
An Appraisal of Pakistan's Rights Under the Indus Waters Treaty



Regional Studies
Vol 37, Issue 1

pp.3-33

© Author(s)

<http://irs.org.pk>

P-ISSN: 0254-7988

E-ISSN: 2959-5459

Date of Acceptance: 7 January 2019

Sana Taha Gondal*

Abstract

In recent decades, water shortage has become a serious concern for the global community. With the threat of drought and water scarcity looming over several nations, state practice with respect to water cooperation and transboundary water rights has developed rapidly. In light of these developments and the recent skirmishes between India and Pakistan, the Indus Waters Treaty of 1960 between the two states becomes questionable for being outdated and incapable of meeting the contemporary water, environmental, and ecological challenges facing them. There is, therefore, a pressing need to review the Indus Waters Treaty and to assess Pakistan's rights to transboundary waters shared with India under the rapidly developing customary international law.

Keywords: *transboundary water law, lower riparian, water governance.*

Introduction

The Indus basin's familiarity with disputes predates the partition of the sub-continent into the sovereign States of Pakistan and India; these disputes were particularly frequent between the provinces of Punjab and Sindh.¹ But after the Independence of India Act, 1947, the boundary that was drawn between the independent states of India and Pakistan also cut through the Indus Basin (shared by the now divided, East and West Punjab). Resultantly, Pakistan acquired the status of a lower riparian state, while India acquired the status of an upper riparian state.²

* Ms Sana Taha is Law Clerk at the Supreme Court of Pakistan.

As the controller of the headworks of the Indus Basin, India has the power of controlling the water flow from the Indus Basin in Pakistan.³ This causes concerns for Pakistan, as being a single-basin country with heavy reliance on its agrarian produce, a consistent flow of water from the Indus Basin is crucial for Pakistan.⁴ The Indus Basin is heavily relied upon by the country for meeting its agricultural, industrial, and domestic needs.⁵ Global warming, on the other hand, is creating further stress upon Pakistan to meet its growing water demands.⁶

The challenge faced by Pakistan is not restricted, however, to climate change and global warming. It is further aggravated by the tense relations between India and Pakistan.⁷ There is a history of conflicts over water between both states and most of these conflicts have arisen over the construction of dams by India, e.g., the Baglihar and Kishanganga dams along the western rivers.⁸ The grievance of Pakistan being that dam construction usually causes diversion of natural water flows, which can be a source of conflict in international relations, but the Indus Waters Treaty 1960 (IWT),⁹ the current treaty governing water-sharing between India and Pakistan, expressly allows for inter-tributary transfer¹⁰ with certain limitations.¹¹

To further aggravate the situation, India has planned to start more than sixty-seven dams for hydropower generation and its dam-failure record is alarming, with nine of its dams having collapsed.¹² As the lower riparian, this is a cause of concern for Pakistan in terms of safety of its infrastructure.¹³ Furthermore, India also has not shared its environmental impact reports (EIA) for all dams to evaluate their transboundary impact on Pakistan.¹⁴

However, this tactic of using water as a diplomatic weapon is not novel to India and Pakistan. It is common for sovereign states worldwide to use water as a weapon for their political goals or as a weapon during military operations.¹⁵ India and Pakistan have also used similar tactics in the course of their water-sharing relations. Although

the IWT succeeded in preventing major armed conflicts over water and survived three armed conflicts between India and Pakistan, there has nonetheless been tension between the states over the current water-sharing mechanism given in the IWT, e.g., the 2012 attack on the Wullar Dam construction site in India-occupied Kashmir (IOK) and the 2016 attack on the Uri military base. Disagreements over water-sharing have also been taken to dispute resolution forums, mostly resolved through negotiations or mediation.

It is one of the aims of international law to avoid conflict and support cooperation among states.¹⁶ In light of the abovementioned circumstances, it becomes imperative to look at the legal regime that governs these two sovereign states regarding sharing of the Indus Basin for determining the rights of Pakistan with regard to it.

While domestic legal regimes within sovereign states govern the relationships between them and their subjects, the law that governs inter-state relations is called *jus gentium* (international law or law of nations), primarily made up of treaties and customs.¹⁷ While treaties need to express assent of states, customary international law (CIL) can be formed by *pactum tacitum*, i.e., tacit consent.¹⁸ Treaties and CIL are both primary sources of international law, however, treaties are backed by the principle of *pacta sunt servanda*,¹⁹ and take precedence over CIL.²⁰ The rights of Pakistan with respect to the Indus Basin are also acquired under treaty law (IWT) and CIL.

Legal Arrangements between India and Pakistan

The dispute concerning the Indus Basin between India and Pakistan dates back to the partition of the sub-continent.²¹ Being a bilateral dispute, the agreements catering to the Indus Basin have also been bilateral in nature. Both Pakistan and India have not ratified universal treaties directly applicable to this dispute, i.e., the universal treaties applicable as *traites lois*, which largely codify the already persisting CIL practice of states.²² The obligations under CIL bind both

Pakistan and India despite their refusal to formally ratify the universal treaties on the matter.

The 1947 Standstill Agreement

The first agreement between the two states *vis-à-vis* the Indus Basin was the Standstill Agreement, signed on 18 December 1947, that led to the continuing inflow of water in Pakistan from India, as it did before partition for one year.²³ However, with the expiration of the agreement in April 1948,²⁴ the government of Indian Punjab (or East Punjab)²⁵ closed the Upper Bari Doab Canal and Dipalpur Canal, blocking Pakistan's water inflow through the rivers Ravi and Sutlej.²⁶ It is opined by Niranjana Das Gulhati that this act was done to avoid setting a precedent for future, where Pakistan could claim rights over the lower canals.²⁷ Over the course of years, however, the absolute claims of sovereignty over transboundary watercourses have been rejected by CIL, and also by the state practice of India and Pakistan.²⁸

Two standstill agreements were signed, subject to further ratification, after this provocation by the East Punjab (Indian) government. However, the West Punjab government (in Pakistan) refused to ratify them.²⁹ Instead, the then Prime Minister of Pakistan, Liaquat Ali Khan, proposed that an inter-dominion conference be convened to settle the dispute.³⁰

The 1948 Delhi Agreement

The inter-dominion conference led to the signing of the Inter-Dominion Agreement (also known as the Delhi Agreement) in May 1948, which offered a temporary arrangement to both the countries, albeit, offering no permanent solution.³¹ The Delhi Agreement assured Pakistan that India (the government of East Punjab specifically) would not "withhold water from West Punjab without giving it time to tap alternative sources."³² Furthermore, Pakistan had to pay a monetary amount as seigniorage charges (charges levied by the upper riparian state for supply of water to the lower riparian state).³³ This was based on the precedent set during the British rule over the sub-continent.³⁴

India later claimed that the acceptance of seigniorage charges by Pakistan was an implied recognition of India's sovereignty over the rivers. But Pakistan continuously argued that the same amount was paid for maintenance costs.³⁵ Furthermore, the amount paid to India was disputed by Pakistan and both the countries had mutually decided that Pakistan would submit the amount to the Reserve Bank of India, but the undisputed charges would be paid to East Punjab, and disputed charges would be retained in escrow until a future decision was reached in this regard.³⁶ After some time, Pakistan disputed the manner of signing the agreement and the contents therein. This agreement also fell apart by 1950.³⁷ It was expressly terminated on 19 September 1960 with the signing of the IWT.³⁸

The 1960 Indus Waters Treaty

A series of unsuccessful communiques that followed the Delhi Agreement stalemate,³⁹ David Lilienthal⁴⁰ proposed that the two states abandon their political argument over water rights and instead entrust that discussion to the engineers of both the countries to decide. He proposed that the World Bank intervene, with its financial support that both the states had sought,⁴¹ to resolve the matter.⁴² This proposal, also known as the Lilienthal Proposal, was well-received by both the states.⁴³ With the intervention of the World Bank as a mediator and after twelve years of discussions, finally, the IWT was signed in 1960 and ratified in January 1961.⁴⁴ The conclusion of IWT was a milestone in the history of the Indo-Pak conflict over water.⁴⁵

Claims of Sovereignty over the Indus Basin

After 1950, both the states had argued over their rights for a time, with the other state unwaveringly denying them. India believed it had sovereign rights over the Indus Basin and, hence, an inherent right to unfettered use of its waters. Pakistan, on the other hand, believed it had an inherent right to the natural flow of the Indus Basin, which should neither be controlled by upper riparian India nor be diminished incidentally by the construction of dams. Pakistan was also

claiming absolute rights to the waters of the eastern rivers, in particular, Ravi and Sutlej.⁴⁶

India and Pakistan believed that water flowing into or through their territory was subject to their sovereignty. Both states believed that they could develop their resources as they wanted.⁴⁷ The effect on the other riparian or the consequence was not the concern of either India or Pakistan.⁴⁸ However, the stance of both states changed during negotiations mediated by the World Bank over the course of twelve years' worth of negotiations.

Principle of Benefits versus Principle of Equity

The 1954 proposal by the World Bank, for a treaty for the states, imposed financial liability on India for each canal built in Pakistan for replacement of water from eastern rivers, because India would benefit from these alternate canals. This is known as the principle of beneficiary-pays or principle of benefits. Friedreich Berber, a German international law specialist hired by the Indian government, demonstrated to the Indian government that the replacement works would not benefit India. Rather, instead of the 'principle of benefits', both the states would mutually reap more benefit under the 'principle of equity', and the cost of the replacement works to be built, which were necessary for India, could be shared by both states, as opined by Berber.⁴⁹ However, the principle of beneficiary-pays was inculcated in the IWT despite Berber's observations.

Acknowledging Claims under Customary International Law

Under international law, India claimed 20 per cent of the water flowing in the Indus Basin and a sovereign claim over the eastern rivers, notwithstanding the other sources of water that India had.⁵⁰ Pakistan, on the other hand, claimed the right to draw upon the eastern rivers and stressed the fact that India could indulge into alternative sources to satisfy its needs while Pakistan could not.⁵¹ Pakistan also claimed that India could not, under CIL, cause appreciable harm to existing uses of the Indus waters.⁵²

It is interesting to note that a lot of actions of Pakistan and India were driven by the motivation of not setting a precedent that would lead to their relinquished claim over the Indus Basin in the long run, e.g., the claim of absolute sovereignty.⁵³ But both states, while refuting the other's rights under CIL, claimed the same for their own benefit.

Rights of Pakistan under the Indus Waters Treaty

IWT as a Sub-Optimal Treaty

The IWT has been oft-praised in the past, due to its unique character of the physical division of waters,⁵⁴ its withstanding of the political rivalries between India and Pakistan,⁵⁵ its unique dispute resolution mechanism,⁵⁶ and the fact that this treaty has a third party, the World Bank, as a signatory.⁵⁷ However, despite its *sui generis* nature, the IWT is a sub-optimal treaty owing to the fact that it distributed the rivers of the Indus Basin as opposed to developing water as part of an integrated basin management approach.⁵⁸ The 'eastern rivers' (rivers Sutlej, Beas and Ravi)⁵⁹ were allocated to India,⁶⁰ while the 'western rivers' (rivers Indus, Jhelum and Chenab)⁶¹ were allocated to Pakistan.⁶² This physical division of rivers has also been credited for being a reason for the treaty's success,⁶³ but merits critique for producing a sub-optimal result. An optimal result could only have been acquired if "all the potential uses [were] considered simultaneously."⁶⁴ International watercourses, if partitioned, result in decreased availability of water and encourage waste of water.⁶⁵ Read with the opinion of Berber mentioned above, even at the time that the IWT was signed, it seems, the preference for cooperation over division was clear. But it was, perhaps, not possible in light of the continuous political strife and competing claims of sovereign ownership over the Indus Basin between India and Pakistan.⁶⁶

Absence of Seigniorage Charges

The seigniorage charges, subject to much controversy before the signing of the IWT, were expressly done away within the treaty. Article 5(7) pronounced that other than payments mentioned in the IWT,⁶⁷ parties would not be entitled to claim any 'charge for water' (i.e., seigniorage charges) from the other or claim any payments for observing the treaty for that matter.⁶⁸ In the absence of subsequent demands for seigniorage charges by India, the practice can be termed as something of the past between the two states.

Exchange of Data

The IWT also makes provisions for exchange of data monthly (to be provided to the other state party within three months from the date to which the data relates).⁶⁹ Data relating to the hydrology of the rivers or canal or reservoir operation connected to the rivers, along with data related to any other provision of the IWT, may also be requested by the parties from one another.⁷⁰

Future Cooperation

The provision for future cooperation in the IWT (Article 7) touches upon the present issues between India and Pakistan. The provision, however, is not binding if construed linguistically. The parties, recognising their common interest in the 'optimum development' of the rivers declared "their intention to cooperate by mutual agreement."⁷¹ Regarding undertaking engineering works on the rivers, the parties "may, by mutual agreement, cooperate" in the matter.⁷² This reflects the possibility of future agreements that dealt with the Indo-Pak dispute but were never reached. However, if the engineering works cause interference with waters of the rivers, affecting the other party 'materially', then the other party is to be notified of its plans and provided with data related to the works to inform it of the nature and magnitude of the effects of those works on the rivers.⁷³ If the works would cause interference but not materially

affect the other party even then the data and notification procedure is to be followed.⁷⁴

Even though the IWT provides for future cooperation by exchanging data, no projects have been submitted under the 'future cooperation provision' for consideration, neither have issues of water quality been addressed by India and Pakistan after the conclusion of the IWT.⁷⁵

Dispute Resolution Mechanism under the Indus Waters Treaty

A Permanent Indus Commission (PIC) was set up under the IWT framework for the exchange of data between the parties,⁷⁶ for giving notices or responding to the other party,⁷⁷ and for other matters enumerated in Article 8 of the treaty.⁷⁸ For the settlement of questions, differences, or disputes,⁷⁹ which arise with respect to the IWT, the mechanism has been given in Article 9. 'Differences' may be resolved by the PIC or a neutral expert, while 'disputes' may be resolved either by the PIC or by any other means deemed sufficient by the PIC other than an agreement or even by setting up a Court of Arbitration.⁸⁰

Although negotiations precede formal mechanisms of dispute resolution under the IWT, it must be noted that the mechanism for dispute resolution in the IWT is not hierarchal. The reference to the neutral expert is not an appeal from the PIC, rather an alternate means of dispute resolution.⁸¹ This is reflected in the recent clash of opting for different dispute resolution mechanisms by India and Pakistan. A disagreement arose between the two states regarding the Kishenganga and Ratle hydropower plants planned by India along the western rivers.⁸² The matter was referred to the World Bank, albeit both states sought different processes to resolve the dispute.⁸³ India wanted the appointment of a neutral expert, while Pakistan sought resolution through arbitration proceedings.⁸⁴ However, the World Bank paused the process to protect the IWT, in light of the resentments that were apparent between Pakistan and India and encouraged the parties to resolve their differences amicably and mutually through alternative means.⁸⁵

Another aspect of the dispute resolution mechanism under the IWT is that the decision of the neutral expert is not appealable and would be considered final and binding.⁸⁶ The award of the arbitrator would also be final

and binding.⁸⁷ This means that once a decision or award is rendered or an agreement reached, the dispute, difference, or question is considered to be *fait accompli*.⁸⁸ The IWT does not in itself envisage any possibility of revision or appeal of these decisions or awards.⁸⁹

Threats of Unilateral Revocation of Indus Waters Treaty

In light of Article 12 of the IWT, the threat by Indian Prime Minister Modi regarding unilateral revocation of the IWT⁹⁰ becomes void of substance. Article 12 (4) provides that the IWT may only be 'terminated by a duly ratified treaty'⁹¹ and Article 12 (3) states that the treaty may only be amended by a further agreement.⁹²

Even though the Vienna Convention on the Law of Treaties, 1969 (hereinafter the Vienna Convention)⁹³ allows for termination of treaties in certain circumstances,⁹⁴ the same will not be applicable to the IWT. This is because the principles enshrined in the Vienna Convention apply to India and Pakistan as CIL⁹⁵ and not as the text of the convention.⁹⁶ Therefore, the Vienna Convention will apply to the IWT to the extent that it does not conflict with the treaty.⁹⁷ In case of a contradiction, such as the conditions of termination in the IWT and the Vienna Convention, the treaty law would prevail as *lex specialis*, as held in the case of North Sea Continental Shelf Cases⁹⁸ and confirmed in the Baglihar decision of the Neutral Expert.⁹⁹ Furthermore, the principle of *pacta sunt servanda*,¹⁰⁰ which is recognised by the Vienna Convention as a universally recognised principle,¹⁰¹ governs treaties and has to be applied in good faith as per Article 26 of the convention and in accordance with the dictum laid down in Hungary v Slovakia¹⁰² and Pulp Mills case.¹⁰³ India's unilateral revocation despite Article 12(4) of the IWT would be contrary to this duty to apply treaties in good faith. Furthermore, the principles of termination envisaged by the Vienna Convention cannot override the IWT because of being CIL and only applying in addition to the IWT, not by overriding it.¹⁰⁴ Therefore, the termination of the IWT can only be realised through an agreement between India and Pakistan and not unilaterally because of Article 12(4) of the IWT.¹⁰⁵

Hence, the rights of Pakistan under the IWT are secure, subject to further amendments or termination by both the states.¹⁰⁶ Pakistan has not shown willingness to amend the IWT in light of recent events.¹⁰⁷

Rights Beyond the Indus Waters Treaty to Remain Intact

Article 11 of the IWT lays down that the treaty only governs rights and responsibilities of Pakistan and India with respect to matters regarding the use of rivers and incidental thereto,¹⁰⁸ but no recognition or waiver is to be assumed of any rights or claims that are not expressly recognised or waived in the treaty. The IWT would not establish any principle of law or any precedent for either party.¹⁰⁹ Interestingly, the IWT does not cover matters that Pakistan often claims in its arbitrations,¹¹⁰ and this provision comes as more of a relief to Pakistan due to the nature of the IWT being technical and confined.

Disputes under the Indus Waters Treaty

The first difference that arose to be dealt with by the IWT was regarding India's Salal Project on the Chenab River in 1970. Pakistan objected to the design and the storage capacity of the Salal project and the same was resolved through negotiations by the states, culminating in an agreement in 1978 (the Salal Agreement).¹¹¹

The next difference was regarding the Tulbul Navigation Project (the Wullar Barrage) Dispute. Though Pakistan referred the Wullar barrage dispute to the PIC, the same has not yet been conclusively resolved.¹¹² With several prolonged pauses in the negotiation processes between the two states, Pakistan has expressed willingness to refer the dispute to arbitration. But so far both states have been negotiating time and again.

The most recent dispute between the two states was on Kishenganga and Ratle hydropower plants.¹¹³ The matter was referred to the World Bank, albeit both states sought different processes to resolve the dispute. India wanted the appointment of a neutral expert, while Pakistan sought arbitration proceedings. The World Bank paused the process to protect the IWT and encouraged the parties to resolve their differences amicably and mutually through alternative means.¹¹⁴ The matter remains unresolved.

The Baglihar Difference

One of the two differences that yielded a legal outcome was the Baglihar Project, which was referred to the World Bank for the appointment of a neutral expert and for resolution of the difference thereof. Raymond Lafitte was appointed by the World Bank as a neutral expert and the International Centre for Settlement of Investment Disputes of the World Bank (ICSID) coordinated the process.¹¹⁵ Lafitte interpreted the IWT in light of the Vienna Convention, which reflected CIL in the area of treaty interpretation.¹¹⁶ Neither India nor Pakistan has ratified the Vienna Convention (although, Pakistan has signed it),¹¹⁷ and yet the neutral expert applied the convention while interpreting the IWT as it codified principles of CIL. This shows that, despite not having ratified a particular convention or treaty, the principles of CIL can be and have been applied to interpret the IWT.¹¹⁸ This is confirmed in several judgments including that of the ICJ, where it was held in the Pulp Mill case that a bilateral treaty between the parties had to be interpreted in accordance with the recently developed state practice.¹¹⁹

Giving effect to the principles of integration and effectiveness, Lafitte determined that the treaty would be interpreted in light of new technical norms and standards, i.e., new at the time of the decision in 2007, and not the norms at the time of signing the treaty in 1960.¹²⁰ Lafitte observed as follows:

The Treaty is not particularly well-developed with respect to its provisions on sediment transport... The Treaty reflects the status of technology on reservoir sedimentation in the 1950s. The consequence is that the provisions of the Treaty which explicitly mention sediment acquire a special significance.¹²¹

Lafitte also took into consideration factors such as climate change and its effects, which were not as prevalent in the mid-

twentieth century.¹²² He relied on the ICOLD bulletin of the Commission of Large Dams¹²³ while deciding one of the questions raised before him.¹²⁴ It should also be noted that India herself relied on the case of Hungary v Slovakia judgment, where the International Court of Justice (ICJ) declared that new norms of international environmental law were to be considered while implementing a water-sharing treaty.¹²⁵ The ICJ also held that prevailing standards of the time were to be considered when evaluating the risks attached with a project.¹²⁶ This also hints at the interpretation of the treaty in light of the developments in the norms and customs that did not necessarily exist at the time of the conclusion of the IWT.

Kishenganga Arbitration Award

When the Kishenganga Project was initiated by India for the construction of Gurez Dam on Kisheganga River (Neelum River in Pakistan), Pakistan objected to India's plans on diverting the flow of the river. This diversion would allegedly have interfered with the flow of Kishenganga to Pakistan and also have severe environmental consequences in the form of harming the species in the river. The matter, not being resolved by the PIC, was taken to the Permanent Court of Arbitration (PCA), which rendered its decision in 2013.¹²⁷ The PCA decided in its final award that India could divert water from the Kishenganga river so long as the minimum flow of water was maintained in the river for Pakistan, i.e., the right to divert waters by India is not 'absolute'.

India's Entitlement v Pakistan's Rights

The court observed that taking into consideration the existing uses of Pakistan, India had a stronger claim to having a priority right *vis-à-vis* the use of waters of Kishenganga for hydro-electric power generation, owing to the fact that India was using the Kishenganga river for hydroelectric power generation when Pakistan was not.¹²⁸ However, Pakistan's existing uses are to be considered by India, i.e., for its agricultural and hydroelectric uses in accordance with Annexure D,

Paragraph 15(iii) of the IWT.¹²⁹ Reading this paragraph of the IWT in light of CIL, the PCA decided that India would operate the plant in a manner “that ensures a minimum flow of water in the riverbed of the Kishenganga/Neelum downstream” of the said plant.¹³⁰

Therefore, though India is entitled to inter-tributary transfers while constructing and operating hydroelectric projects under Annexure D of the IWT, the same is subject to limitation under Paragraph 15(iii) and CIL, whereby Pakistan and its ‘existing’ agricultural and hydroelectric uses may not be ‘adversely affected’ by such inter-tributary transfers.¹³¹

Interpreting Indus Waters Treaty in light of Customary International Law

The PCA’s decision is a landmark in interpreting the IWT in light of CIL, confirming the approach taken by Lafitte in the Baglihar decision. Placing reliance upon the case of Hungary v Slovakia,¹³² the PCA held as follows:

It is established that principles of international environmental law must be taken into account even when (unlike the present case) interpreting treaties concluded before the development of that body of law. ... It is therefore incumbent upon this Court to interpret and apply this 1960 Treaty in light of the customary international principles for the protection of the environment in force today.¹³³

In deciding that developed principles of CIL apply retrospectively to treaties concluded before the development of such principles, the PCA relied on the Iron Rhine Arbitration Award.¹³⁴ This principle has been further confirmed by the ICJ in the Pulp Mill case.¹³⁵

Limitations of Jurisdiction of Permanent Court of Arbitration

Keeping in mind CIL on trans-boundary harm and protection of the environment, the PCA decided that ‘states have a duty to

prevent, or at least mitigate' significant harm to the environment when pursuing large scale construction activities.¹³⁶ But, the PCA had no authority of overruling the express terms of the IWT pertaining to India's right to divert waters in accordance with Annexure D, Paragraph 15(iii) on the pretext of upholding environmental considerations.¹³⁷ The IWT prohibited this, in the opinion of the PCA, and it could only mitigate or limit significant harm.¹³⁸

Regarding the application of CIL to negate the provisions of the IWT, the PCA held as follows:

If customary international law were applied not to circumscribe, but to negate rights expressly granted in the Treaty, this would no longer be "interpretation or application" of the Treaty but the substitution of customary law in place of the Treaty.¹³⁹

This observation of the PCA has two implications: the first being that in case of contradiction between CIL and the IWT, the provisions of the IWT would prevail, albeit interpreted, as far as possible, in light of CIL; the second implication being in the right advanced upon India under Annexure D, paragraph 15(iii) to divert rivers under the IWT, some aspects of CIL have been undermined and cannot be fully implemented while giving effect to the letter and spirit of the IWT.

Another interesting aspect of this Award is that the PCA did not allow *res judicata* to apply to the life of this decision and acknowledged the possibility of change and uncertainty in terms of the minimum flow, which could be reconsidered later due to climate change or factors beyond the control of either India or Pakistan.¹⁴⁰

The PCA, deriving its powers from the arbitration clause in the IWT,¹⁴¹ could only give effect to the provisions of the IWT. But the ICJ would have broader jurisdiction if approached successfully by the two States on this dispute.

The ICJ would apply CIL, not because of the interpretation mechanism given in the IWT, (Annex G), but because of Article 38 of the ICJ Statute.¹⁴² Therefore, the ICJ would be able to rely on CIL, which goes beyond the confines of the IWT in settling the dispute. This, as opposed to an arbitration tribunal that can only derive its jurisdiction from the agreement itself and cannot have jurisdiction beyond the confines of that very agreement,¹⁴³ might be helpful in the case for Pakistan, relying on previous judgments of the ICJ in *Hungary v Slovakia*, for example.¹⁴⁴

Critique/Analysis of the Indus Waters Treaty

As discussed above, Article 3 of the IWT allocates unrestricted use of the western rivers to Pakistan and India is not permitted to interfere with the flow of these waters¹⁴⁵ except for some cases mentioned in the treaty and regulated by Annexures C, D, and E of the IWT. Under Annexure C, India can make unlimited use of the western rivers for irrigation purposes subject to the limitations mentioned in the Annexure itself. The Annexure corresponds to Annexure B, which allows Pakistan to draw water from the eastern rivers for irrigation purposes. Annexure E pertains to the construction of storage works by India along the western rivers. Annexure D pertains to the generation of hydroelectric power by India using the western rivers. India claims that its construction of varying dams and barrages in the past and currently in progress are consistent with the provisions of IWT. However, Pakistan's concerns go beyond the technical confines of the treaty, rather it is against the upstream manipulation of water-flow which becomes more threatening with increased hydropower projects as undertaken by India.¹⁴⁶

The world-renowned water engineer, John Briscoe, addressed the threat to Pakistan by India's continuous building of dams. The Baglihar incident confirmed the fears of Pakistan when India decided to fill the dam at a time when it would harm the Pakistani farmers the most. However, the Pakistani government did not go for claims under

breach of the IWT but decided to address the matter through PIC set up under the IWT.¹⁴⁷

In the face of the extensive plans for the development of hydropower projects and dams for storage of water, the flows of Chenab River to Pakistan are negatively affected. This is particularly apparent in the dry years when, even though the water flow varies, the entitlement of India to these waters is fixed, leading to difficulties for Pakistan in dry seasons.¹⁴⁸

The IWT largely addresses engineering concerns and any mechanism for dispute resolution would also be in technical in nature and provide solutions for engineering works and water management. This brings forth the problems of security concerns faced by Pakistan, which are by their very nature extraneous to the treaty.¹⁴⁹ The purpose of the treaty is not to ensure every single right that Pakistan or India may have against one another, but only to confirm the rights that have been created by the IWT itself.

The failure of the IWT in laying down general principles that might govern the two states, and focusing upon the fixed usage and quantity of the use of water, inadvertently leads to the problem of a stagnant and inflexible treaty. With varying needs of both countries, shifts in prioritising the use of water and ever-developing principles of international law, the problems that have surfaced and are likely to surface prove this point amply. Even the highly technical nature of the IWT makes its interpretation difficult by anyone other than those equipped with knowledge of engineering, making this not a legal but a technical solution to the problem.¹⁵⁰

Conclusion and Recommendations

Pakistan has rights under the IWT that are only limited in nature and not fully representative of its current concerns. Although Pakistan may have rights under CIL, the PCA expressly noted that it did not have the jurisdiction to enforce them, rather was 'prohibited' to do so, unless the principles of CIL were used to interpret the treaty and

not surpass it. This clearly shows that even if the IWT is interpreted in light of CIL, the rights of Pakistan are not fully ensured due to the *sui generis* provisions of the IWT.

However, when it comes to rights, as secured under CIL, the rights of Pakistan also amount to the rights of India. CIL does not impose specific obligations upon downstream or upstream riparian states with respect to their geographical placement, rather the obligations are imposed on states collectively sharing a basin, i.e., India and Pakistan would both share reciprocal rights and obligations.¹⁵¹ Hence, the incorporating of CIL in an updated and revised treaty would be beneficial for both Pakistan and India. It would secure the rights of both states and ensure the goodwill essential for their mutual cooperation in this area.

India has also shown its willingness to cooperate with co-riparian states in the past.¹⁵² The absence of India to cooperate with Pakistan will impliedly mean that it has consented to the same treatment from China, Bhutan, and Nepal.¹⁵³ The Indian National Water Mission, 2011, with respect to the Indus Basin specifically encourages conflict management. Paragraph 3.18 of the Mission on conflict management in international basins states:

For the Indus basin, without disturbing the present arrangements, international cooperation towards a more optimum use of the basin under increased stress due to reducing resources, growing demands, and impaired ecology, needs to be promoted.¹⁵⁴

This shows the acknowledgement of India of the importance to enter into further cooperation with respect to the Indus Basin with Pakistan and China. In the Plan of Action within the National Water Mission,¹⁵⁵ it is recommended that possibilities for optimised Indus development be discussed with Pakistan.¹⁵⁶

It has been observed that the IWT is a sub-optimal treaty,¹⁵⁷ giving Pakistan the right to restricted use over the eastern rivers, and absolute use of western rivers, and *vice versa* for India.¹⁵⁸ This physical division ignores the CIL obligation to protect and preserve the Indus Basin in both states,¹⁵⁹ and hence, should be revised by India and Pakistan.¹⁶⁰ The Indus Basin should be utilised and protected by both states in a manner that may ensure its protection for future generations, as opposed to exploiting it to the fullest against competing uses of one another.¹⁶¹

Article 9 of the IWT provides that consultations are to be conducted when the treaty is to be interpreted or applied. There should be an additional mechanism of consultations when the treaty may be silent on a matter, but the rights and interests of either party are at stake. This would be more in line with CIL, as compared to the current scheme of consultations in IWT.

It would be advisable for Pakistan to have an institutional framework in the treaty that would ensure periodical revision of rights of both states *vis-à-vis* the Indus Basin. In light of the growing needs of both states and stressed resources shared by both, such a mechanism would prove to be vital for the future.

The dispute resolution mechanism, as discussed, is non-hierarchical in the IWT. This is particularly important in light of the restricted jurisdiction of the Permanent Court of Arbitration (PCA) and the lack of legal knowledge of the neutral expert. The International Court of Justice (ICJ) should not be approached for this matter for two reasons: the first being that this will undermine the cooperative spirit of goodwill, which is essential under CIL,¹⁶² as well as an integral part of the IWT,¹⁶³ second, because India has made a declaration with respect to the jurisdiction of the ICJ, which excludes the ICJ's jurisdiction over India in matters of interpretation of treaties.¹⁶⁴ Hence, matters of interpretation of the IWT cannot be taken to the ICJ. Hence, the dispute resolution mechanism should be revised, so as to ensure that

the final and binding decision, when referred to an expert, is rendered by someone who is well-versed with the law applicable to both states and is free to apply CIL in addition to the IWT.

Lastly, it is recommended that legal and water resource experts be engaged to develop a specific and focused narrative of Pakistan against India. Pakistan also shares the Kabul River Basin with the upper riparian, Afghanistan. In the absence of an agreement with Afghanistan, Pakistan has rights against it, and *vice versa* under CIL. The two states have contemplated entering into agreements before, albeit unsuccessfully. Attempting the same feat again will be beneficial for both, India and Pakistan.¹⁶⁵

Notes and References

- ¹ As was suggested by Undala Alam in her review of this case study (personal communication, October 30, 2006) "The provincial governments of Punjab and Sind developed their irrigation independently and in direct competition of one another. This was long before the 1935 Act made water a provincial responsibility. There were two commissions (Anderson and Rau) set up to resolve the Punjab-Sind dispute, neither of which were ultimately successful."; Undala Zafar Alam, *Water Rationality: Mediating the Indus Waters Treaty* (DPhil Thesis, University of Durham 1998).
- ² That is, the water flows from India into Pakistan vis-à-vis the Indus basin.
- ³ Raja Nazakat Ali, *Indus Water Treaty: A Geo Political Study* (DPhil thesis, University of Kashmir 2013), 90.
- ⁴ Asma Yaqoob, "Climate Change and Institutional Capacity in the Indus Basin" (2016-2017) *Quarterly Journal of the Institute of Regional Studies*, Vol. XXXV, No. 1; Muhammad Faheem and Asghar Khan, "Water Security in South Asia: Challenges and Prospects" (2018) *Regional Studies*, 36:3.
- ⁵ *Indus Water Treaty and Managing Shared Water Resources for the Benefit of Basin States – Policy Issues and Options'* (2010) IUCN <http://cmsdata.iucn.org/downloads/pk_ulr_d1_2.pdf> accessed 27 April 2017.
- ⁶ Shaheen Akhtar, "Emerging Challenges to Indus Water Treaty, Issues of Compliance and transboundary impacts of Indian hydroprojects on the Western Rivers" (2010) *Regional Studies*, Vol. XXVIII, No.4, Autumn 2010, pp.3-66.
- ⁷ Asma Yaqoob, "Climate Change and Institutional Capacity in the Indus Basin" (2016-2017) *Quarterly Journal of the Institute of Regional Studies*, Vol. XXXV, No. 1; Muhammad Faheem and Asghar Khan, "Water Security in South Asia: Challenges and Prospects" (2018) *Regional Studies*, 36:3.
- ⁸ Muhammad Faheem and Asghar Khan, "Water Security in South Asia: Challenges and Prospects" (2018) *Regional Studies*, 36:3.

- ⁹ The Indus Waters Treaty 1960 (India-Pakistan) (signed 19 September 1960, entered into force 12 January 1961) 6032 UNTS 125 (hereinafter IWT), Annex A.
- ¹⁰ Inter-tributary transfer, also known as trans-basin diversion.
- ¹¹ The IWT, Annex D Para 15 (iii); *Indus Waters Kishenganga Arbitration (Pakistan v India)* (2013) ICGJ 478.
- ¹² Arshad H. Abbasi, "Indus Water Treaty between Pakistan and India" (2012) PILDAT Position Paper 1/2012, 11 <http://www.pildat.org/publications/publication/FP/IndusWaterTreatybetweenPakistanAndIndia_PakIndiaDialogueIII.pdf> accessed 27 April 2017.
- ¹³ Abbasi, "Indus Water Treaty between Pakistan and India."
- ¹⁴ Arshad H. Abbasi, 'Indus Water Treaty between Pakistan and India' (2012) PILDAT Position Paper 1/2012, 11 <http://www.pildat.org/publications/publication/FP/IndusWaterTreatybetweenPakistanAndIndia_PakIndiaDialogueIII.pdf> accessed 27 April 2017.
- ¹⁵ Preety Bhogal and Katarzyna Kaszubska, "The Case Against Weaponising Water," (2017) ORF Issue Brief 1/2017 <<http://www.orfonline.org/research/the-case-against-weaponising-water/>> accessed 27 April 2017.
- ¹⁶ Ibid.
- ¹⁷ International law defines the legal responsibilities of States in their conduct with each other, and their treatment of individuals within State boundaries; See 'Uphold International Law' (*United Nations*, 30 April 2017) <<http://www.un.org/en/sections/what-we-do/uphold-international-law/>> accessed 30 April 2017.
- ¹⁸ See Andre da Rocha Ferreira et.al., *Formation and Evidence of Customary International Law* (2013) 1 UFRGS MUNJ 182.
- ¹⁹ Vienna Convention on the Law of Treaties (adopted 23 May 1969, entered into force 27 January 1980) 1155 UNTS 331 (hereinafter Vienna Convention), art 26.
- ²⁰ Charter of the United Nations and Statute of the International Court of Justice (adopted 24 October 1945) 1 UNTS 16, Statute of the International Court of Justice, art 38.
- ²¹ India and Pakistan were separated via the Independence Act, 1947.
- ²² These are law-making treaties, as opposed to *traits-contrats* (contractual treaties).

- 23 Raja Nazakat Ali, *Indus Water Treaty: A Geo Political Study* (DPhil thesis, University of Kashmir 2013), 90.
- 24 Ibid., 90.
- 25 Alam, *Water Rationality: Mediating the Indus Waters Treaty*.
- 26 The upper Bari Doab Canal and the Dipalpur Canal; Undala Zafar Alam, *Water Rationality: Mediating the Indus Waters Treaty* (DPhil Thesis, University of Durham 1998).
- 27 Alam, *Water Rationality: Mediating the Indus Waters Treaty*, 63.
- 28 Asma Yaqoob, "Climate Change and Institutional Capacity in the Indus Basin."
- 29 Alam, *Water Rationality: Mediating the Indus Waters Treaty*.
- 30 Ibid.
- 31 Inter-Dominion Agreement, Between the Government of India and the Government of Pakistan, on the Canal Water Dispute Between East and West Punjab (India-Pakistan) (signed 4 May 1948), 794 UNTS 45 (hereinafter Delhi Agreement).
- 32 Delhi Agreement.
- 33 Ibid.
- 34 Seigniorage charges were taken by Punjab from Bikaner state for supply of water and maintenance costs for Ferozepur headworks; Alam, *Water Rationality: Mediating the Indus Waters Treaty*.
- 35 Ariel Dinar and others, *Bridges over Water: Understanding Transboundary Water Conflict, Negotiation and Cooperation* (United States, World Scientific Publishing Co. Inc. 2013) 270.
- 36 Alam, *Water Rationality: Mediating the Indus Waters Treaty*.
- 37 The then Finance Minister, Ghulam Mohammad, later claimed that the agreement had been signed without allowing the representatives to change 'a word or a comma', as a condition for restoring the flow of water. Attempts were made to take this dispute to the ICJ, but India did not submit to the jurisdiction of the ICJ. Pakistan tried to unilaterally declare the agreement void and expired, but India resisted this contention. In 1950, Pakistan stopped depositing the amount in the Reserve Bank in hopes of entering into a negotiation with India. The flow of water was not stopped by India in result of this halt in payments, but it continued to demand the full payments from Pakistan. See Chaudhri Muhammad Ali, *The Emergence of Pakistan* (Pakistan, RSP 1973).

- 38 The IWT, Annex A.
- 39 Failures to refer the matter to arbitration, failure to refer the matter to ICJ, failure to reach a solution which was conducive to both parties; Undala Zafar Alam, *Water Rationality: Mediating the Indus Waters Treaty* (DPhil Thesis, University of Durham 1998).
- 40 Former Chairman of Tennessee Valley Authority, Tennessee (US) and interested in India because its possible importance to the US, visited the sub-continent in 1951
- 41 Both India and Pakistan had applied to the World Bank for loans.
- 42 Alam, *Water Rationality: Mediating the Indus Waters Treaty*.
- 43 Ibid.
- 44 Ibid.
- 45 Ariel Dinar and others, *Bridges over Water: Understanding Transboundary Water Conflict, Negotiation and Cooperation* (United States, World Scientific Publishing Co. Inc. 2013) 270.
- 46 Alam, *Water Rationality: Mediating the Indus Waters Treaty*.
- 47 Ibid.
- 48 Ibid.
- 49 Because Pakistan was relying on international law and trying to approach international organizations such as the ICJ and ILC, India engaged Berber to develop her counter-narrative. Friedrich Berber explored the principle of community property in his writings, concluding that any disposition over a transnational river would require cooperation of all the states who share the watercourse. No state can unilaterally dispose of or claim the waters of a jointly shared river. However, Berber also argued in favor of the Harmon doctrine for a time before taking this view in his book 'rivers in international law'.
- 50 Alam, *Water Rationality: Mediating the Indus Waters Treaty*.
- 51 Ibid.
- 52 Ibid.
- 53 Ibid.
- 54 Salman M.A. Salman, "The Baglihar Difference and its Resolution Process – a triumph for the Indus Waters Treaty" (2008) 10 WP 105.
- 55 Ali, *Indus Water Treaty: A Geo Political Study*, 90.

- ⁵⁶ Salman, "The Baglihar Difference and its Resolution Process – a triumph for the Indus Waters Treaty."
- ⁵⁷ Ibid.
- ⁵⁸ Alam, *Water Rationality: Mediating the Indus Waters Treaty*.
- ⁵⁹ The IWT, art. 1 (5).
- ⁶⁰ The IWT, art. 2 (1): 'unrestricted use of India'. Once the waters cross the boundary into Pakistan, Pakistan may use them unrestrictedly, but it cannot make claims from India to release water with respect to the eastern rivers (see art. 2(4)). However, Pakistan cannot acquire rights over the use of these rivers by means of prescription and depends upon India for the releases it makes, if any, in the eastern rivers (see art. 2(9)).
- ⁶¹ The IWT, art. 1 (6).
- ⁶² The IWT, art. 3 (1): 'unrestricted use' of the waters of western rivers by Pakistan, and India is under obligation to let these flow into the territories of Pakistan (Art. 3(2)). India shall not allow interference (withdraw or obstruct- Art. 1 (15)) with the western rivers in its territory and let them flow into Pakistan, except for domestic use, non-consumptive use, agricultural use and generation of hydro-electric power (see Art. 3 (2)).
- ⁶³ Alam, *Water Rationality: Mediating the Indus Waters Treaty*.
- ⁶⁴ Ibid.
- ⁶⁵ Ibid.
- ⁶⁶ Ibid.
- ⁶⁷ The IWT, Art. 5 deals with financial provisions.
- ⁶⁸ The IWT, Art. 5 (7).
- ⁶⁹ The IWT, Art. 6.
- ⁷⁰ The IWT, Art. 6 (2).
- ⁷¹ The IWT, Art. 7(1).
- ⁷² The IWT, Art. 7 (1) (c).
- ⁷³ The IWT, Art. 7 (2).
- ⁷⁴ The IWT, Art. 7(2).
- ⁷⁵ Ariel Dinar and others, *Bridges over Water: Understanding Transboundary Water Conflict, Negotiation and Cooperation* (United States, World Scientific Publishing Co. Inc. 2013) 270.

- ⁷⁶ The IWT, Art. 8 (1) (a).
- ⁷⁷ The IWT, Art. 8 (1) (b).
- ⁷⁸ The IWT, Art. 8 (4).
- ⁷⁹ 'Questions' arise at the first instance under the IWT, which are resolved through PIC and mutual agreement. Thereafter, if questions cannot be resolved, then they amount to 'differences', which, if fall within the purview of Part I of Annexure F, then they are to be referred to a Neutral Expert. Differences falling under Part II of Annexure F can be dealt with by the PIC, or by Neutral Expert, if referred by the PIC. If differences cannot be resolved through Neutral Expert (i.e. in his opinion the difference amounts to a 'dispute'), or if they do not fall within the purview of Annexure F, then they are treated as 'disputes'. Disputes are to be resolved through negotiations or mediations, or through a Court of Arbitration, should the governments deem arbitration better than negotiations or if such negotiations or mediations fail; See IWT, Art 9, Annex F and Annex G.
- ⁸⁰ The IWT, Art. 9 (5).
- ⁸¹ Salman, "The Baglihar Difference and its Resolution Process – a triumph for the Indus Waters Treaty," 105.
- ⁸² Mian Ahmad Naeem Salik, "A New Round of Water Talks between Pakistan – India" (2017) Institute of Strategic Studies Issue Brief 1/2017 <http://issi.org.pk/wp-content/uploads/2017/03/Final_IB_Ahmad_Salik_dated_28-03-2017.pdf> accessed 27 April 2017.
- ⁸³ "Fact Sheet: The Indus Waters Treaty 1960 and the World Bank" (*The World Bank*, 24 January 2017) <<http://www.worldbank.org/en/region/sar/brief/fact-sheet-the-indus-waters-treaty-1960-and-the-world-bank>> accessed 1 May 2017.
- ⁸⁴ Ibid.
- ⁸⁵ Anwar Iqbal, "World Bank Pauses Arbitration in Water Dispute," *Dawn*, 14 December 2016. <<https://www.dawn.com/news/1302223>> accessed 27 April 2017; "Fact Sheet: The Indus Waters Treaty 1960 and the World Bank."
- ⁸⁶ Salman, 'The Baglihar Difference and its Resolution Process – a triumph for the Indus Waters Treaty.'
- ⁸⁷ The IWT, Annex G, para 23.
- ⁸⁸ A complete action in no need of revision.

- 89 Salman, "The Baglihar Difference and its Resolution Process – a triumph for the Indus Waters Treaty."
- 90 "Blood and water cannot flow together: PM Modi at Indus Water Treaty meeting" *IENation* (India, 27 September 2016) <<http://indianexpress.com/article/india/india-news-india/indus-water-treaty-blood-and-water-cant-flow-together-pm-modi-pakistan-uri-attack/>> accessed 27 April 2017.
- 91 The IWT, Art 12 (4).
- 92 The IWT, Art 12 (3).
- 93 Vienna Convention.
- 94 *For Example*, the principle of *rebus sic stantibus* (fundamental change of circumstances) in Article 62 of Vienna Convention. The test for invoking this principle, however, is very rigorous and cannot be invoked for the IWT; See Ijaz Hussain, *Political and Legal Dimensions: Indus Waters Treaty* (Oxford, OUP 2017) 364-368; Vienna Convention, Part 5.
- 95 *Case Concerning Kasikili/Sedudu Island (Botswana v Namibia)* (Merits) [1999] ICJ Rep 1045.
- 96 The Vienna Convention has not been ratified by India while Pakistan is a signatory to it; See 'Depositary' (*United Nations Treaty Collection* 27 April 2017) <https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXIII-1&chapter=23&Temp=mtdsg3&lang=en> accessed 27 April 2017.
- 96 Vienna Convention, Part 5.
- 97 Raymond Lafitte, 'Baglihar Hydroelectric Plant: Expert Determination – Executive Summary' (12 February 2007) <<http://siteresources.worldbank.org/SOUTHASIAEXT/Resources/223546-1171996340255/BagliharSummary.pdf>> accessed 27 April 2017.
- 98 *North Sea Continental Shelf Cases (Federal Republic of Germany v Netherlands)* (Judgment) [1969] ICJ Rep 3.
- 99 Prof. Raymond Lafitte, 'Baglihar Hydroelectric Plant: Expert Determination – Executive Summary' (12 February 2007) <<http://siteresources.worldbank.org/SOUTHASIAEXT/Resources/223546-1171996340255/BagliharSummary.pdf>> accessed 27 April 2017.
- 100 Vienna Convention, Art 26.

- 101 Vienna Convention, pr.
- 102 *Case Concerning the Gabčíkovo-Nagymaros Project (Hungary v Slovakia)* (Merits) [1997] ICJ Rep 7.
- 103 *Case Concerning Pulp Mills on the River Uruguay (Argentina v Uruguay)* (Merits) [2010] ICJ Rep 14.
- 104 *Indus Waters Kishenganga Arbitration (Pakistan v India)* (2013) ICGJ 478.
- 105 A. G. Noorani, 'Law of the Indus' *Dawn* (Pakistan, 23 March 2017) <<https://www.dawn.com/news/1290031>> accessed 27 April 2017; IWT, art 12 (4).
- 106 Ahmer Bilal Soofi, "Filling the Missing Gaps in the Indus Water Treaty" [2016] IP 1; Ijaz Hussain, *Political and Legal Dimensions: Indus Waters Treaty* (Oxford: OUP, 2017).
- 107 Anwar Iqbal, 'Pakistan not to accept alterations in Indus Waters Treaty' *Dawn* (Pakistan, 17 December 2016) <<https://www.dawn.com/news/1302848>> accessed 1 May 2017.
- 108 The IWT, Art. 11 (1)(a).
- 109 The IWT, Art. 11 (1) and (2).
- 110 Soofi, 'Filling the Missing Gaps in the Indus Water Treaty,' Hussain, *Political and Legal Dimensions: Indus Waters Treaty*.
- 111 Ali, *Indus Water Treaty: A Geo Political Study* (DPhil thesis, University of Kashmir 2013), 90.
- 112 Lafitte, "Baglihar Hydroelectric Plant: Expert Determination – Executive Summary."
- 113 Salik, "A New Round of Water Talks between Pakistan – India."
- 114 Iqbal, "World Bank Pauses Arbitration in Water Dispute"; "Fact Sheet: The Indus Waters Treaty 1960 and the World Bank."
- 115 Lafitte, "Baglihar Hydroelectric Plant: Expert Determination – Executive Summary."
- 116 Ibid.
- 117 The Vienna Convention has not been ratified by India while Pakistan is a signatory to it; See 'Depositary' (*United Nations Treaty Collection* 27 April 2017) <https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXIII-1&chapter=23&Temp=mtdsg3&lang=en> accessed 27 April 2017.

- ¹¹⁸ Salman, *The World Bank Policy for Projects on International Waterways: An Historical and Legal Analysis* (LJDS, The World Bank 2009); Ref. from Article 31-32 of Vienna convention on law of treaties
- ¹¹⁹ *Case Concerning Pulp Mills on the River Uruguay (Argentina v Uruguay)* (Merits) [2010] ICJ Rep 14.
- ¹²⁰ Salman, *The World Bank Policy for Projects on International Waterways: An Historical and Legal Analysis*.
- ¹²¹ Lafitte, "Baglihar Hydroelectric Plant: Expert Determination – Executive Summary."
- ¹²² Salman, *The World Bank Policy for Projects on International Waterways: An Historical and Legal Analysis*.
- ¹²³ Civil Engineer, Professor at Swiss Federal Institute of Technology of Lausanne, Chairman of the Committee on the Governance of Dam Projects of the International Commission on Large Dams (ICOLD) and former Vice President of ICOLD.
- ¹²⁴ Abbasi, "Indus Water Treaty between Pakistan and India."
- ¹²⁵ Ibid.
- ¹²⁶ *Case Concerning the Gabčíkovo-Nagymaros Project (Hungary v Slovakia)* (Merits) [1997] ICJ Rep 7.
- ¹²⁷ *Indus Waters Kishenganga Arbitration (Pakistan v India)* (2013) ICGJ 478.
- ¹²⁸ Ibid., Para 81.
- ¹²⁹ Ibid., Para 84.
- ¹³⁰ Ibid., Para 84.
- ¹³¹ Ibid., Para 84.
- ¹³² *Case Concerning the Gabčíkovo-Nagymaros Project (Hungary v Slovakia)* (Merits) [1997] ICJ Rep 7.
- ¹³³ *Indus Waters Kishenganga Arbitration (Pakistan v India)* (2013) ICGJ 478, Para 85.
- ¹³⁴ Ibid.; *Case Concerning Pulp Mills on the River Uruguay (Argentina v Uruguay)* (Merits) [2010] ICJ Rep 14; *Certain Activities Carried out by Nicaragua in the Border Area (Costa Rica v Nicaragua)* (Merits) [2015] ICJ Rep 1; *Iron Rhine Arbitration (Belgium v Netherlands)* (2005) ICGJ 373.

- ¹³⁵ *Case Concerning Pulp Mills on the River Uruguay (Argentina v Uruguay)* (Merits) [2010] ICJ Rep 14.
- ¹³⁶ *Indus Waters Kishenganga Arbitration*, Para 112.
- ¹³⁷ Ibid.
- ¹³⁸ Ibid.
- ¹³⁹ Ibid.
- ¹⁴⁰ Ibid.
- ¹⁴¹ The IWT, Annex G.
- ¹⁴² The IWT, Art. 38.
- ¹⁴³ IWT, Annex G.
- ¹⁴⁴ Soofi, "Filling the Missing Gaps in the Indus Water Treaty"; Hussain, *Political and Legal Dimensions: Indus Waters Treaty*.
- ¹⁴⁵ The IWT, Art 3.
- ¹⁴⁶ Soofi, "Filling the Missing Gaps in the Indus Water Treaty"; Hussain, *Political and Legal Dimensions: Indus Waters Treaty*."
- ¹⁴⁷ 'Beyond Indus Water Treaty: Ground Water and Environmental Management – Policy Issues and Options' (2010) IUCN <https://cmsdata.iucn.org/downloads/pk_ulr_d2.pdf> accessed 27 April 2017.
- ¹⁴⁸ Ibid.
- ¹⁴⁹ Soofi, "Filling the Missing Gaps in the Indus Water Treaty"; Hussain, *Political and Legal Dimensions: Indus Waters Treaty*.
- ¹⁵⁰ Ali, *Indus Water Treaty: A Geo Political Study*, 90.
- ¹⁵¹ See Chapter 3.2.
- ¹⁵² See Chapters 2 and 3.
- ¹⁵³ See Chapter 2.1.2.
- ¹⁵⁴ National Water Mission 2011 (Ind), para 3.18. (a).
- ¹⁵⁵ Ibid., para 2.1.
- ¹⁵⁶ Ibid., para 2.1, Table F (iii).
- ¹⁵⁷ See Chapter 1.2.1.2.
- ¹⁵⁸ The IWT, Art 2 and 3.
- ¹⁵⁹ See Chapter 3.6.
- ¹⁶⁰ Hamid Sarfraz 'Revisiting the 1960 Indus Waters Treaty' (2013) 38 WI 204.
- ¹⁶¹ Ibid.
- ¹⁶² See Chapter 3.3.

¹⁶³ The IWT, Preamble.

¹⁶⁴ 'Declarations Recognizing the Jurisdiction of the Court as Compulsory' (*International Court of Justice*, 7 May 2017) <<http://www.icj-cij.org/jurisdiction/?p1=5&p2=1&p3=3&code=IN>> accessed 7 May 2017; Also See *Case Concerning the Aerial Incident of 10 August 1999 (Pakistan v India)* (Jurisdiction) [2000] ICJ Rep 12.

¹⁶⁵ Sardar Muhammad Tariq, *Pakistan Water Security Dilemma – Approaches To Rejuvenating The Indus Water Treaty* (Margalla Papers, Special Edition, 2011) 63.