JOURNAL OF POLITICAL STABILITY ARCHIVE

Online ISSN: 3006-5879 Print ISSN: 3006-5860
DOI: https://doi.org/10.63468/jpsa.3.3.05
Vol. 3 No. 3 (2025)
https://journalpsa.com.pk/index.php/JPSA/about

Recognized by: Higher Education Commission (HEC), Government of Pakistan

The Indus Under Pressure: Hydro-Politics, Climate Change, and Strategic Anxiety in South Asia

Dr. Ghulam Sarwar
SSE, School Education Department, Government of the Punjab, Pakistan.
sarwarr69@gmail.com

Dr. Armaghan Farid
Visiting Faculty Member, Department of Political Science, University of the Punjab, Lahore, Pakistan.
armaghannfaridd@gmail.com

ABSTRACT

The IWT's long-standing transboundary water cooperation, which has successfully endured wars, political hostility, and shifting regimes between India and Pakistan, now stands at a critical crossroads. The hydro-political landscape of South Asia is transforming, and India's upstream control and perception often fuels suspicion and securitization. The conflict amplifies during a military crisis when water emerges as a source of sovereignty and strategic leverage. Environmental security is deeply linked to regional stability through shared ecological risks and interdependencies. Climate change acts as a threat multiplier by exacerbating existing water insecurities and geopolitical. The intersection of climate change, regional stability, and hydro-politics represents a critical nexus in international relations. In the South Asian region, IWT has long served as a diplomatic anchor between India and Pakistan. However, rising environmental uncertainty and political mistrust have revived old anxieties. Therefore, the theoretical framework draws upon securitization theory, the Hydro-hegemony framework, environmental geopolitics, and realism to interpret how climate change stress is reshaping water resource management in the South Asian region. In the context of accelerating climate change, increasing hydro-political competition, and rising strategic anxiety in South Asia, this paper critically examines the evolving dynamics of hydro-politics in the Indus Basin, analyzing how climatic stressors—such as glacial melt, unpredictable monsoons, and shifting river flows—are intensifying perceptions of water insecurity and transforming the region's geopolitical terrain. This paper suggests that reimagining the IWT as a climate-resilient, politically insulated, and ecologically informed agreement is capable not only of reducing bilateral tensions

but also of promoting long-term regional stability in South Asia.
Keywords: Indus Water Treaty, India, Pakistan, Climate Change, Securitization, South Asia, Environmental Security, Hydro-hegemony

INTRODUCTION

Water scarcity is transforming water from a cooperative resource into a strategic asset, exacerbated by climate change, fostering mistrust and amplifying geopolitical tensions among South Asian states, especially between India and Pakistan. South Asia's most dangerous transboundary river systems in the world are entering a critical era of hydro-insecurity. The impacts of climate change, including decreasing precipitation patterns, erratic monsoon patterns, and glacial retreat, are converging to create a crisis of water availability, are reshaping the regional hydro-politics. This shift has deep geopolitical ramifications, particularly in a region where water systems are shared across hostile or mistrustful borders. This paper examines how climate change exacerbates existing geopolitical tensions over shared water resources and investigates the strategic anxieties triggered by water scarcity, focusing on how it influences interstate relations, policy responses, and regional security architecture in South Asia with a particular focus on the India-Pakistan context. This paper argues that climate change is intensifying hydro-political tensions between India and Pakistan by altering the hydrological regimes of shared rivers, straining the Indus Water Treaty, and reshaping national security perceptions in both countries.

Water-sharing treaties like the Indus Waters Treaty have historically provided a platform for cooperation. However, the main argument of this paper contends that shifts in climate are politically charged phenomena that states interpret through national security lenses. The politicization of water has fueled a narrative of scarcity that influences military posturing, diplomatic engagements, and national policy strategies. These patterns create new geopolitical fault lines, thereby necessitating a re-evaluation of regional water governance frameworks.

The research questions of this research are:

- To what extent is climate change impacting the hydrological stability of the Indus River system?
- In what ways are these hydrological shifts contributing to strategic anxieties among South Asian states?
- What are the political and security implications of transboundary water disputes in South Asia?

The objectives of this research are:

- To explore the political and security responses to water scarcity in South Asia.
- To assess the adequacy of the Indus Waters Treaty in addressing climate-related challenges.
- To evaluate the geopolitical and security implications of emerging water disputes in South Asia.

Historical Background

The Indus Water Treaty (IWT), brokered by the World Bank between India and Pakistan, divided the Indus River system and has been a cornerstone of regional water diplomacy, surviving wars and hostilities. In this division, three eastern rivers (Ravi, Beas, and Sutlej) were allocated to India, and the three western rivers (Indus, Jhelum, and Chenab) to Pakistan. The emerging realities of climate change and infrastructural projects by India challenge this foundational agreement has witnessed increasing contention among India, Nepal, Bangladesh, and Pakistan. India's construction of hydropower infrastructure on western rivers have raised concerns in Pakistan over reduced downstream flow and Pakistan frequently argued that India's upstream projects may lead to strategic water manipulation under future scarcity scenarios, undermining trust (Biswas, 2019; Akhtar, 2010; Akhter, 2015; Abas et al., 2019). India's approach to utilizing its entitlement under the IWT is perceived by Pakistan as a strategic threat to its water security (Mustafa & Nasrallah, 2013). The IWT was designed in an era of hydrological stability and does not adequately account for climate change patterns that now affect water flow. This outdated framework creates legal ambiguities and policy paralysis during disputes. The treaty is ill-equipped to manage the hydro-political challenges posed by climate change (Mirza, 2011). India's rhetorical threats to 'maximize' water use have turned the IWT into a diplomatic weapon. Trust deficit and limited institutional innovation have weakened the capacity of the IWT to mediate growing tensions (Petersen-Perlman, Veilleux, & Wolf, 2017). The Permanent Indus Commission, meant to serve as a conflict-resolution body, has become increasingly ineffective due to political mistrust, lack of transparency in data sharing, and inconsistent engagement.

On the contrary, India-Bangladesh signed the Ganges Water Treaty 1996 that governs the distribution of dry-season flows of the Ganges River at the Farakka Barrage. The declining rainfall in northern India and Nepal and increased upstream abstraction have led to periodic diplomatic tensions. Many times, Bangladesh has expressed grievances over reduced water availability during critical dry months, impacting agriculture and drinking water supplies (Mirza, 2004). India's upstream dominance poses existential threats to Pakistan and Bangladesh. The situation is further complicated by China's upstream position on the Brahmaputra River, where dam-building projects have caused anxiety in both India and Bangladesh (Rahaman, 2009). India's violations of both –Indus and Ganges treaties demonstrate how historical water sharing treaties in South Asia are increasingly under stress from both natural and political changes, prompting a rethinking of cooperative mechanisms in light of climate variability.

Research Methods

This is an interpretative qualitative research study that uses content analysis, discourse analysis, and narrative analysis, including treaty texts, national water policies, climate reports, and policy briefs as research methods. It also includes a case study analysis of transboundary water treaties and water disputes.

LITERATURE REVIEW

Climate change has been a critical factor in both cooperation and conflict. In recent decades, hydro-politics—the politics of shared water resources—has gained renewed attention due to the accelerating impacts of climate change, population growth, and increasing demands for agricultural and energy resources. The South Asian context, particularly the Indus, Ganges, and Brahmaputra basins, presents a unique challenge where hydrological stressors intersect with deep-rooted political rivalries, making regional stability fragile. This literature review critically examines key works on hydro-politics, climate change, and their implications for regional stability, with a primary focus on South Asia and relevant comparisons globally.

Wolf defines hydro-politics as the political processes associated with the use, distribution, and management of transboundary water resources. Water conflicts are rarely the sole cause of war, but they can exacerbate existing tensions when coupled with other political and socio-economic drivers (Wolf et al., 1999). Zeitoun and Warner challenged the "water wars" narrative, proposing that shared water resources are more likely to result in negotiation and cooperation instead of open conflict. They argue that cooperation is not inherently equitable and states can enforce arrangements that serve their interests. They named this phenomenon as hydro-hegemony (Zeitoun & Warner, 2006). Climate change acts as a threat multiplier in transboundary river system and plays a critical role in shaping hydro-politics by introducing uncertainty and amplifying existing vulnerabilities. In the context of India and Pakistan, climate change is rapidly transforming hydrological cycles (Immerzeel et al., 2010). Mirumachi argues that these environmental transformations challenge the institutional framework that was designed under relatively stable climatic conditions and is ill-equipped to handle such variability (Mirumachi, 2015). In South Asia, the Indus Basin (India-Pakistan), the Ganges Basin (India-Nepal-Bangladesh), and the Brahmaputra Basin (India-China-Bhutan-Bangladesh) are increasingly affected by hydro-political disputes.

The IWT between India and Pakistan has been cited as a successful example of water diplomacy, though climate change and India's development of upstream infrastructure have strained the treaty. Therefore, Pakistan accuses India of violating the treaty's spirit, and India justifies it as its right to develop hydroelectric projects (Mustafa et al., 2013). This Indo-Pak water dispute has become increasingly securitized. The IWT's inability to adapt to new hydrological realities poses a serious risk to regional stability (Petersen-Perlman et al., 2017). In Ganges-Brahmaputra Basin disputes, India's position as an upper riparian is raising concerns in Bangladesh and Nepal about water flow reductions. On the other hand, China's growing infrastructure development on the Brahmaputra introduces a third layer of complexity (Barua, 2018; Deka, 2021). Barua argues that the current issues in the Brahmaputra Basin illustrate the need for multi-track and multi-stakeholder dialogues, and water diplomacy has to be an inclusive and transparent process involving multiple actors because such interactions facilitate sustainable water cooperation (Barua, 2018).

In South Asia, regional institutions are weak, fragmented, and heavily politicized. The South Asian Association Cooperation (SAARC) has not succeeded in fostering meaningful cooperation on shared water issues due to bilateral tensions. South Asia lacks a unified water-sharing regime, unlike the Nile or the Mekong, which have basin-wide cooperation mechanisms (Ghosh & Bandyopadhyay, 2020). The idea of hydro-hegemony explains how dominant riparian states leverage their military strength, economic power, and upstream position to unilaterally control water flows. Iqbal and Chaudhry argue that climate-induced water scarcity can lead to internal and cross-border migration, which can generate socio-political instability (Iqbal & Chaudhry, 2019). This displacement increases pressure, fuels political tensions, destabilizes borders, aggravates ethnic tensions, and provokes nationalist responses. This migration has become a major concern in India, Bangladesh, and Pakistan due to their geographical and socio-economic conditions. It is imperative to address climate migration through fair and inclusive measures for building resilience and ensuring long-term development in the South Asian region (Gupta et al., 2025). Ahmed et al. introduced "multilayered or integrated climate-induced migration" and explained the link between climate change and migration in three possible ways in South Asia. They suggest that there is a need to generate improved infrastructure, employment opportunities, and livelihood options in South Asian nations (Ahmed et al., 2024). Ashraf argues that the United Nations and China can play a vital role in preventing climate change effects, and an effective global climate regime can only be established through cooperation between them (Ashraf, 2021). Farid and Ashraf argue that Indo-Israel's technological cooperation shapes the future of IWT, and Pakistan must ensure its importance by reshaping its diplomatic responses in the region (Farid & Ashraf, 2025). Therefore, this literature emphasizes the need for climate-resilient water governance, which includes an adaptive treaty framework and integrated basin management to handle emerging hydrological realities.

Theoretical Framework

The intersection of climate change, regional stability, and hydro-politics represents a critical nexus in international relations. In the South Asian region, IWT has long served as a diplomatic anchor between India and Pakistan. However, rising environmental uncertainty and political mistrust have revived old anxieties. Therefore, this theoretical framework draws upon securitization theory, the Hydro-hegemony framework, environmental geopolitics, and realism to interpret how climate change stresses that water resources management is reshaping political calculations in the South Asian region.

Securitization Theory

Securitization theory offers a robust lens to understand how changing dynamics, such as environmental issues, become politicized as existential threats. Buzan and Waever define securitization theory as when state actors present an issue as an existential threat, it becomes a matter of "security" and is taken out of normal politics, allowing for extraordinary measures (Buzan et al., 1998). The core theme of

this theory is 'an issue becomes a security issue not because of an objective threat, but because an actor labels it as a threat. It examines how certain issues are transformed into matters of security.

Securitization Theory Key Elements

- **Securitization Actor**: An entity that makes a security claim
- **Referent Object**: that which is said to be threatened
- **Audience**: Public or institutional body that must accept the claim
- **Speech Act**: Declaration of something as a threat

Types of Securitization Theory

- **Successful Securitization**: When the audience accepts the security narrative
- **Failed Securitization**: rejection of the threat narrative by the audience
- **De-securitization**: the process by which an issue is moved out of the security realm

Climate change is traditionally seen as an environmental issue and is now securitized by many states as a national security threat impacting water, food, and stability in regions (Floyd, 2008). Water has increasingly been securitized in both India and Pakistan. India threatened to reconsider the IWT as part of its broader response to Pakistan. This water rhetoric demonstrates the securitization of water resources within India's strategic discourse (Kumar et al., 2023). Pakistan frequently frames Indian upstream dam construction as a national security threat (Riaz et al., 2020; Bashir, 2024). In securitization terms, water has become a potential weapon, not just a shared resource. Security threats polarize negotiation spaces, reduce trust, and limit room for technical cooperation.

Hydro Hegemony Theory

Zeitoun and Warner developed the Hydro-hegemony theory, defined as the dominance of one state over others in controlling shared water resources (Zeitoun & Warner, 2006). This framework is a vital conceptual tool to understand transboundary water politics and helps to examine how power asymmetries between riparian states influence access, control, and management of shared water resources.

Key Themes

- **Power Asymmetries**: emphasizes how material, bargaining, and ideational forms of power enable dominant states to control water
- **Riparian Positioning**: Upstream States control VS Downstream States dependency
- **Control Strategies**: Various strategies, such as resource capture, legal manipulation, coercion, and consent engineering used by hegemonic states to maintain control

In the case of IWT, India's violation of the treaty by constructing dams is posing a threat to Pakistan's national security. The IWT may lock in asymmetric arrangements, making it hard for weaker riparian states to renegotiate, even as the changing conditions of climate change. Hydro-hegemony reinforces structural inequalities in water access, often resulting in perceived or real injustice, breeding political and social resentment. India often frames its action as "development", "clean

energy", or "rights-based usage", while marginalizing alternative narratives (Riaz & Ishaque, 2020). Hydro-hegemony increases the risk of diplomatic standoffs, intermittent disputes, and strategic anxieties, especially in the case of India and Pakistan, when geopolitical rivalries are intense. Therefore, weaker states may mobilize third-party mediation and international arbitration to challenge hegemony. Pakistan's perception of being denied fair usage, coupled with limited leverage, reinforces a **hydro-political power asymmetry**, destabilizing long-term cooperation. In a nutshell, this framework offers a powerful analytical framework to understand **why and how water is distributed unequally** in international river basins. It explains both **cooperation and coercion** in water politics by focusing on **power, position, and discourse**. Its relevance is especially pronounced in **South Asia**, where India's upstream position gives it significant leverage in a geopolitically volatile environment.

Environmental Geopolitics and Environmental Peacebuilding

These frameworks view shared environmental management as a platform for cooperation and peace. Conca and Dabelko argue that environmental concerns can transcend political divides and lay the grounds for conflict resolution (Conca & Dabelko, 2002). Environmental peacebuilding and environmental geopolitics are two interrelated frameworks that examine the intersection of environment, power, and conflict. In this research, these frameworks in the context of IWT examine the strategic manipulation of environmental resources and the potential for conflict resolution through share environmental management between India and Pakistan.

Theorists define environmental geopolitics is the study of how environmental resources become instruments of geopolitical strategy and it explores how environmental discourses and practices are mobilized by states and actors to advance political goals and reshape regional dynamics (Dalby, 2009; Dittmer & Gray, 2010).

However, environmental peacebuilding refers to the use of environmental cooperation and shared resource management to foster peace, rebuild trust, and prevent conflict. Theoretically, it recognizes environmental cooperation as a foundation for durable peace (Conca & Dabelka, 2002; Ide, 2019). The IWT has been interpreted as a geopolitical tool and represents one of the most durable examples of environmental peacebuilding in a conflict-prone region despite geopolitical tensions. The IWT is both a case of hydro-geopolitical tension and a model for limited but functional peacebuilding. However, the environmental dimension of peacebuilding is underutilized because the treaty lacks climate-resilient clauses and adaptive management mechanisms for changes.

Realist Theory

From a realist perspective, water is not a neutral resource; it is a strategic asset. Kugelman explains that both India and Pakistan frame their water interests through national security lenses. In realism, India's dam-building is tied to energy security and regional development, while Pakistan considers water security an existential threat (Kugelman, 2009). Water has become part of the larger security dilemma between two nuclear-armed rivals. Biba argues that water issues between India and

Pakistan cannot be delinked from the strategic rivalry that permeates all other dimensions of their relationship (Biba, 2016). This research argues that climate security is an emerging theoretical approach that views climate change as a security threat. This security threat has the potential to destabilize states and regions. It also reveals that climate variability could undermine the functionality of the IWT, leading to more frequent disputes, infrastructure strain, and reactive policy-making. This research believes that climate change will challenge the effectiveness of static water-sharing treaties globally. The IWT is at risk of erosion without institutional adaptation and mutual trust-building. The intensification of nationalist politics could transform water from a source of cooperation into a catalyst in the South Asian region. Mirumachi suggests that a shift from hard security to cooperative security could be the first step toward resilience. Multilateral climate-informed water governance offers the best hope for preventing future conflict in South Asia (Mirumachi, 2015). In sum, this theoretical framework provides analytical clarity and policy guidance and suggests that future water cooperation must transcend legal rigidity and climate-informed diplomacy.

Water Politics in Transboundary River Basin

Water has become scarcer and more unpredictable, and power asymmetries and geopolitical tensions intensify. Water also offers diplomatic pathways for confidence-building and cooperation. As discussed above, hydro-politics involves conflict and cooperation over the use, allocation, and management of international watercourses (Elhance, 1999). Meanwhile, the IWT has become a site of political contestation framed increasingly through security lenses. Here are other examples of transboundary river basin politics.

- **Nile River Basin**

  The Nile River Basin is a transboundary basin between Egypt, Ethiopia, and Sudan. In this case, Ethiopia is upstream and Egypt is a downstream state. Recently, the Grand Ethiopian Renaissance Dam (GERD) has intensified tensions between Ethiopia and Egypt. Egypt views the dam as a threat to its existential water supply from the Nile. Here, Ethiopia asserts sovereign development rights. This Nile dispute illustrates how upstream development and downstream dependence collide in geopolitical arenas (Cascao, 2009). Climate change has become a threat multiplier in transboundary water politics, intensifying water stress and challenging historical treaties.

- **Central Asia: Amu Darya and Syr Darya Rivers**

  Hydrological decline and poor climate adaptability risk reviving inter-state tensions in Central Asia. Climate Change has intensified water stress in the Aral Sea Basin. It increases tensions between former Soviet republics like Uzbekistan, Kazakhstan, and Kyrgyzstan (Weinthal, 2002).

- **Mekong River: ASEAN and China**

  Environmental security is deeply linked to regional stability through shared ecological risks and interdependencies. In the case of Mekong River- ASEAN and China, ASEAN diplomacy aims to balance power asymmetries. The Mekong Basin

shows that institutional cooperation can mitigate regional instability. The Mekong agreement 1995 has reduced tensions among lower riparian states, promotes sustainable development and cooperation, and emphasizes equitable utilization for infrastructure and joint research. But China's dam construction has raised regional concerns (Sneddon, 2006).

- **Jordan River Basin: Israel, Palestine, and Jordan**

The Jordan River Basin between Israel, Palestine, and Jordan illustrates that even in protracted conflicts, shared water can be a zone of cooperation.

The political geography of water is increasingly shaped by climate uncertainty and power asymmetries. These case studies suggest that the future of peace in many regions may depend on whether states choose cooperation over confrontation in managing shared water under changing environmental conditions.

Water as s Security Threat

Water has the potential to trigger conflict, intensify geopolitical tensions, and undermine regional stability, especially in climate-vulnerable regions. Water security refers to a situation where populations have sustainable access to adequate quantities of acceptable quality water. Lack of access to water can trigger unrest, mass migration, and increased inequality. Therefore, transboundary water disputes can escalate into diplomatic standoffs and armed confrontation. It has become a tool of geopolitical influence. Most notably, Water can act as both a trigger and amplifier of conflict. In the Indus Water Basin, increasing Indian damming activity is viewed as existential coercion, not merely as development in Pakistan. Pakistan has taken disputes to international courts, framing water as a national security threat and highlighting India's illegal aggression (Mirumachi, 2015). In the Nile Basin, Egypt perceives Ethiopia's dam construction as a direct threat to its survival. The Nile has transformed from a lifeline into a political chessboard. The disagreements raise fears of military escalation in the region. In Central Asia, water has become a strategic currency in post-Soviet regional politics (Weinthal, 2002). In a nutshell, environmental scarcity has emerged with political fragility, making water a key conflict driver.

Indus Water Treaty: India VS Pakistan

The IWT is often cited as one of the most successful water-sharing arrangements, having survived wars and diplomatic breakdowns, but climate change has challenged its resilience between India and Pakistan. With the passage of time, Indian construction projects on rivers created tensions in the region. India constructed the 330 MW Kishanganga Hydroelectric Plant on a tributary of the Jhelum. Pakistan argued it would divert water, reduce flow, and breach the IWT. The Permanent Court of Arbitration (PCA) ruled in India's favor. Though legally, India won but the case reinforced Pakistan's fear that India might control Water during crises (Mustafa, 2013). India often tried to violate the treaty by propaganda and aggressive actions. In 2016, after the Uri attacks, India suspended IWT talks for several months (D'Souza, 2017). In 2019, after the Pulwama suicide bombing, India stated that India would stop water flowing to Pakistan from eastern rivers and divert

it to Indian fields. Such statements increased the politicization of water (Yaqoob & Javed, 2020). Consequently, climate change undermines the hydrological assumptions on which the IWT was based, and lacks provisions for

- Climate resilience
- Flood management cooperation
- Groundwater use and basin-wide adaptation

In 2023, the World Bank resumed arbitration at Pakistan's request while India preferred a neutral expert review (Farid & Ashraf, 2025). The dual-track process initiated by the World Bank reflects growing procedural stress within the treaty conflict-resolution mechanisms.

- **IWT: Key Challenges**

Challenge	Explanation
Hydropower Race	India accelerated dam construction on western rivers
Politicization of water	IWT is increasingly used as a tool of coercive diplomacy
Climate vulnerability	The treaty lacks mechanisms for climate change
Lack of transparency	Pakistan claims limited access to Indian dam designs and flow data
Bilateral Tensions	Broader diplomatic hostilities hinder effective cooperation

Securitization in the South Asian Hydro-political Context

Water as a securitized issue in South Asia has become a matter of national security in Indo-Pak relations. This shift reflects the securitization of water, where both states treat water-related projects and policies as existential threats. India frames Pakistan's support for insurgency in Kashmir as linked to the logic of water conflict. Indian hydropower projects like Baglihar and Kishanganga are frequently portrayed as attempts to weaponize water in Pakistan. India's use of water as a tool of coercion is reinforcing Pakistan have securitized narrative. India wants to strangulate Pakistan by blocking our water is a recurring political and military claim (Mustafa, 2013; Hussain, 2017). Climate change adds layers of unpredictability to an already fragile security environment.

- **Political Implications of Securitization**

Zero Sum Thinking	Once water is securitized, both states are less willing to negotiate
Militarization Risk	Military strategies may plan water-related contingencies
Reduced Diplomatic Space	Diplomatic mechanisms become less effective
Public Nationalism	Politicians use water securitization to stir nationalist sentiments

This research suggests that the goal should be de-securitization, reframing water as a shared ecological and human concern. Both states, India and Pakistan, need to establish a Joint Climate Monitoring framework, a civil society committee, expand the IWT to include climate change, and promote regional water diplomacy through SAARC to mitigate the security threat and to ensure peace in the South

Asian region. Securitization may serve short-term political goals, but long-term regional stability requires building trust and developing cooperative climate-adaptive institutions. India's hydropower dams are becoming new elements in power geopolitics due to the threat of Aqua bombs to downstream regions. The Indus Water Treaty on water sharing between India and Pakistan, which binds the bordering states, is overstretched. Water sustains life, effectively determining all other geopolitical issues. Consequently, a lack of water may result in full-fledged armed conflicts. In a nutshell, the Indus Water Treaty is in the doldrums due to the water-power nexus in South Asia (Abas et al., 2019). Although climate change is the manifestation of climate change, a test of water sharing agreements, and has the potential to trigger water variations can affect trans-boundary water treaties.

Discussion and Analysis: Implications for South Asia

Modi's famous metaphor regarding IWT is that "water and blood do not flow together. Modi's populist regime constructs a national narrative by using water as a tool to obtain popularity with the audience. Populist leaders utilize rhetoric and media to fuel political polarization that shapes the national narrative. Sarwar and Aziz argue that populism divides society into two opposite groups, a political strategy through which a personalistic leader seeks to exercise government power (Sarwar & Aziz, 2024). Pakistan formally requested the World Bank in 2023 to resume arbitration talks concerning India's dam's construction under the Permanent Indus Commission (ICP). India refused to participate in arbitration hearings and reiterated its position that such proceedings are legally untenable under the Treaty's Article IX, and emphasized that it has his right to build infrastructure projects as long as they do not obstruct water flow (Jacob, 2021). Pakistan seeks a ruling that would restrain India's future dam construction on the western rivers. These unsuccessful negotiations underscore the growing complexities of the IWT. This water governance dispute is no longer a mere technical disagreement but a broader breakdown in mutual trust and a shift in India's regional posture. India suspended IWT in the April 2025 events, a terrorist attack in Pahalgam by blaming Pakistan. Pakistan denied its involvement and condemned the violence, but India attacked Pakistan (Sarwar & Rashid, 2025). The Pahalgam incident triggered political calls to overhaul India's unilateral suspension of IWT. As a result, following the alleged terrorist attack, India launched 'Operation Sindoor' in May 2025, violating Pakistan's national security by sending autonomous drones. Pakistan's legal response to India's rogue acts by neutralizing the drones and destroying India's military bases surprised the world. This conflict between two nuclear nations disturbed the peace in South Asia, and later on, the United States of America convinced both states to a ceasefire on the request of the Indian Prime Minister (Dawn, 2025; Sarwar & Rashid, 2025).

In sum, Indo-Pak relations have been a securitizing factor in the South Asian region, witnessing many wars, broken promises, and breakdowns (Ullah et al., 2022). This analysis reveals that IWT in the national security paradigm offers abundant opportunities to transform Indo-Pak relations from military aspects to new, changing political dynamics, including climate and environmental changes, to

redefine the security narrative. Positive aspects of IWT pave the way towards better diplomatic relations and greater economic ties by fostering friendly and trustworthy relations. The securitization theory, the Hydro-politics framework, and environmental peace-building ideology collectively highlight that IWT has the potential to enhance cooperation and peace in the region. This anticipated cooperation and collaboration between India and Pakistan can further connect both nations through regional connectivity projects that have both long-term and short-term impacts on the country's economy (Rashid & Sarwar, 2025). Therefore, Pakistan and India both need to update the IWT to incorporate climate change adaptation measures, form an Indus Climate Resilience Committee, enhance data sharing and transparency, and depoliticize water dialogue.

CONCLUSION

The IWT long-standing transboundary water cooperation has successfully endured wars, political hostility, and shifting regimes between India and Pakistan, and now stands at a critical crossroads. The hydro-political landscape of South Asia is transforming, and India's upstream control and perception often fuels suspicion and securitization. The conflict amplifies during a military crisis when water emerges as a source of sovereignty and strategic leverage. Environmental security is deeply linked to regional stability through shared ecological risks and interdependencies. Climate change acts as a threat multiplier by exacerbating existing water insecurities and geopolitical challenges. The absence of climate adaptation, environmental sustainability, and groundwater governance limits IWT's technical scope to manage present and future risks. The lack of robust institutional mechanisms for joint data sharing, real-time flood management, and inclusive conflict resolution compounds the challenge. Yet, the IWT retains diplomatic value despite being under pressure, proving that cooperation is still possible even amid hostility. The IWT has the potential to evolve into a model of adaptive hydro-diplomacy in an era marked by climate insecurity. Therefore, this paper argues that the future of regional stability in South Asia hinges on **revitalizing the IWT** through institutional modernization, de-securitization of water politics, and climate-sensitive amendments. Both India and Pakistan need to foster trust and cooperation to transform IWT from a site of contestation into a platform for environmental peace-building and promote peace in the South Asian region. They both have the opportunity not only to prevent conflict but to craft a shared climate-resilient future in the region because "water can be a source of war or a catalyst for cooperation. In the case of the Indus Water Treaty, the choice remains open."

Suggestions

- Modernize the treaty framework
- Establish a Joint Climate-Water Task Force
- Enhance Data sharing and transparency
- Depoliticize water dialogue
- Promote Joint Hydropower development

- Expand the IWT scope to include ecology
- Leverage third-party mediation
- Revised dispute resolution mechanism

REFERENCES

Abas, N., Khan, N., Saleem, M. S., & Raza, M. H. (2019). Indus Water Treaty in the doldrums due to the water–power nexus. European Journal for Security Research, 4, 201-242.

Ahmed, M. N. Q., Givens, J. E., & Arredondo, A. (2024). The links between climate change and migration: a review of South Asian experiences. SN Social Sciences, 4(3), 64.

Akhtar, D. S. (2010). Emerging challenges to Indus Waters treaty. Regional Studies, 28(4), 3-66.

Akhter, M. (2015). The hydropolitical cold war: The Indus waters treaty and state formation in Pakistan. Political Geography, 46, 65-75.

Ashraf, S. (2021). Geopolitics of Climate Change: US and China are Reciprocal Contenders. Journal of Development and Social Sciences, 2(3), China-Climate.

Barua, A. (2018). Water diplomacy as an approach to regional cooperation in South Asia: A case from the Brahmaputra basin. Journal of Hydrology, 567, 60-70.

Bashir, M. (2024). Water Dispute between India and Pakistan: An Analysis. Journal of Asian Development Studies, 13(4), 247-258.

Biba, S. (2020). China's 'old'and 'new'Mekong River politics: the Lancang-Mekong Cooperation from a comparative benefit-sharing perspective. In A River Flows Through It (pp. 47-66). Routledge.

Biswas, A. K. (1992). Indus water treaty: The negotiating process. Water international, 17(4), 201-209.

Buzan, B., Wæver, O., & De Wilde, J. (1998). Security: A new framework for analysis. Lynne Rienner Publishers.

Cascão, A. E. (2009). Changing power relations in the Nile River basin: Unilateralism vs. cooperation. Water Alternatives, 2(2), 245–268.

Conca, K., & Dabelko, G. D. (Eds.). (2002). Environmental peacemaking. Woodrow Wilson Center Press.

Dalby, S. (2009). Security and environmental change. Polity.

Dawn (2025, May 12). India and Pakistan just stepped back from the brink of war. Here"s how it unfolded. Dawn. https://www.dawn.com/news/1910509

Dittmer, J., & Gray, N. (2010). Popular geopolitics 2.0: Towards new methodologies of the everyday. Geography compass, 4(11), 1664-1677.

D'Souza, R. (2017). The Indus Waters Treaty and Climate Change: Analysing the Resilience of a Water Accord. ORF Occasional Paper No. 135.

Elhance, A. P. (1999). Hydropolitics in the 3rd World: Conflict and cooperation in international river basins. US Institute of Peace.

Farid, A., & Ashraf, S. (2025). Water Security in South Asia: How Indo-Israeli Technological Cooperation Shapes the Future of the Indus Waters Treaty. Pakistan Social Sciences Review, 9(2), 456-476.

Floyd, R. (2008). The environmental security debate and its significance for climate change. The international spectator, 43(3), 51-65.

Ghosh, N., & Bandyopadhyay, J. (2020). Governing the Ganges and Brahmaputra: Beyond reductionist hydrology. Occasional Paper, (273).

Gupta, D., Kumar, P., Okano, N., & Sharma, M. (2025). Climate-Induced Migration in India and Bangladesh: A Systematic Review of Drivers, Impacts, and Adaptation Mechanisms. Climate, 13(4), 81.

Hussain, M. (2017). India's water threat to Pakistan: A cause for concern. Journal of Contemporary Studies, 6(2), 67–81.

Ide, T. (2019). The impact of environmental cooperation on peacemaking: definitions, mechanisms, and empirical evidence. International Studies Review, 21(3), 327-346.

Immerzeel, W. W., Van Beek, L. P., & Bierkens, M. F. (2010). Climate change will affect the Asian water towers. science, 328(5984), 1382-1385.

Iqbal, M. J., & Chaudhry, A. G. (2019). Climate change-induced migration: A critical analysis of the situation in South Asia. South Asian Studies, 34(1), 175–190.

Jyoti Deka, B. (2021). HYDRO-POLITICS BETWEEN INDIA AND CHINA: THE 'BRAHMA-HYPOTHESIS'AND SECURING THE BRAHMAPUTRA. Asian Affairs, 52(2), 327-343.

Kugelman, M., & Hathaway, R. M. (2009). Running on Empty. Woodrow Wilson International Center for Scholars, Washington.

Kumar, L., Kumari, R., Kumar, A., Tunio, I. A., & Sassanelli, C. (2023). Water quality assessment and monitoring in Pakistan: A comprehensive review. Sustainability, 15(7), 6246.

Mirumachi, N. (2015). Transboundary water politics in the developing world. Routledge.

Mirza, M. M. Q. (2004). The Ganges water diversion: environmental effects and implications—an introduction. In The Ganges water diversion: Environmental effects and implications (pp. 1-12). Dordrecht: Springer Netherlands.

Mirza, M. M. Q. (2011). Climate change, flooding in South Asia and implications. Regional environmental change, 11(Suppl 1), 95-107.

Mustafa, D. (2013). Water resource management in a vulnerable and insecure region. Geographical Review, 103(4), 484–501..

Mustafa, D., Akhter, M., & Nasrallah, N. (2013). Understanding Pakistan's water-security nexus. Washington, DC: United States Institute of Peace.

Petersen-Perlman, J. D., Veilleux, J. C., & Wolf, A. T. (2017). International water conflict and cooperation: challenges and opportunities. Water International, 42(2), 105-120.

Rahaman, M. M. (2009). Principles of transboundary water resources management and Ganges treaties: an analysis. International Journal of Water Resources Development, 25(1), 159-173.

Rashid, M. I., & Sarwar, G. (2025). Infrastructure Diplomacy and Economic Growth: Impacts of Regional Connectivity Projects on Pakistan. Pakistan Languages and Humanities Review, 9(2), 218-232.

Riaz, S., Ishaque, W., & Baig, M. A. (2020). Indian aqua aggression: investigating the impact of Indus Water Treaty (Iwt) on future of India-Pakistan water dispute. NDU Journal, 34, 131-146.

Sarwar, G., & Aziz, A. (2024). Populism and Political Polarization: Cross-National Comparison of Populist Politics. Contemporary Journal of Social Science Review, 2(04), 155-168.

Sarwar, G., & Rashid, M. I. (2025). ARTIFICIAL INTELLIGENCE IN PAKISTAN'S NATIONAL SECURITY STRATEGY: EVOLUTION AND IMPACTS. Journal of Applied Linguistics and TESOL (JALT), 8(2), 1338-1349.

Sneddon, C., & Fox, C. (2006). Rethinking transboundary waters: A critical hydropolitics of the Mekong Basin. Political Geography, 25(2), 181–202.

Ullah, M. S., Sarwar, G., & Daraz, U. (2022). Kartarpur Corridor: Re-defining Security in South Asian Region. Annals of Human and Social Sciences, 3(3), 01-09.

Weinthal, E. (2002). State making and environmental cooperation: Linking domestic and international politics in Central Asia. MIT Press.

Wolf, A. T. (1999, February). Criteria for equitable allocations: the heart of international water conflict. In Natural resources forum (Vol. 23, No. 1, pp. 3-30). Oxford, UK: Blackwell Publishing Ltd.

Wolf, A. T., & Newton, J. T. (2008). Case study of transboundary dispute resolution: The Indus water treaty. Department of Geosciences, Oregon State University: Corvallis, OR, USA.

Yaqoob, U., & Javed, S. (2020). The politicization of water in South Asia: Revisiting the Indus Waters Treaty. South Asian Studies, 35(1), 135–149.

Zeitoun, M., & Mirumachi, N. (2008). Transboundary water interaction I: Reconsidering conflict and cooperation. International Environmental Agreements: Politics, Law and Economics, 8, 297-316.

Zeitoun, M., & Warner, J. (2006). Hydro-hegemony–a framework for analysis of trans-boundary water conflicts. Water policy, 8(5), 435-460.