatwaves to the northern Indian subcontinent, triggering a surge in electricity demand. Since thermal and nuclear power plants depend heavily on water for cooling, water demand for energy production is rising sharply and is expected to worsen beyond 2030. Heavy dependence on a single river system for consumption, agriculture and energy makes both Pakistan and Indian states within the Indus Basin highly vulnerable to these fluctuations in water availability.

Water Mismanagement

The water crisis in India and Pakistan is compounded by deep-rooted internal challenges. Outdated agricultural practices, inefficient irrigation methods and inadequate investment in water-saving technologies have left infrastructure ill-equipped to prevent water loss and meet growing demand. Poorly maintained distribution systems, leaky pipes and unregulated borewells further strain already limited resources.

Under the IWT, a total of 168 million acre-feet (MAF) of water is allocated annually, of which Pakistan receives 135 MAF. However, it loses nearly 66 MAF – twice India's treaty share.[36] Around 30 MAF drains unused into the sea due to Pakistan's inadequate storage capacity, while another 36 MAF of the 101 MAF allocated for agriculture is wasted because of inefficiencies in its irrigation network. With the Indus River System Authority[37] estimating the value of 1 MAF at US$1 billion, these inefficiencies amount to annual losses of nearly US$66 billion.[38] Intra-provincial disputes in Pakistan, particularly between Punjab, Sindh and Balochistan, have further delayed crucial projects, like the Kalabagh Dam, Chashma-Jhelum Link Canal and Thal Canal, perpetuating the country's low storage capacity and wastage.

In addition, heavy reliance on water-intensive crops and excessive groundwater extraction in both countries has led to declining water tables. Groundwater tables in Indian and Pakistani Punjab are declining by over 50 centimetres per year, and in some areas by more than one metre annually.[39] Poor wastewater management has worsened the crisis with urban sewage and industrial waste often released untreated, severely polluting rivers and lakes, while corruption and institutional neglect hinder reform. These systemic stresses, coupled with climate change, amplify risks for vulnerable communities.[40]

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[34] Smiti Mathur, "Climate-Proofing the Indus Water Treaty," *CSIS New Perspectives Asia Blog*, 2024, https://www.csis.org/blogs/new-perspectives-asia/climate-proofing-indus-water-treaty; Give, "India's Water Crisis: How Climate Change Threatens Water Resources and Future Sustainability."

[35] Mathur, "Climate-Proofing the Indus Water Treaty."; Give, "India's Water Crisis: How Climate Change Threatens Water Resources and Future Sustainability."

[36] Khaleeq Kiani, "Unutilised Water Flow into Sea Causes $29bn Yearly Loss to Economy: Irsa," *Dawn*, January 14, 2020, https://www.dawn.com/news/1528817.

[37] The Indus River System Authority (IRSA) is Pakistan's water regulator that oversees the distribution of the Indus River's water among its provinces.

[38] Kiani, "Unutilised Water Flow into Sea."

[39] Biswas and Tortajada, "Quo Vadis, Indus Waters Treaty?"

[40] Shakeel Ahmad et. al, "Water Resources and Their Management in Pakistan: A Critical Analysis on Challenges and Implications," *Water-Energy Nexus* 6, (December 2023): 137-150, https://www.sciencedirect.com/science/article/pii/S258891252300019X#:~; Biswas and Tortajada, "Quo Vadis, Indus Waters Treaty?"

The IWT, designed in the 1960s when climate change and rapid population growth were not major concerns, now appears rigid and outdated. As the treaty does not allow for any modification or abrogation without mutual consent, it relies on historical flow assumptions and lacks provisions for periodic reassessment, failing to account for new realities such as glacial melt, heatwaves and rising sea levels. Globally, experts increasingly argue that while the IWT has been critical for conflict management, its current framework is no longer adequate to address escalating pressures on shared water resources.

Political Mistrust

Festering Disputes and Hostility

Former US President Dwight Eisenhower once hailed the IWT as "one bright spot...in a very depressing world picture that we see so often", reflecting on its resilience despite frequent tensions and even wars between India and Pakistan.[41] The treaty's three-tiered dispute resolution process – via the Permanent Indus Commission, World Bank-appointed Neutral Experts and ultimately the Court of Arbitration – has resolved many disagreements over water sharing and infrastructure projects. The Commission, with one member each from India and Pakistan, met annually without interruption until 2022, even during the 1965, 1971 and Kargil wars between the two countries.[42]

Yet, despite these successes, disagreements over many of India's "run-of-the-river" hydroelectric projects on the Western rivers (allowed as per the treaty) have remained unresolved. Pakistan's repeated objections on technical or design grounds have delayed or stalled such projects for decades, with a few having been put in abeyance with no resolution in sight. For example, the Tulbul Navigation Project, initiated in 1984, has been suspended since 1987. Despite design modifications and multiple negotiations in 1998, 2004, 2006–07, 2011 and 2012, the matter remains unresolved.[43] Development of the Baglihar Dam had also stalled since 1992, until a World Bank-appointed Expert finally ruled in India's favour, and it was completed in 2015.[44]

Similar objections have slowed or blocked other critical projects such as Kishanganga, Ratle, Pakal Dul and Lower Kalnai.[45] These delays and uncertainties have resulted in India bearing significant financial losses and missing key developmental goals in the region. By 2025, India has built only 3,482 MW of hydropower capacity against an estimated 20,000 MW potential from the Western rivers. Nor has it been able to develop adequate storage to manage its share of 3.6 MAF of the water from the Western rivers.[46] This underutilisation

[41] "The Indus Waters Treaty of 1960," *The History Haven*, June 30, 2020, https://thehistoryhaven.com/2020/06/30/the-indus-waters-treaty-of-1960/.

[42] Ministry of External Affairs, Government of India, "118th Meeting of the India–Pakistan Permanent Indus Commission," Press Release, May 31, 2022, https://www.mea.gov.in/press-releases.htm?dtl/35375/118th+meeting+of+the+indiapakistan+permanent+indus+commission#:~:text=Center%20%E2%80%BA%20Press%20Releases-,118th%20meeting%20of%20the%20India%2DPakistan%20Permanent%20Indus%20Commission,on:%2031/5/2022.

[43] Shrabana Barua, "Indus Waters Treaty: Challenges and the Way Forward," Indian Council of World Affairs, 2023, https://www.icwa.in/show_content.php?lang=1&level=1&ls_id=12363&lid=7542.

[44] "Baglihar Hydroelectric Plant – Issue Between Pakistan and India", *Water Diplomacy*, January 30, 2015, http://aquapedia.waterdiplomacy.org/wiki/index.php/Baglihar_Hydroelectric_Plant_-_Issue_between_Pakistan_and_India.

[45] Shrabana Barua, "India's Notices to Pakistan to 'Modify' the Indus Water Treaty: Causes and Implications," Indian Council of World Affairs, February 6, 2025, https://www.icwa.in/show_content.php?lang=1&level=1&ls_id=12363&lid=7542.

[46] Vishwa Mohan, "India Plans Rapid Water Storage and Hydro Projects After Indus Waters Treaty Suspension," *The Economic Times*, April 26, 2025, https://infra.economictimes.indiatimes.com/news/water/india-plans-rapid-water-storage-and-hydro-projects-after-indus-waters-treaty-suspension/120650799.

underscores both the untapped resources allocated within the treaty's framework and the recurring disputes that undermine progress and prevent India from fully exercising its rights.

Despite this, India's long-standing adherence to the IWT might have continued had it yielded any reciprocal goodwill from Pakistan. Instead, India alleges, Pakistan has been escalating bilateral hostility – using the treaty itself to block India's development and much worse by perpetuating violent terror attacks in the country over the unresolved territorial dispute of Jammu and Kashmir.

Politicisation of the IWT

The escalation of cross-border terrorism has sharpened the perception that water sharing could no longer be insulated from geopolitics, turning the IWT into a bargaining chip in bilateral relations, setting the stage for calls to renegotiate – or even suspend – the treaty in pursuit of national security and developmental imperatives.

Following the 2016 terror attack in Uri, Jammu and Kashmir, that killed 18 Indian defence personnel, Narendra Modi, India's Prime Minister, declared that "blood and water cannot flow together" and the Permanent Indus Commission meetings were suspended until further notice.[47] According to Vikas Swarup, spokesperson India's Ministry of External Affairs in 2016,

> *For any such treaty to work, it is important there must be mutual trust and cooperation. It can't be a one-sided affair.*[48]

The 2019 terror attack in Pulwama, Jammu and Kashmir, which killed 40 Central Reserve Police Force personnel, further intensified calls within India to reconsider the treaty. Pakistan, in turn, accused India of "water terrorism" and its Disaster Management Authority accused India of weaponising water releases as part of "fifth-generation warfare," reinforcing public speculation about the treaty's intent and scope.[49]

The politicisation of the discourse has deepened mistrust on both sides and obstructed constructive dialogue. More critically, it has distracted policymakers from addressing forward-looking challenges – such as recurring floods and droughts, melting glaciers and declining river flows – that demand urgent redressal.

Unheeded Calls for Modification

In January 2023 and August 2024, India issued Pakistan formal notices for an intergovernmental review and modification of the IWT.[50] India argued that modifications are necessary to safeguard its national security interests, noting that the treaty fails to account for six decades of environmental, demographic and energy-related shifts. It stressed the need for a more effective and fairer dispute-resolution process to replace the current complicated and protracted mechanism. India also highlighted the unequal distribution of water under

[47] "'Blood and Water Cannot Flow Together': Modi After Reviewing Indus Water Treaty," *The New Indian Express*, September 26, 2016, https://www.newindianexpress.com/nation/2016/Sep/26/blood-and-water-cannot-flow-together-modi-after-reviewing-indus-water-treaty-1523224.html.
[48] Kamal Madishetty, "Why the Indus Water Treaty Is Being Debated in India," *Modern Diplomacy*, October 21, 2016, https://moderndiplomacy.eu/2016/10/21/why-the-indus-water-treaty-is-being-debated-in-india/.
[49] Anuttama Banerji, "A Shared Interest: Why India and Pakistan Should Strengthen the Indus Waters Treaty," Stimson Center, June 27, 2024, https://www.stimson.org/2024/a-shared-interest-why-india-and-pakistan-should-strengthen-the-indus-waters-treaty/#:~:text=Notably%2C%20the%20treaty%20does%20not,create%20legal%20and%20economic%20complexities.
[50] Namita Barthwal, "Indus Waters Treaty Needs Updates to Keep It Relevant," *South Asian Voices*, December 19, 2024, https://southasianvoices.org/geo-f-in-n-indus-water-treaty-needs-updates-to-keep-it-relevant-12-19-2024/.

the treaty, pressing for adjustments to meet growing domestic demand and mitigate climate-related stress in its vulnerable regions.[51] According to Prime Minister Modi,

> *A closer look at IWT will leave you shocked. It was decided that the dams built on the rivers of J&K would not be cleaned. Desilting would not be done. The lower gates for clearing sediments were to remain shut. For 60 years, these gates were never opened. As a result, the reservoirs could effectively use only 2–3% of their storage capacity.*[52]

Additionally, India cited Pakistan-sponsored terrorism as a major impediment to the smooth functioning of the treaty. However, the immediate trigger for India's notices was Pakistan's violation of the IWT's dispute-resolution mechanism over the Kishanganga project. The project had stalled since 1988 when Pakistan first objected to it. In 2010, the matter was taken to the Court of Arbitration, which in 2013 ruled in India's favour (with conditions). In 2016, when Pakistan again objected – including to the Ratle project – India sought a Neutral Expert review as per the treaty's graded mechanism. Instead, Pakistan bypassed procedure and pressed the World Bank to establish another Court, contravening the IWT rules that require technical issues to go first to a Neutral Expert.[53] Fearing contradictory rulings, the World Bank initially paused the process. Jim Yong Kim, World Bank Group President in 2016 said in a press release,

> *We are announcing this pause to protect the Indus Waters Treaty and to help India and Pakistan consider alternative approaches to resolving conflicting interests under the Treaty… This is an opportunity for the two countries to begin to resolve the issue in an amicable manner and in line with the spirit of the treaty rather than pursuing concurrent processes that could make the treaty unworkable over time.*[54]

However, in 2022, World Bank appointed both a Neutral Expert and a Court of Arbitration. India denounced this as a breach of the IWT, warning it undermined the treaty's dispute-resolution framework and set a dangerous precedent of bypassing agreed procedures.[55]

Both times, Pakistan responded within the stipulated window but sidestepped the core issue of modifying the IWT, cautioning India against unilateral abrogation. Pakistan's concerns had been heightened by India's revocation of Jammu and Kashmir's special status in 2019 and the politicised discourse after the Uri and Pulwama terror attacks, which hardened Pakistan's resistance to any meaningful collaboration. While India clarified it was not seeking to scrap the treaty, it pressed for a structured review of its provisions, and in parallel suspended meetings of the Commission, demanding that renegotiation take place directly at the governmental level.

Treaty in Abeyance

The tipping point came on 23 April 2025, when India put the IWT on hold, a day after a terror attack in Jammu and Kashmir killed 26 civilians, most of them tourists. Accusing Pakistan of sponsoring the attack, India halted

[51] Lad and Jaybhaye, "Peace at Stake."
[52] "PM Modi Hints at New Indus Waters Strategy: Putting It in Abeyance Not a Knee-Jerk Reaction," *Firstpost*, May 26, 2025, https://www.firstpost.com/india/pm-modi-hints-at-new-indus-waters-strategy-putting-it-in-abeyance-not-a-knee-jerk-reaction-13892330.html.
[53] "Conflicts Surrounding the Kishanganga Dam," Climate Diplomacy, 2023, https://climate-diplomacy.org/case-studies/conflicts-surrounding-kishanganga-dam.
[54] "World Bank Declares Pause to Protect Indus Waters Treaty," World Bank Press Release, December 12, 2016, https://www.worldbank.org/en/news/press-release/2016/12/12/world-bank-declares-pause-protect-indus-water-treaty.
[55] Barua, "India's Notices to Pakistan to 'Modify' the Indus Water Treaty."

the treaty in direct retaliation, marking the most severe rupture in the history of the agreement. India's foreign secretary, Vikram Misri announced,

> *The Indus Waters Treaty of 1960 will be held in abeyance with immediate effect until Pakistan credibly and irrevocably abjures its support for cross-border terrorism.*[56]

Regional and Global Implications

The suspension of the IWT reverberated far beyond South Asia. Globally, it has unsettled norms of water diplomacy, as the IWT had long been cited as a rare model of resilience amidst conflict. There is also international concern that the breakdown could set a precedent for other fragile water-sharing arrangements. The World Bank in particular faces the risk of losing credibility when frameworks like the IWT collapse without alternatives. According to Ajay Banga, President of the World Bank Group,

> *There is no provision in the treaty to allow to be suspended, the way it (the IWT) was drawn up, it either needs to be gone or it needs to be replaced by another one.*[57]

At the same time, he emphasised,

> *The World Bank's role is basically that of a facilitator…I know there's a lot of speculation in the media about how the World bank will either fix it or not, or be approached or not. It's all bunk because we don't have that role to play…the treaty is a treaty between two sovereign nations and they have to decide whether that's what they want to continue with, it's their decision.*[58]

Furthermore, this could also signal diminishing efficacy of multilateral water diplomacy – a warning shot for transboundary governance. If treaties collapse amid political volatility, how can meaningful environmental governance prevail? The IWT's breakdown also has implications for how river agreements in other contested basins – from the Mekong to the Nile and Central Asia – are negotiated.

For the region, it has destabilised one of the few functional frameworks of cooperation between bitter rivals, raising fears of escalation in a nuclearised neighbourhood. The threat to water security has inflamed tensions and speculations in Pakistan, which may potentially provoke Pakistani retaliation against Indian infrastructure. It also signals risks for development and stability in South Asia, where agriculture, hydropower and urban water security all depend heavily on transboundary flows. China's upstream presence on the Brahmaputra basin further complicates the strategic environment, with Beijing's control of water flows now looming larger in India's calculations and power alignments in Asia.

Implications for Pakistan

For Pakistan, the suspension of the IWT is an existential threat, as the Indus system sustains nearly all its agriculture, provides the backbone of its electricity generation, and secures drinking water for its major urban centres. Losing guaranteed flows under the treaty destabilises both its economy and domestic politics.

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[56] Diaa Hadid and Omkar Khandekar, "India-Pakistan Tensions Rise After Attack in Kashmir," *NPR*, April 24, 2025, https://www.npr.org/2025/04/24/g-s1-62469/india-pakistan-kashmir-attack-tensions.

[57] "World Bank President Says 'No Provision' in Indus Waters Treaty for Suspension," *Dawn*, May 14, 2025, https://www.dawn.com/news/1911007.

[58] Pangambam S, "Transcript of World Bank President Ajay Banga on Indus Water Treaty in Abeyance, Trump Tariffs," *The Singju Post*, May 13, 2025, https://singjupost.com/transcript-of-world-bank-president-ajay-banga-on-indus-water-treaty-in-abeyance-trump-tariffs/.

- Economic vulnerability: Agriculture, contributing 23% of GDP, 24% of exports, and employing 37% of the labour force (two thirds of the rural population), is acutely dependent on uninterrupted Indus flows.[59]
- Water and food security: Even marginal reductions in water availability could trigger shortages in food and drinking water, particularly in the dry season when scarcity is at its peak, deepening social unrest as nine in 10 Pakistanis live within the basin.[60]
- Energy dependence: With one fifth of electricity generated from hydropower, and all 21 hydroelectric plants located in the Indus Basin, disruptions would aggravate Pakistan's chronic energy crisis.[61]
- Climate fragility: Already highly vulnerable to extreme monsoon floods, Pakistan relies on Indian hydrological data for early warning. Without the treaty, this data flow stops – though in August 2025, India still shared a timely alert about cross border flooding that enabled mass evacuations.[62]
- Weaponisation risk: India could exploit its upstream advantage by suddenly releasing water or flushing silt from reservoirs without warning. Given the Indus' high sediment load, sudden flushing could severely damage dams, barrages and farmland downstream.[63]
- Domestic political strain: Sharp provincial rivalries over water allocation are likely to intensify under scarcity, weakening federal cohesion and governance capacity.
- Geopolitical vulnerability: Suspension amplifies Pakistan's dependence on external allies (China, Gulf countries) for political and economic support, while also leaving it vulnerable to coercion in broader India-Pakistan disputes.
- Diplomatic leverage: Pakistan can appeal to international law and institutions, portraying India as the aggressor. But overreliance on external mediation risks exposing its limited bargaining power.

Implications for India

For India, the abeyance of the treaty aligns with domestic calls to prioritise national security and sovereignty over goodwill. It enables India to fully exploit its eastern rivers and potentially exercise greater control over western flows by modifying infrastructure or advancing new projects without notifying Pakistan. Yet the suspension carries significant risks:

- Legal risks: With no exit clause, India's action skirts treaty norms, exposing it to accusations of breaching international law and weakening its credibility in future global negotiations.
- International standing: While this could be an opportunity for India to project leadership by reframing water-sharing around climate resilience, the optics of "weaponising water" against Pakistan risks global criticism for destabilising a humanitarian lifeline.
- Economic and sustainability costs: Accelerating storage and hydropower projects under political and legal uncertainty entails heavy costs and impact ecological flows, that could undermine long-term sustainability and intergenerational equity.
- Regional stability: Suspension risks fuelling retaliation, including cross-border terrorism, and deteriorating bilateral ties. A weakened Pakistan is not in India's long-term interest, as instability across the border is strategically dangerous, requiring the water agreement to be managed both as a

[59] David Michel, "Can India Cut Off Pakistan's Indus River Lifeline?," Center for Strategic & International Studies, May 1, 2025, https://www.csis.org/analysis/can-india-cut-pakistans-indus-river-lifeline.
[60] David Michel, "Can India Cut Pakistan's Indus River Lifeline?"
[61] David Michel, "Can India Cut Pakistan's Indus River Lifeline?"
[62] Babar Dogar and Munir Ahmed, "Mass Evacuations in Eastern Pakistan as India Releases Water From Swollen Rivers," *AP*, August 27, 2025, https://apnews.com/article/pakistan-mass-evacuations-india-released-water-rains-4201f92cd951b36a2b9d9b534df1cd82.
[63] Navin Singh Khadka, "Can India Really Stop River Water From Flowing Into Pakistan?," *BBC*, April 25, 2025, https://www.bbc.com/news/articles/cd7vjyezypqo.

security concern and a stability imperative. Other riparian neighbours – Bangladesh, China and Nepal – are also watching closely how India plans to resolve the issue.

- China's upstream leverage: India's move may embolden China, which controls the Brahmaputra and Sutlej headwaters, to assert unilateral control, reshaping transboundary water norms and its influence in the region. Following the Uri terror attack in 2016, Beijing blocked a tributary of the Yarlung Tsangpo (the Brahmaputra in India), officially for a hydropower project, but widely seen as signalling support for Pakistan.[64] In 2025, China approved the world's largest dam on the lower Yarlung Tsangpo, raising fears that it could adversely affect downstream flows despite China's assurances of minimal impact.[65]

Policy Dilemma and Considerations

India now faces a critical policy dilemma on the future of the IWT. Maintaining the status quo would avoid international backlash and preserve India's image as a treaty-abiding power. It ensures predictability and keeps a fragile channel of engagement with Pakistan open. However, it would also fuel domestic protests against the treaty, and perpetuate constraints on India's ability to harness its own water resources, while climate change, demographic pressures and Pakistan's repeated objections exacerbate the costs of compliance.

Renegotiating the treaty offers India the chance to push for a more equitable arrangement, gaining greater flexibility to exploit its share of waters and strengthen its bargaining position. Yet, feasibility is questionable: Pakistan is unlikely to agree, and any unilateral push could undermine India's legitimacy. The move would also be closely watched by other Indus Basin states such as China and Afghanistan (sharing the Kabul River), potentially triggering wider regional contestation over water-sharing norms.

A forward-looking alternative for India would be to build a regional framework, adopting a basin-wide approach in the management of the river waters. By recasting the IWT into a collaborative agreement including all Indus Basin countries, integrating climate adaptation, joint basin management and data sharing, India could promote adaptive management and sustainable practices. This would also enhance India's image as a responsible regional leader and "climate-proof" arrangements for future generations. However, it would require immense political will and trust-building in a region where hostility, terrorism and geopolitical rivalries dominate, making this option aspirational but strategically important in the long run.

A key consideration for Pakistan would be to take concrete steps in minimising the tremendous water wastage by creating adequate storage capacity and adopting more efficient irrigation practices, which would strengthen its case before international bodies. More importantly, it must acknowledge the impact of environment on water management, and demonstrate its willingness to modify the treaty to make it equitable and adaptive to climate change – an act that would also serve as a confidence-building measure with India.

Conclusion

Ultimately, water treaties are not merely technical instruments of resource management, but deeply political frameworks intertwined with sovereignty, security and identity. As climate change intensifies water scarcity worldwide, the IWT highlights the urgency of rethinking transboundary governance models – not as static legal

[64] Press Trust of India, "China Blocks Tributary of Brahmaputra in Tibet to Build 'Most Expensive' Dam," *NDTV*, October 1, 2016, https://www.ndtv.com/india-news/china-blocks-tributary-of-brahmaputra-in-tibet-to-build-dam-1468843.
[65] Paul Gerke and Sean Wolfe, "Here's Why India Is Worried about the Approval of the World's Largest Hydroelectric Dam," *Renewable Energy World*, January 2, 2025, https://www.renewableenergyworld.com/news/heres-why-india-is-worried-about-the-approval-of-the-worlds-largest-hydroelectric-dam/.

contracts, but as dynamic and adaptive frameworks that can accommodate both ecological realities and geopolitical imperatives.

The central question, therefore, is not just whether the IWT can be revived, but whether India and Pakistan, and the wider international community, can reconceptualise water sharing as a tool of cooperation rather than coercion in an age where hydro-politics increasingly determines peace and conflict. A collaborative framework that balances national interests with climate realities could transform the IWT from an issue of contention into a foundation for sustainable peace in South Asia.

Finally, the global community must confront whether leaving transboundary water governance wholly to sovereign nations is viable. With water becoming a national security concern and riparian states pursuing conflicting interests, there is an urgent need to establish international mechanisms that ensure that water remains a human-centric resource rather than a tool of geopolitical leverage.

Discussion Questions

1. Is the IWT still a good example of durable international policy? Why or why not?
2. How can water treaties incorporate flexibility for contingencies?
3. What are the policy risks of linking water treaties to broader geopolitical tensions?
4. Should India use the treaty as leverage, or is that bad policy? Why?
5. What would a future-proof version of the IWT look like?

Annex A

The Indus River System

The Indus River System comprises the Indus and its five major tributaries: Jhelum, Chenab, Ravi, Beas and Sutlej. The Indus and Sutlej originate in the high Himalayas in Tibet (Autonomous Region of China) and descend through mountains and hills into the plains of north-western India before flowing into Pakistan (see Figure 1 and Table 1 for details).

One of the world's greatest river systems, the Indus River System in the 1950s carried nearly 170 million acre-feet of water annually – twice the flow of the Nile and three times that of the Tigris and Euphrates combined.[66] According to the World Bank, it supported the largest irrigation system in the world, covering around 30 million acres, surpassing that irrigated by the Nile in Egypt and Sudan at that time.[67] Without these rivers, the fertile plains of the Indus Basin would have been a desert.

Figure 1: Indus River System



Source: Image from "Indus River System: Origin, Tributaries and Major Projects," Sanskriti IAS Current Affairs, 2024, https://www.sanskritiias.com/current-affairs/indus-river-system-origin-tributaries-and-major-projects#:~:text=Its%20ancient%20name%20is%20Shaturdi,Bilaspur%20district%20of%20Himachal%20Pradesh.

[66] "Fact Sheet: The Indus Waters Treaty 1960 and the Role of the World Bank," World Bank, 2023, https://www.worldbank.org/en/region/sar/brief/fact-sheet-the-indus-waters-treaty-1960-and-the-world-bank.
[67] World Bank, "Fact Sheet: The Indus Waters Treaty 1960."

Table 1: Indus Rivers Origin and Flow

Rivers	**Origin**		**Flow**
Indus	Tibet (China)	Receives Sutlej	Through Jammu and Kashmir, and Ladakh in India to Pakistan and into the Arabian sea
Sutlej	Tibet (China)	Joins Indus	Through Himachal Pradesh and Punjab in India, joins Indus in Pakistan.
Chenab	Himachal Pradesh (India)	Joins Sutlej	Through Himachal Pradesh, and Jammu and Kashmir in India, joins Sutlej in Pakistan
Ravi	Himachal Pradesh (India)	Joins Chenab	Through Himachal Pradesh and Punjab in India, joins Chenab in Pakistan.
Jhelum	Kashmir (India)	Joins Chenab	Through Jammu and Kashmir in India, joins Chenab in Pakistan
Beas	Himachal Pradesh (India)	Joins Sutlej	Through Himachal Pradesh and Punjab, joins Sutlej in Punjab (India)

Source: "Indus River System: Origin, Tributaries and Major Projects," Sanskriti IAS Current Affairs, 2024, https://www.sanskritiias.com/current-affairs/indus-river-system-origin-tributaries-and-major-projects#:~:text=Its%20ancient%20name%20is%20Shaturdi,Bilaspur%20district%20of%20Himachal%20Pradesh.

Annex B

Indus Waters Treaty Provisions

The key provisions under the Treaty are:[68]

1. Allocation of Rivers:
    - Pakistan is granted full and exclusive rights over the Western Rivers (Indus, Jhelum and Chenab). India is obligated to let their waters flow uninterrupted, with limited rights for domestic, non-consumptive, agricultural use and hydroelectric power generation.
    - India is granted full and exclusive rights over the Eastern Rivers (Ravi, Beas and Sutlej). Pakistan can only use their waters while they transit its territory, and only for domestic, non-consumptive and agricultural purposes.
2. Restrictions on River Works: Both countries must ensure that projects for flood protection, drainage, soil conservation, desilting or dredging avoid causing material damage to the other party.
3. Data Sharing: Regular exchange of information on river flows and water utilisation.
4. Institutional Mechanisms: Establishment of a Permanent Indus Commission with one commissioner from each country to manage implementation and resolve disputes.
5. Dispute Resolution: Provision of a Neutral Expert for technical differences and a Court of Arbitration for broader, binding adjudications.
6. Financial Aid to Pakistan:
    - India agreed to provide US$174 million (over ten years, 1960–1970) to help Pakistan fund replacement works for irrigation canals that previously relied on the Eastern Rivers.
    - Additional financing was contributed by member countries of the World Bank to support Pakistan's water infrastructure.

[68] United Nations, "The Indus Waters Treaty, 1960, Between the Government of India, the Government of Pakistan and the International Bank for Reconstruction and Development," United Nations Treaty Series, vol. 419, no. I-6032 (Karachi, September 19, 1960), https://treaties.un.org/doc/Publication/UNTs/Volume%20419/volume-419-I-6032-English.pdf;
BYJU'S, "Indus Waters Treaty," BYJU'S Free IAS Prep, 2024, https://byjus.com/free-ias-prep/indus-water-treaty/.