Sixty Years of the Indus Waters Treaty: The Past and the Future

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The Indus Waters Treaty (IWT) signed in 1960 between India and Pakistan despite its robustness is, in the current political context, troubled. Well-wishers of the Treaty, like those who champion for India and Pakistan dialogue, often dub it as "uninterrupted and uninterruptible". The World Bank, as a third party which was pivotal in crafting the IWT, continues to take particular pride in it, albeit with a sense of trepidation that the Treaty continues to function. The role of India, as a responsible upper riparian state abiding by the provisions of the Treaty, is remarkable; but it is under pressure to rethink the extent to which it can commit itself to the Treaty in the context of its overall political relations with Pakistan becoming intractable. It is also important to underline that if the Treaty has remained "uninterrupted", it is because India allows it to function. This also goes to suggest that the Treaty can become Quidquid voverat atque promiserat¹ if India wants it to. However, for this to be even considered, a number of politico-security and hydrological factors need to be determined to rescind the IWT in which India has invested politically and financially over the last 60 years.

Rivalry over water is age-old, and is actually built into our language. In fact, the word rival derives from Latin *rivalis*, originally meaning "person using the same stream as another". The phrase to "sell someone down the river" means to betray someone. Every now and then, there is a clamour for abrogating the IWT as a response to Pakistan's cross-border terrorism and intransigence. Inevitably, the discourse shifts away from the rationality of sharing the waters with Pakistan to using shared rivers as an instrument of coercion and a tool of punishment. What emerges in the water debates

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with Pakistan is an interesting interplay between India's justifiable anger and resentment on the one hand, and Pakistani attempts to negate the Indian generosity, on the other. Importantly, it reopens the past and, with it, the reexamination of the IWT – both the context in which it was framed, and the text that was negotiated.

The basis for any river water treaty is to continuously find an equitable approach for meeting vital human needs. Water treaties, particularly in regions where scarcity and political uncertainty is high, are also a barometer to gauge state behaviour. It raises a few interesting (not necessarily tautological) observations: to what extent does a changing political climate affect existing treaties? Does the signing of river water treaties lead to more cooperative ventures between the riparians concerned and, thereby, enhance the overall peace environment in the region? Did the negotiation process preceding the signing of a treaty lead to a final solution? Or, was it only a provision that temporarily concealed the claims and counterclaims as well as the real and perceived fears of the riparians (particularly the lower riparian)? Do "the real and perceived fears" lead to noncompliance of the treaty with an overriding "militarized" approach in which the "possession" of water is determined unilaterally? And finally, what are the linkages associated with trans-boundary waters? All these questions are now beginning to haunt the IWT.

It is remarkable that the IWT² has survived a tumultuous relationship between India and Pakistan. That the Treaty has sustained and continues to function, is because India respects the agreement, and values trans-boundary rivers as important connectors in the region, both in terms of diplomacy and economic prosperity.³ There have been several occasions - the Indian Parliament attack in 2001, the Mumbai terror attack in 2008, the recent terrorist attack in Uri in 2006, and the 2019 Pulwama attack - which could have easily prompted India, within the Vienna Convention on the Law of Treaties⁴, to withdraw from the IWT. However, on each occasion, based on its cost-benefit assessments, India chose not to abrogate the Treaty. The IWT has marked 60 years which is, by all means, an important milestone. However, landmarks are also often accompanied by reality checks. The much vaunted "robustness" of the treaty has come under serious strain, threatening to undercut both the "letter and spirit" of the Treaty, and create a future for it which will be substantially different from its past. It also needs to be asked, almost 60 years on, whether water rationality that led to the IWT in 1960 will continue to hold forever in the future.

Looking Back: Did India Compromise its Position?

Back in time, partitioning the Indus River system⁵, compromising six rivers, was inevitable after the partition of India in 1947. The sharing formula, devised after prolonged negotiations with the World Bank's good offices, sliced the Indus system into two halves. The three western rivers (the Indus, the Jhelum, and the Chenab) went to Pakistan, and the three eastern rivers (the Sutlej, the Ravi, and the Beas) were portioned to India. It is, probably, the only Treaty in the world that was not only volumetric (water sharing) but also partitioning in nature. It may have seemed equitable, but the fact remains that India conceded 80.52 percent of the aggregate water flows in the Indus system to Pakistan, retaining only 19.48 percent. The eastern rivers, which India got, had a mean annual flow of 33 million acre feet (maf), while the control of over 80 maf of waters of the western rivers went to Pakistan.

The ratio of 4:1 heavily favoured Pakistan, and India's initial demand for 25 percent of the water was debated threadbare in the Lok Sabha as a failure of its negotiations. In fact, it was also argued then that India should have been given 40 percent of the volume of water. India also gave £62 million to Pakistan to help build replacement canals from the western rivers. Such generosity is unusual for an upper riparian state. Pakistan should remind itself that the Treaty having been signed off, the water sharing, for all purposes, stands settled and, therefore, there can be no question of Pakistan's water rights.

The question is often asked as to whether India compromised its upper riparian position more than was actually required on the western front (West Pakistan). This is a concern often raised in retrospect. Water was critical for India's development plans, irrigation facilities, and power. It was crucial, therefore, to get the waters of the eastern rivers for the proposed Rajasthan canal and the Bhakra Dam. Without these waters, both Punjab and Rajasthan would be left dry, severely hampering India's food production. India's first Prime Minister, Jawaharlal Nehru, while inaugurating the Bhakra Canals, described the dam as "a gigantic achievement and a symbol of the nation's energy and enterprise". In Pakistan, however, it was an occasion to express strong resentment. Prime Minister Nehru was always conscious that the Bhakra canals should not be at the cost of reduced water supplies to Pakistan. However, he was also very clear that India's interest in the eastern rivers should be protected. At a public meeting in Bangalore, he stated,

So far as Pakistan and India are concerned, I have been convinced that the only policy we should pursue is one of friendship with Pakistan. So we have consistently pursued that policy. Naturally, that does not mean

that we should abandon our vital interests. That is not the way to seek friendship.⁷

On the Indus waters, Prime Minister Nehru (in the same speech) goes on to say,

The Indus water dispute is one of the differences still to be settled between India and Pakistan. On all these issues, India pursues a policy of candour and regard for human needs on both sides of the border, and is always willing to negotiate in a friendly spirit to the end that she and Pakistan should someday come to live on their sub-continent as amicably and cordially as the United States and Canada live in North America.

Many mainstream newspapers in India had castigated the government for giving-in to Pakistan, making "concessions after concessions". A number of parliamentarians were of the view that had India conceded to the water requirements of Pakistan in 1948, only as a "human consideration", the Treaty would not have (possibly) been required, and would have saved many blushes. As things developed, Pakistan's demand became bigger and bolder. Harish Mathur, a Congressman from Rajasthan, on the floor of the Lok Sabha said, "I wish ... [o]ur Government takes note of the feeling in this country. It is not that our over generousness should be at the cost of the development of this country." Despite the not too favourable general opinion regarding the treaty, Prime Minister Nehru had a distinctly different take. He would often say, in the light of his foreign policy approach, that he did not wish to miss the larger picture. Having signed the Treaty, he emphasised, "it is the context that we have to consider, not a particular bit."

In the political environment of the 1950s, Prime Minister Nehru was not averse to reaching out for peace and tranquillity. He strongly felt that these were requisites for stability and development that India desired. It was not that Prime Minister Nehru was blinded by reconciliation towards Pakistan. After all, in 1959, when Pakistan's President Ayub Khan advocated a "common defence" in which both India and Pakistan would come together to defend the subcontinent, Indian leaders like Jai Prakash Narayan and C. Rajagopalachari welcomed the idea. Even the military commander, General K. S. Thimayya, was not entirely opposed to it. However, it was Prime Minister Nehru who cold-shouldered it by famously retorting, "defence against whom?" In the case of the Indus Treaty, however, he felt it was a price worth paying, and expressed his disappointment over the House for treating it in "a narrow minded spirit", and tactfully went on to praise the engineers "who fought for India's interest strenuously" to take the heat off the debate.

However much Prime Minister Nehru skilfully tried to separate himself as the carrier of a "broad perspective" from the nitty-gritty of the negotiations, there was an undeniable Nehruvian internationalist mind set evident in the entire water issue with Pakistan. His interest in international problems was well-known. However, his ideals of oneness clashed with the realities of power politics and interest-oriented relations which he no doubt understood, but adamantly refused to accept. The goodwill and friendship with Pakistan that Prime Minister Nehru hoped to usher in as a consequence of India's generosity and sacrifice received a blow when Ayub Khan - soon after signing the IWT with him in Karachi - talked about the physical possession of the upper reaches of Indus basin rivers, and refused to talk about the Kashmir problem.

While in India the IWT is perceived to be highly generous towards Pakistan, the view in Pakistan has been radically different. The main impression in Pakistan has been that the loss of the eastern rivers was irreparable. Pakistani commentators, such as Bashir Malik, have challenged the Treaty provisions by saying that it was Jawaharlal Nehru who manipulated the Radcliffe Award to ensure that the headworks of Ferozepur remained in India.⁸ Malik grieves that the signing of the Standstill Agreement in December 1947 and the Delhi Agreement in 1948 were colossal errors, which cost Pakistan its rights over the eastern rivers. He goes on to say that India's negotiation tactics were superior to those of Pakistan.9 He also questions the World Bank's motive behind the 1954 plan, as it was well aware that the loss of the eastern rivers would be "a rude shock to bear with [for] Pakistan". Malik writes: "It would seem as a tactical strategy to assure her, though falsely, of availability of enough flow of waters of Western Rivers". 10 He adds that the Bank's proposal "incorporated the core elements of the Indian plan. In fact, she gained much more than she could ever imagine ... She got away with the total flow of 33 maf 'virtually for a song'."11

The Current Situation

What is disputed today has nothing to do with water sharing, which has been settled under the Treaty. What is disputed - as Pakistan claims - is whether the Indian projects on the western rivers, in particular on the Jhelum and the Chenab, conform to the technical stipulations. Storages on rivers indeed create anxiety for lower riparian states; but India, as an upper riparian, has taken the water supply concerns of Pakistan into consideration. It must be noted that there is not a single storage dam that India has built on the western rivers - even though the IWT allows storage entitlement of up to 3.6 maf.

However, this is being corrected by the current NDA government since 2016. Each project, in accordance with the IWT, requires India to provide specified information to Pakistan at least 6 months before the commencement of the works. Clearly, the question of India acquiring the capacity to manipulate or withhold the flow of water is, under the IWT's provisions, not only untenable but can be monitored. Pakistan's objections to the projects over several decades have been tactical and less technical. Its objective has been principally to stall any water development projects in Kashmir. A prosperous and developed Kashmir increasingly locked into mainstream India is anathema to the Pakistan leadership. Not surprisingly, therefore, Pakistan uses the water issues to drum up hysteria over Indian regional hegemony, and make its propaganda machinery work overtime.

Pakistan has cleverly used its lower riparian position to garner international sympathy and cover up its domestic incapability. The country receives 67 percent of international waters, making it a boxed-in-lower-riparian not only with India but also with Afghanistan vis-à-vis the Kabul river. The leadership articulates its vulnerability and victimhood by raising water as a "lifeline" issue, suggesting clearly that the sharing of the waters with India still remains unfinished business. A section of Pakistan's political-military leadership, given its feudal and industrial background, believes that the water issues not only help divert attention from Pakistan's inefficient water management policies and the inter-provincial water dispute between Punjab and Sindh, but would also provide a "back door" for international involvement, once again, in the Jammu and Kashmir dispute.

The raison d'être of the IWT was precisely to delink the water issue from territorial disputes, and settle any differences between the two countries within the mechanism of the Permanent Indus Commission (PIC). By linking the waters to Kashmir, Pakistan is trying to reframe the water discourse through territoriality. India, on the other hand, has been far more open to talks and concessions on water issues rather than look at it in terms of territory. In the case of the Salal Dam and Tulbul Navigation Projects, India conceded to Pakistan's demands by making structural changes to the former, and suspending work on the latter, having suffered excessive siltation therein.

Delays and Cost Escalation of India's Water Projects

India's leadership and water development planners in the 1970s lost much ground to Pakistan on the interpretation of the Treaty when it came to various projects on the western rivers. Resultantly, it conceded to the technical

objections raised by Pakistan. In its wisdom, India felt that the spirit of the Treaty was far more important to the overall peace and security of the region. In retrospect, India paid a huge price not only in terms of project delays and increasing costs but also gave Pakistan a context to question and challenge many of the projects that India plans to build today. It has been recorded that 27 Indian projects have been questioned by Pakistan, principally to stall progress and delay the implementation of storage facilities on the western rivers.

The following section examines some of these projects, beginning with the Salal Hydroelectric Project (on the river Chenab in the Udhampur district of Jammu and Kashmir). Interestingly, this project was conceived in 1920, but took almost four decades before the Jammu and Kashmir government started an inception study in 1961; and, the construction of the project started in 1970. The design conceived of a two-stage powerhouse, with a total installed capacity of 690 MW (345 MW each). The site of the powerhouse was to be 72-kms upstream of the Marala headworks of the Triple Canal Project, which irrigates vast areas of land in Pakistan, and is fed by the Chenab and Jhelum rivers. This immediately raised concerns in Pakistan, and it pitched its diplomacy to ensure that the project was crippled. While India, in accordance with the Treaty, provided information of the project in 1974, Pakistan raised objections in 1976, and both the countries entered into a series of talks. Pakistan clearly feared that the storage capacity of the Salal Project could flood parts of Punjab in Pakistan, or stop water from reaching the Punjab plains. India tried to convince Pakistan, as it has always done and does so even today, that it would be impossible to cause flooding in Pakistan without causing damage to the territory within India's control. Eventually, India conceded and, in 1978, agreed to reduce the height of the dam.

After the Salal project came the Tulbul Navigation Project, which India proposed to build in 1984 on the river Jhelum at the mouth of the Wullar lake - India's largest fresh water lake near Sopore. The project was aimed at facilitating proper navigation (4 ft. depth) over a 20-km river stretch between Sopore and Baramulla, and stabilising the water level in the Jhelum through navigation locks. The engineers argued that this would also help the Uri I, Uri, and the Lower Jhelum projects to generate more electricity in the lean season by providing water. Pakistan raised an objection under Article I (11) of the IWT relating to "man-made obstruction", as well as under Article III of "storing any water of, or construct any storage works on, the Western Rivers". The work on the Tulbul Project was stopped in late 1987, and the discussions dragged on. In 1991, India agreed to adjust the design of the project keeping

in mind Pakistan's concerns - for example, to keep about 6.2 mt of the project ungated. Initially, India suspended work on the Project temporarily for a few months as a goodwill gesture to resolve the differences. However, in spite of numerous Government level meetings between the two countries, the difference remained unresolved. The Tulbul Navigational Project is now part of the Composite Dialogue Process, providing Pakistan further flexibility to delay the meaningful resolution of issues, or possibly link it with other issues if a situation arises.

In both the cases of Salal and Tulbul, Pakistan did not refer to the projects as "disputed" but as having "differences" in terminology. Interestingly, as the Salal was coming to some reasonable agreement, the Tulbul unfolded. Likewise, as the Tulbul was being adjusted, the Kishanganga Hydroelectric Project cropped up. Each new project that India started marred the earlier efforts to reach an understanding. India's adjustment to Pakistan's demands on the Salal has resulted in huge siltation of the dam. The final commissioning of the project took place in 1996 and, by 2002, the Salal Hydroelectric Project recorded an all-time high siltation. The 80 mt reservoir depth had 25 mt of siltation. The Salal Dam now has a total installed capacity of 690 MW. It is the first dam built on a rock pedestal. With 6 turbines, each with a capacity of 115 MW, power from the Salal Dam is transmitted to the northern grid where it is distributed to the states of Jammu and Kashmir, Punjab, Haryana, Delhi, Himachal Pradesh, and Rajasthan.

In the case of the Baglihar Hydro Project, Pakistan invoked the clause on "Settlement of Differences and Disputes", and approached the World Bank for the appointment of a Neutral Expert (NE) in 2005. This was the first time that the resolution was taken to the NE, away from the ambit of the bilateral discussions. After the NE verdict in February 2007, which was seen as a "creative compromise", India resumed work on Stage I of the project which was commissioned in 2008. The commissioning was earlier planned for 2005. Pakistan's objections clearly delayed the commissioning. Worse has been Stage II of the project which was earlier planned to be commissioned in the first quarter of 2008. It was finally inaugurated in November 2015, taking the installed capacity to 900 MW. The bitter dispute over the Baglihar Dam, before it was resolved through third party arbitration, was a turning point in the history of the Treaty. But the fact that it has given rise to political debates signals that all future requirements are likely to see the technical understanding of the Treaty being overshadowed by political considerations.

The issue of the 330-MW run-of-the river Kishanganga Hydroelectricity Project on a tributary to the Jhelum is another case in point in which Pakistan

delayed, and raised the cost of the project. This hydropower project is designed to divert water from the Kishanganga river (called Neelum in Pakistan), generate electricity, and then send the water back to the river. Construction began in 2007, but was halted in 2011 because Pakistan went to the International Court of Arbitration (ICA) claiming that the Kishanganga Project would adversely affect the Neelum-Jhelum Hydropower Project it planned on the same river in 1989. In February 2013, the ICA gave an interim ruling, later confirmed in December 2013, that India could divert a minimum amount of water for power generation, and work on the Kishanganga Project was resumed. The Project was finally commissioned in 2018. Both the Tulbul and the Kishanganga are on the Jhelum. This river is critical for Pakistan as it feeds into the Triple Canal Project. The water from this project irrigates the Upper Bari Doab, and is crucial during the lean season. Any storage upstream is seen as a threat to Pakistan.

Discernible Pattern

Pakistan's riparian behaviour with India has a distinct pattern. The IWT provides a multi-layer dispute resolution mechanism. A PIC, established by the Treaty, works as the first level of dispute resolution. The Commission is responsible for the exchange of all information between the two countries, including giving and responding to notices on either side. In case a difference arises between the two governments on "interpretation or implementation of the treaty", or a fact if established, is seen as a breach of the Treaty, the PIC shall first endeavour to resolve the question bilaterally. If the commission is unsuccessful in resolving the dispute, a NE is appointed at the request of either commissioner to resolve the dispute, or the two governments at other levels can also deal with the dispute. The Treaty also prescribes the constitution of an ICA to deal with certain questions with regard to implementation or interpretation of the Treaty, in case the two governments agree or either of them requests an ICA.

In the first two cases, the Salal and the Tulbul, the dispute resolution was confined to the first level - that is, the PIC and bilateral negotiations. Also, India adjusted its projects to Pakistan's demand. With Baglihar, Pakistan explored the NE option, but failed to get the desired verdict. It was also an expensive exercise. Had it remained within the bilateral format, it is very likely that India, as in the case of Salal and Tulbul, would have equally adjusted. However, the NE verdict was a blessing in disguise for India as it raised important technical points on dam construction - most importantly on sediment accumulation.

With Kishanganga, Pakistan sought the intervention of the International Court of Arbitration, as provided in Article IX. The first unit of the Kishanganga project has been commissioned, albeit with considerable delay. Here again, Pakistan failed. However, it can be argued that Pakistan's objective is clearly to delay projects in Kashmir with the hope of adding political and financial costs to New Delhi. This will remain a pattern on all the other upcoming projects on the Chenab, including the 850-MW Ratle and the 1000-MW Pakal Dul. India should be careful not to fall into the trap of legalese and dispute resolution processes.

The projects delay and the resultant cost escalation as a result of Pakistan's objections have not been quantified specifically from the date of project suspension, to the final commissioning of the projects. India needs to take the ongoing projects on the western rivers in earnest, and not get trapped into Pakistan's illogical objections. It must be noted that Pakistan's lobbying power with the World Bank is well known, and Islamabad uses two US-based law firms - Three Crowns and Williams & Connelly - to champion its concerns. Both these law firms are well known in the US for their lobbying prowess. The World Bank, as the third party to the Treaty, has to be told in no uncertain terms that its sympathy with Pakistan is unreasonable, and that it should avoid playing the mediator role; rather, it should consider plans that resolve Pakistan's water wastage and inefficient usage of water.

Pakistan's Motivation

What are the motivations behind Pakistan's raising water issues which, by all accounts are well settled under the IWT? Water issues are being politically constructed in Pakistan, and its water scarcity is increasingly couched in the language of security vis-à-vis India, the upper riparian state.

There is a purpose to this approach. First, water becomes an existential driver of Pakistan's perpetual enmity with India. By disregarding the much-lauded "fairness" of the IWT, the Pakistani establishment has focused its lens on India being the upper riparian "aggressor", "stealing" the waters of the Indus system; it is seen as a country with "malevolent" intentions. Pakistan wants to reframe a new set of lower–upper riparian dynamics by articulating its "water rights" under the provisions of the Treaty by raising concerns, and asking India for an explanation. It is an effort to put India on the defensive. The trajectory of the public discourse on water in Pakistan is such that water is increasingly being projected as a flashpoint, with the political-military class benefiting from such positioning. Pakistan leadership is noted for its heightened

expressions of war over water to draw international attention.¹²

Such expressions are also for public consumption, and to whip up anti-India sentiments. Water, being emotive, is a mobilising factor and, unfortunately, even those who argue for cordial existence with India are unlikely to take an objective view of the water issue. For example, Hafiz Saeed, in a rally organised by the Jamat-ud-Dawa in Lahore in June 2010, called for a jihad against India, alleging that it was deliberately turning Pakistan barren. The activists in the rally were sporting posters with the message "Water flows or blood". 13 Second, shifting the blame to India for its water woes serves the purpose of the ruling establishment in Pakistan, which seeks to disproportionately exploit the water resources issue to its advantage. By aggressively accusing India of "stealing" Pakistan's share of the river waters, the establishment wants to absolve itself of its wrong water management policies, and the inter-provincial water dispute between Punjab and Sindh. Unfortunately, the debate and actions on river waters are being coloured by unnecessary jingoism. The 1960 IWT settled the lifeline issue, and allayed Pakistan's lower riparian fears. But the issue continues to find space in Pakistani domestic politics, and its link to the Kashmir issue implies that any future settlement of this problem with India may reopen the case of the distribution of the Indus River system. The competition today for the waters in the Indus basin is many times more than what it was in the 1950s and, therefore, claims to the Indus waters will only become magnified on either side.

The fundamental challenge, therefore, is to keep the differences within the framework of the IWT, and evolve a mechanism in finding solutions to the immediate and unforeseen water-related issues. While the IWT settled the issue of water sharing, its combination of permissive and restrictive provisions relating to Indian projects on the western rivers has led to an adversarial situation in which India tries to use the permissive provisions to the highest extent possible, and Pakistan applies the restrictive provisions to the utmost.¹⁴ It is clear that while the Treaty may have served some purpose at the time it was signed, the new set of pressures in the changed circumstances make for an urgent need to look at it afresh. The Treaty does not have an exit clause, so it cannot be abrogated. However, it does permit the possibility of renegotiation. Article XII of the Treaty says that it "may from time to time be modified by a duly ratified treaty concluded for that purpose between the two governments".

Any "modification" that India might seek to make in order to remove some of the Treaty's stringent provisions should also, at a parallel level, evolve

a joint mechanism to study the actual flow of the water, and make an assessment of the impact of Climate Change on the scarcity. This determination will be crucial to removing the growing misperception in Pakistan that India "blocks" and "steals" the Indus waters. Given Pakistan's asymmetry in terms of hydrology and economic and military resources, it will strive for a more equitable distribution of waters with India. Likewise, it will continue its proxy war, hoping to force India to negotiate to its advantage on the water issue. India, on its part, is primarily concerned with state-sponsored terrorism, and will only show willingness to "talk" about "water needs" with Pakistan, and not "negotiate" on "water rights".

Being a lower riparian state, Pakistan's scepticism of India allows it to increasingly securitise the issue. In fact, it can justify the issue domestically and, therefore, it is not surprising that it maintains high troop levels and alertness around the canals on the eastern front, fearing that India will try to take control of the western rivers of the Indus basin. These intricate canals act as a defensive shield against a ground attack. In the case of India, the issue is more about the rationality of the Treaty, the needs and aspirations of the Kashmiris, and a genuine water scarcity that has emerged because of increasing demand and the growing impact of Climate Change.

What Should India do?

There have been debates in India during last two decades about: (a) the need to replace IWT with another improved version of the treaty (Indus Water Treaty-II); (b) to abrogate it; and (c) to utilise the provisions of the Treaty to counter Pakistan's immoral and illegal claims. ¹⁵ Those who advocate revision argue that the Treaty is outdated in that it does not take into account new realities and grounds for cooperation (including a proper survey of the basins for better exploitation of water resources, a reconsideration of the interests of Kashmiris which were overlooked earlier, and new technologies now used for dam making, de-siltation, ecological issues, etc.), and hence begs for revision.

The advocates of abrogation argue that the Treaty has unjustly signed away more water to Pakistan than it rightfully deserved, and has not ensured friendly behaviour from Pakistan. Moreover, the latter has taken undue advantage of the relevant clauses of the Treaty to stall and delay power and navigational projects in the state of Jammu and Kashmir which has hurt the interests of the people of Kashmir. Therefore, India should abrogate the Treaty unilaterally in response to the irresponsible and hostile behaviour demonstrated by Pakistan ever since the Treaty was signed.

There is a third perspective that centres around the optimal use of Treaty provisions. Those advocating this hold that India has been quite generous in not using the provisions of the Treaty to good effect (to store water granted by the Treaty to India), especially at a time when the problem of water scarcity has started haunting Pakistan.

In view of the third perspective, adequate attention must, therefore, be paid to harness maximum possible water from these rivers through multipurpose projects. Under the Modi government (2014–2019), projects like the Ujh (storage of 0.82 maf) and Shahpurkandi Dam (0.012 maf) and the 2nd Ravi Vyas Link Project which can harness water flowing across the border to Pakistan (about 0.58 maf in the non-monsoon period), but which were hanging fire, have become a national priority. The Shahpurkandi Project on the Ravi river seeks a total production capacity of 206 MW. Jammu and Kashmir will get 20 percent of the power generated from this project.

On the western rivers, the "permissible storage capacity" as per the Treaty provisions has not been paid serious attention in India. One of the projects identified for storage purposes is the Bursar Multipurpose Project on the Marusudar river (the main Tributary of Chenab) in the Kishtwar district of Jammu and Kashmir. As per the data provided by the government, it will store about 1 maf, produce 800 MW of electricity, and irrigate about 100,000 hectares. The Detailed Project Report (DPR) is under preparation, and no central assistance has been granted yet for the project. The project requires 1,665 hectares of land, including 1,077 hectares of forest land. It will affect more than 500 families in over 14 villages. The second multipurpose project being planned is the Gyspa on the Bhaga River (Chenab Main)¹⁶ in the Lahaul & Spiti District of Himachal Pradesh. It is supposed to store water (0.74 maf), produce 300 MW of electricity, and irrigate 50,000 hectares of land. The DPR was completed in 2017; but the work has yet to start because of resistance from the local people.

These two projects need to be pursued with due sensitisation of the people about the value of such efforts, a well-planned rehabilitation of the people dislocated, and compensation measures. The state governments must be engaged effectively in this regard. For that matter, all power projects (33) under construction) and 8 under planning and execution (e.g., the Sawlakote and the Ratle) should be given top priority. Of the total capacity of 11406 MW which is to be harnessed from the three rivers, only 3034 MW has been tapped so far.

The Tulbul Navigation Project, which remains stalled, must now be completed despite Pakistan's objections. As explained earlier, Pakistan has termed this navigation project as a violation of the IWT, and refuses to understand the logic of enhancing connectivity through the river, which would have a rewarding effect on the tourism and the economy of the state. It will be worthwhile for New Delhi to engage the local government with a view to building pressure from the people of the state for the execution of projects on the western rivers which will boost the local economy. Way back in March 2003, the state Assembly had passed a resolution urging the Indian government to review the IWT, and revise it to accommodate the interests of the people of the state. Due attention must be given to raise popular awareness over the issue, and expose Pakistani resistance to such developmental projects in the state.

In addition to reducing the leakages from the eastern rivers and building storage on the western rivers within the provisions of the Treaty, the government must also leverage Afghan interests in harnessing the development potential of the Kabul and Kunar rivers flowing into Indus from Afghanistan. The major tributaries of the Kabul River are the Logar, Panjshir, Kunar, Alingar, Bara, and Swat rivers. After the successful completion of the Salma Dam project on the Harirud River in western Afghanistan and the rehabilitation of Amir Ghazi and Qargha Dams by India, there is a renewed interest by the Afghan government to construct multi-purpose water projects on the tributaries of the Kabul River with India's help.

Afghanistan does not have enough dams, reservoirs, or barrages to adequately manage and control the runoff from the glacial meltdown from the Hindukush during summer. As a result, it is susceptible to both severe flooding and droughts, and has little control of water-flow into neighbouring countries, especially Pakistan. There is no water sharing agreement between Afghanistan and Pakistan till now, and reports of Indian interest in Afghan rivers have made Pakistan edgy and nervous as can be seen from comments in Pakistani newspapers. Afghanistan has, so far, resisted Pakistani initiatives to work out some bilateral mechanisms in this regard.

Conclusion

The IWT was essentially about balancing the water rights of Pakistan without compromising the needs of India. The Treaty became possible because India agreed to ask for only one-fifth of the total water available in the six rivers of the Indus system, giving away 80 percent to Pakistan. India gave preference

to fulfilling its immediate water needs over future needs. Most international analyses ignore both these facts - that is, the generosity of the Indian side and the genuine needs of the people of India. India needs to call Pakistan's bluff, and its constant rants about India stealing the waters of the Indus. As a first step, India needs to maximise the effectiveness of the Treaty. India allows 2-3 maf of water flowing into Pakistan because of our poor water development projects - the lack of storage capacities in particular. It is welcome that the NDA government is paying attention to rivers in general, and to fast tracking a number of projects on both the eastern and western rivers of the Indus Basin. Any move to even think of rescinding the IWT without first optimising it is a pointless option.

Notes:

- Quidquid voverat atque promiserat is Latin, meaning null and void.
- ² See the text of the Indus Waters Treaty, at https://mea.gov.in/bilateral-documents.htm?dtl/ 6439/Indus. The text in pdf is also available in the UN Treaty Collection, the World Bank, and the Ministry of Water Resources, Government of India (now the Jal Shakti Ministry).
- Some of the essential reads on the making of the Indus Waters Treaty are: Aloys Arthur Michel, The Indus Rivers: A Study of the Effects of Partition, Yale University Press, New Haven, CT, 1967; Scott Barrett, "Conflict and Cooperation in Managing International Water Resources", Policy Research Working Paper 1303, The World Bank, May 1994; and Bashir A. Malik, Indus Water Treaty in Retrospect, Brite Books, Lahore, 2005. However, the most significant account of the Treaty is Niranjan D. Gulhati, The Indus Waters Treaty: An Exercise in International Mediation, Allied Publishers, Bombay, 1973.
- See, https://treaties.un.org/doc/Publication/UNTS/Volume%201155/volume-1155-I-18232-English.pdf
- ⁵ The Indus basin is an important geophysical part of the Indian subcontinent. The Indus, together with the Chenab, Ravi, Sutlej, Jhelum, Beas, and the extinct Sarasvati, constitutes the basin. The Indus basin has a total area of 11,65,500 km2, with annual available waters of 207 Billion Cubic Meters (BCM). The basin countries are Pakistan (632,954 km2), India (374,887 km2), China (86,432 km2), and Afghanistan (76,542 km2).
- ⁶ For an account of the making of the IWT, read Niranjan D. Gulhati, *Indus Waters Treaty:* An Exercise in International Mediation, Mumbai, Allied Publishers, 1973.
- ⁷ Nehru's speech is quoted in Niranjan D. Gulhati, *The Indus Waters Treaty*, p.160–161
- Bashir A. Malik, *Indus Water Treaty in Retrospect*, Brite Books, Lahore, 2005, p. 67
- ⁹ Ibid.
- 10 Ibid., p. 161
- 11 Ibid., p. 169

- Pakistan's articulation of its lower riparian concerns tends to receive a sympathetic international audience. Water experts such as John Briscoe, who is currently Gordon McKay Professor of Environmental Engineering at Harvard University, speak more from the lower riparian perspective (Pakistan), often but not intentionally ignoring the upper riparian accommodation (India). Briscoe's article "War or Peace on the Indus?", published in *South Asian Idea* (at http://thesouthasianidea.wordpress.com/2010/04/03/war-or-peace-on-the-indus/) puts the onus on India, being the regional hegemon, to show restraint on the Indus basin, ignoring the fact that India has been far more generous and accommodative than any upper riparian in the world.
- ¹³ Divya Kumar Soti, "Why Hafiz Saeed is Raking up the Indo-Pak Water Issue?", at http://intellibriefs.blogspot.com/2010/07/why-hafiz-saeed-is-raking-up-indo-pak.html
- According to the IWT, India can use 3.6 MAF of storage, and can irrigate up to 1.34 million acres but has not done so. Moreover, 2 MAF of water flows to Pakistan from the eastern rivers every year due to dilapidated infrastructure.
- ¹⁵ See the author's interview in First Post, at https://www.firstpost.com/india/indus-waters-treaty-doesnt-fit-into-current-sociopolitical-situation-of-india-pakistan-says-riverine-expert-uttam-sinha-6293351.html
- The Gyspa Dam project was originally conceived as a 170 MW, a run-of-river hydro power project under the Himachal Pradesh State Electricity Board (HPSEB). But, in August 2008, the government declared it a "National Water Resource" project, and modified it from a mere hydro-electric project to a water storage project, with capacity for hydro-electric generation.

