The Indus Treaty: Pakistan's Perspective or Blames on India

Abstract: ***The IWT provides a mechanism for amicable water sharing between India and Pakistan, a luxury uncommon to many countries that have Trans boundary Rivers. Since its ratification in 1960, India and Pakistan have not engaged in any water wars. Disagreements, disputes and the need for arbitration have arisen however they have been settled through legal procedures provided for within the framework of the IWT and but not through armed conflict. The treaty is considered to be one of the most successful water sharing endeavors in the world today even though analysts acknowledge the need to update certain technical specifications and expand the scope of the document to include climate change. The treaty was signed with certain conditions to be modified in the future according to the time and need factors.***

Introduction

The water topic is the most important issue in the world, but it has been neglected by all the nations. The same is with the water sharing relations between India and Pakistan. It has become a "critical issue" it reaches the heights of the major problem across borders. Some scholars have described the water issue might take over the most unsorted issue of "Kashmir" between these arch rivals. It has become much more complicated than, many novels have described or is capable of making itself an immemorial work.[1]

Water Resources in Pakistan

Like most rivers in the world, the Indus River in South Asia does not recognize political boundaries. It crosses over Tibet, India, Pakistan and Afghanistan before finally emptying into the Arabian Sea at the foot of the Sind province in Pakistan.

The two main beneficiaries of the Indus River waters are India and Pakistan. After partition in 1947 these waters formed a major cause of tension between the two countries. The headwaters of the river were situated in India while the body formed Pakistan's main source of freshwater.

In 1948 an Inter-Dominion Accord was signed, where in India was obligated to release sufficient amounts of water to Pakistan for a nominal fee in order to meet the country's immediate requirements. However, a more permanent solution was needed. Never the less tensions over water arose once again in 1951. While Kashmir one of the more intractable issues between India and Pakistan, seemed far from a resolution, water provided a stepping stone upon which India and Pakistan could start a process of reconciliation. Nonetheless, reaching an understanding over the most optimum distribution of the Indus River Waters was not an easy task. It took nine years of negotiations before India and Pakistan signed the Indus Water Treaty (IWT) in partnership with the World Bank and with financial assistance from the U.S. and U.K on 09 September 1960.[2]

As India and Pakistan stand at the threshold of yet another attempt to further cooperation, 'water' as was the case in 1951 can provide an impetus to tackle larger issues like Kashmir. There has been a lot of controversy and debate about the IWT, however, the core problems are minor in many cases and can be addressed with care through a process of negotiation.[3]

Overview of Pakistan's Water Sources

Pakistan receives its water from three River basins, The Indus, Karan and Makran River Basins. Of these three, Pakistan depends mostly on the Indus River Basin, as it caters the needs of 71% of its territory comprising the whole of Punjab, Sind, NWFP, PoK and the eastern parts of Baluchistan that accounts for 77% of the population of Pakistan. The Karan and the Makran originate along the plains of Baluchistan and they cover only 15% and 14% of Pakistan's territory respectively.

The Indus Basin has a large groundwater aquifer that covers 16.2 million hectare. Groundwater is pumped with the help of tube wells, currently numbered at 0.9 million and 87% of these are run on diesel, making groundwater pumping impossible during Pakistan's most dire situations of load shedding. Most urban and rural water is supplied from groundwater sources. Salt-water intrusion is a problem in Pakistan with about 36% of the groundwater classified as highly saline due to the emergence of sea in to the fresh waters of Pakistan, as the sea level is higher than the Indus river.

Average Annual Freshwater Availability, which accounts mainly for the Indus River Basin flow is pegged at 130 MAF (million acre feet) but can reach as low as 116 MAF per year. In 2008, total water withdrawal was estimated at 148.68 MAF (183.4 km^3) creating a deficit of roughly 18 MAF. Surface water withdrawal accounted for 98.74 MAF (121.8 km^3) and groundwater withdrawal accounted for 49.94 MAF (61.6 km^3). [It should be noted that withdrawal here refers mainly to the Indus Basin Irrigation System (IBIS) as withdrawal outside of this is negligible.[4]

Annual precipitation in Pakistan is roughly 500 mm although this varies from 100 mm in certain parts of Baluchistan and Sind and 1,500 mm in the foothills and mountains of Punjab and NWFP. There is also an extreme variability in rainfall between the seasons.

There are 2 main rainfall seasons in Pakistan – Rabi season (October-March) and Kharif Season (April-September). 60% of the annual rainfall is received during the peak of the Kharif season from July-September.

Similar to the rainfall periods, 85% of the flow of the Indus is received during the Kharif Season (April to September) and the remaining 15% is received during the Rabi season (October to March). In addition, 80% of the water in the Kharif season is received from melt water. It is important to note that according to Eng. Abdul Majid Kazi, WAPDA gives the Annual Average Water Availability of the Western Rivers as 140MAF (1976- 2003) but this is because they only include readings from the wet periods.

According to Kazi, a more comprehensive reading is 124 MAF for 4 out of 5 years, a super flood occurring once every five years and an average of 138 MAF for these five years. 8 MAF should be subtracted from this amount due to Afghanistan's use of the Kabul River, which incidentally contributes roughly 20 MAF to the Indus River Basin, and less than 4 MAF should be added for the Karan and Makran Rivers. The range of total water availability is therefore between 120 MAF and 134 MAF.[5]

Western Rivers of the Indus River System

1. **The Indus River:** originates from a spring near the Manasarowar Lake, on the Northern side of the Himalayan Range in Kailas Parbat, Tibet, it is then joined by its five major tributaries Jhelum, Chenab, Ravi, Beas, Sutlej), the Kabul River and several other small rivers as well. Pakistan's Tarbela dam is situated on the Indus River along with several other barrages Chasma, Kotri, Sukkur being a few of the important ones.
2. **The Jhelum River:** arises from springs on the north western side of Pir Panjal that separates Jammu and Kashmir. It gets its water from various important sources including glaciers located in the north of the Kashmir valley. The River runs through the Dal and Wullar Lakes in J&K and therefore, feeds the supply of water to these lakes. The Jhelum is joined by its tributary the Kishanganga (known as Neelum in Pakistan) at Domail in Muzaffarabad in PoK.
3. **The Chenab River:** arises in Himachal Pradesh in India and is formed by its two major tributaries the Chandra and the Bhaga. A large part of its catchment area is located in Jammu (part of J&K). It enters Pakistani territory upstream at the Marala Barrage. The total length of the Chenab is approximately 960 km.[6]

The Facts that are Recurrently Completed into Pakistan

1) India is storing or diverting waters to the detriment of Pakistan. (In stronger language this becomes: "India is stealing Pakistan's water".

(2) The water scarcity in Pakistan is caused (or partly caused) by Indian action.

(3) The flows in the western rivers have diminished over the years, and India, as the upper riparian, must bear the responsibility for this.

(4) India is misusing the provisions of the Indus Treaty. Every Indian project on the western rivers is a violation of the Indus Treaty.

(5) The Neutral Expert in the Baglihar case misinterpreted the Treaty and weakened the protection that Pakistan had under the Treaty.

(6) As if this were not enough, India deliberately caused harm to Pakistan in the initial filling of the Baglihar reservoir by the timing of the filling and by failing to maintain the prescribed minimum flow at Marala.

(7) Even if each project conforms to the provisions of the Treaty, the cumulative impact of the large number of projects that India proposes to construct will be huge and will cause great harm to Pakistan.

(8) Environmental concerns did not figure at all in the Indus Treaty but must now be taken into account.

(9) A wholly new development is climate change and the impact that it will have on water. This needs to be discussed between the two countries.[7]

Generally these above said issues have been dismissed by many as null and void. There have been many committees and negotiations, between India and Pakistan on the water sharing, but all of them have been dealt with upper riparian logics and treaties, but there lies a severe problem of millions of people in Pakistan killed with water borne deceases or lack of drinking water itself. It is easy enough to dismiss most of the points listed above, barring the last two, as errors or misperceptions. However, that kind of summary dismissal of Pakistani concerns is not enough; something more needs to be said on those points.

Storage/Diversion: So far as one knows, India has not built any storage, not even the 3.6 MAF permitted by the Treaty, nor does it intend to cause harm to Pakistan by diverting Indus waters. In any case, there is such a thing as the Permanent Indus Commission. How can India store or divert waters to the detriment of Pakistan under the watchful eyes of the Indus Commissioner for Pakistan? It clarifies that India has not done any adverse activity against the sharing of waters with Pakistan.

Water Scarcity in Pakistan: It is clear enough from (1) above that India has nothing to do with this. Never the less Pakistan is facing a "water scarcity" it would turn as one of the water scarce nation by 2025.

Reduced Flows in the Western Rivers: Assuming that this is the case, it does not follow that the responsibility for it can be laid on India. What needs to be done is to institute a joint study by Pakistani and Indian experts to establish that there is a declining trend in flows and to ascertain the factors responsible. All these unscientific claims by Pakistan have to be proved before the apex bodies that have been set up the mutual cooperation.

Violations of The Provisions of The Indus Treaty by India; every Indian project a violation of the Treaty? This is simply not true. The Treaty envisages and permits Indian projects on the western rivers, and so the projects in themselves cannot be violations of the Treaty. They can be violations of the Treaty if they deviate from certain restrictive provisions, but that will be questioned by the Indus Commissioner for Pakistan. The questions may be resolved within the Commission, or become differences and get referred to a Neutral Expert (as happened in the Baglihar case), or may be in the nature of disputes to be referred to a Court of Arbitration (as has now happened in the Kishanganga case). Where then is the question of violation of the Treaty? The treaty gives some provisions for India to construct dams of storage and hydroelectric projects for power generation, thus it has planned a few over the western river, flowing in its territory. The

evidence clearly states that India has not diverted waters of the western rivers. Hence there is no violation of the treaty from India.[8]

Misuse of The Treaty: A recent article in the Pakistani media is headed 'misusing the Indus Treaty.' India might argue that it is only using and not

misusing the Treaty, and that it is Pakistan that is misusing the Treaty to block every Indian project on the western rivers. Leaving that aside, the point is that Pakistan is fundamentally unrecognized to the permissive provisions of the Treaty that enable India to construct hydroelectric projects on the western rivers. However, the Treaty exists and both India and Pakistan are signatories to it. Pakistan has accepted the permissive provisions and India

has accepted the restrictive provisions.[9]

Baglihar; Neutral Expert Blamed: The NE is accused fore-interpreting' the Treaty and weakening the protection to Pakistan. When Pakistan talks about 'reinterpretation' it has three things in mind. First, the NE took the view that the 1960 Treaty does not bind India to 1960 technology and that India could use state-of-the-art technology; it is difficult to see how that view can be questioned. Secondly, it gave importance to techno-economic soundness and satisfactory operation; again, it is difficult to see how this can be objected to, and moreover, the Treaty itself repeatedly qualifies its conditions by the proviso "consistent with sound and economical design and satisfactory construction and operation"; those words cannot be ignored. Thirdly, the NE stressed the importance of periodical flushing of the reservoir to get rid of sediment. This is what has caused the greatest anxiety to Pakistan because it seemed to weaken the protection against possible flooding. It is difficult to see how an expert engineer could have held that flushing was not necessary and that rapid silting-up must be accepted. However, there is no need to discuss this as the issue has been raised before the Court of Arbitration in the Kishanganga case.

Initial Filling of The Baglihar Reservoir: The myth that India deliberately filled the Baglihar reservoir in such a manner as to cause maximum harm to Pakistan refuses to die down despite repeated explanations. The filling was completed well within the prescribed period; there was no deviation in that respect. The shortfall with reference to the prescribed minimum flow at Marala (of which there are different estimates by India and Pakistan, and no jointly observed figure) was only for a few hours less than a day and could not possibly have caused serious harm. There was indeed a lapse but a minor one, and definitely not a planned one. However, this became a major issue,

and even though it has been closed by the Indus Commissioners, it continues to figure in articles in the media.

Cumulative Impact of Many Projects: Opinion is divided on the question whether the cumulative impact of a number of projects, each conforming to the provisions of the Treaty, could be greater than the sum of the impacts of individual projects. This is a concern that needs to be taken seriously and should be jointly studied, by both India and Pakistan.

Environmental Concerns, Climate Change: These are post-Treaty developments and call for urgent inter-country consultations, not only at the governmental level but also at academic and expert levels. In legal documents these have been mentioned as "acts of god" It is unrealistic to blame someone or a group for natural calamities or climatic changes. However human activities collectively cause climatic changes, so they need to be controlled from both sides.

The above analysis shows that, a number of misperceptions need to be dispelled; joint studies are needed on (a) the reported reduction of flows in the western rivers and the factors responsible, and (b) the cumulative impact of a large number of projects on the western rivers. Inter-country consultations and research are also called on for the enquiry on environmental concerns and on the impacts of climate change. It is unscientific to deal the climate changes as irrelevant to the water scarcity in Pakistan, but it is beyond the reason to blame India for it. If

Pakistan's concerns are really on its people, India would also have some negotiable treatment for these above mentioned issues.[10]

However, that is not enough. Right or wrong, certain to decide on the point of misperceptions on water persist and are widespread in Pakistan. This has serious implications for India-Pakistan relations and for peace on the subcontinent. Persistent efforts are needed at both official and non-official levels to remove misperceptions and to reassure the people of Pakistan that their anxieties are uncalled for. These miscarriages have caused an alarming loss of life and property on either side. 2008 Mumbai attacks were planned and carried on the aspect of

"water flows or blood".[11]

Pakistan statements that "India has built a 15-Km long embankment (also known as River Training Works, RTWs) on river Ravi in the Narowal sector in 2002, in front of Kot Naina, a village in Shakargarh District. Pakistan
claims that such a construction so close to the international border is violation of both the IWT and the Border Ground Rules, 1961 and has caused flooding on its side. By 2002, Pakistan had also decided to build a similar embankment on its side".

Pakistan objects to the Kishanganga project fearing an adverse impact on its envisaged 969-MW Neelum-Jhelum power plant to be constructed with
Chinese assistance. This project was initially planned for 1994-1997 but lies dormant because of lack of funds. The Indian Kishanganga project is expected to lead to a shortfall of 21% loss of water flow in Neelum resulting in a 9% reduction in power for the Pakistani project. The IWT allows India to store waters on Neelum for power generation and so Pakistan wants to start its project first in order to deny waters to India claiming the principle of

"prior appropriation".[12]

"Where a Plant is located on a Tributary of The Jhelum on which Pakistan has any Agricultural use or hydroelectric use, the water released below the
Plant may be delivered, if necessary, into another Tributary but only to the extent existing Agricultural Use or hydroelectric use by

Pakistan on the former Tributary would not be adversely affected". These above mentioned developments of India, might not cause a severe loss of water or hydroelectric power in Pakistan's future plans. It is also clear that India has been stuck to its prior acceptance of the treaty, signed in 1960.[13]

Problems in Pakistan

The Indus River system, which flow 65% of water run inside a parched Pakistan, the Indus river system has vast territories of Pakistan covered and supplies water for its fields and people. Pakistan mainly has a single river system operating in its territory, all its agricultural, human, cattle, industrial and other water needs are catered by this system. Many political and non-political aspects revolve around the flow of Indus and its tributaries in Pakistan.

Politically Pakistan is an unsettled country; it has many instable governments at the central and state levels, ever since its separation from India. It has many disputes within the states. One such but main problem is; the sharing of Indus waters among the states of Pakistan. Due its lack of strong political will, sea waters have crossed 54 miles into the river Indus at its estuary; this might be a cause of non- flowing river or low level of the land at the coast. On the basis of a series of meetings among provinces in March 1991, an agreement, Water Agreement Accord (WAA), was reached on the sharing of the river waters. It stipulated the following allocations.[14]

Table 1: Water Distribution amongst Pakistani Countryside, 1991 (into MAF)

Region	Kharif	Rabi	Total
Punjab	37.07	18.87	55.94
Sind *	33.94	14.82	48.76
NWFP **	3.48	2.30	5.78
Domestic Canals	1.80	1.20	3.00
Baluchistan	2.85	1.02	3.87

* Counting necessities of Karachi.

** Unpaged Civic Canals overhead the edge situations any where capacities can be prepared.

It was also decided to set up in 1992, an "Indus River System Authority" (IRSA), as per provisions of the 1991 Accord, with representation from all four provinces. However, actual water allocations have been made on the basis of "historic use" rather than on the 1991 settlement leading to more resentment in Sind.

The climate changes due to global warming have led to a decrease in the flow in all Indus River system of rivers, especially the Indus, which depends on glacial runoffs for 90% of its waters. Generally, the Himalayan Rivers also carry a very heavy sediment load especially during summer and rainy season, which in turn leads to river shifting and silting of dams and barrages. The three largest dams in Pakistan, Tarbela, Mangla and Chasma have already lost 25% of their capacity due to silting. This is a serious problem in a country that depends on river irrigation, rather than the monsoon rains, for 74% of its total cultivated land. It is generally

agreed that 40% of all the water drawn through the canals at barrage heads is lost because of seepage due to un-lined and porous beds and banks of the canals.

Such problems exacerbate the already poor yield of the crops In addition; there is excessive loss of water due to improper and antiquated agricultural techniques and heavy cropping of water intensive varieties like sugarcane and rice. While reeling under increasing drought for the last six years, it is also predicted that Pakistan will have a certain level of drought conditions for the next 15 years since the dams mostly act as storage reservoirs during Kharif season and draw down reservoirs during Rabi, there is an acute need within Pakistan for more storage. Throughout Kharif period then attraction depressed tanks.

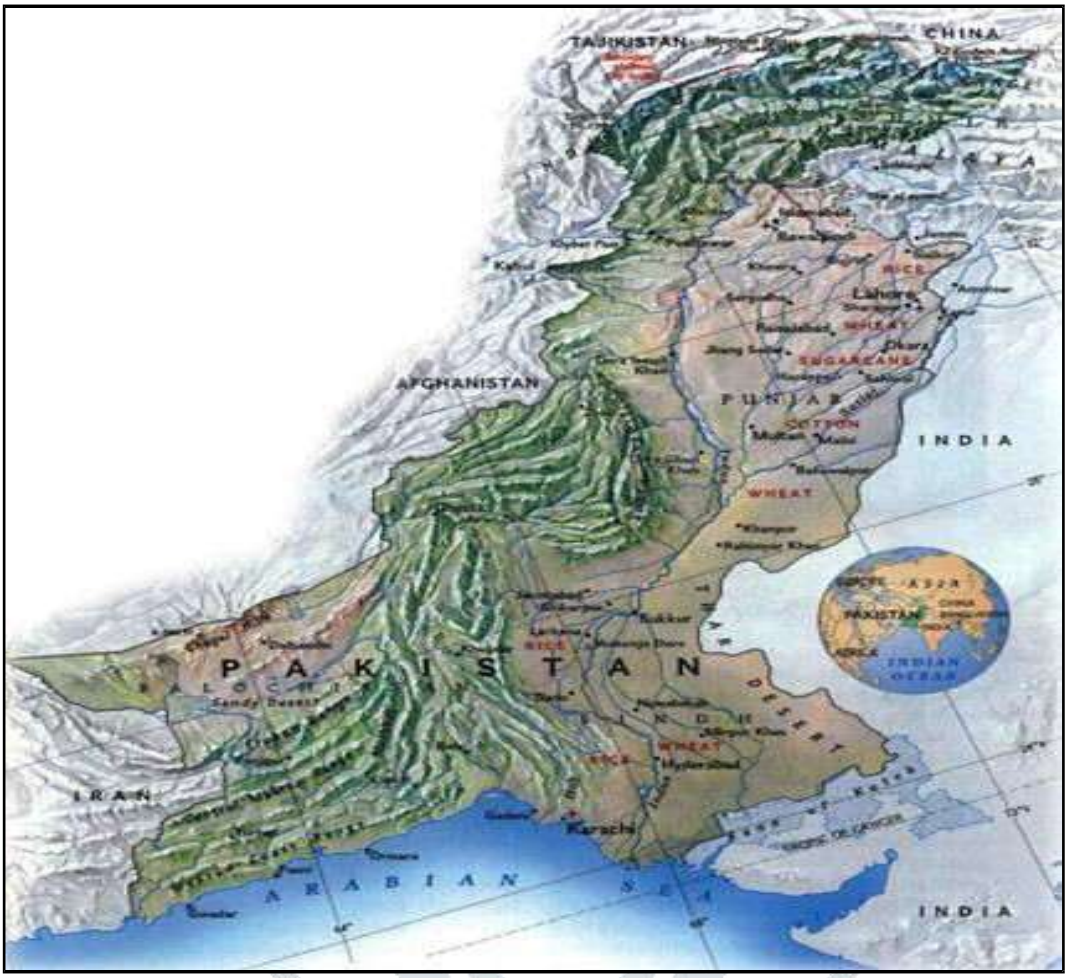

Figure 1: Indus Basin and Harvests Politeness: Nationwide Geographical

There have been widespread protests against the proposed dams of Kalabagh at Mianwali and Basha at Chilas, Gilgit area and the raising of the Mangla dam in
Mirpur. Out of the four provinces of Pakistan, three viz. Sind, Baluchistan and NWFP are against these dams. Even the illegally occupied PoK and Balawaristan oppose the dam projects of Mangla and Basha. The proposed raising of the height of Mangla Dam in Mirpur, PoK, by another 40 feet, will further submerge that district. It is also possible that if India exercises its rights to store 1.5 MAF on Jhelum, the raised Mangla Dam will not fill up. The crux of the matter is the lack of agreement
among provinces on the total water availability within the country.[15]

Meanwhile, the dwindling flows of water and siltation have led to reduced power generation from the hydroelectric plants that are part of the Indus River System. There is a real possibility of shutting down power generation permanently at Tarbela, leaving it for irrigation purposes only.[16]

In Pakistan, the first effort to introduce specific legislation for environmental protection was made in 1977. In 1992, the Pakistan National Conservation Strategy (NCS) was developed, and in 1999 the NCS was subject to mid-term review. The National Environmental Action Plan (NEAP) was approved by the Pakistan Environment Protection Council in 2001.80 It addresses the various challenges to cope with different environmental problems, which include air, water and sanitation, land, forestry and climate change.[17]

Conclusion

However, this conflict has adversely affected both countries by limiting development through cooperation. It also poses a danger of encouraging terrorism between the two countries especially if terrorists find it a cause worthy of their intervention. This conflict may also degenerate into war, especially if a terrorist activity occurs as a result of the conflict or if leaders intentionally provoke each other in a bid to resolve the dispute. This may lead to a regional war and may cause very many fatalities.

In order to mitigate the threats caused by the conflict, it is imperative that action is taken to prevent further escalation of the conflict. There are various ways in which the dispute may be resolved and one of the most effective ways is use of dialog and mediation. Dialog and mediation enables concerned parties to discuss issues and present them to a neutral mediator who makes a binding decision on issues raised. Another means is the re-negotiation of the treaty. Since the treaty was made many decades ago, and it overlooked certain societal changes which occur over time, a new treaty which replaces the current one may be developed by Pakistan and India. However, this treaty should predict future trends which may cause further disputes in future.

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