

# Water Scarcity: Causes And Security Implications For Pakistan

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## Abstract

Pakistan is among the countries most vulnerable to water scarcity. This research paper explores the factors and implications of water scarcity on the national security of Pakistan using securitization theory. Specifically, it argues that water scarcity is a valid non-traditional security threat for Pakistan, which is already engulfed by persistent national and international water sharing disputes and politico-economic instability. The smaller provinces blamed the Punjab, the dominant province, for the water issues and they collectively opposed the construction of Kalabagh dam. The federation of Pakistan has been seriously threatened by interprovincial water disputes. The Indus River Basin, which Pakistan and India share, has become a key water-stressed area. Water scarcity and the Indain dam projects cause tensions between the two rival bordering states. The risk of water scarcity is growing and Pakistan's ability to guarantee water security is precarious. The paper explains how Pakistan's economy, society, federation, and environment are impacted by the country's water issue and the effects it has on collective national security and strength. This study employs a qualitative research approach based on secondary data sources as well as an examination (Discourse analysis) of important actors' security discourses, to provide a full picture of the problem.

**Keywords:** National Security; Inter-Provincial Water Disputes; Transboundary Water Conflicts; Indus River Basin; Economy; Society, Federation, Environment

## Introduction

The Lahore Resolution of March 1940 was the foundational step in the establishment of Pakistan. Quaid-e-Azam Muhammad Ali Jinnah successfully led the Pakistan Movement, and after seven years of the Lahore Resolution, the British rulers decided to divide India into two separate countries in 1947 (Ali, 1973). Since 1947, Pakistan has experienced numerous security challenges because the country's historical evolution in the geo-strategic neighborhood of India and Afghanistan, as well as its ethnic demographic composition, exposed it to persistent internal and external pressures (Chodha, 2019). Pakistan's national security has mostly emphasized military security. However, non-traditional security threats have grown

significantly over time (Afzal et al., 2012). As a result of unfair distribution, hydropolitics, and improper management, Pakistan's water crisis has led to a trust deficit among the provinces and different ethnic groups. According to Zaigham (2005), the ethnic identities of the provinces are connected to the issue of water scarcity and new dam construction. With the upper riparian India, Pakistan is facing trans-boundary water sharing issues. Water scarcity is seen as a severe threat to Pakistan's political, social, environmental, and economic sectors of national security (Aslam, 2013), as per the theoretical framework of the study.

Water scarcity means the physical shortage of water along with the failure of effective institutions and the lack of viable storage

infrastructures to ensure a continuous supply of water (United Nations, 2021). In 1950, the per capita availability of water was 5000 cubic meters in Pakistan. However, with an ever-increasing population and huge agricultural, industrial, and household demands, Pakistan touched the water stress line in 1990 and the water scarcity line in 2005. Many experts predict that the per capita availability of fresh water in Pakistan will decline to below 860 cubic meters by 2025, and the country may reach the status of an absolute water scarcity condition by 2040 (Ashraf, 2018). Pakistan's water availability is anticipated to fall to 274 million acre-feet (MAF) by 2025, while water resources are expected to remain stable at 191 MAF, resulting in an 83 MAF demand-supply gap (Ahmad et al., 2022). In the region, Pakistan has only 30 days of water storage capacity. According to UNDP and Pakistan Council of Research in Water Resources' (PCRWR) predictions, Pakistan could suffer a catastrophic water shortfall by 2025 (Shukla, 2018). Scarcity has been compounded by water-intensive agriculture, poor management, climate change, high population growth, industrial demand, and rapid urbanization. Climate change has increased the irregularity of rainfall, resulting in floods in some years and droughts in others, as well as disruptions in the consistent availability of water (Sayal, 2015).

Pakistan has successfully faced many traditional security threats since its establishment. However, a non-traditional security threat in the form of water scarcity triggers civil unrest, migration, economic vulnerabilities, ethno-nationalist movements, political fragility, and food insecurity. The aggregate impact of these issues is plaguing the country and is considered a valid challenge for Pakistan's national security.

### **Statement of the Problem**

In the context of inter-provincial and trans-boundary disputes, water scarcity has become a national security risk for Pakistan. Since its

inception, Pakistan has successfully dealt with a wide range of traditional security issues. A water crisis, on the other hand, causes civic unrest, migration, economic weaknesses, ethno-nationalist movements, political fragility, and food insecurity. The cumulative impact of these concerns is plaguing the country and is regarded as a legitimate threat to Pakistan's national security.

### **Research Methodology**

The study's primary goal is to uncover the factors and national security consequences of water scarcity in Pakistan. Since the task of the research required a qualitative research design, a detailed survey of existing research studies, i.e., contents were identified and major themes were developed for analysis, as well as a range of the researcher's own observations, helped in charting out various themes for water scarcity as a threat to Pakistan's national security. The study relied on secondary data sources and also employed the discourse analysis method, which is suitable for dealing with a social issue and securitization process as per the theoretical framework. Various accounts were considered to draw meaning from the data.

### **Literature Review**

The Kashmir War of 1947–48 emphasized the need for strengthening the Army, as the Pakistan Army's inadequacy and disregard for government orders led to public recognition of strengthening the Armed Forces as a national priority (Ahmad, 2017). The securitization of military buildup and the acquisition of nuclear assets played a significant role in Pakistan's defense because the direct and indirect threat from India was prominent in the minds of Pakistan's military and civil administrations, as revealed by the wars of 1965, 1971, and 1999 between the two neighbors. (Ahmad, 2017).

Mandel (1992) highlighted the link between water issues and national security, stating that water scarcity, population growth, climate change and ineffective management can intensify tensions and contribute to instability

(Mandel, 1992). Lieven's book 'Pakistan a Hard Country' emphasizes the country's future as a tough, resilient state but at the same time underlines the long-term threat and impacts of climate change, (Lieven, 2012) which necessitates a multi-sectoral, comprehensive national security framework to manage varied challenges and securitize the right threats for immediate and extraordinary responses. According to Barrett the Indo-Pak water issue arose with the partition of India. India has the upper hand in determining water supplies because all of Pakistan's major water resources originate in India or Indian-held Kashmir (Barrett, 1994). Arooj Naveed (2020) assesses Pakistan's water scarcity and its solutions, examining water sources, causes, and storage capacity. She discusses inter-provincial disputes and national security but lacks an explanation for water securitization, the geo-political significance of the Indus River, and potential conflict with Afghanistan (Naveed, 2020).

Islam's (1992) research on Pakistan's water distribution issues highlighted the Indus river system, agricultural data, Kalabagh dam's implications and the Indus Water Apportionment Accord, but did not directly link it to national security. (Islam, 1992). Mustafa et al. (2013) have discussed Pakistan's declining water sources due to economic sectors (agriculture, industry) and population growth. They evaluated provincial grievances, distribution flaws, international water disputes, and challenges in effective water management, but the research lacks comprehensive details about the 18th Amendment and federal structure in the context of Pakistan's water issues (Mustafa et al, 2013).

### **Theoretical Framework**

Buzan and the Copenhagen School are renowned for their contributions to non-traditional security studies, which significantly influenced the debate between traditional and non-traditional security notions. The school developed securitization theory and the five

sectors of security concept (Buzan et al., 1998). Pakistan's water scarcity is a major national security threat, necessitating a multi-sectoral approach. Securitization theory explains how non-traditional threats like water distribution and scarcity have become security risks, focusing on economic, environmental, societal, military, and political sectors of national security.

## **Results and Discussions**

### **Causes of Water Scarcity in Pakistan**

**Poor Management:** Pakistan confronts a severe national security challenge as a result of water scarcity caused by population growth, insufficient water resource management, and climate change. Pakistan's water management is opaque, based on monopolies, individual discretion, and corruption, leading to inequitable distribution, poor technical performance, and conflicts. Inadequate infrastructure, insufficient hydro-meteorological data collection, and inaccurate accounting methods also contribute to the water crisis (Briscoe et al, 2005). Water scarcity is a result of outdated storage infrastructure and poor resource management. Major dams have not been built, and dams like Mangla and Tarbela have lost up to 25% of their capacity due to silting. The lack of minor dams and reservoirs leads to wasted rainwater (Memon, 2020). Pakistan's storage capacity is insufficient for reliable irrigation, with a capacity of only 30 days. The seasonality of flows in the Indus River and the three- to five-year flood and drought cycles demand live storage for mitigation (Laghari et al, 2012). Pakistan's current storage capacity is about 15% of its annual river flows, and without additional capacity, it will face a significant shortfall in the coming years. The country needs to raise its storage capacity by 22 billion cubic meters by 2025 to meet projected requirements of 165 billion cubic meters (Wasif, 2017; Janjua, 2021). Pakistan's poor water management has significant economic

consequences, costing the country around 4% of its annual GDP (Jamal, 2019).

Pakistan's prioritization of supply management over demand management has hindered the shift to the required mechanism. Poor management of resources results in pumping 55 MAF of groundwater through tube wells, exceeding canal water availability. With projected population growth, water supplies must grow by nearly 10% annually to meet food requirements. Improper demand management makes the situation even more precarious (Faruqi, 2004).

In the context of Pakistan's ethnic diversity, inter-provincial water sharing concerns and insufficient natural resource governance, particularly of water resources, constitute a significant danger to the country's national cohesion and stability (Khan & Awan, 2020; Magsi et al., 2012).

**High Population Growth:** Pakistan has become the world's fifth-most populous country with a 1.75% annual growth rate (World Bank, 2022). Pakistan's population of 225 million is expected to exceed 250 million by 2025, putting strain on water resources while per capita availability is predicted to decrease to 800 m<sup>3</sup> by 2025. The country water consumption is increasing at a 10% annual rate (Janjua et al., 2021). The urban population is expected to grow by 52% by 2025. Water consumption for agriculture industrial and domestic use will increase by 8% in 2025 due to high population growth rate (Janjua et al., 2021). Around 74% of accessible surface water is extracted, while 83% of groundwater is exploited for agricultural and other purposes, which is an unusually high ratio for a water-scarce country like Pakistan (Ishaque, et al, 2023).

Pakistan's water availability is still between 240 and 258 km<sup>3</sup>, but water demand is rising at a 10% yearly rate and will reach 338 km<sup>3</sup> by 2025 (Shaheen, 2010; Ishaque, et al, 2023). Pakistan confronts a severe national security

challenge as a result of water scarcity caused by high population growth (Bhatti et al., 2019). In numerous respects, urbanization in Pakistan has exacerbated the water situation. Rapid urbanization and population growth in the country have put enormous strain on water resources, resulting in increased water consumption and pollution. High population density and economic activity in urban regions result in higher water usage for home, industrial, and commercial needs. This increased demand stresses limited water resources, exacerbating the water scarcity (Janjua, 2021). An increase in population necessitates the production of additional food, yet no new water resources are available. The Government of Pakistan has classified water scarcity as the most difficult of all problems since water is critical for the expansion of the agriculture sector and consequently for poverty reduction.

**Climate Change:** Climate change is inextricably linked to a country's national security, and it has been identified as a significant danger by defense and intelligence officials worldwide. Climate change operates as a "threat multiplier," aggravating existing challenges that countries confront, such as poverty, environmental degradation, political instability, and social tensions (McCarthy et al, 2001). The United Nations Development Programme (UNDP) has listed different variables affecting Pakistan's hydrologic resources, such as shifting rainfall patterns, saltwater intrusion, glacial lake outburst floods, and rising temperatures (UNDP, 2008). The National Climate Change Policy (2012) outlines the primary threats to Pakistan posed by irregular monsoon rains induced by climate change. Pakistan is heavily reliant on the monsoon system for rainfall. The projected rapid temperature rise would trigger glacial melt and recession in the Hindukush-Karakoram-Himalaya (HKH) glaciers, which are the primary source of water entering the Indus River System (National Climate Change Policy, 2012). Between 2010 and 2019, glacier

melting in the Hindu Kush and Himalaya Mountain ranges increased by 65% compared to the previous decade (Sayed, 2011). The Himalayan glaciers may have lost up to 75% of their volume by the end of the century due to global warming which would have an impact on the availability of freshwater and water security. (Sheikh et al, 2010).

### **Water Sharing Disputes: A Threat to Pakistan's Federation and National Security**

The constitution of Pakistan envisioned a federal government for provincial autonomy and a strong federation (Brasher, 2021). However, the realization of smaller provinces regarding unequal water distribution constitutes a challenge for the federal character of Pakistan, and it has been experienced both in civilian governments and military regimes (Paukert, 2015). The provinces of Punjab and Sindh, Sindh and Baluchistan, and Punjab and Khyber Pakhtunkhwa are fighting over water distribution, with ethnicity often linked to water nationalism. It means water scarcity poses a severe threat to Pakistan's political development and hampers the federal system's smooth functioning.

A discourse was initiated, particularly among the leaders of Sindh against Punjab's violations of the Water Accord with connivance of WAPDA, IRSA and the federal governments. Pakistan's politico-nationalist leader, Niaz Kalani, has strongly criticized Pakistan and Punjab province for signing the Indus Water Treaty with India, citing the sale of three rivers to India (The Express Tribune, 2021). Without Sindh's permission, Punjab was permitted to build link canals from the Indus River to relieve their water crisis, diverting water from Sindh in the process. Additionally, they took out loans from foreign donors to build the Tarbela dam for the benefit of the Punjab province (Khan, 2019) The provincial minister for Sindh informed the provincial assembly of the dire state of the water resources. He stated that "there was a 44

percent water deficiency at Kotri Barrage and a shortfall of approximately 22 percent at Sukkur Barrage. He stated that 'federal harmony would be sabotaged if the monopoly of one province (Punjab) on the Indus River continues' (Dawn, 2021). Inter-textual discourse analysis of the second statement reveals that the provincial minister invoked 'threat' to the political security or federation of Pakistan. He blamed Punjab and the implicit support of federal government as the single most important cause of unequal distribution between the two provinces and Sindh's increasing water crisis. The use of the 'phrase federal harmony would be sabotaged' is genealogically referring to the incidences of disintegration or provincial alienation in the case of East Pakistan's separation. The statement of provincial minister has also linked the role of federal government and Punjab with their previous beneficial association under Indus Water Treaty of 1960 as indicated by the aforementioned first statement of the Sindh's nationalist leader (Punjab was enabled to construct link canals from the Indus River in order to compensate for its water shortage without the consent of Sindh).

Nationalists perceive the energy production aspects of Kalabagh dam in favor of upstream province at the cost of downstream Sindh. The anti-dam movement successfully targeted the federation and Punjab. An important leader of ANP used communicative language and portrayed the dam building as a potential cause of withering of Pakistan's federation. Mr. Haji Ghulam Ahmed Bilour said, 'the dam had been rejected by the three elected assemblies of the smaller provinces. The resistance has become imperative for the political parties of the three provinces against authoritarian decision of federal government (Dawn, 2006).

Inter-provincial water sharing disputes in Pakistan are basically an issue of highly technical nature, but the disputes are misinterpreted and politicized among the provinces of Pakistan Interprovincial water disputes may threaten Pakistan's already

precarious national security. The anti-Kalabagh dam campaign has succeeded in steering its security dimension. This success highlights the relevance of securitization theory in the context of threat perception and threat projection of Kalabagh dam construction to the political security or national security of Pakistan.

Being a higher riparian gives India a tactical advantage against Pakistan. Pakistan is a lower riparian state that has been at odds with Indian hydropolitics since 1947 due to history and nature. In fact, the geography and partition of the Indian Subcontinent are fundamental to Pakistan's external water issues with India. After the division, the tense relations between the two nations resulted in four major wars and numerous skirmishes. India continues to build hydropower and storage facilities on western rivers in Indian-occupied Kashmir, with far-reaching consequences for Pakistan's water security. Pakistan and India's tensions are growing on a variety of issues, including Kashmir, border conflicts, and terrorism. All of these issues are becoming increasingly intertwined with the water dispute. With the contested hydropower and water projects in Indian Held Kashmir, India boosts its potential capacity for water storage. Since PM Modi took office, the water conflict has been utilized as a direct weapon in reaction to any complaint leveled against Pakistan. With expanding potential storage capacity, India is in a strong position to threaten Pakistan's water rights (Zafar, 2023; Sinha et al., 2012).

#### Water Scarcity: A challenge to the Socio-Economic Security of Pakistan

The river system in Pakistan's portion of Indus Basin have an average of 170 billion cubic meter water availability and the country needs to store forty percent of this huge amount in order to attain the status of water security but unfortunately, it can store only seven percent water (Shaikh, 2016). Various factors have directly or indirectly increased the gap between water supply and demand which

constantly impacts almost all sectors of Pakistan's economy. Agriculture is a vital part of the Pakistani economy. This industry directly supports the country's population and accounts for 26% of the country's GDP (Rehman et al, 2015). In Pakistan, agriculture sector has a strong source of supporting the fragile economy and a provider of food and jobs to ever growing population (Molden, 1997). The optimal use of resources, particularly land and water, is a key and urgent requirement for increasing agricultural productivity (Rehman et al, 2015). However, Pakistan is facing severe water crisis and hydro-disputes. Agriculture sectors employs the greatest proportion of the overall labor force in the country with around 45% directly while indirectly employing millions more individuals (Hussain, et al, 2014).

According Qureshi & Ashraf, agriculture sector in Pakistan is the victim as well as the biggest consumer (above 90%) of freshwater in the critical situations of below 1000 cubic meter per person water availability. Almost 50 liters per capita water is needed for domestic purposes while agriculture sector requires 2600 to 5300 liters freshwater to grow crops or food for only one person per day. Therefore, water scarcity is directly related to food insecurity (Qureshi & Ashraf, 2019). For economic development, food security, and poverty reduction, the agricultural sector needs water. The year 2023 saw a rise in food prices and a shortage of certain foods, particularly wheat flour, the nation's main grain. Large queues formed for the free wheat flour distribution for the first time ever in Pakistan's history, and some people died in stampedes.

UN has included clean drinking water and its accessibility in the set of basic human rights and privileges (United Nations, 2010; Heller, 2022). Pakistan's cabinet has approved national food security policy which aims at strengthening availability, accessibility and sustainability of food supply system in the country. According to national food security policy, growing water scarcity and high

population growth impact quality and supply of foods. Pakistan's national security is linked with fresh water availability and food security' (Dawn, 2023).

Pakistan's dependency on transboundary waters is more than 77%, which is alarming in the case of severe hydro politics and extreme climate change. Variation in the trends and timing of snowfall and changes in snow and ice melt are erratically occurring due to climate change, which would have grave implications for the agriculture sector of Pakistan, which, in turn, would be a threat to the national food security of the country. The discourse around water scarcity and food security in Pakistan also involves policy and governance issues. Effective water resource management, including allocation, distribution, and infrastructure development, is crucial.

Water scarcity has prompted intercity and interprovincial migration in Balochistan. For example, 70% of the Kulanch Ambi village in Gwadar and other rural places such as Pasni have migrated while water-induced droughts drove 33 percent of inhabitants in Washuk, Chagai, Kharan, and Noshki to migrate in search of water, food, and fodder for their cattle (Reliefweb, 2019). Likewise, inhabitants of Chitral district, which is one of the most impacted districts by climate change impacts, have been compelled to migrate out of their territories since the terrain has become water scarce and unproductive (ICIMOD, 2020). Water scarcity contributes to rising social and gender inequalities, particularly among women. Children, particularly girls, accompany women in carrying water, which means they miss school to help support their families. This provides a picture of the much broader impact of water scarcity.

### **Water Scarcity and Environmental Security**

Water scarcity has critical environmental implications for Pakistan, like overexploitation of groundwater aquifers and declining river

flows with harmful pollutants. The excessive extraction of underground water for irrigation purposes has led to the consistent depletion of aquifers and huge damage to water resources. Diminished river and canal flows due to water scarcity affect biodiversity, ecosystems, fish populations, and the overall ecological balance. (Development Advocate Pakistan, 2016; State Bank of Pakistan, 2017). Salinity and waterlogging are serious environmental challenges in Pakistan, particularly in the Indus River Basin. These issues have plagued the region's agriculture, a crucial industry that employs over half of the population (Qureshi et al., 2008). Water scarcity is causing environmental deterioration in the Indus delta. The current silt discharge is expected to be 100 million tons per year. The combination of salt-water intrusion and decreasing silt and fertilizer fluxes has dramatically affected the geomorphology of the delta. The delta's active growth area has fallen from 2600 square kilometers to roughly 260 square kilometers. Only a few creeks receive freshwater, while others have become blocked (Albiac & Dinar, 2009).

### **Securitization of Water Scarcity in Pakistan**

Water scarcity has been recognized in Pakistan as a legitimate risk to state stability, state strength, and national integration. In Pakistan, political leaders and policymakers have raised the issue of water scarcity from a purely hydro political concern to a national security concern. Dr. Arif Alvi, President of Pakistan, has stressed the importance of water scarcity as a national security issue, adding that it is a matter of life and death for future generations. To handle future water needs, he underlined the importance of a comprehensive water policy and public awareness through the media. (The News, 2019).

In his address to the nation, former Prime Minister Imran Khan said that the 'biggest problem of Pakistan is water scarcity' and emphasized the development of new dams to

store maximum water. He warned the nation that if new reservoirs were not developed in the next seven years, Pakistan would be facing a drought-like situation. Therefore, he appealed to the nation, especially foreign Pakistanis, to contribute to the PM/Chief Justice Fund for dam building (The Express Tribune. 2018). On the occasion of World Environment Day, the PM once again highlighted "water scarcity as a dangerous problem for Pakistan" and regretted that the four provinces of the country are criticizing each other for water theft and distribution issues. He warned of the speedy melting of glaciers as a result of global warming, and if the world did not pay attention in time, there could be huge devastation. He called on Pakistanis to cooperate in the government's Ten Billion Tree Tsunami and Clean/Green Pakistan projects (The News, 2021). Chief of Army Staff General Qamar Javed Bajwa said that climate-induced water crises and disasters can be mitigated with the help of long-term planning regarding the building of dams and an effective water drainage system to secure people (Dawn, 2022). Gen Bajwa acknowledged the security nature of water and donated Rs.1bn for dam fund on military's behalf. He expressed his views regarding Diamer-Basha and Mohmand Dams' building and water security of Pakistan (Dawn, 2018).

Former Pakistan's Chief Justice Saqib Nisar initiated a mass fund-raising campaign for the development of two big dams. In fact, the alarming water crisis had consciously influenced the Chief Justice to improve the country's water storage capacity and national stability. Former CJ Nisar contributed to securitizing the water shortage issue by taking a *Suo Moto* notice in June 2018 (Bhatti, 2018). He considered water scarcity a matter of life and death for Pakistan's future generations. The former Chief Justice established Diamer Basha and Mohmad Dam Fund and initiated a crowd-funding campaign for the dams. Civil society organizations supported the securitization process through awareness

campaigns and social media hashtags. (Nisar, 2018).

The hydro-national security discourse of the top officials of the state reveals that water scarcity acts as an existential threat to Pakistan. The declaration of the water crisis as the "biggest problem", disastrous, and "matter of life and death" for referent objects like state, identity, society, and the nation are speech acts known as securitization moves. They also mentioned the solution to the problem as effective measures like public awareness regarding water conservation, scientific research, and new dam construction for maximum water storage. As a result of the above securitization moves, the Prime Minister of Pakistan embarked upon the construction work of Diamer-Bhasha Dam on July 15, 2020. The dam will generate 4,500 MW of electricity on the River Indus. The height of Diamer-Bhasha dam is 272 meters with a total water storage capacity of 6.4 million acre feet, and it will be a big dam in Pakistan like Tarbela and Mangla dams (Ministry of Water Resources, 2020). The participation of Chief of the Army Staff General Qamar Javed Bajwa, Director General Inter-Services Intelligence Lt. General Faiz Hameed, and Special Assistant on Information Gen. Asim Saleem Bajwa in the inaugural ceremony reflected the significance of the Diamer-Bhasha dam for the national security of Pakistan. (Ministry of Water Resources, 2020).

## CONCLUSION

Pakistan's water crisis has significantly decreased from 5,000 cubic meters per person to less than 1,000 due to urbanization, water-intensive agriculture, population growth, and wastage. Climate change and fragmented water management have further exacerbated the issue. Water scarcity also poses health risks and impacts agricultural production as well as food security. Pakistan's national security has mostly concentrated on military security; however, non-traditional security challenges in the form of water scarcity and climate change



have grown tremendously. The discourse on the water crisis has convinced the military and civil establishment to include water scarcity and climate change in national security policy, which reflects the broadening of the national security concept in Pakistan. The study has investigated diverse evidences and valid links between Pakistan's water scarcity and its national security in broad perspective. In fact, Pakistan is in the grip of a severe water crisis, with diminishing water supply per person which poses a significant threat to national cohesion, socio-political and economic stability. Pakistan's agriculture sector contributes significantly to GDP and employs a major section of the labor force, is strongly reliant on Indus water River System. However, available water supplies are insufficient to meet rising demand, which is compounded by climate change, population expansion, disputes and poor management. Water scarcity has impacted agriculture output, energy production, food security, ecosystems, and inter-provincial harmony. The water crisis is creating security threats to Pakistan due to its significant economic and social implications.

Pakistan faces water sharing issues with India, causing inter-state conflicts and affecting its national strength. The Indus Water Treaty, a six-decade-old agreement, is in trouble due to objections from both countries. India seeks abrogation, while Pakistan links its validity to national survival. Indian infrastructural developments in Pakistan's rivers have led to decreased water availability. Pakistan's chronic water shortage and disputes over water resources have the potential to escalate into war, while India has used water as a diplomatic weapon in many occasions. Addressing and resolving these issues through diplomatic channels is crucial for maintaining regional stability and peace. Inter-provincial disputes also pose significant threats to social cohesion, economic progress, national unity and harmony. These disputes have caused poverty and social inequalities. Addressing these disputes, require effective governance,

inclusive policies, equitable resource distribution, and peaceful conflict resolution mechanisms.

Discourse analysis of the securitization of water scarcity entails investigating the numerous statements of decision-makers and policymakers in Pakistan regarding the national security threat of the water crisis. The political and establishment elites have successfully portrayed and treated water conflicts (national and international) as security issues in Pakistan. Pakistan is facing pressure due to overuse and limited storage capacity in the region. In Pakistan, water scarcity has been securitized as a critical national security challenge that demands urgent action. A comprehensive strategy that incorporates efficient water management regulations, infrastructure development, regional collaboration on transboundary water concerns, and plans for adjusting to the effects of climate change is needed to address these challenges. Water security, national stability, and socioeconomic development in Pakistan depend on sustainable water management.

### **Recommendations**

- (I) Water usage practices in agriculture, industries, urban areas, and livestock need transformation due to systemic wastage, outdated systems, corruption, and incompetence in water distribution.
- (II) To address Pakistan's inter-provincial water disputes, a two-pronged approach is needed, boosting IRSA's capacity and removing political and bureaucratic hurdles to mobilize civil societies.
- (III) Pakistan must make legislative, administrative, and other adjustments to allow provinces to trade their water shares with other provinces and the federal

- government at mutually agreed-upon prices.
- (IV) A telemetry system should be developed to allow India and Pakistan to share timely and transparent information.
- (V) The Indus Water Commission should be reinforced so that it can work efficiently for the efficient use of water.
- (VI) Security establishment must acknowledge water scarcity as a valid non-traditional threat to Pakistan's stability.

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