

INDUS WATER TREATY: NEED FOR REVIEW

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ABSTRACT

This paper examines the history and provisions of Indus Water Treaty (IWT) that was signed by India and Pakistan in 1960. The significance and drawbacks of the Treaty for both signatories have been highlighted and the shortcomings which were inherent in the Treaty as well as those which commenced and developed with the passage of time have been underlined. In this respect the complications arose with the planned Indian projects on the Indus Basin rivers have also been outlined. In the context of the necessities of suggested changes in the IWT such major aspects have been proposed which need to be looked out during the review of the IWT.

INTRODUCTION

Disputes between India and Pakistan over the Indus River basin began with partition in 1947. Between 1947 and 1960 the two sides addressed their differences through a number of short term agreements (Miner, 2009) but the dispute could not be settled through bilateral negotiations, and international mediation had to be sought (Sharif, 196). In 1960, after nine years of negotiations, the two sides signed the Indus Water Treaty (IWT) (Ali, 2008, 169).

Under the Treaty, all the waters of the Eastern Rivers - Sutlej, Beas, and Ravi - were allocated to India for unrestricted use, except during the transition period of 1 April 1960 to 31 March 1970, during which water had to be supplied to Pakistan so that Pakistan might construct replacement works (two storage dams, eight inter-river link canals and six barrages) for water that was being received earlier from the Eastern Rivers. (Biswas, 1992, 208-09) (Sharif, 6) India agreed to make a fixed contribution of 62 million towards the cost of the replacement works. Pakistan received unrestricted use of the Western Rivers - Indus, Jhelum, and Chenab - which India is "under obligation to let flow" and "shall not permit any interference with these waters," except for irrigating existing areas and to develop a further 701,000 acres of irrigation from these rivers subject to certain specific conditions. Specific provisions were made for regular exchange of river and canal data between the two countries (Biswas, 1992, 208).

Needs for Modifications

Despite being a long lasting successful treaty there are some limitations within the IWT that require review. Michel T Klare opines that it does not allow for the joint development of the Indus basin; nor does it eliminate the grounds for conflict over water distribution between India and Pakistan since it is a plan for the separate development of the basin (Feyyaz). It is also unusual among international water-sharing agreements because allocation is based on tributary locations; water is neither allocated on a quantitative basis between the parties nor managed by an operating rule. It is specific about which nation uses which tributary, but it does not create mechanisms to address issues specified in the treaty per se, such as

groundwater use, changes in flow due to climate change, changing domestic demand due to population increases or rainfall variability (Miner, 2009, 211).

Daanish Mustafa (2010) observes that it, by performing an amputation surgery on the basin that was much the same as the political bifurcation of the subcontinent, made matters simple and allowed the two countries to pursue their nationalist agendas without much need for more sophisticated and involved cooperation in the water field. This lack of cooperative sharing of water has considerable negative consequences for the ecology and societies of the Indus basin.

Moreover environmental and ecological changes call for re-consideration of IWT. Projections of climate change on water resources have important implications for both water scarce and flood prone regions, as many indicate dry regions becoming drier and wet regions becoming wetter. (Sivakumar 2011, 545) Because of climate change, the Himalayan glaciers are melting at an alarming rate. For water resources, this means an increase in water initially due to flooding. Within the next 50 years, however, experts believe there will be a 30 to 40 percent drop in glacial melt because the glaciers will have receded. A strategy to create more storage capacity for water is the only option available. (Wasi, 2009)

In this regard the canal withdrawals in Indus Irrigation System, more or less stagnated in 1979 after construction of Tarbela Dam, have now declined to around 103 MAF, partly due to silting of the reservoirs. (Humaira, 6) This aspect has not been considered at the political level or at least has not gained prominence while it demands a common water vision by India and Pakistan that will be based on realization of the importance of the shared rivers as being a natural resource that is integral to their survival. (Akhtar, 2010, 56)

Pollution control is another issue that needs consideration in the review of the IWT. Given the lack of pollution controls on industry and recent reports of hazardous industrial and chemical-rich water crossing the border into Pakistan it could be inferred that water quality is deteriorating in the Indus. (Miner, 2009, 209) There are no provisions in any treaty on water between Pakistan and India for the control of pollution. Through the review of IWT the issue of the pollution can also be addressed properly.

Pakistan's Federal Minister for Kashmir Affairs and Gilgit-Baltistan, Mian Manzoor Ahmad Wattoo, pointing towards another drawback of IWT, contended that the IWT was signed by a military dictator, General Ayub Khan. He observed "Since no consultations were held or a consensus evolved, the treaty has some inherent flaws and India has been misusing it at the cost of Pakistan's interests." (*The News*, 2012) Fresh review of the Treaty may be helpful in dissolving more differences and is, if it ever happens, likely to produce a consensus in modern times when democratic institutions are getting progress in both states of India and Pakistan.

Thus the IWT is a product of its time and could be fruitfully modified and renegotiated to bring it more in line with contemporary international watercourse law, the Helsinki rules, and emerging concerns with water quality, environmental sustainability, climate change, and principles of equitable sharing. (Mustafa, 2010)

Indian Projects

More problematic is the provision in IWT relating the use of the western rivers by India. The crux of IWT is that India was given full control of Eastern rivers and Pakistan was given full control of western rivers. But the provision of usage of western rivers to India for non irrigative use of western rivers has created problems afterwards. India by virtue of the upper riparian could always use and obstruct the waters of Indus Basin. IWT was signed to protect

the interests of Pakistan and not of India. Pakistan gave off the right of 3 eastern rivers for the sake of complete and unhindered use of western rivers. India got the benefit of the three eastern rivers in full but Pakistan's usage of the waters of three western rivers is yet on stake because India has started work on many projects on the cost of Pakistani concerns.

The challenge to the treaty came regarding the construction of the Wullar Barrage, as it is called by Pakistan, or Tulbul Navigation Project as termed by India. There is controversy on the explanations of the specific provisions of the IWT. The 330 MW hydroelectric Kishanganaga project that is located about 160 kilometers upstream of Muzaffarabad and involves diversion of Kishanganga or Neelum River to a tributary, Bunar Madumati Nullah of the River Jhelum through a 22-kilometre tunnel, is another controversial water issue between the two countries which could not have been resolved under IWT.

Located on the River Chenab in Doda district, the Baglihar hydropower project is one of the nine major hydroelectric projects identified by India on the Chenab. Pakistan protested over the design of the dam in 1992 and demanded a halt to its construction. (Wasi, 2009). Taking cue from the Bagliahr verdict of the Neutral Expert that reinterpreted the Treaty in the light of "new technical norms and new standards," "state of the art" and "best and latest practices in the field of construction and operation," the risks of increased floods associated with "climate change," it appears that the Treaty has to accommodate the new realities in the Indus basin, not only in terms of technical norms but also growing pressures on the health and viability of the Indus basin rivers. (Akhtar, 2010, 56)

The invocation of neutral expert clause has revealed another drawback in the IWT and has damaged an impression that satisfied the doubts of many Pakistanis that the World Bank was the guarantor of the IWT. It so happened that when Pakistan approached the World Bank for mediation it clearly noted that it was "not a guarantor of the treaty," (Haq, 4) The note of World Bank, though correct legally, has raised dissatisfaction in some circles of Pakistan who always remains suspicious for Indian deception and trust only on third party that may be a guarantor in the compromises of both countries.

During 2006 to 2011 Pakistan's concerns over another controversial project Nimoo Bazgo near village Alchi in the district Leh in Indian held Kashmir could not be highlighted due to alleged negligence of its Indus Water Commissioner Jamaat Ali Shah against whom a probe on his alleged secret compliance with India has started in Pakistan. However, during a recent inspection, the Pakistani team learnt that more than 80 per cent of the work on the dam had been completed and the expected date of its inauguration is July 2012. (*The Nation*, 2012),

Notwithstanding Indian concerns over delay in the execution of the projects, Pakistan's concerns for the projects are too much serious. Though India as per the IWT is allowed to generate power from the waters of these rivers yet it did stop Chenab river flow on various occasions notable being from August 19 to September 5 wherein Pakistan was deprived of 1.2 million cusecs of water at one time alone. Moreover through IWT Pakistan does not find immediate relief. She, through a lengthy process defined in IWT, has only option just to deliver complain to India or put the case in international tribunals that definitely requires huge amount of time and money. During the whole process, India loses nothing and Pakistan gradually gets loss. India often continues to start new projects day by day and Pakistan continues to complain over them. India has planned to make 62 more dams. Therefore, there is dire need to alter the clause that allows India to use the waters of western rivers.

Whenever India takes decision to construct a dam or reservoir and the matter enters the framework of the treaty, which only provides technical specifications for building such a dam

or reservoir, Islamabad invokes the jurisdiction of a neutral expert or arbitration court. During the time the case takes, the construction is completed and Pakistan in that sense 'loses' the cases. Some observers point out that Pakistan is feeling alienated from the IWT after repeated failures to get redress of its grievances and, hence, would like to replace it with a new treaty. But it is not easy to agree on a new pact. A pragmatic approach is required to amend and update the treaty to remove the lacuna it suffers from. (Bokhari, 2011)

It looks altogether unjust that India can use all of the rivers without restrictions but Pakistan is bound to use only western rivers even with apprehension of Indian obstruction. The question remains unsolved what to do of the projects which India has already installed. Second issue may be this why the waters of western rivers should not be used before entering into Pakistan. For the sake of prosperity to both nations joint projects can be initiated on the western rivers and benefits may be shared by both nations. Already initiated projects can also be shared on these grounds. But it is necessary that the clauses of the IWT must be altered in order to give Pakistan unrestricted control of the western rivers and it will be a great benefit to energy starved nation of Pakistan.

An array of upcoming Indian projects has unfolded many challenges to the functioning of the Permanent Indus Water Commission. The institution is unable to cope with the issues which were originally not within its purview as they did not exist at that time. All above mentioned controversial projects highlight the need of mediation as well as such new mechanism and consensus under which the issues which have risen during implementation of IWT can be resolved. For this an overall review and new negotiations on the water issue are the call of the hour.

There is no provision in IWT which allows India to construct a certain number of dams. Nor is there one that prohibits India from making dams beyond a certain number. Notwithstanding prescribing restrictions on the features and operations of Indian projects on the western rivers the Treaty does not lay down any limits on the total number of projects that can be built, the height of the dams, the total power-generation capacity, etc. Ramaswamy R. Iyer (2012) thinks that the point about 'cumulative impact' needs to be considered. He however proposes a joint study by experts of both countries for this purpose.

Modifications' Potential Benefits to India

India has developed disputes with three of its neighbours i.e. Pakistan, Bangladesh and Nepal. She is accused for infringing on their water rights by usurping their resources with potential to ultimately drain their respective resources during hostilities through construction of various projects on rivers whose water is flowing downstream. (Ahmad) Siddharth Varadarajan of *The Hindu* says: "New Delhi needs to factor in a new reality: More than Kashmir, it is the accusation that India is stealing water that is rapidly becoming the 'core issue' in the Pakistani establishment's narrative about bilateral problems." (Bokhari, 2011)

India in pursuit of the position of regional power and on that ground desires to get the status of permanent member in the UN Security Council. In order to get international support for her case India needs an image of a cooperative country in the region. The resolution of water issues with the neighbouring states will go a long way in this regard. In past IWT has won good repute for her and for Pakistan as issue resolving countries. The review of IWT will lessen the degree of conflict in South Asia, remove the doubts of South Asian countries against India and also enhance Indian image all over the world.

India is also not satisfied with the present state of affairs and it has to bear serious economic losses because of the delays in the mechanism of IWT which have arisen due to disputes

which started to arise during last decade. Indian professionals have expressed frustrations over long delays in approval of projects due to Pakistani objections. India argues that the IWT limits its ability to exploit the Indus's hydroelectric potential, representing an opportunity cost. (Miner, 2009, 207)

The waters of the Indus river system have a direct impact on the state of Jammu and Kashmir and are therefore crucial to its economic prospects. The Kashmir Valley, which is the main source of the dispute between India and Pakistan, has been affected by the IWT. (Shani, 2006, 162-63) In February 1951 Prime Minister Nehru invited David E. Lilienthal, virtual founder of IWT, in order to resolve the water issue since the core of the Kashmir problem stemmed from a "struggle over rivers, rivers with their headwaters in the Kashmir, flowing through Pakistan." (Biswas, 1992, 205)

That is why even today the most important internal issue that strains the IWT is the view of the people in Jammu and Kashmir who see the Treaty as exploiting their rights by both India and Pakistan and they call for its annulment as an economic liability. People of the northern areas in Pakistan are also opposed to dam projects in Pakistan like the Mangla dam. (Wasi, 2009) Likewise Indian government is faced with the criticism over the IWT from the Kashmiris in Indian held Kashmir, who show concern over division of waters. Motions were moved in the state assembly on three different occasions by the legislators asking the Indian government to review the IWT and pay compensation to the state. (Feyyaz) According to Kashmiri Separatists, IWT has deprived state of Jammu and Kashmir to use its own water resources and became one of the reasons for the alienation of people and has severely affected the economic development in the state. ([http://www.absoluteastronomy.com/topics/Indus Waters Treaty](http://www.absoluteastronomy.com/topics/Indus_Waters_Treaty))

The revision of IWT and solution of water disputes can lead to the dissolution of the most important of the conflicts in the region. New ponderings on the water issue may include the concerns of the Kashmiri people an all dimensions of the water issue may be taken into consideration. This can provide India as well as Pakistan a fair chance towards longstanding solution of the Kashmir issue.

Indian government is not altogether opposed to the negotiations over the IWT. It is ready to change the IWT though under the mechanisms of the Treaty. Indian External Affairs Minister S. M. Krishna told Indian Parliament, that the Indian government "is in full compliance with the Treaty. All issues regarding implementation of the Treaty should be resolved through the existing mechanisms under the IWT" (Akhtar, 2010, 13) It means that India feels the need of some progress in the IWT in the wake of new realities which have appeared during last decades.

Pakistan's Interests for Modifications in the IWT

Pakistan's groundwater resources also are being challenged. Today groundwater contributes a mere 48% of the water available. The construction of private wells for irrigation has also been promoted through a policy of high subsidy on electricity cost. The hike in the cost of electricity in 1990s, and the development of new technologies have led to a considerable increase of diesel pumps whose numbers have grown 6 times over the last 30 years. (WWF, 3)

IWT authorized India to build hydro-electric projects not only on the eastern rivers allocated to India but also on the western rivers which are allocated to Pakistan contingent upon agreement by Pakistan. (IWT Article III Annex D) Thus India has right to generate electricity

from all six rivers while Pakistan cannot use completely the water of three eastern rivers for power generation purposes. The generation of hydro electric power is a facility provided to India is exceptional that is not provided to Pakistan. Pakistan in the present condition is power thirsty while IWT does not mention the needs of power generation for Pakistan.

Despite all the praise for IWT it is a fact that the main emphasis of the Treaty was the balanced distribution of irrigation water. Whether it was the negligence of Pakistani rulers or the wisdom of the Indian leaders or the neglect of the arbitrators Pakistan's energy needs were not at all attended in the IWT. It is a fact that natural flow of three rivers Eastern Rivers was altogether diverted under the IWT and India had right to change the course of these rivers altogether while India could also use the other three western rivers for its energy generating purposes. Suppose the rivers flew on their natural course, Pakistan would also have the chance and options to create energy from all of the six rivers. Pakistan today is confronted with the energy crisis and it needs the energy as well as the water to fulfil its energy needs but it has options only over 3 rivers of Indian Basin.

If the waters of all six rivers flew from the plains of Punjab, Pakistan could have stored the water of 3 rivers anywhere in Pakistan and could create power from those sources. In that case the probability of rising dispute over power generation among the provinces of Pakistan could also be decreased. Every province would have been easily in position to produce power in its areas.

Today thought in power thirsty Pakistan can be provoked that injustice was made to Pakistan through IWT. For the sake of Pakistan-India relations the compensation from shortage of irrigation water that could take place in case of restrictions over rivers was provided to Pakistan but a permanent deprivation of the power generation was arranged at all. It is now essential that IWT may be revised by the statesmen rather such thoughts may provoke the suspicions of the people of Pakistan from international treaties as well as India.

Three inherent defects of the settlement plan as envisaged in the IWT create problems for Pakistan. Firstly, the traditional *sailab* (flood) irrigation on the Sutlej, Beas and Ravi disappeared, because when these rivers are fully developed by India, the traditional floods decreased or disappeared and the *sailab* areas could not get seasonal water, which permitted cultivation. Secondly, due to loss of regular flow in the Eastern Rivers, the channels have become silt up and floods in the channels cause great havoc in Pakistan, in addition to other environmental effects. Thirdly, the up-keep of the new link canals and storages means a very heavy additional burden on the cost of maintaining irrigation. Besides, storages are no substitute to the perpetual flow of water as the storages have limited life.

Pakistan is increasingly confronted by an impending water crisis. As per one of the surveys of 2009, the availability of water has declined from 5000 cubic meters per capita 60 years ago to 1200 cubic meters per capita in 2009. It is also estimated that by 2020, the availability of water is estimated to fall to 800 cubic meters per capita. (Ahmad) Siddharth Varadarajan of *The Hindu* observes per capita water availability is expected to fall below 700 cubic metres by 2025 — the international marker for water scarcity. (Bokhari, 2011) The water shortage in the agriculture sector has been estimated at 29% for the year 2010 and 33% for 2025. WWF – Pakistan, Report Pakistan's Water at Risk, p.3

A certain reasonable flow in the eastern rivers should be maintained. The eastern rivers are allocated exclusively to India, and IWT, according to Pakistani point of view, does not say anything about flows to Pakistan, but it does not follow that India is at liberty to dry up those rivers altogether and send no flows at all or drastically reduced flows to Pakistan. Pakistan argues that if current thinking can be invoked for the design of spillway gates (as the neutral

expert argued in the Baglihar case), then current thinking on 'minimum flows' or 'ecological flows' must also be heeded. To Ramaswamy R. Iyer (2012) it seems a point that needs consideration in next talks on water issue.

Pakistan also has serious problems regarding the sharing of Indus waters among its four provinces. This is evident with entrenched controversy being present in the country on every planned dam. The shortage of water has deep political, economic and social effects. For example, farmers in Sindh point their fingers at Punjabi landlords, and accuse them of 'stealing their share' of the Indus's water. The water problems within Pakistan are negated as the drawbacks of the IWT and often it is contended that they are the result largely from poor water management, but Daanish Mustafa (2010) has corroborated that the consequences of management failures are accentuated, both materially and politically, by international and sub-national hydro-politics because a large portion of the sub-national problems in Pakistan are partially a function of the IWT, because the Sindhis perceive that Sindh compensates Punjab for water that Pakistan negotiated away to India. There is enough water in the Indus basin to provide for the livelihoods of its residents for a long time, provided that the water is managed efficiently and equitably and that additional water is made available not just through storage but, more importantly, also through higher efficiency and inter-sectoral transfers made through the review of IWT. (Mustafa, 2010)

CONCLUSION AND RECOMMENDATIONS

Keeping in view the different dynamics of the water problem, Nausheen Wasi (2009) proposes that India and Pakistan, in good faith, should seek international support, perhaps again with the World Bank taking the lead to negotiate a sound water sharing and usage mechanism through a IWT II. She suggests setting up a joint organization with representatives from both countries, whose functions would entail identifying short term and long term supply capacity of the basin and its integrated development, setting up of infrastructure and coordinating activities of the different technical agencies. She proposes a holistic interdisciplinary approach to understand the background and functioning of highly sophisticated irrigation systems. She stresses to harness water resources to change from being a large-scale capital- and technology-intensive and environmentally degrading option to management-intensive and ecologically balanced development relying on indigenous technology. Mediation in case of water disputes resolution has worked between India and Pakistan in the past and would solve another great concern – financing the projects if India and Pakistan agree on something. (Wasi, 2009)

To cope with the next challenges arrangements on the basis of modern techniques and methods can be included in the reviewed IWT. Arshad H Abbasi, for example, has suggested a satellite-based, real-time telemetry system in Indian Kashmir, installed at a minimum of 100 locations for monitoring water quality and quantity would help remove mistrust on data exchange. (**Express Tribune, 2012**)

The Indus Waters Treaty would need to be amended to incorporate changes that have taken place since its implementation and future projections of climate change, complemented by more efficient water use within each country. Increased energy demand by India and water demand by Pakistan amidst receding Himalayan glaciers will test the treaty and perhaps prompt its revision. (**Reddy, 2009**)

To Ranjan (2010) Pakistan and India should also include the issue of water in the agenda of bi-lateral negotiations because it is going to be another future source of tension between these

two countries. If needed, a few amendments to the Treaty can be made but to revive or scrap the whole Treaty will be a blunder. As mature nation-states both of them have to understand that the need is to resolve the contending issues and establish peace between them rather than add more problems in the already existing long list of disputes.

IWT has been a unique compromise on the distribution of river waters in the world. Both Pakistan and India have acquired benefits from the Treaty. India secured more waters from the Eastern Rivers and Pakistan got uninterrupted supply of waters from the western rivers. The Treaty, however, bifurcated the Indus river system and ignored some important aspects relating to water issue. It requires to be updated according to environmental, ecological, climatic changes and requisites of safety from pollution. Controversial Indian projects have also underlined the need of reconsideration of the issues concerned to Indus Basin. While the shadows of nuclear war are looming over South Asia and water issue has come up as the most dangerous there is dire need not to insist on the continuation of differences or clinging with outdated solutions. It is also not expedient that all compromises may be rolled back but modifications in the existing IWT are indispensable for the betterment of people of Pakistan as well as of India.

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