Chapter 5
The Indus Waters Treaty: Modernizing the Normative Pillars to Build a More Resilient Future

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Abstract While the fact that, despite their strained relations, India and Pakistan managed to negotiate the Indus Waters Treaty (IWT) has been widely celebrated as a success, tensions concerning how to share the water resources of the Indus are rising again. The apparent mismatch between analysis and reality is due to the fact that, so far, most scholars have asked the wrong questions when it comes to water security, international law, and the obligation to cooperate. This chapter will introduce a contemporary understanding of water security which goes beyond the narrow state-centered zero-sum game debate and provides a platform for various disciplines to engage in strengthening cooperation over shared waters. This novel lens will then be applied to analyze the legal framework governing the utilization of the Indus. Can the concept of common concern for water security actually be implemented through the IWT? In marrying security studies with international law, potential futures for the legal framework governing the Indus will be illustrated. It is hoped that this chapter will shine a new light on the question whether the IWT is up to the task of providing water security by building a more resilient future for the basin and whether international law has a role to play in bringing about Industan.

Keywords Indus Waters Treaty • International law • Treaty interpretation • Common concern • Duty to cooperate

5.1 Introduction

Very few challenges have the potential to create as much friction between states as the allocation and utilization of freshwater resources which cross international boundaries. The various simmering water-related conflicts around the world – like Egypt's difficult relationship with Ethiopia on the Nile (Abseno 2013; Zhang et al.

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2015), the dispute over a more equitable distribution of water in the Middle East (Fröhlich 2012; Weinthal et al. 2015), or the highly contentious region of Himalayan Asia (Wirsing et al. 2013; Magsig 2015b) – bear witness to the fact that water, the gossamer linking various other security concerns, has acquired an independent status within the security discourse (Wouters et al. 2009). Just as the concept of security has gone through a widening and deepening process, so has the perception of water security (Magsig 2014). The approach of addressing water security merely as a nation's internal affair of securing its access to a continuous supply of freshwater is untenable in today's interrelated world. This is particularly true for the Indus basin, where the co-riparians have struggled to create an environment of fruitful cooperation.

While India, as a regional hegemon and riparian country of the river basins of Brahmaputra, Ganga, and Indus, has recently been in disagreement over freshwater sharing with several of its neighbors (Taenzler et al. 2011), the most prominent dispute is between India and Pakistan over the Indus, which is the bloodstream of Pakistan's economic (textile industry) and food security. Relations between the two neighbors have always been highly tense, since "India and Pakistan were born to conflict" (Wolpert 2010); and thus, it does not come as a surprise to hear even more of the "water wars" propaganda here (Mandhanda 2012). It has been argued that the general perception that India is threatening the survival of Pakistan simply by "cutting off" the waters of the Indus raises the potential of Pakistan using nuclear weapons as a last resort (Brennan 2008).

However, the two countries did manage to negotiate a water agreement despite their strained relations. While the Indus Waters Treaty (Treaty between India and Pakistan Regarding the Use of the Waters of the Indus 1960) has been widely celebrated as a success for putting an end to the water woes between India and Pakistan (Khalid 2004), tensions concerning how to share the water resources of the Indus are rising again. The apparent mismatch between analysis and reality is due to the fact that, so far, most scholars have asked the wrong questions when it comes to water security and international law. In this chapter, it will be demonstrated that a contemporary understanding of water security goes beyond the narrow state-centered zero-sum game debate and provides a platform for various disciplines to engage in strengthening cooperation over shared waters. This novel lens will then be applied to analyze the legal framework governing the utilization of the Indus – of which the Indus Waters Treaty constitutes the cornerstone. In marrying security studies with international law, potential futures for the legal framework governing the Indus will be illustrated. It is hoped that this chapter will shine a new light on the question whether the Indus Waters Treaty is up to the task of providing water security and whether international law has a role to play in bringing about Industan.

5.2 Water Security and International Law

The crosscutting nature of water creates global interdependencies which make solutions to the water scarcity crisis highly complex, as water cooperation cannot be separated from global trends and drivers outside the "water box." Here, international law can and should provide the normative content, as it (1) defines and identifies the legal rights and obligations regarding the use of water and provides the prescriptive parameters for the management of the resource, (2) provides tools for ensuring the continuous integrity of the regime (including dispute prevention and settlement), and (3) allows for modifications of the existing regime, in order to be able to accommodate change (Wouters et al. 2009).

5.2.1 Water Security Through a Legal Lens

When analyzing the emerging global water crisis, one soon realizes that the past may not be an adequate basis from which to make predictions about the possibility of future conflicts over water. This is why, based on a pessimistic neo-Malthusian outlook (Homer-Dixon 1994), the notion of "water wars" got traction – not only in the media (Chellaney 2011). Cornucopians, in contrast, draw a rather optimistic picture of the future, which they build around the argument that the water crisis is a crisis of management rather than one of absolute scarcity (Gleditsch 1998). In their view, it will be resolved by anthropogenic means, like international trade in "virtual" water, economic development, and investment in new infrastructure (Allan 2002; Barnaby 2009). This passionate water war vs. water peace debate often misses a crucial point: Even if the future international conflicts over water are not likely to lead to fully fledged wars, strengthening cooperation between the riparian states will still help alleviate the water crisis. The fact that every year more than 3.5 million people die because of poor water, sanitation, and hygiene – far more than by all the ongoing wars combined – clearly suggests the need for a wider approach to water security than the narrow military one (Schuster-Wallace et al. 2008). Even if disagreement between riparian states over the allocation and utilization of their transboundary freshwater resources may not always pose a direct military threat, it nonetheless has the potential to destabilize societies in a world which – in some regions – is already highly unstable (Magsig 2014). General security studies also followed this understanding with the inclusion of nonmilitary threats ("widening") and efforts to "deepen" security research (Buzan 1991). With this new approach – called human security – the individual, rather than the state, is being regarded as the chief referent object (von Tigerstrom 2007).

Furthermore, it became obvious that a new strategy addressing the drivers of insecurity by "curing the disease" rather than "fighting the symptoms" was urgently needed (Brock 2011). This is why recent research on collective and sustainable security is trying to pave the way toward a mutual understanding that security can

no longer be regarded as a zero-sum game between states – since a contemporary take on the notion unveils its "common" characteristic (Scholtz 2009; Voigt 2009). In combining sustainable security thinking with the more advanced concept of collective security – also being perceived as one of the core purposes of the UN Charter (United Nations 2004) – a promising platform for discourse is finally emerging which is capable of facilitating a meaningful debate about how to address the various security issues the international community is facing. While states are the bedrock of the international system and thus achieving collective security is impossible without being based on various perceptions of states' securities, collective security is operating somewhat "above and beyond" orthodox patterns of international relations – i.e., to add "universal moral obligations" to the table of international negotiations (Orakhelashvili 2011).

Against this backdrop, this chapter follows a broader understanding of security and regards a community to be "water secure when it has sustainable access to freshwater of sufficient quantity and quality, or to the benefits derived therefrom; and the ability to minimize water-related risk and its various repercussions to an acceptable level – without compromising the supporting ecosystems" (Magsig 2015a). This definition draws from both the widening and deepening processes of the general security debate while, at the same time, acknowledging the complexity of the global water crisis. Accordingly, the definition has several advantages over previous (mostly more restrictive) ones. Firstly, by focusing on "communities," it is scalable to the level one wants to look at water security – local, national, regional, or even global. It also acknowledges the fact that in water resource management, the overlapping of several levels of governance is the rule rather than the exception. Secondly, by including the "benefits derived" from access to freshwater and the repercussions of water-related risks, the true complexity of the water crisis is being pulled into play. Not only are we looking at access to and threats from the resource water but also the opportunities and issues linked (directly or indirectly) to it. Here, the concepts of virtual water and benefit sharing come to mind (Wouters and Moynihan 2013). Finally, by entailing undetermined parameters like "sufficient quantity and quality of freshwater" and "acceptable level of water-related risk and repercussions," the definition provides the respective community with considerable room to maneuver concerning the implementation of the concept of water security – geared to its own needs, capacities, and preferences. The relative vagueness of the concept guarantees its resilience as well as global applicability while, at the same time, it avoids becoming arbitrary (Magsig 2015a). Rather than being a somewhat constricting stipulation of the term "water security," it aims at providing a platform for stimulating discourse.

Yet, in order to be able to analyze international legal regimes, this definition needs to be fleshed out further. Earlier work has developed an analytical framework for examining international law through a water security lens by focusing on issues of (1) availability. (2) access, (3) adaptability, and (4) ambit (Magsig 2009). Issues of availability relate to concerns of water quality as well as quantity. This facet deals primarily with the actual management of the resource – including its control and sustainable protection. This includes the need to maintain the natural integrity of the

freshwater resource by calling for environmental flows (Forslund et al. 2009). The element of access is central to the water security debate, as it deals with the issues revolving around the right to utilize a shared water resource. Given the complexity of cooperation over water resources, access covers a broad spectrum of concerns across the growing range and number of users and uses with regard to matters of (re) allocation. Here, the principle of equitable and reasonable utilization, the cornerstone of international water law which has reached customary status, is key to the process (Wouters et al. 2005). It determines the right of a state to use the waters of an international watercourse in two distinct ways: (1) by establishing the objective to be achieved, which then specifies the lawfulness of the new (or changed) utilization of an international watercourse, and (2) by incorporating an operational function, since it requires all relevant factors and circumstances to be taken into account when determining what exactly qualifies as an equitable and reasonable use (Rieu-Clarke et al. 2012). In order to support the obligation to weigh and balance all of the stakeholders' interests, dispute prevention and settlement mechanisms are of vital importance (Salman 2006). As, in most cases, the key factor of transboundary water cooperation is not absolute water scarcity, but rather the resilience of the institutions which govern the shared resource, a legal regime for transboundary watercourses has to include flexibility and ensure adaptability to address changing conditions – while still providing for some level of predictability (Magsig 2014). This element deals with the various uncertain variables – e.g., impacts of global environmental change, population growth, and economic development – which influence transboundary water cooperation considerably. However, most freshwater agreements are rather rigid instruments, as they can only be modified according to their own terms or by mutual agreement. Hence, if a treaty lacks flexible tools and water stress soars, disputes over the shared resource are likely to intensify in cases where one party to the agreement may find it difficult to reduce its consumption in order to comply with its legal obligations. If the water stress causes asymmetric harm, the harmed state may be eager to terminate the agreement, while the co-riparian may find it beneficial to stick with it. In this regard, the International Court of Justice (ICJ) concluded in its Gabčíkovo-Nagymaros judgment that "[…] the stability of treaty relations requires that the plea of fundamental change of circumstances be applied only in exceptional cases" (ICJ 1997). The ICJ further noted that new developments or changing conditions should be dealt with on the level of implementation of the treaty, not by simply terminating it. However, several studies come to the conclusion that many states will have to renegotiate their basin treaties in order to avoid an increase in water insecurity (Goldenman 1990).

The final element is the concept of ambit, which describes and delimits the scope of water security – i.e., the sphere of influence of the notion. In addition to the traditional (hydrological and geographical) meaning of scope, the approach here is to better reflect the common challenges of water insecurity. So far, one of the main weaknesses of water cooperation is the inability to link various influencing factors in a comprehensive manner. The extent of the breadth of objectives covered by a freshwater agreement ranges from merely quantitative agreements to much more sophisticated institutions which also govern aspects of water quality and emergency

situations. Evidently, the most effective management of transboundary watercourses, for the benefit of the whole basin, can only be achieved through a truly joint strategy involving all sectors and disciplines across borders (Magsig 2014). In addition to the predominant perception of scope, the element of ambit also does justice to the fact that water security has to be seen as a collective security issue (Magsig 2009). Owing to the interconnectedness of the globalized world and the role water plays in linking the various emerging crises, negative impacts may even be felt outside the basin. Thus, the times where water can solely be regarded as a national security issue are long gone, as one of our most fundamental common values is under threat – international peace and security. The linkages between different scales of cooperation over water (local, national, regional, and global) are fluid; and international law has to act as an interface between those layers while illustrating ways toward truly regional solutions.

5.2.2 The General Obligation to Cooperate

The question now arises how well international law accommodates this novel understanding of common water security. International environmental governance in general, and transboundary water management in particular, has long been dominated by the either/or debate on sovereignty versus the joint management of natural resources. While most states have now accepted a more nuanced interpretation of sovereignty, the debate about how sovereignty over freshwater resources should be interpreted today is still in full swing. Critically, the notion of sovereignty carries with it a responsibility to cooperate. As indicated by Article 1 of the UN Charter: "[t]he purposes of the United Nations are: […] (3) [t]o achieve international cooperation in solving international problems of an economic, social, cultural, or humanitarian character […]" (United Nations 1945). This unspecified duty to cooperate was partially clarified by the 1970 Declaration on Principles of International Law concerning Friendly Relations and Cooperation among States in accordance with the Charter of the United Nations, which stipulates that "states have the duty to co-operate with one another, irrespective of the differences in their political, economic and social systems, in the various spheres of international relations, in order to maintain international peace and security and to promote international economic stability and progress, the general welfare of nations and international co-operation free from discrimination based on such differences."

While the Declaration does not constitute binding international law, its universal recognition as a standard of conduct and perception of it as an elaboration of principles of international law give it considerable legal weight (Sands and Peel 2012). According to Judge Wolfrum, in the MOX case before the International Tribunal for the Law of the Sea, the duty to cooperate "balances the principle of sovereignty of states and thus ensures that community of interests are taken into account vis-à-vis individualistic state interests. It is the matter of prudence and caution as well in keeping with the overriding nature of the obligation to cooperate that the parties

should engage therein […]" (International Tribunal for the Law of the Sea 2001). It follows that there is a need to ultimately arrive at a stage where the concept of state sovereignty is understood as one of "cooperative sovereignty" (Perrez 2000). This necessity becomes particularly blatant when addressing the difficulty of managing common pool resources, where the collective action problem leads to unsatisfactory outcomes (Hardin 1968). Rather than treating sovereignty as a stumbling block in international negotiations – due to its apparent incompatibility with relinquishing freedoms and making concessions – acknowledging that the responsibility to cooperate is a key element of sovereignty itself seems to be a more promising strategy in addressing the tragedy of the commons (Schreuer 2002; Delbrück 2012). Hence, international law should provide a path for moving from "sovereignty as independence" to "sovereignty as interdependence."

In the arena of international water law, the general obligation to cooperate contains the procedural duties of prior information and of prior consultation, which aim to operationalize the rather vague principle. Yet, it still leaves a lot to be desired when it comes to fundamentally changing the way states perceive their national sovereignty over freshwater resources. One shortcoming of international water law is that states still have much discretion with regard to the particular means of cooperation. The setting up of joint institutions, for instance, is not compulsory, even though their immense benefit for transboundary freshwater management has long been proven (Schmeier 2013).

5.2.3 Regional Common Concern for Water Security

In order to strengthen the obligation to cooperate over shared freshwater resources, international law has to be developed further. The urgency to act jointly on more issues which bar unilateral action – like the management of transboundary freshwater resources – has led to the understanding of common security and revealed the limits of the current international legal regime. Earlier work has addressed the question as to how communality has been treated in international environmental law and what lessons can be learned for international water cooperation (Magsig 2014). While some approaches are too limited as they only apply to certain geographical areas beyond national jurisdictions and their resources (common area and common heritage), the notion of common concern appears to be the most promising in tackling issues of water security.

At the 1992 UN Conference on Environment and Development, a global framework for environmental responsibilities was designed which, for the first time, was based on a common concern, rather than the concept of good neighborliness (Birnie et al. 2009). This concern is based on the understanding that some kind of harm to the environment has the potential to adversely affect humanity as a whole; and thus, mitigating those impacts can only be achieved effectively if the international community in its entirety is involved. Acknowledging this position carries with it both a right and an obligation of the international community as a whole to have concern

for the global environment (IUCN Commission on Environmental Law and International Council of Environmental Law 2010). Both treaties negotiated in 1992 in Rio – the UN Framework Convention on Climate Change (UNFCCC) and the Convention on Biological Diversity (CBD) – follow this approach. In its preamble, the CBD states that "the conservation of biological diversity is a common concern of humankind […]." While it lacks strong procedural support, the inclusion of common concern does ensure that the loss of biodiversity is being acknowledged as a major issue which the international community has to address on a common basis. However, this does not compensate for the shortcomings of the Convention – for instance, not extending state responsibility for extraterritorial harm to damage caused to the global commons (Guruswamy 1999). While the UNFCCC, which also features the concept of common concern in its preamble, kick-started a process of legal and political engagement to address global climate change, it too failed to overcome the state-centrism of the governance system, which ultimately led to watered-down obligations in weak agreements which were "designed to mask the political failure of the international community to create a global climate treaty" (Dimitrov 2010).

The Draft International Covenant on Environment and Development (2010) tried to redeem the concept's reputation, which was seemingly damaged by the two conventions' failing to implement it. Article 3 of the Covenant stipulates that "[t]he global environment is a common concern of humanity and under the protection of the principles of international law, the dictates of the public conscience and the fundamental values of humanity." According to the commentary, the concept should be interpreted as "the basis upon which the international community at all levels can and must take joint and separate action to protect the environment" (IUCN Commission on Environmental Law and International Council of Environmental Law 2010). In urging that not only single issues, like climate change or the loss of biodiversity, should be treated as being of common concern to the international community but also the environment as a whole, it constitutes a departure from previous approaches to common concern (Magsig 2015a). Given its lack of legitimacy, though, the Covenant has attracted only little attention among international legal scholars, despite it having breathed new life into the debate about communality in international law.

However, even in its embryonic stage, the concept of common concern is of particular interest to the advancement of international water law. Although its focus lies again on (common) benefits, it considers the benefits from common action rather than those derived from the mere exploitation of a resource (Brunnée 2007). Moreover, it fixes its attention on what renders a concern as being common, rather than targeting one particular area or resource, and thus avoids discussions about common property and territorial sovereignty (Magsig 2015a). One of its main advantages over other approaches to communality is that it triggers a shift from the orthodox reciprocity and material benefit sharing we often find in treaties of joint action in the long-term interest of the community (IUCN Commission on Environmental Law and International Council of Environmental Law 2010). Yet, the weaknesses of the notion are evident in the UNFCCC and the CBD, both facing

difficulties in achieving strong legal impact with regard to the common concern at the level the conventions are intended to have an impact on – the global one. This is mainly due to the difficulties in phrasing a global set of values and interests which is detached from the individual interests of states. Even though, given the magnitude of the global water crisis, it should not be impossible to construct for transboundary freshwater cooperation an analogous mindset to the loss of biodiversity or climatic changes, the complexity of water security renders it impossible to agree on a perception of water security as a common concern of humankind (Magsig 2015a). Hence, scaling down one level by looking at the regional layer would be a fruitful middle road which can sufficiently accommodate the national interests and the global challenge. Here, the political and economic influence of regional institutions can be utilized in the push for change – change which is homegrown, rather than being perceived as imperialistic. Since, contrary to a river basin, a region is not a narrowly defined geographical area, framing water security as a regional common concern also opens up the enormous potential of including (non-state) actors and interests beyond the basin.

Thus, it may add a new dimension to international freshwater cooperation, which is still being perceived as a zero-sum game, by including non-riparian interests in the design and performance of international water cooperation (Brunnée and Toope 1994). On these grounds, the notion of a regional common concern is the most suitable conceptual vehicle for the endeavor to achieve water security (Magsig 2015a). While this does not necessarily require reinventing the wheel of transboundary freshwater cooperation, like the principle of equitable and reasonable utilization, it expects states to subscribe to certain basic rules and minimum managing standards as cornerstones for their transboundary water relations; and thus it triggers a process of rethinking focused on the respective regional approach. Hence, the concept of common concern provides a vehicle for inducting communality into international water law and arriving at more resilient agreements, since acknowledging that a particular challenge must be perceived as a matter of common concern results in the appreciation that transboundary water management can no longer be considered as a mere national issue. It shifts the responsibilities of states from individual to concerted action.

5.3 The Indus Waters Treaty and Its Application

The following section will now apply the developed water security lens to the Indus Waters Treaty and analyze how successful it is in strengthening transboundary freshwater cooperation and leading the way toward perceiving water security as being of regional common concern.

The conflict over the water resources of the Indus became international with the partition of British India, as the newly formed states were in disagreement over how to share and manage the previously unitary network of irrigation infrastructure (see also Chap. 1 of this book). The resultant power asymmetry between the two con-

tracting parties has been identified as the main reason for the delayed completion of a water sharing agreement (Center for Policy and Human Development 2011). Here, the involvement of a third party, the World Bank, played a key role in continuously pushing negotiations forward (Biswas 1992). The fact that, after having been signed in 1960, the IWT survived three wars (1965, 1971, and 1999) between the two hostile neighbors (during which the water kept flowing) was reason enough for many scholars to celebrate the Treaty as a success (Khalid 2004). The question now arises whether the Indus Waters Treaty really satisfies a contemporary understanding of the duty to cooperate on transboundary waters and whether it contributes toward common water security in the Indus basin.

5.3.1 Availability

In terms of availability, the Indus Waters Treaty does not contain effective binding provisions addressing water quality or pollution. From the beginning of the negotiation process, the whole framework was focused on issues of quantity, apportioning the tributaries among the two nations. India's plan was to get all of the eastern rivers and 7 % of the western rivers, while Pakistan demanded 70 % of the eastern rivers and all of the western rivers (Biswas 1992). Ultimately, the parties agreed to allocate the tributaries with India receiving three tributaries – Sutlej, Beas, and Ravi (eastern rivers) – while Pakistan received the main Indus, Jhelum, and Chenab (western rivers) (Arts. II and III of the Indus Waters Treaty). However, the Indus Waters Treaty also allows India to tap the hydropower potential of the western rivers before they enter Pakistan (Art. III(2) of the Indus Waters Treaty) and guaranteed Pakistan a minimum quantity from the eastern rivers for a transitional period.

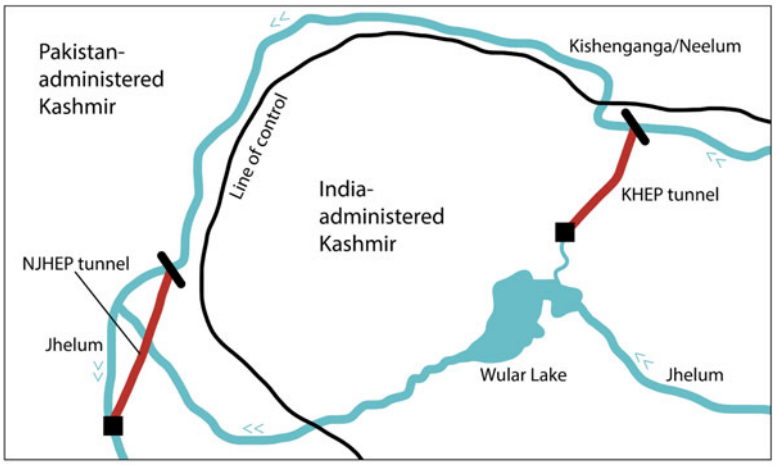
Yet, beyond the provisions of allocation, the IWT does not provide for meaningful obligations concerning availability. In lacking any effective mechanism dealing with environmental flows, ecosystem services, or demand management, the current legal framework does not provide for the sustainable control and protection of the Indus.

5.3.2 Access

The approach to resolving issues of access to water found in the Indus Waters Treaty is rather complex. Here, the principal institutional mechanism of the agreement, the Permanent Indus Commission, plays a significant role in the settlement of disputes, serving "as the regular channel of communication on all matters relating to the implementation of the Treaty" (Art. VIII of the IWT, "Permanent Indus Commission"). Under the agreement, issues that cannot be resolved by the Commission will be deemed "differences," which may, depending upon their classification, be heard by a "neutral expert" ("qualified engineer") at the request of

either commissioner (Art. IX of the IWT). The difference will be considered to be a "dispute" if the matter falls outside those issues listed in Annex F. Disputes are to be resolved through negotiation and, failing any successful outcome, are subject to arbitration. This mechanism was triggered for the first time in the 45-year history of the treaty with a neutral expert asked to provide a determination of the difference regarding the Baglihar hydropower plant. In 2005, Pakistan contacted the World Bank stating that a "difference" had arisen with India under the Indus Waters Treaty relating to the Baglihar plant being constructed by India on the Chenab River in breach of the provisions under Paragraph 8 of Annex D to the Treaty. The bank appointed a neutral expert, who rendered a decision in February 2007. While some rightly argue that the differences were handled in a "transparent and fair manner" and acknowledge that the decision was accepted by the two parties (Salman 2008), the process did not manage to completely calm freshwater cooperation between India and Pakistan, nor did it give it a farsighted direction (Sinha 2010b). This becomes obvious when analyzing the outcome of the most recent legal dispute – the Kishanganga Arbitration (Rieu-Clarke et al. 2012; Uprety 2015). Following a Request for Arbitration by Pakistan in 2010, a dispute was (for the first time in the history of IWT) referred to a Court of Arbitration concerning India's construction of the Kishanganga Hydroelectric Project (KHEP). The design of the project is intended to divert waters from a damsite on the Kishanganga/Neelum River in the Jammu and Kashmir region to the Jhelum River – potentially reducing the power generation capacity of the planned Pakistani Neelum-Jhelum Hydroelectric Project (NJHEP). Pakistan identified two questions: (1) whether India's proposed diversion of the Kishanganga River for the run-of-the-river hydroelectric project into another tributary breaches India's legal obligations under Article III(2) of the IWT and (2) whether the agreement allowed India to deplete or bring the reservoir level of a run-of-river storage plant below the "Dead Storage Level" in circumstances other than unforeseen emergencies (Rieu-Clarke et al. 2012) (Fig. 5.1).

In September 2011, the Court issued an Order on Interim Measures, prohibiting India from constructing any permanent works on or above the Kishanganga/Neelum riverbed at the damsite that may inhibit the restoration of the full flow of the river to its natural channel (Permanent Court of Arbitration 2011). In February 2013, the Court issued a Partial Award, finding that India was permitted under the Treaty to divert water for the generation of electricity by the KHEP, arguing that Pakistan's water uses – of relevance here, the NJHEP – were preceded by the KHEP (Permanent Court of Arbitration 2013). Hence, the NJHEP was not considered an "existing use" under the Indus Waters Treaty which India was required to take into account at the time of planning its KHEP. The Court did, however, make clear that India's right to divert the waters of the Kishanganga/Neelum was not absolute, since relevant principles of customary international law, including principles of international environmental law, have to be taken into account. Accordingly, the award allows India to proceed with the construction of the KHEP, subject to ensuring a minimum downstream flow to be determined in the Final Award. Further, it prohibits India from using drawdown flushing for sediment control at the Kishanganga Project and any future run-of-river plant on the western rivers. On 20 December 2013, the Permanent



Source: (Magsig 2015a, p. 187)

Fig. 5.1 The Kishanganga arbitration (Source: Magsig 2015a, p. 187)

Court of Arbitration rendered its Final Award (Permanent Court of Arbitration 2013), stating that in deciding the rate of minimum flow, it was necessary to "mitigate adverse effects to Pakistan's agricultural and hydro-electric uses throughout the operation of the KHEP, while preserving India's right to operate the KHEP and maintaining the priority it acquired from having crystallized prior to the NJHEP" and to give due regard to "the customary international law requirements of avoiding or mitigating trans-boundary harm and of reconciling economic development with the protection of the environment."

While the decision "serves as a useful reminder of the potential of pacific dispute settlement in resolving complex disputes in tense settings" (Kumar 2013), it, at least to some extent, contradicts the outcome of the Baglihar difference. While the Baglihar judgment allowed India to draw down water below the dead storage level under certain conditions and apply a technique called drawdown flushing in order to protect the hydropower plant from siltation, the Permanent Court of Arbitration, of course, did not treat the Baglihar findings and outcome as a precedent. To the contrary, it decided that from now on this technique shall be prohibited. Interestingly, the Court's use of customary international law in the Kishanganga Arbitration was limited by Paragraph 29 of Annex G to the Indus Waters Treaty. While in its Partial Award it emphasized that it was "incumbent upon [it] to interpret and apply this 1960 Treaty in light of the customary international principles for the protection of the environment in force today," in the Final Award the Court qualified this duty by arguing that "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" (Permanent Court of Arbitration 2013). Thus, it seems illusive to expect an end of disputes revolving around the same issues, as – different to a decision by a

court which can set a precedent – the next ruling of a Court of Arbitration will depend on many unforeseeable factors – including the composition of the arbitral tribunal.

5.3.3 *Adaptability*

Due to climatic changes and pressures of population growth, the Indus basin faces huge challenges in terms of the adaptability of the regime (see Chap. 2 of this book). The whole Treaty resembles more of a divorce settlement, rather than a future-proof agreement for the sustainable management of a river basin. However, it is important to acknowledge the fact that the regime does not exist in isolation – and that international law does not exist without interpretation (Hollis 2014). As the Kishanganga Arbitration has shown, new conflicts about the utilization of the shared water resources of the Indus will have to take recent developments of international law into consideration – at least to an extent which is considered within the means of treaty interpretation. The fact that there is no consensus on the methodology of treaty interpretation, however, might cause even more uncertainty among the parties (Bjorge 2014; Villiger 2011).

Since the Indus Waters Treaty fails to accommodate flexible mechanisms, other than the general rules of interpretation, it has been argued that the Treaty should be amended to better cope with climate change uncertainty (Bagla 2010).

5.3.4 *Ambit*

While the Indus river basin is shared between Pakistan (47 %), India (39 %), China (8 %), and Afghanistan (6 %), the Treaty does not involve the latter two nations (AQUASTAT 2011). This major shortcoming does not prevent the majority of scholars to still view the Indus Waters Treaty as a success – like McKinney (2011) calling it "one of the most successful settlements of a transboundary water basin conflict." Yet, when looking at the actual ambit of the agreement, one has to follow the minority view that the Treaty can only be perceived as a disappointment. The reason for the dramatically diverging views on the quality of the agreement might originate from asking a completely different question. While most commentators seem to be satisfied with the "survival" of the Treaty during times of war, should one not be able to demand more from a treaty governing a shared watercourse – a vital resource for both countries? Is it too bold to ask why the Indus Waters Treaty did not prevent three wars? In claiming that "[t]he Indus Waters Treaty, which is the most successful India-Pakistan agreement to date, has held up for 46 years largely because the Treaty does not require daily interaction and joint decision making by those two estranged governments" (Schaffer 2007), do we imply that we consider treaties which do not require adequate cooperation to be a success? International

legal scholarship would certainly damage itself if it followed such an absurd understanding of international law.

5.4 The Way Forward

Following a contemporary understanding of common water security, based on the notion of hydrosolidarity, a freshwater treaty should not merely be able to muddle through difficult bilateral times. It should provide an impetus for the riparian countries to develop relations outside the water box – and ultimately lead to more peaceful relations. In this regard, as well as concerning the vital issues of water quality and adaptability, the Indus Waters Treaty has missed an important opportunity. While it has been argued before that renegotiations are inevitable (Bhatnagar 2009; Sinha 2010a), the examination through the contemporary security lens has made it even more obvious that the agreement between India and Pakistan in its current form has no future, as it does not address water security as a regional common concern. The question now arises as to how the normative pillars should be modernized in order to build a more resilient future for the Indus basin. Following a path within the unmodified regime where the contemporary interpretation of international water law will be applied to the rigid form of the Indus Waters Treaty cannot be regarded a future-proof option.

5.4.1 Options Within the Existing Framework

When criticizing the Indus Waters Treaty for its lack of flexibility and inability to strengthen cooperation between India and Pakistan, one has to acknowledge that the treaty text does provide some room for maneuver. This room, however, has not yet been utilized by either party. Article VII(1) of the IWT states that "[t]he two Parties recognize that they have a common interest in the optimum development of the Rivers, and, to that end, they declare their intention to co-operate, by mutual agreement, to the fullest possible extent."

In theory, this provision opens the door for various tools of cooperation in addition to the Indus Waters Treaty and without having to touch the hot potato of renegotiations. One could, for example, imagine both states to see the urgent need to address very specific challenges where states might already see the benefit in joint and coordinated action. Here, the development of common obligations regarding emergency response mechanisms immediately comes to mind. This could easily happen within the existing legal framework based on Article VII of the IWT and would immediately benefit millions of people who are regularly hit by water-related disasters in the basin. While it is disappointing to note that no initiatives have been undertaken under the provision of "future cooperation," it does not really come as a great surprise. Given that it carries forward the logic of partition of the two countries

to their shared water resources, the IWT does not treat the Indus as a single unit – not promoting any cooperation which goes beyond what was agreed upon in 1960.

5.4.2 Renegotiating the Indus Waters Treaty

Given the fact that India and Pakistan have failed to exploit the provisions of the IWT which are supposed to strengthen international cooperation (Art. VII), the current framework does not seem to trigger the needed change in political will. Hence, it seems obvious that the best option for achieving water security in the Indus basin is amending some of the terms of the Indus Waters Treaty or renegotiating an entirely new agreement. For such a process, the analysis in Chap. 1 can be used as a thought-provoking impulse. To begin with, a renegotiated agreement should be brokered between all basin states – including Afghanistan and China. Further, covering issues of water quality would most certainly improve the situation on the ground. Here, the concept of environmental flows should be incorporated (Forslund et al. 2009). Furthermore, the wider benefits from the utilization of the shared water resources have to be put onto the negotiation table as well. Benefit sharing, in particular concerning the need for food and energy security in the basin, promises an increase in acceptance of the legal rules and the building of trust among co-riparians (Wouters and Moynihan 2013; Ziganshina 2014). In order to be more resilient, any new regime governing the Indus has to be reasonably flexible and thus allow for dealing with the various uncertainties in transboundary water cooperation (McCaffrey 2003). Here, setting up a joint river basin organization which is in a position to not only make recommendations to member states, but actually decide swiftly – and independently from the political quarrels – on matters of transboundary water management, would certainly inject a huge amount of flexibility into the legal framework (Schmeier 2013).

For the arduous task of renegotiating the IWT, the UN Watercourses Convention (United Nations 1997) could serve as a valuable starting point, as its primary purpose as a global framework instrument is to supplement existing regional (multi-basin), basin, and subbasin agreements. In particular, the Convention can assist in filling gaps where existing water agreements fall short, as it includes several rules of customary international law – e.g., equitable and reasonable utilization – and gives guidance as to how to implement them (Rieu-Clarke et al. 2012). However, the perception of the UN Watercourses Convention in Himalayan Asia does reveal certain difficulties for using the Convention as a potential blueprint for basin agreements. One of this region's countries, China, voted against the adoption of the Convention, five of them (Afghanistan, Bhutan, Burma, India, and Pakistan) abstained or were absent, and six of them (Bangladesh, Cambodia, Laos, Nepal, Thailand, and Vietnam) voted in favor, with only one of the latter, Vietnam, having ratified the Convention until now. More work is needed in order to address the misconceptions of many Asian countries regarding the UN Watercourses Convention (Loures and Rieu-Clarke 2013).

In any case, the spirit of the IWT agreement has to be changed from a divorce contract to a joint vision for common water security. Rather than the shortsighted "react-and-correct" approach, one of "foresee and prevent" is desperately needed (Timoshenko 1992). In order to be successful, the renegotiated agreement would have to be considered a new starting point of water cooperation in the basin, rather than the resolution of a conflict.

5.4.3 The Chances of a Regional Framework

The contemporary understanding of water security has also brought about renewed interest in regionalism in international water law (Moynihan and Magsig 2014). How can regional approaches to transboundary water cooperation be developed in order to be conducive to a broader regional governance framework aiming at the development of concrete forms of integrated cooperation on a whole range of transboundary environmental issues?

At the same time as most countries in Himalayan Asia have seen their renewable freshwater resources and water availability drop continuously over the last decades (Asian Development Bank 2013), regional cooperation is being hampered by political tensions between several states – e.g., the conflicts in the volatile parts of Kashmir and Tibet. The immense pressures of decreasing water quality and increasing competition for freshwater not only affect the states in their respective national development but also transform these domestic challenges into regional ones. The glaciers of the Himalayas feed the headwaters of the mighty rivers Yellow, Yangtze, Mekong, Salween, Irrawaddy, Ganges-Brahmaputra, and Indus, in which more than 1.5 billion people directly depend on (Grey and Connors 2009). China's and India's emphases on large-scale infrastructure in addressing their water issues – the South-North Water Diversion Project (Berkoff 2003) and the River Linking Project (Khalid 2004), respectively – have huge implications for their downstream neighbors. The governments' ambitious plans to step up hydropower capacity and push forward with interbasin water transfers will certainly increase the geopolitical risks of international freshwater cooperation in Himalayan Asia.

When looking at China, treaty practice does not allow for excessive optimism, either, as all freshwater agreements China has entered are bilateral, despite the fact that many of them govern multistate watercourses (Wouters and Chen 2013). While there are some success stories of international water law in Himalayan Asia – e.g., (at least to some extent) in the Mekong basin (Rieu-Clarke and Gooch 2010) – the region remains rather hostile toward the idea of a more common approach to water security. Yet, a gradual development toward closer regional cooperation on freshwater issues is by no means illusive (Magsig 2015b). Here, regional organizations – e.g., the South Asian Association for Regional Cooperation (SAARC) and the Association of Southeast Asian Nations (ASEAN) – can play an important role, as they allow for gradual strengthening and deepening of relations on a diverse range of topics, including water cooperation, not only in the Indus basin but the whole of

Himalayan Asia (see also Chap. 8 of this book). It is in both regional hegemons' interest to work toward a resilient future of the region, as this will allow both China and India to sustain their economic growth. In order to do so, however, they have to arrive at a common understanding of their water insecurities and thus employ compatible – if not common – strategies in addressing them (Tellis and Mirski 2013). This need clearly makes the relationship between China and India the decisive factor in the future water security of the region (see Chap. 10 of this book).

Himalayan Asia will not eagerly implement a regional approach to water cooperation which comes from outside the region, since third-party involvement – e.g., by the World Bank – is being seen rather critically. It is much more likely that states within Himalayan Asia will develop their own concepts – based on their regional identity and specific political and cultural environment. However, in developing novel pathways toward an understanding of cooperative sovereignty, lessons from other regional regimes can be most helpful (Moynihan and Magsig 2014).

5.4.4 Observations

A contemporary understanding of the duty to cooperate over transboundary waters implies more than merely dividing the tributaries of an international watercourse like the Indus. International law is gradually moving toward a regime which evokes shared responsibilities – and, thus, is able to address common concerns like water insecurity more effectively. By reassessing the Indus Waters Treaty against this backdrop, its weaknesses have been revealed. Here, the concept of considering water security as a matter of regional common concern was introduced as a promising way forward in striving for truly joint and long-term regional water management. If taken seriously, this may even involve a process which goes beyond the basin. While there is justified skepticism about the role regionalism can play in effectively addressing water cooperation in Himalayan Asia, the urgency of the crisis could soon enable the environment for a regional approach which addresses water security from a common concern perspective – and leads to shared responsibilities (Moynihan and Magsig 2014).

In the meantime, important first steps toward a more resilient future of the Indus basin can and should be pursued at a bilateral level – both within the existing legal framework and by amending the IWT. Those two strategies do by no means have to happen in isolation. To the contrary, India and Pakistan are well advised to take immediate steps under Article VII of the IWT to address very specific challenges where states already see immediate benefits from joint action – like the development of common obligations regarding emergency response mechanism. Simultaneously, they should engage in more long-term water diplomacy activities to start discussing the future of their legal regime.

As has been demonstrated by Swain in Chap. 3 of this book, the costs of noncooperation in the basin are immense. The time to act is now. The longer the basin states shy away from addressing the underlying issues of their legal framework, the

more difficult it will get to remedy its shortcomings. Eventually, India and Pakistan will both see the need to put their legal agreement on the Indus on a new path which will allow them to exploit the enormous potential of sharing the benefits of cooperation. Until then, however, it seems unlikely that the two countries will agree to modify the IWT and turn it from a water portioning agreement into a contemporary water resource development one (Sinha et al. 2012).

It is hoped that the initiated discussion about perceiving water security as a regional common concern triggers fundamental change in how states cooperate on the highly complex and controversial issues concerning their shared freshwater resources in the future. International law can provide the framework for imagining an "Industan" which moves beyond the prevalent state-centric approaches to international cooperation over freshwater resources.

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