

## RIVERS BEYOND BORDERS: AN INTERNATIONAL LAW PERSPECTIVE ON SOUTH ASIA'S WATER DISPUTES OF INDUS, GANGES-BRAHMAPUTRA-MEGHNA (GBM) BASIN

**AUTHOR** – DNYANESHWARI JADHAV, LL.M STUDENT AT MODERN LAW COLLEGE

**BEST CITATION** – DNYANESHWARI JADHAV, RIVERS BEYOND BORDERS: AN INTERNATIONAL LAW PERSPECTIVE ON SOUTH ASIA'S WATER DISPUTES OF INDUS, GANGES-BRAHMAPUTRA-MEGHNA (GBM) BASIN, *INDIAN JOURNAL OF LEGAL REVIEW (IJLR)*, 5 (11) OF 2025, PG. 11-24, APIS – 3920 – 0001 & ISSN – 2583-2344.

### Abstract

This study starts by tracing the development of international water law and by outlining its current concepts and principles. Against that background, the authors focus on the hydro-politics of four countries of the South Asian Sub-continent: Bangladesh, India, Nepal, and Pakistan. They analyze the problems these countries have encountered as riparians of international rivers and how they have addressed them. In particular, the study reviews the treaty regimes governing the Indus River basin, the Ganges River basin, and the Kosi, Gandaki, and Mahakali river basins. Each of these regimes is described in depth, but special attention is devoted to the main problems each of the treaties sought to address: dispute resolution in the context of the Indus, water-sharing with respect to the Ganges, and an integrated approach to water resources management for India and Nepal with respect to the Kosi, Gandaki, and Mahakali rivers. In the final part, the authors review treaty experience and offer observations on bilateralism and multilateralism, third-party intervention, water rights and benefits, institutional arrangements, and dispute resolution. They conclude by stressing the importance of cooperation throughout the treaty-making process.<sup>25</sup>

South Asia's transboundary river systems—most notably the Indus and Ganges-Brahmaputra-Meghna (GBM) basins—serve as vital resources for over a billion people. Yet, they continue to be sources of ongoing geopolitical tension and ecological vulnerability. This article explores the legal aspects of cross-border water sharing, examining how international law frameworks such as the UN Watercourses Convention, the Helsinki and Berlin Rules, and principles of equitable and reasonable use relate to the region's complex hydro-politics<sup>1</sup>. By comparing the Indus Waters Treaty and the Ganges Water Sharing Treaty, the article assesses the strengths and weaknesses of bilateral approaches in addressing modern issues like climate change, upstream hydropower development, and decreasing water quality. It advocates for a shift toward basin-wide, cooperative legal regimes that incorporate ecological sustainability, human rights, and regional diplomacy. Combining doctrinal analysis with policy critique, the article advances the discussion on transboundary water governance and suggests legal pathways for conflict resolution and fair resource management in South Asia.<sup>26</sup>

Water has emerged as a pivotal issue in global geopolitics, particularly in regions where rivers traverse national boundaries. The transboundary nature of freshwater systems inherently involves multiple states, making their governance a matter of international concern. With the global population expanding rapidly—coupled with intensified industrial activity, urban sprawl, and

<sup>25</sup> Kishor Upreti & Salman M. A. Salman, *Legal Aspects of Sharing and Management of Transboundary Waters in South Asia: Preventing Conflicts and Promoting Cooperation*, 56 *HYDROLOGICAL SCIENCES JOURNAL* 641 (2011), <http://www.tandfonline.com/doi/abs/10.1080/02626667.2011.576252>.

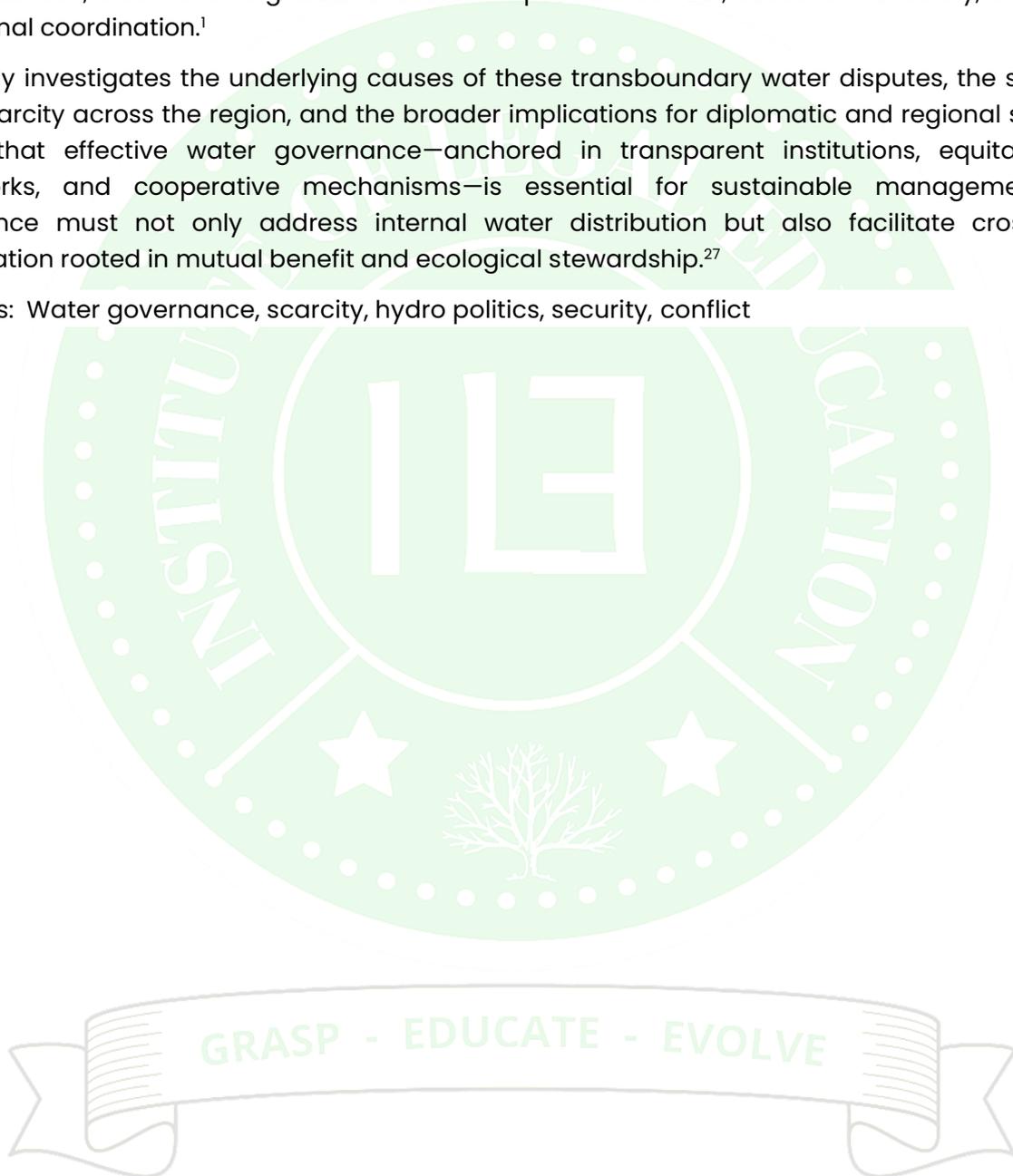
<sup>26</sup> Upreti and Salman, *supra* note 1.

diminishing freshwater availability—both surface and groundwater resources are under unprecedented strain.

South Asia, home to nearly one-fourth of the world’s population, exemplifies this crisis. The region is marked not only by demographic density but also by some of the most persistent and complex interstate tensions over shared water resources. The legacy of partition between India and Pakistan laid the foundation for enduring disputes over river systems, particularly the Indus basin. Beyond this bilateral conflict, India’s water relations with Bangladesh, Nepal, and Bhutan have also been fraught with contention, often revolving around issues of upstream control, seasonal variability, and lack of institutional coordination.<sup>1</sup>

This study investigates the underlying causes of these transboundary water disputes, the severity of water scarcity across the region, and the broader implications for diplomatic and regional stability. It argues that effective water governance—anchored in transparent institutions, equitable legal frameworks, and cooperative mechanisms—is essential for sustainable management. Such governance must not only address internal water distribution but also facilitate cross-border collaboration rooted in mutual benefit and ecological stewardship.<sup>27</sup>

Keywords: Water governance, scarcity, hydro politics, security, conflict



<sup>27</sup> 09\_chapter 1.Pdf, [https://shodhganga.inflibnet.ac.in/bitstream/10603/16725/9/09\\_chapter%201.pdf](https://shodhganga.inflibnet.ac.in/bitstream/10603/16725/9/09_chapter%201.pdf) (last visited Sept. 4, 2025).

South Asia has a reasonable share of international rivers that make countries mutually dependent for their management. Hence, regional cooperation becomes indispensable to harness the potential of cross-border rivers. With this backdrop, the research paper examines the role of the South Asian Association for Regional Cooperation (SAARC), as a common regional platform, is involved in the management of transboundary rivers in South Asia. The paper further analyzes the adaptability of the Indus River management regime. It has been noticed that the participation of basin countries has been undermined in the management regime. The article recommends that a multilateral institutional mechanism is necessary for the effective and enduring solution for the management of the transboundary rivers in South Asia. The study is based on secondary data and, hence, qualitative. The study accentuates the inevitability of the Chinese role and suggests its partial inclusion in the South Asian transboundary river management framework South Asia has a reasonable share of international rivers that make countries mutually dependent for their management. Hence, regional cooperation becomes indispensable to harness the potential of cross-border rivers. With this backdrop, the research paper examines the role of the South Asian Association for Regional Cooperation (SAARC), as a common regional platform, is involved in the management of transboundary rivers in South Asia. The paper further analyzes the adaptability of the Indus River management regime. It has been noticed that the participation of basin countries has been undermined in the management regime. The article recommends that a multilateral institutional mechanism is necessary for the effective and enduring solution for the management of the transboundary rivers in South Asia. The study is based on secondary data and hence, qualitative.

The study accentuates the inevitability of the Chinese role and suggests its partial inclusion

in the South Asian transboundary river management framework

### 1. Introduction

The introduction of the article outlines the growing significance of water as a strategic resource in South Asia, a region marked by high population density and limited freshwater availability. It emphasizes that transboundary rivers such as the Indus, Ganges, and Brahmaputra are central to both cooperation and conflict among neighboring countries. The author identifies historical, political, and ecological factors that contribute to water disputes, particularly between India and Pakistan, as well as India's relations with Nepal and Bangladesh.

emphasizes that over 70% of freshwater in the region is used for food production, and with demand for both food and water expected to surge, the pressure on water resources will intensify. Countries like India and Pakistan face acute stress due to declining per capita availability, while Nepal and Bangladesh, though relatively water-rich, struggle with seasonal variability and underutilization. Despite shared vulnerabilities, regional cooperation remains weak, and water continues to be treated as a sovereign issue rather than a shared resource. The author calls for a shift toward cooperative water governance, rooted in transparency, joint management, and policy reform.<sup>1</sup>

South Asia's transboundary river systems—particularly the Indus and GBM basins—are governed by a complex web of bilateral treaties, customary international law, and evolving regional politics. The World Bank study provides a legal analysis of five major treaty regimes, including the **Indus Waters Treaty (1960)** between India and Pakistan, and the **Ganges Water Sharing Treaty (1996)** between India and Bangladesh. These agreements reflect foundational principles of international water

law such as *equitable and reasonable use, no significant harm, and obligation to cooperate*.<sup>28</sup>

However, the study also highlights the limitations of bilateralism in addressing contemporary challenges like climate change, upstream hydropower development, and ecological degradation. It argues that while existing treaties have helped avoid large-scale conflict, they often lack mechanisms for adaptive governance, integrated basin management, and multilateral engagement. The legal perspective underscores the need for stronger institutional frameworks, transparent data-sharing, and inclusive dispute resolution processes to ensure sustainable and equitable water governance across borders.

Two major transboundary river systems—the **Indus Basin** and the **Ganges-Brahmaputra-Meghna (GBM) Basin**—form the hydrological backbone of the region. The **Indus River**, originating in Tibet and flowing through India and Pakistan, supports millions of livelihoods, particularly in Pakistan's agrarian economy. The **GBM system**, shared by India, Nepal, Bhutan, and Bangladesh, is vital for food security, energy generation, and ecological balance. These rivers traverse multiple jurisdictions, making their governance inherently complex and politically sensitive.<sup>1</sup>

International law plays a crucial role in managing these water disputes. Frameworks such as the **UN Watercourses Convention (1997)**, the **Helsinki Rules (1966)**, and the **Berlin Rules (2004)** provide guiding principles like *equitable and reasonable use, no significant harm, and obligation to cooperate*. While South Asian countries have not uniformly ratified these instruments, they influence treaty negotiations and dispute resolution mechanisms. The **Indus Waters Treaty (1960)**, brokered by the World Bank, remains a landmark example of legal cooperation, though

its resilience is increasingly tested by geopolitical tensions and climate stress.<sup>29</sup>

## 2. Legal Frameworks Governing Transboundary Rivers

### 1. UN Convention on the Law of Non-Navigational Uses of International Watercourses (1997)

Adopted by the UN General Assembly in 1997 and entered into force in 2014, this Convention provides a comprehensive framework for the sustainable and cooperative management of international watercourses. This Convention is the most comprehensive global legal instrument governing the use, management, and protection of international watercourses. It was adopted by the UN General Assembly on 21 May 1997 and entered into force on 17 August 2014

key provision

☑ **Equitable and reasonable utilization:** States sharing a watercourse must use it in a way that is fair and considers factors like population, climate, and existing uses.

- **No significant harm:** States must avoid actions that cause serious damage to other riparian states, such as pollution or excessive diversion.
- **Obligation to cooperate:** States are required to exchange data, notify each other of planned measures, and consult in good faith.
- **Prior notification:** Before undertaking projects that may affect other riparians, states must inform and allow time for objections or negotiations.<sup>1</sup>

It codifies key principles of customary international law, including:

- **Equitable and reasonable utilization** of shared water resources

<sup>28</sup>Examining South Asian Water Diplomacy From an International Legal Perspective-Asian Institute of Diplomacy and International Affairs, <https://www.aidiaasia.org/public/old/research-article/examining-south-asian-water-diplomacy-from-an-international-legal-perspective.html> (last visited Sept. 5, 2025).

<sup>29</sup> *Strategic Waters: The Indus Treaty Abeyance and South Asia's Hydropolitical Future – South Asian Voices*, <https://southasianvoices.org/geo-m-in-r-iwt-abeyance-south-asia-hydropolitics-07-13-2025/> (last visited Sept. 5, 2025).

- **Obligation not to cause significant harm** to other riparian states
- **Duty to notify and consult** before planned measures that may affect other states

Although not all South Asian countries are parties to the Convention, its provisions reflect widely accepted norms and have influenced regional treaty-making and dispute resolution mechanisms<sup>30</sup>

## 2. Helsinki Rules (1966)

Formulated by the International Law Association (ILA), the Helsinki Rules were among the first attempts to codify principles for the use of international rivers. They introduced:

- The concept of **equitable utilization** based on factors such as geography, climate, and economic needs
- Recognition of **shared rights and responsibilities** among riparian states

Though non-binding, the Helsinki Rules laid the groundwork for subsequent legal instruments, including the UN Watercourses Convention.<sup>1</sup>

## 3. Berlin Rules (2004)

The Berlin Rules, also developed by the ILA, expanded upon the Helsinki Rules by integrating environmental and human rights dimensions. Drafted by the International Law Association (ILA), the Helsinki Rules were the first major attempt to codify principles for the use of international rivers. Though non-binding, they have shaped the development of customary international law. The Berlin Rules, also developed by the ILA, modernized and expanded the Helsinki framework by incorporating environmental and human rights dimensions. They apply to **all waters**—not just international rivers—and reflect contemporary concerns like sustainability and public participation.

Innovations:

- **Sustainable development:** Water use must balance present needs with future generations.
- **Ecosystem protection:** States must safeguard aquatic ecosystems and biodiversity.
- **Public participation:** Communities affected by water decisions should be involved in planning and governance.
- **Integrated management:** Water governance should consider land use, climate, and socio-economic factors.

Key Principles:

- **Equitable utilization:** Water should be shared fairly, considering geographic, hydrological, and economic factors.
- **No appreciable harm:** States must avoid causing measurable damage to other riparians.
- **Shared responsibility:** All riparian states have rights and duties regarding the watercourse.

These rules reflect the evolution of international water law toward more holistic and inclusive governance models.<sup>31</sup> The Helsinki Rules laid the foundation for later instruments like the UN Convention and Berlin Rules. They are often cited in legal scholarship and arbitration cases involving transboundary water disputes. The Berlin Rules are especially relevant for South Asia, where ecological degradation and social displacement from large dams (e.g., Tehri, Farakka) are pressing concerns. They offer a framework for inclusive and environmentally sound water governance

## 4. Customary Principles in Practice

Across South Asia, customary principles continue to shape treaty negotiations and legal discourse:

<sup>31</sup> *Convention on the Law of Non-Navigational Uses of International Watercourses (1997)*, [https://legal.un.org/ilc/texts/instruments/english/conventions/8\\_3\\_1997.pdf](https://legal.un.org/ilc/texts/instruments/english/conventions/8_3_1997.pdf) (last visited Sept. 5, 2025).

<sup>30</sup> Uprety and Salman, *supra* note 1.

- **Equitable and reasonable use:** Applied in treaties like the Indus Waters Treaty and Ganges Water Sharing Treaty
- **No significant harm:** Invoked in disputes over upstream hydropower and water diversion
- **Prior notification and consultation:** Often contested, especially in India-Nepal and India-China contexts

These principles serve as a normative baseline for evaluating state conduct and designing cooperative mechanisms.<sup>1</sup>

- UN Convention on the Law of Non-Navigational Uses of International Watercourses (1997).
- Helsinki Rules (1966) and Berlin Rules (2004).
- Customary principles: equitable and reasonable use, no significant harm, prior notification.

### 3. Case Study I: Indus River Basin

The **Indus Waters Treaty (IWT)** was signed on **19 September 1960** between **India and Pakistan**, brokered by the **World Bank**, after nearly a decade of negotiations. India has unilaterally terminated the Indus Waters Treaty (IWT), citing Pakistan's alleged support for cross-border terrorism in Kashmir as the primary justification. This move marks a paradigm shift in transboundary water governance and carries profound legal, geopolitical, and humanitarian consequences.

The Treaty sets out a mechanism for cooperation and information exchange between the two countries regarding their use of the rivers, known as the Permanent Indus Commission, which has a Commissioner from each country. The Treaty also sets forth distinct procedures to handle issues which may arise: "questions" are handled by the Commission; "differences" are to be resolved by a Neutral Expert; and "disputes" are to be referred to an *ad hoc* arbitral tribunal called the "Court of Arbitration." As a signatory to the Treaty, the

World Bank's role is limited and procedural. In particular, its role in relation to "differences" and "disputes" is limited to the designation of individuals to fulfill certain roles in the context of Neutral Expert or Court of Arbitration proceedings when requested by either or both of the Parties.<sup>32</sup>

It governs the use of six rivers in the Indus basin:

- **Eastern Rivers:** Ravi, Beas, Sutlej – allocated to **India** for exclusive use.
- **Western Rivers:** Indus, Jhelum, Chenab – allocated to **Pakistan**, with **limited rights** granted to India for non-consumptive use, domestic needs, and run-of-the-river hydropower projects under strict design conditions.

The treaty established:

- A **Permanent Indus Commission (PIC)** with representatives from both countries.
- A **three-tier dispute resolution mechanism:**
  - **Level 1:** PIC-level technical discussions.
  - **Level 2:** Neutral Expert appointed by the World Bank.
  - **Level 3:** Arbitration through a Court of Arbitration (CoA).<sup>1</sup>

### Legal Strengths

- **Longevity and Resilience:** The IWT has survived three wars (1965, 1971, 1999) and multiple diplomatic crises, making it one of the most durable transboundary water treaties globally.
- **Clear Allocation:** The division of rivers minimizes ambiguity and provides a structured framework for water sharing.
- **Third-Party Oversight:** The World Bank's role added credibility and facilitated trust during negotiations.

<sup>32</sup> Fact Sheet: The Indus Waters Treaty 1960 and the Role of the World Bank, WORLD BANK, <https://www.worldbank.org/en/region/sar/brief/fact-sheet-the-indus-waters-treaty-1960-and-the-world-bank> (last visited Sept. 5, 2025).

- **Dispute Resolution:** The treaty's annexures provide detailed procedures for resolving technical and legal disagreements, including recourse to neutral experts and international arbitration.

### Legal Limitations

- **Bilateral Scope:** The treaty excludes other riparian actors like **China** (upstream on Indus) and **Afghanistan**, limiting basin-wide cooperation.
- **Static Design:** The treaty reflects mid-20th-century hydrological assumptions and lacks provisions for **climate adaptation, environmental flows, or ecological protection**.
- **Hydropower Ambiguity:** India's rights to build run-of-the-river projects on Western rivers have led to recurring disputes over design and flow regulation (e.g., **Baglihar, Kishanganga, Ratle**).
- **No Exit Clause:** The treaty is perpetual and can only be modified by mutual consent under **Article XII(3)**, making renegotiation legally complex.<sup>33</sup>

### A. Climate Change and Hydrological Uncertainty

- **Glacial retreat, erratic monsoons, and reduced snowpack** are altering river flows in the Himalayas.
- The treaty lacks mechanisms for **joint climate adaptation, seasonal reallocation, or disaster response coordination**.

### Hydropower Projects and Strategic Tensions

- India's push for **hydropower development** on Western rivers has triggered objections from Pakistan, which fears reduced downstream flows.<sup>1</sup>

- Recent projects like **Kishanganga** and **Ratle** have led to arbitration and neutral expert proceedings. In 2023, the **Permanent Court of Arbitration** ruled in favor of Pakistan's right to challenge India's designs under the treaty's dispute resolution framework.

### C. Treaty Reinterpretation and Calls for Reform

- Legal scholars and policymakers increasingly argue for revisiting the treaty to reflect **21st-century realities**:
  - **Environmental safeguards**
  - **Climate resilience**
  - **Data transparency**
  - **Community participation**
- In 2023, India formally notified Pakistan of its intent to amend the treaty, citing delays in dispute resolution and the need for modernization. This marked the first such move since the treaty's inception.
- In **April 2025**, following a deadly terrorist attack in **Pahalgam, Kashmir** that claimed over 25 lives, India announced the **suspension of the Indus Waters Treaty (IWT)** with Pakistan. The attack was attributed to Pakistan-based militant groups, prompting India to frame the suspension as a **national security measure**. Prime Minister Modi declared, "*Water and blood cannot flow together*," signaling a shift in India's approach to transboundary water diplomacy. The IWT, signed in **1960** and brokered by the **World Bank**, had long been hailed as a resilient framework—surviving wars and diplomatic breakdowns. Under its terms, India controls the **Eastern Rivers** (Ravi, Beas, Sutlej), while Pakistan receives the **Western Rivers** (Indus, Jhelum, Chenab),

<sup>33</sup> Dr Malik Imtiaz Ahmad, *The Indus Waters Treaty: Legal Framework, Disputes, and Future Challenges*, [https://www.academia.edu/129352346/The\\_Indus\\_Waters\\_Treaty\\_Legal\\_Framework\\_Disputes\\_and\\_Future\\_Challenges](https://www.academia.edu/129352346/The_Indus_Waters_Treaty_Legal_Framework_Disputes_and_Future_Challenges) (last visited Sept. 5, 2025).

with India allowed limited non-consumptive use.<sup>34</sup>

Following the suspension, India accelerated infrastructure projects to increase its utilization of Western rivers:

- **Ranbir Canal Expansion:** Doubling its length and tripling water flow capacity.
- **Hydropower Dams:** Fast-tracking projects on the Chenab, Jhelum, and Indus.
- **Tulbul Navigation Project:** Revived after years of political contention.

Pakistan, heavily reliant on the Indus system for agriculture and energy, expressed deep concern and appealed to international bodies. The **World Bank** reiterated that **India cannot unilaterally suspend the treaty**, emphasizing the need for mutual consent and diplomatic engagement. This development marks a critical juncture in South Asia's water politics, raising questions about the **legal durability of bilateral treaties**, the **intersection of security and resource governance**, and the **future of cooperative water management** in a climate-stressed region.

#### 4. Case Study II: Ganges-Brahmaputra-Meghna Basin

##### 1. Treaties and MOUs Between India, Bangladesh, Nepal, and Bhutan

South Asia's hydrological landscape is shaped by several transboundary rivers, most notably the Ganges, Brahmaputra, and Meghna. India shares these rivers with Bangladesh, Nepal, and Bhutan, and has entered into multiple bilateral treaties and Memoranda of Understanding (MOUs) to manage water sharing, hydropower development, and flood control.

*Key Agreements:*<sup>1</sup>

- **India–Nepal:**

- *Kosi Agreement (1954):* Focused on flood control and irrigation; later revised in 1966.
- *Gandak Agreement (1959):* Regulates irrigation and power generation.
- *Mahakali Treaty (1996):* A comprehensive framework for integrated development of the Mahakali River, including the Pancheshwar Multipurpose Project.

- **India–Bangladesh:**

- *Ganges Water Sharing Treaty (1996):* Allocates dry season flows of the Ganges at Farakka.
- MOUs on *Teesta River* and *data-sharing during floods*, though a formal Teesta agreement remains pending.

- **India–Bhutan:**

- Series of MOUs and project-specific agreements for hydropower development (e.g., Chukha, Tala, Mangdechhu).
- Bhutan's cooperation with India is often cited as a model of technical and diplomatic synergy.

These treaties reflect varying degrees of cooperation, with India often playing the role of upstream riparian and dominant negotiator.

##### 2. Ganges Water Sharing Treaty (1996)<sup>35</sup>

Signed on **12 December 1996**, the Ganges Treaty between India and Bangladesh governs the allocation of water at the **Farakka Barrage** during the dry season (January to May). The treaty is valid for 30 years and includes provisions for:

<sup>34</sup> Khushi Jha, *Indus Waters Treaty Breakdown Explained: India vs Pakistan in 2025*, INDIA BEYOND CURRY (May 17, 2025), <https://indiabeyondcurry.com/2025/05/17/indus-waters-treaty/>.

<sup>35</sup> Paula Hanasz, *The Politics of Water Governance in the Ganges-Brahmaputra-Meghna Basin* (2015).

- **Quantitative allocation:** Based on a 10-day average flow, with a fixed formula for distribution.
- **Joint monitoring:** Through a Joint Committee responsible for data collection and implementation.
- **Review mechanism:** Allows for reassessment if flow drops below 50,000 cusecs.

*Strengths:*

- Institutionalized cooperation and data-sharing.
- Recognition of Bangladesh's downstream needs during lean periods.

*Limitations:*

- No provision for basin-wide management or ecological flows.
- Excludes other co-riparians like Nepal and Bhutan.
- Seasonal focus without addressing long-term climate variability or upstream interventions.

**3. Legal Gaps in Brahmaputra and Meghna Cooperation<sup>1</sup>**

Unlike the Ganges, the **Brahmaputra and Meghna rivers** lack comprehensive legal frameworks for transboundary governance. These rivers are shared by **India, China, Bhutan, and Bangladesh**, yet cooperation remains fragmented.

*Brahmaputra:*

- India and China have limited cooperation, primarily through **hydrological data-sharing MOUs** during flood seasons.
- No binding treaty exists between India and Bangladesh or India and China for Brahmaputra water allocation or joint basin management.

- Concerns persist over China's upstream dam-building and India's hydropower projects in Arunachal Pradesh.

*Meghna:*

- The Meghna basin, shared between India and Bangladesh, is governed by ad hoc arrangements.
- No formal treaty exists for water sharing, pollution control, or flood management.
- The lack of legal instruments hampers coordinated response to seasonal floods and ecological degradation.

These gaps reflect the absence of multilateral legal instruments and basin-wide institutions capable of managing shared water resources holistically.

**4. Role of Regional Institutions and Bilateral Diplomacy**

South Asia lacks a robust regional institution dedicated to transboundary water governance. While platforms like **SAARC** and **BBIN (Bangladesh, Bhutan, India, Nepal)** exist, their engagement with water issues has been limited and largely informal.

*Institutional Landscape:*

- **SAARC Water Centre:** Conceptualized but not operationalized effectively.
- **Joint River Commissions:** India–Bangladesh and India–Nepal have bilateral commissions, but their mandates are narrow and often politicized.
- **Donor-led initiatives:** Programs like the *South Asia Water Initiative (SAWI)* have attempted to foster cooperation but face trust deficits and limited uptake.

*Bilateral Diplomacy:*

- India's water diplomacy is often shaped by its upstream position and strategic interests.

- Trust deficits with Nepal and Bangladesh have impeded treaty finalization (e.g., Teesta).
- Bhutan remains a cooperative partner, especially in hydropower, but broader basin-level engagement is lacking.

The absence of binding multilateral frameworks and the dominance of bilateralism have constrained the evolution of integrated water governance in the region.<sup>36</sup>

## 5. Comparative Legal Analysis

### 1. Treaty Enforcement Mechanisms

Transboundary water treaties in South Asia—such as the **Indus Waters Treaty (1960)** and the **Ganges Water Sharing Treaty (1996)**—rely primarily on **bilateral enforcement mechanisms**, which vary in scope and effectiveness.

#### *Indus Waters Treaty (IWT)*

- **Permanent Indus Commission (PIC):** Facilitates routine data exchange and technical dialogue.
- **Neutral Expert:** Appointed by the World Bank to resolve “differences” (e.g., Baglihar Dam case).
- **Court of Arbitration (CoA):** Handles “disputes” through formal international arbitration (e.g., Kishanganga case).
- **Limitations:** Enforcement is procedural and dependent on party cooperation; no punitive or coercive powers exist.<sup>1</sup>

#### *Ganges Water Sharing Treaty*

- **Joint Committee:** Oversees implementation and monitors flow at Farakka.
- **No third-party adjudication:** Disputes are resolved through diplomatic channels.

- **Limitations:** Absence of binding enforcement or escalation mechanisms; relies on political goodwill.

In contrast, global treaties like the **UN Watercourses Convention (1997)** provide broader enforcement options, including recourse to international adjudication, but South Asian states have not ratified it.

### 2. Role of International Adjudication: ICJ and PCA<sup>37</sup>

#### *Permanent Court of Arbitration (PCA)*

- The PCA has played a decisive role in **Indus Treaty disputes**, especially in the **Kishanganga** and **Ratle** cases.
- In **June 2025**, the PCA ruled that India’s unilateral suspension of the IWT was legally invalid, reaffirming that treaties cannot be paused or terminated without mutual consent under **Article XII(4)**.
- The PCA emphasized that geopolitical tensions do not override treaty obligations, reinforcing the principle of **good faith** in international law.

#### *International Court of Justice (ICJ)*

- The ICJ has jurisdiction over treaty disputes if both parties consent or if the treaty itself provides for ICJ referral.
- South Asian water treaties do **not include ICJ jurisdiction clauses**, limiting its role.
- However, ICJ jurisprudence (e.g., *Gabcíkovo–Nagymaros Project case*) influences interpretation of principles like **equitable use, no significant harm, and environmental sustainability**.

#### *Comparative Insight*

- The PCA offers **flexible, treaty-specific arbitration**, while the ICJ provides **binding judicial decisions** under broader international law.

<sup>36</sup> Water, War, and the UN: The Indus Basin Dilemma - South Asia Times, *supra* note 8.

<sup>37</sup> *Can the Indus Waters Treaty Be Held in Abeyance? What the Law Allows – South Asian Voices*, <https://southasianvoices.org/geo-m-r-indus-waters-treaty-abeyance-05-09-2025/> (last visited Sept. 5, 2025).

- South Asia’s reliance on PCA over ICJ reflects a preference for **ad hoc, treaty-bound mechanisms** rather than universal adjudication.

### 3. Gaps in Multilateral Legal Instruments in South Asia<sup>1</sup>

Despite the shared nature of river basins like the **Ganges-Brahmaputra-Meghna (GBM)** and **Indus**, South Asia lacks a **multilateral legal framework** for integrated water governance.

Key Gaps:

- **No basin-wide treaty:** Existing agreements are bilateral (India–Pakistan, India–Bangladesh, India–Nepal), excluding other riparians like **China** and **Bhutan**.
- **No regional water institution:** SAARC has not operationalized a water governance body; BBIN lacks legal authority.
- **No ratification of global conventions:** None of the major South Asian states have ratified the **UN Watercourses Convention**, limiting access to its enforcement and cooperation mechanisms.
- **Limited legal harmonization:** Domestic water laws vary widely and are not aligned with international norms on environmental flows, human rights, or climate adaptation.<sup>38</sup>

Implications:

- Fragmented legal architecture undermines **coordinated basin management**.
- Absence of multilateral enforcement allows **unilateral actions** (e.g., dam-building, diversion) without legal accountability.

- Regional diplomacy remains **politicized and reactive**, rather than legally structured and proactive.

### 6. Policy Recommendations

#### 1. Strengthening Basin-Wide Legal Frameworks<sup>1</sup>

Most water-sharing agreements in South Asia are **bilateral**, meaning they involve only two countries. For example, India has separate treaties with Pakistan (Indus Waters Treaty), Bangladesh (Ganges Treaty), and Nepal (Mahakali Treaty). However, rivers like the **Ganges-Brahmaputra-Meghna (GBM)** and **Indus** flow across multiple countries. This makes **basin-wide cooperation** essential.

What should be done:

- Countries should work together to create **multilateral treaties** that include **all riparian states** (those sharing the river).
- These treaties should follow **international principles** like:
  - *Equitable and reasonable use of water*
  - *No significant harm to other countries*
  - *Duty to cooperate and share data*
- A **joint legal framework** would help manage floods, droughts, pollution, and dam construction more fairly.

#### 2. Promoting Regional Cooperation Through SAARC and BIMSTEC<sup>39</sup>

South Asia has regional platforms like **SAARC** (South Asian Association for Regional Cooperation) and **BIMSTEC** (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation). These groups can play a bigger role in water governance.

<sup>38</sup> Permanent Court of Arbitration 2025; *When Law Defused the Water Weapon - South Asia Times*, (June 29, 2025), <https://southasiatimes.org/when-law-defused-the-water-weapon/>.

<sup>39</sup> Permanent Court of Arbitration 2025, *supra* note 27.

How they can help:

- **SAARC** can revive its proposed **Water Centre** to support research, training, and policy dialogue.
- **BIMSTEC** can promote **hydropower trade, joint river basin planning, and climate adaptation projects.**
- These platforms can host **regular water summits** and help countries resolve disputes peacefully.

Regional cooperation can reduce mistrust and encourage shared solutions to common problems.

### 3. Integrating Climate Resilience and Ecological Sustainability into Legal Regimes<sup>1</sup>

Climate change is already affecting South Asia’s rivers. Glaciers are melting faster, monsoons are becoming unpredictable, and extreme floods are more frequent. Current treaties do not account for these changes.

What needs to be added:

- **Environmental flow provisions:** Treaties should guarantee minimum water flow to protect ecosystems.
- **Flexible clauses:** Agreements should allow changes during emergencies like droughts or floods.
- **Nature-based solutions:** Wetlands, forests, and floodplains should be protected and restored.
- **Community rights:** Local people who depend on rivers should be consulted and protected under law.

By making treaties more climate-aware and eco-friendly, countries can ensure long-term water security.

Recommendation	Why It Matters	What It Solves
Basin-wide legal frameworks	Includes all countries sharing a	Prevents unilateral actions,

Recommendation	Why It Matters	What It Solves
	river	improves fairness
Regional cooperation (SAARC/BIMSTEC)	Builds trust and shared planning	Reduces political tensions

### Conclusion

Transboundary water governance in South Asia remains one of the most pressing and complex challenges of regional diplomacy. Despite the existence of bilateral treaties such as the Indus Waters Treaty (1960), the Ganges Water Sharing Treaty (1996), and various MOUs with Nepal and Bhutan, the region continues to grapple with fragmented legal frameworks, ecological stress, and geopolitical tensions. The absence of basin-wide legal instruments and multilateral cooperation has limited the effectiveness of these agreements in addressing contemporary threats such as climate change, upstream hydropower development, and declining water quality.

The legal architecture of South Asia’s water treaties reflects mid-20th-century priorities—focused on allocation and sovereignty—rather than modern imperatives like sustainability, equity, and resilience. As river systems become increasingly volatile due to glacial retreat, erratic monsoons, and population pressure, the need for adaptive and inclusive governance becomes urgent. The unilateral suspension of the Indus Waters Treaty in 2025 by India, following a terrorist attack, underscores how water can be weaponized in times of conflict, further destabilizing regional peace and cooperation.

To move forward, South Asian states must recognize water not only as a strategic resource but also as a shared lifeline. Legal reform must be rooted in ecological realities and guided by international norms. Regional platforms such as SAARC and BIMSTEC should be empowered to facilitate dialogue, harmonize laws, and

promote joint basin management. Climate resilience, environmental flows, and community rights must be embedded into future treaties to ensure that water governance serves both people and ecosystems.

### Suggestions

- 1. Draft a Multilateral GBM Treaty**  
Involve India, Bangladesh, Nepal, Bhutan, and ideally China in a basin-wide legal framework that balances sovereignty with shared responsibility.
- 2. Establish a South Asian Water Commission**  
Create a regional institution with legal authority to monitor, mediate, and manage transboundary water issues beyond bilateral channels.
- 3. Integrate Climate and Ecological Clauses**  
Future treaties must include provisions for environmental flows, disaster response, and adaptive water allocation during extreme events.
- 4. Promote Legal Harmonization**  
Align domestic water laws with international principles such as those in the UN Watercourses Convention and Berlin Rules.
- 5. Strengthen Public Participation**  
Ensure that treaty negotiations and water management decisions include voices from affected communities, civil society, and local governments.

### References

- 1. Kishor Uprety & Salman M.A. Salman**, *Legal Aspects of Sharing and Management of Transboundary Waters in South Asia: Preventing Conflicts and Promoting Cooperation*, 56(4) Hydrological Sciences Journal 641–661 (2011), available at <https://www.tandfonline.com/doi/abs/10.1080/02626667.2011.576252>.
- 2. Akshat Mishra**, *Transboundary Water Security: An Analysis of Water Treaties in South Asia*, CUTS CITEE Policy Brief (n.d.), available at [https://cuts-citee.org/pdf/Article-Transboundary\\_Water\\_Security-An\\_analysis\\_of\\_water\\_treaties\\_in\\_South\\_Asia.pdf](https://cuts-citee.org/pdf/Article-Transboundary_Water_Security-An_analysis_of_water_treaties_in_South_Asia.pdf).
- 3. United Nations**, *Convention on the Law of the Non-Navigational Uses of International Watercourses*, UN Doc. A/RES/51/229 (1997), available at [https://legal.un.org/ilc/texts/instruments/english/conventions/8\\_3\\_1997.pdf](https://legal.un.org/ilc/texts/instruments/english/conventions/8_3_1997.pdf).
- 4. Salman M.A. Salman**, *The Helsinki Rules, the UN Watercourses Convention and the Berlin Rules: Perspectives on International Water Law*, Int'l J. Water Resources Dev. (2007), available at <https://www.academia.edu/114030246>.
- 5. Dr Malik Imtiaz Ahmad**, *The Indus Waters Treaty: Legal Framework, Disputes, and Future Challenges*, Academia.edu (n.d.), available at <https://www.academia.edu/129352346>.
- 6. Paula Hanasz**, *Water Security in South Asia: Issues and Policy Recommendations*, Observer Research Foundation (2023), available at <https://www.orfonline.org/research/water-security-in-south-asia-issues-and-policy-recommendations>.
- 7. Asian Institute of Diplomacy and International Affairs**, *Examining South Asian Water Diplomacy from an International Legal Perspective*, AIDIA (n.d.), available at <https://www.aidiaasia.org/public/old/research-article/examining-south-asian-water-diplomacy-from-an-international-legal-perspective.html>.
- 8. South Asia Times**, *Water, War, and the UN: The Indus Basin Dilemma*, SAT (2024), available at

