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### Pakistan's Lower Riparian Anxieties on the Indus and Indian Assurances

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#### ABSTRACT

This paper analyses Pakistan's lower riparian anxieties on the Indus and Indian assurances by elaborating the differing perspectives of the two states on different projects pursued by India on the western rivers; the rivers allotted to Pakistan by the Indus Waters Treaty of 1960. It argues that the water supply has reduced drastically in the last thirty years, which has resulted in a water crisis in India and Pakistan. India has started constructing different hydroelectric projects on western rivers in Jammu and Kashmir which the treaty allows under certain conditionalities. Pakistan objects to these projects as against the treaty. Pakistan considers the Indian projects a threat to its national integrity and the agriculture-based economy as they could be used as a weapon to the detriment of downstream Pakistan. India assures Pakistan of no such intentions and defends the projects as in conformity with the Indus Waters Treaty. This trust deficit between the two arch-rivals has made water disputes between them intractable.

**Keywords:** India, Pakistan, water, The Indus Waters Treaty, Indus

#### INTRODUCTION

India-Pakistan enmity dates back to the pre-partition politics of two political parties of the India National Congress (INC) and the All-India Muslim League (AIML), where both the parties had different visions of statehood in the Indo-Pak sub-continent. INC wanted to have a unified India, whereas AIML was skeptical of INC's leadership and strived to have a separate homeland for the Muslims of India to safeguard their rights. Ultimately the politics of AIML prevailed, and India was divided into two states in August 1947. The violent mass migration and the mismanagement of the partition gave birth to different political disputes between the two states, which ultimately created a trust deficit that persisted a long way down the road (Brennan, 2008). The same mismanaged and hasty partition of India had its implications for the post-partition India-Pakistan water feud (Ali, 2012). With a huge trust deficit already created by the violent

partition, Pakistan found itself vulnerable in the face of a stronger neighbor. Such vulnerability became a threat when India closed the water flow on some of the canals flowing from upstream India on April 1, 1948. This action further augmented the anti-Indian posture of the Pakistani government. However, after a long and hectic series of World Bank-led negotiations, the water dispute culminated in the Indus Waters Treaty (IWT) of 1960. Yet, in the 1980s, water again became a buzzword in political saloons. This time increasing water scarcity has led to competition between India and Pakistan in securing the scarce water resources.

Since the decades-old acrimony and trust deficit still existed unabated, therefore, water relations have become interlinked with political relations and the former set of relations has been left to be defined by broader political relationship (Condon *et al.*, 2009). This trust deficit has cascaded upon the water relations which has resulted in

the differing interpretations of the IWT. Pakistan fears that the Indian projects on the rivers called western rivers which the IWT had allocated to Pakistan are nothing but structures to inflict injury on downstream Pakistan. India defends its projects which the treaty has allowed India under certain restrictions so as to safeguard Pakistan from the malicious use of the water storage structures. This paper analyses Pakistan's lower riparian anxieties against the Indian structures on the Indus and the Indian response. This paper is divided into the following sections: 1. Indus River system and its importance for India and Pakistan, 2. The water crisis in India and Pakistan, and 3. India-Pakistan water disputes from the perspective of India-Pakistan divergent interpretation of the IWT.

### **THE INDUS RIVER SYSTEM AND ITS IMPORTANCE FOR INDIA AND PAKISTAN**

The Indus River originates 1700 feet above sea level from a spring near Lake Manasarovar in Kailash Parbat, north of the Himalayan Mountains of Tibet in China. Its total length is 1800 miles and flows through China, Afghanistan, India, and Pakistan. For the initial 600 miles, the river flows northwest and then turns southwards, draining Indian occupied Kashmir, the northern areas of Pakistan, and then flowing through Khyber Pakhtunkhwa (KP), Punjab, Sindh, and then flushes out into the Arabian Sea near Karachi. The Indus River is fed by the snowmelt from the Himalayan glacier and the monsoon. 12 % of its flow originates from Tibet and Afghanistan, 19 % from Pakistan, and 69 % from India (Mohammad, 2011). 70% of its total annual flow occurs from June to September-the monsoon season and therefore subject to high variations (Uprety & Salman, 2011).

River Indus is joined by river Kabul and other minor rivers like Kurram, Tochi, Gomal from the west and five major rivers-the Sutlej, Chenab, Ravi, Biyas, and Jhelum-from the east. River Kabul originates in Afghanistan, flows through its capital and then through Federally Administered Tribal Areas, Peshawar valley, and joins the Indus at Attock. One of the major tributaries of River Kabul, the Chitral River, which is known as Kunar River in Afghanistan, originates in Pakistan and then flows into Afghanistan and joins river Kabul just east of Jalalabad in Afghanistan. Due to such a unique position, Pakistan claims both as the upper and lower riparian of river Kabul (Bakhshi & Trevedi, 2011).

The Sutlej originates from the same place from where the

Indus originates. The Chenab and Ravi rise in Himachal Pradesh in India, but the Chenab creeps through Indian occupied Kashmir and then enters Pakistan, whereas Ravi flows through Indian Punjab and then enters Pakistan. The Biyas begins, flows, and ends in India. Jhelum rises from the northwest of Pir Panjal, which separates Jammu and Kashmir and then flows through the Dal and the Wullar lakes in Jammu and Kashmir. River Neelum (known as Kishenganga in India) joins the Jhelum at Domail in Muzaffarabad, AJK. It indicates that in the Indus and most of the other rivers, India and Afghanistan are the upper riparian, whereas Pakistan is the lower riparian state.

River Indus and its western and eastern tributaries constitute the Indus River basin. Its total area is 365000 m<sup>2</sup> covering 25 % area of Pakistan and 9.8 % area of India. In India, Jammu and Kashmir, and Himachal Pradesh constitute the upper portion, whereas Punjab, Haryana, and Rajasthan constitute the lower part of the Indus River basin (Iqbal, 2010). In Pakistan, the KP and most of the plains of the Punjab and Sindh fall within the Indus River basin. The climate of the Indus basin is as varied as its terrain, which varies from arid to temperate and sub-humid.

The Indus River system is of immense importance for its co-riparian states. China and Afghanistan could not utilize the river Indus system due to the rough terrain surrounding the river, though both the states are stressing their right to the river system flowing through their territories. Especially the present Afghanistan drive to build multi-purpose water projects on river Kabul and its tributaries with Indian assistance highlight such stress for their share in the river waters.

India and Pakistan are mostly dependent on the Indus River system as 72% of Pakistanis and 23% of Indians live in the Indus basin system. The Indus River system is a source of irrigation for the northwestern part of India, which is the breadbasket of India. For Pakistan, the river Indus system is much more important than India. Besides the Indus River system, India has another mighty Ganges-Brahmaputra-Megna (BGM) river system that provides for its national irrigation, domestic, and industrial needs. Whereas for Pakistan, the Indus River system is the major source of water. While there exist two other river basins of Karan and Makran, which are located in Balochistan, nevertheless the Indus basin constitutes 71 % of Pakistan's area and provides water to 77% of the Pakistani population. Comparatively, Karan covers 15%

and Makran 14% of the total territory of Pakistan (Bakhshi & Trevedi, 2011).

Pakistan's agriculture, which is the backbone of the national economy, employs 43 % of the labor force and constitutes 25% of its total GDP, which is heavily dependent on the Indus River system. Nearly 74 % of the total area irrigated by the Indus River is of Pakistan through one of the largest irrigation networks. The network comprises three major reservoirs (Tarbela and Chashma on Indus, Mangla on Jhelum), 19 barrages, 45 canal commands, and 144 large dams. (Mohammad, 2011). Due to such an extensive irrigation network, 78% of the total cultivated area of Pakistan is irrigated and ranks second to Egypt across the globe (Mohammad, 2011).

### **WATER CRISIS IN PAKISTAN AND INDIA**

Pakistan is categorized amongst the aridest countries with annual rainfall less than 240 mm. One-third of its population is under the threshold of water scarcity. As per 2008, out of the total population of 165 million, 98 million are dependent on agriculture, 70 million have no access to sanitation, 50 million lack safe drinking water, and 25 % live below the poverty line. Furthermore, water availability is declining at a distressing rate. According to a World Bank report, the total water available in 1951 was 5000 m<sup>3</sup> per capita, 1100 m<sup>3</sup> in 2006 and would reach lower than 700 m<sup>3</sup> by 2025, whereas the demand would be 338 BCM by the same year. This shows that by 2025, Pakistan will be facing a demand-supply gap of 100 BCM.

According to another source, Pakistan's demand-supply gap at present is calculated to be 11-12 MAF and would further escalate to 31 MAF by 2025. The following factors are responsible for the water crisis in Pakistan. First, agriculture is the most vital user of water in Pakistan. 94 % of the total water withdrawn is utilized by the agriculture sector as compared to 5.2 % and 0.76 % being utilized by the municipal and industrial sectors. Out of these, 60 % of the water utilized by agriculture is provided by the River Indus. Second, the population of Pakistan is growing at a 1.95 % rate, and according to the Environmental Protection Agency of Pakistan, it would cross water scarcity level in 2013 (Miner et al, 2009).

Then, Pakistan has a huge potential for hydropower generation. Its potential is calculated to be 40,000 MW, whereas the capacity of the presently installed hydropower plant rests at 6493 MW. Due to the present

drive for electrification and other needs, Pakistan's total power deficit reached 3500 MW by 2009. In order to cover this deficit, WAPDA is planning to increase the present capacity to a total of 20,000 MW and 27,000 MW by 2017 and 2025, respectively. Fourth, the storage capacity of most of the reservoirs has greatly diminished (32 % of Mangla and Tarbela) due to siltation and sedimentation, and this factor would further escalate future storage demand in Pakistan (Bakhshi & Trevedi, 2011). Last, industrial and agricultural pollution has adversely affected the quality of water in Pakistan. Excessive exploitation of groundwater has resulted in the intrusion of salt into groundwater and fall in tables of groundwater (Crow & Singh, 2009).

Similarly, the climatic condition of India is a semi-arid one. In 1950 the total per capita water available in India was 5000 m<sup>3</sup> which declined to 1800 m<sup>3</sup> in 2005, and this availability is estimated to fall further below 1000 m<sup>3</sup> by 2050 (Mohammad, 2011).

There are five factors that have created a water deficit in India. Firstly, agriculture is vital for India too. It's the main source of the Indian economy, employment of the people, and source of livelihood as 70 % of Indians live in rural areas where agriculture is the main source of livelihood. Secondly, the 1241 million population of India- the second largest state in the world- is increasing at a 1.4 % rate. Accordingly, the water scarcity level would fall below 1000 m<sup>3</sup>/ person. Thirdly, India presently exploited hydropower generation is just 23 % of the total potential of 150,000 MW (Miner et al, 2009). In order to meet its electric needs, the potential would be exploited in the near future, which would further distress the water cycle.

Fourthly, in order to maintain its present economic boom of 7 % a year, India will have to increase its energy supply by 10 % annually. Since half of the Indian population is yet to be electrified and to keep the present momentum of its economic growth, India is planning to nearly triple its hydropower generation in the near future. To achieve this target, the water of the Indus tributaries would be exploited as it's less exploited, less costly, and more productive. Lastly, in India, groundwater irrigates 45 % of the total land under irrigation. Similarly, 80 % of domestic water consumption comes from groundwater (Miner et al, 2009). Due to overexploitation, industrial wastes, and pollution, its groundwater is losing its quality and tables.

## **INDIA-PAKISTAN WATER DISPUTES: DIVERGENT PERCEPTIONS**

India and Pakistan have been at odds over the distribution of waters since the inception of the two states. It all started with the drawing of boundaries between the two states, India stopping of water flow in 1948 and the ultimate solution in the shape of the IWT of 1960. The treaty worked well for a considerable part of the time. Yet once again, the water became political in 1980. However, there is a difference in the nature of water issues in the mentioned phases. Water issues in the first phase of its dispute 1947-1960 were due to the demarcation of boundaries. However, in the second phase, its nature is changed. Today climate change, population growth, and increased agricultural, domestic, and industrial consumption have resulted in the politicization and securitization of water. This time nature of the issue is more intensely political and divisive (Sinha, 2010).

Pakistan is posing the issue to be of grave nature and claims that Indian projects and dams on the rivers granted by the IWT to Pakistan are Pakistani-centric and are meant to jeopardize Pakistan agriculture and hydel power. Pakistan further projects the issue in a strategic dimension and claims that Indian projects are designed to use water as a military tool to endanger the territorial integrity of Pakistan. India, on the other hand, projects itself as a responsible, peaceful country and defends its projects for peaceful purposes. She blames Pakistan for making the water an unnecessary flashpoint (Sinha, 2010). In order to assess the nature or gravity of water issues between India and Pakistan, a detail of different perceptions of India and Pakistan about water issues is discussed below.

Pakistan apprehends that the Indian strategy of construction of dams on western rivers would have serious ramifications for Pakistan. It is claimed by the Pakistani side that such projects would adversely affect the agriculture, hydel potential, and food production of Pakistan. In extreme instances of Indian stoppage of waters, the ultimate food crisis, load-shedding, unemployment, and droughts would tear the social fabric of Pakistani society. Provinces would turn enemies over the scarce water resources, and Pakistan would run into crisis and internal wars. Pointing towards the gravity of the nature of water crises, Chairman Indus Water Council Pakistan and Coordinator World Water Assembly, Zahoorul equated the Indian adventure of dams'

construction with Indian water terrorism, which is a more serious threat to Pakistan than the Taliban. He further warned that if the Indian drive of water diversions went on, then the country of Pakistan would be challenged by situations as we see in Chad, Somalia, and Ethiopia. Building upon the same argument, it is recommended that Pakistani defense policy must treat water security as a priority.

## **PAKISTAN'S LOWER RIPARIAN ANXIETIES VIS-A-VIS UPSTREAM INDIAN STRUCTURES ON THE INDUS**

According to Pakistan, such a grim eventuality, as discussed above, could happen to Pakistan because Pakistan faces the dangers of the Indian structures and designs in four aspects. The first is strategic vulnerability. There is a trust deficit in Pakistan that India would try to infringe upon the sovereignty of the new state by stopping water from flowing into Pakistan once again. Such a viewpoint further got strength when the Indian side actually did so on April 1, 1948 (Norins, 2011). At present, Pakistan still holds the same old fears that all the dams, electrical stations, reservoirs with gated spillways have other intentions than the manifested ones by India. Pakistan claims that the Indian storage facilities would help India control the strategic maneuverability either by flushing the rivers through the gated spillways, thereby mastering the movement of Pakistani forces, or withholding the water from canals, thereby making them easily crossable by Indian forces in case of war (Brennan, 2008). It is in this perspective that Indian projects are considered to be a major security threat for the national security of Pakistan.

To strengthen its strategic threat argument from the Indian projects, Pakistan put six reasons forwards. First, India is not sharing its different projects' information with Pakistan. Second, India is not allowing Pakistani commissioners to inspect Indian projects, as was the case with the Baglihar Hydro-electric Project (BHP). Third, electricity produced from the BHP- Rs 5 per unit-would be the costliest in India as compared to other projects of India. Fourth, Pakistan's strategic canals are strong bulwarks against Indian invasion as that of upper and lower Chenab canals in the Sialkot region to Panjnad in the south (Ali, 2012).

The Bambanwala Ravi Bedian Link (BRBL) canal- built-in 1958 to protect Lahore by linking Ravi in the north to Sutlej in the south-in Sialkot-Lahore sector acted as a strong defense in the 1965 war and the canal. These defense structures could only be made defenseless by

water storage structures which India is pursuing on the western rivers. Fifth, the strategic importance of these defense canals could be understood from a statement issued by general J.N. Chaudhary- the ex-army chief of India (1962-1966)-when he said that " all my experience teaches me never to start an operation with the crossing of opposed water obstacles" (Bisht, 2011). Sixth, in the 2002 stand-off, Pakistan filled these strategic canals for defense purposes.

Pakistan's strategic vulnerability in the face of Indian projects is grave to the extent that it has been stated by Islamabad that whenever water was used as a weapon by India, Pakistan would retaliate by using nuclear weapons (Condon, et al., 2009). Major-General Khalid Kidwai-in an interview in 2000-made it clear by stating certain nuclear red-lines, which, if crossed, would compel Pakistan to use its nuclear weapons. These red lines included Indian attempts to destabilize Pakistan politically, loss of a major portion of its territory to India or destruction of a huge portion of the Pakistani army, and Indian efforts to scuffle the Pakistani economy. The last red line of economic strangulation consists of two parts. The first is stopping water flow from the Indus River system. The second is locking the main Pakistani ports.

Second is the use of water as a tactical tool. Pakistan further sees the exploitation potential that India would get in the form of water dams upstream as an arm-twisting tool. She dreads that water could be used by India as bargaining chips to settle certain other issues between India and Pakistan. For example, water was used as a pressurizing instrument by India during the Kargil war. Recently, the same was repeated in the wake of the Bombay terrorist attacks in November 2008 when M.S. Menon asked for putting the treaty to the winds. India argued that since Pakistan is in bonhomie with the terrorist attacks in India and is not cooperating in the implementation of the UNSC's Resolution 1373, therefore the treaty should be repudiated (Khalid, 2010).

The third is agricultural and economic vulnerability. Pakistan considers the Indian projects to be detrimental to its agriculture and economy as well. Water experts in Pakistan are of the opinion that Indian dams with gated spillways on the western rivers could stop water flow downstream. It is contended that by building dams, India wishes to damage the canal system of Pakistan by stemming the flow of water in one season and releasing it in another to damage Pakistan's agrarian economy (Brennan, 2008) and thereby making Pakistan a weak

state. Pakistan is already in the grip of inter-provincial discord over water resources. Any further water scarcity could truly create a severe crisis amongst the provinces and, in an extreme case, could endanger the integrity of Pakistan.

Fourth is Kashmirization of water. Pakistan finds a strong link between water and the issue of Kashmir through the IWT forbid so. Amongst much strategic interest of Pakistan in Kashmir, Kashmiri water is one of the foremost ones. Since most of the notable rivers of the Indus River basin either originate in Kashmir or come across the disputed territory of Kashmir, therefore the issue of Kashmir has a strong hydrological component. For the water security of Pakistan or national security by implication, integration of Kashmir with Pakistan becomes imperative.

### **INDIAN ASSURANCES**

Indian side contests the discussed Pakistan's lower riparian anxieties and claims that all these apprehensions are not only misleading, based on lower riparian anxieties but deliberate (Sinha, 2006). Three different kinds of explanations are given in response to the Pakistani viewpoint. Firstly, some of the analysts, mostly Indian, say that different stakeholders in the Pakistani establishment like the military, jihadists, politicians, and farmers, and engineers' groups are trying to politicize and securitize water issues for their selfish interests. This group of analysts refers to the British Raj colonial policy. According to them, the British awarded many lands in the canal colonies to Punjabis, who served the British army. As a consequence, a strong landholding, feudal – establishment- emerged. The same happened in some of the other parts of then India as well. After independence, this feudal class remained intact in power in Pakistan as at present Pakistan army alone runs a business empire of 30 commercial concerns. Now the same feudal class is securitizing and linking the issue with Kashmir illogically for their selfish interests of one kind or another (Bisht, 2011).

The second group takes their argument from the scapegoat thesis. The scapegoat thesis argues that different stakeholders of the ruling elite use foreign conflicts to diver masses' attention from home policy failures, avert upheavals, and strengthen their hold over their states. Instead of India is responsible for such water crises, domestic factors like lack of sound water-related policies, efficient use of waters, proper water

management, lack of water user rights, corrupt water bureaucracy are the responsible factors in this regard (Bisht, 2011). The third group also gives the same argument by saying that water scarcity in Pakistan is mostly due to climate change, poor water infrastructures, water conveyance losses, and pollution. Therefore, instead of blaming India, Pakistan should put its own house in order.

In a nutshell, the Indian side considers Pakistani lower riparian apprehensions as baseless conspiracy theories being put forward by the military, political leadership, and media and militant groups. India claims Pakistani arguments as nothing but a manifestation of lower riparian baseless anxieties and ensures that India is neither violating the IWT nor has any such plans in the future (Bakhshi & Trevedi, 2011). To prove itself as a peaceful, responsible co-riparian state, India gives three main arguments.

First are strategic assurances. India assures Pakistan that water for India is neither a military tool nor a target. Because during previous wars, water has never been used this way as apprehended by Pakistan and has always shown its adherence to Geneva Conventions. Further, India contends that due to the lack of storage structures on the western rivers, it is in no position to withhold water from Pakistan. Even if India wishes to store water, it will take a lot of time to construct such structures. Similarly, if India had such strategic considerations for its projects, it would lead to the cutting of precious aid from international donor agencies in this regard.

If India would wish to flood Pakistan for strategy or to damage the agriculture or hydel potential of Pakistan, the same can't be achieved by flooding territories on their side. The natural hydraulic flow of water can't allow India to pursue such a policy. Further, India never used water as a military tool. In the wake of the 2001 attack on the Indian parliaments, instead of cutting waterways, road, railway, and air links were cut. On the contrary to Pakistani strategic argument, India expressed its own strategic reservations about the Neelum Jhelum project where 2000 Chinese allegedly work near the sensitive Line of Control between India and Pakistan (The Economic Times, 2008).

The second is agricultural and economic apprehensions. In order to assuage Pakistani fears in relation to its agro-based economy, India assures Pakistan on the reason that it can't flood Pakistan without damaging some 150 km of its own area, agriculture, and locals in Jammu & Kashmir.

Moreover, it is argued repeatedly that even India can't materialize such a policy of flooding Pakistan because it doesn't have any storage capacity to do so. Jammal Ali Shah- Pakistani water commissioner- conceding this fact in an interview is quoted in this regard by the Indian side. Third is Kashmir and waters and their linkage. India treats Kashmir and the water disputes as two distinct areas of conflict. Indus Water Treaty too treats the two differently and asks both the parties not to mingle them with one another (Bakhshi & Trevedi, 2011). Indian side accuses Pakistan of linking water with Kashmir with the objective of buttressing its position vis-à-vis India's in Kashmir. Or that any future solution to the issue of Kashmir must also include the redistribution of rivers (Sinha, 2010). Such a policy, India bemoans, would adversely affect the working of the IWT and increase the already existing trust gap between the two nations.

## CONCLUSION

This paper concludes that India and Pakistan signed the Indus Waters Treaty despite their cold relationship, which emboldens water rationale. Though the treaty worked well for the first forty years of its inception as it prevented water conflicts from snowballing into a larger conflict. However, the recent construction of Indian projects on the rivers allocated to Pakistan under the treaty made it controversial to a greater extent. Both India and Pakistan interpret the treaty in contradictory terms due to differing perceptions of the IWT, which has pushed the treaty towards choppy waters. In order to pressure Pakistan on certain political issues, India has threatened Pakistan by abrogating the treaty unilaterally. Similarly, different water analysts from India have also echoed the suggestions of managing a new treaty with Pakistan, which is commonly referred to as Indus II.

However, it is agreed at all hands that the present treaty is the best channel through which different water disputes could be resolved. As far as the present disputes are concerned, the treaty should be interpreted in such a manner as acceptable to both of the states. Moreover, the greater role must be granted to the Indus Water Commissioner of the two states. Such remedies could help in the resolution of many water disputes between the two regional giants. For the time being, as Iyer suggests, it is better to leave things as they are. Indeed, IWT is the best hope for the management of water disputes between India and Pakistan as the World Commission on Dams praises the treaty as; "The Indus Water Treaty represents

the only ongoing agreement between India and Pakistan that has not been disrupted by wars or periods of high tension. Cooperation that builds on this treaty could not only present opportunities for better water management between those two countries but also serve as a model for water-sharing arrangements between India, Bangladesh, and Nepal" (Ali, 2012).

It is a reality that water resources can't be achieved through wars and is best achieved through rational water management. It is also a bare fact that due to the charged political climate of the region; water has become an integral part of the general competitive security between India and Pakistan. However, it shall also not be forgotten that despite a cold political relationship and different wars between India and Pakistan since independence, water disputes have been resolved through arbitration instead of going to war through the IWT in 1960 (Swain, 2009). The contemporary water issues between India and Pakistan could also be resolved peacefully and not through armed conflict. Such cooperation in water management could prove a strong Confidence Building Measure in reducing general India-Pakistan political tensions and thereby bring peace to the whole of the region of South Asia.

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