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#### **Abstract**

The volatility associated with the water crisis cannot be understood in isolation from national and international security. As water scarcity increases, the risk of acute conflict over transboundary watercourses also rises. Tensions have started to emerge in different parts of the world owing to the utilization and storage of water by countries sharing transboundary watercourses. It needs to be explored how the increasing water scarcity makes enhancing effective cooperation amongst riparian states the need of the hour.

Keywords: Water Scarcity, Water Security, Cooperation, Transboundary, Pakistan, India



#### **INTRODUCTION**

"The nature of water is such that it avoids heights and hastens to the lowlands. When a dam is broken, the water cascades with irresistible force. Now the shape of an army resembles water. Take advantage of the enemy's unpreparedness; attack him when he does not expect it; avoid his strength and strike his emptiness, and like water, none can oppose you."

—Sun Tzu

Centuries ago, Sun Tzu used the comparison between water and army as a metaphor. Today countries around the globe are bearing the consequences of the weaponization of water by invading forces and riparian neighbors.

The volatility associated with the water crisis cannot be understood in isolation from national and international security. As water scarcity increases, the risk of acute conflict over transboundary watercourses also rises.<sup>1</sup> Tensions have started to emerge in different parts of the world owing to the utilization and storage of water by countries sharing transboundary watercourses.<sup>2</sup>

Water is essential for the smooth functioning of everyday life. The severity of water scarcity is exacerbated in countries that are sustained by agricultural economies. The unpredictability of water<sup>3</sup> also exacerbates problems for countries that are heavily dependent on water for economic development. Moreover, it has been theorized that water scarcity also has the capacity to lead to internal strife within a country.<sup>4</sup>

<sup>&</sup>lt;<u>https://www.atlanticcouncil.org/blogs/menasource/running-out-of-water-conflict-and-water-scarcity-in-yemen-and-syria/</u>>



<sup>&</sup>lt;sup>1</sup> Joshua Busby, "Water and U.S. National Security", Discussion Paper, Council on Foreign Relations, Center for Preventive Action and the Program on Energy Security and Climate Change at the Maurice R. Greenberg Center for Geoeconomic Studies, January 2017

<sup>&</sup>quot;Within states, the effects of water scarcity on lives and livelihoods can lead to economic downturns and migration. Too little water can lead to crop failure, starvation, and thirst. Water scarcity in countries dependent on hydropower can lead to electricity shortages that adversely affect economies and contribute to civil unrest. In extreme circumstances, those who control water can use it as a coercive Tool."

<sup>&</sup>lt;sup>2</sup> Tensions escalated between Iran and Afghanistan over the Helmand River; Disputes between Vietnam, Cambodia, China and Laos over the Mekong River Basin; Conflict between Pakistan and India over the use and building of dams on the Indus Waters Basin.

<sup>&</sup>lt;sup>3</sup> IPCC Working Group I, "Climate Change 2013 –The Physical Science Basis Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change," Cambridge University Press, 2014, retrieved from

<sup>&</sup>lt;<u>http://www.cambridge.org/us/academic/subjects/earth-and-environmental-science/climatology-and-climate-change/climate-change-2013-physical-science-basisworking-group-i-contribution-fifth-assessment-report-intergovernmental-panel-climate-change?format=PB></u>

<sup>&</sup>lt;sup>4</sup> Margaret Suter, "Running out of water: Conflict and water scarcity in Yemen and Syria", Atlantic Council, 12 September 2017, retrieved from

There have been claims, made by experts, that the geopolitical environment is poised for "water wars".<sup>5</sup> Moreover, violent conflict over water and its resources, although sparingly, has been experienced by the global community in the past. It is alleged that tensions over transboundary watercourses are heightened in times of other political conflicts between riparian countries.<sup>6</sup>

Notwithstanding the advancement in military and technology, control over the water of a country continues to be a decisive factor in security and defense scenarios. For instance, in the event of a war, poisoning the water wells of the enemy could change the course of one country's history. Overtime, as states have become more resilient, non-military tactics have played a bigger role in gaining advantage over non-aligned countries.

A detailed study of the mounting threats to internal and global peace and security in light of water scarcity is the need of the hour. The use of water as a weapon or a bargaining tool, by counties, shows how international law falls deficient in adequately countering threats related to water.<sup>7</sup> Countries have, in the past, used water as a bargaining tool and threatened to cease the flow of water in times of heightened tensions.<sup>8</sup> Moreover, countries that share transboundary watercourses have the power to adversely affect the quantity and quality of water available to other riparians.

Thus, effective cooperation among riparian States is the need of the hour owing to the dire security risks associated with water scarcity.

#### **INTERNATIONAL WATER CONFLICTS**

Sovereignty over water resources and associated conflicts converge to make the political nature of these water basins of paramount importance. States, throughout history, have been known to be notoriously jealous and protective over their control and use of natural

<sup>&</sup>lt;sup>8</sup> Jeffrey Gettleman, "India Threatens a New Weapon Against Pakistan: Water", The New York Times, 21 February 2019, retrieved from <<u>https://www.nytimes.com/2019/02/21/world/asia/india-pakistan-water-kashmir.html</u>>



<sup>&</sup>lt;sup>5</sup> Clark Judge, "The Coming Water Wars," US News & World Report, 19 February 2013, retrieved from <<u>http://www.usnews.com/opinion/blogs/clark-judge/2013/02/19/the-next-big-wars-will-be-fought-over-water</u>>; Vikram Mansharamani, "Column: Water Wars Are Coming," PBS NewsHour, 16 November 2015, retrieved from

<sup>&</sup>lt;a>http://www.pbs.org/newshour/making-sense/water-wars-are-brewing>; and,</a>

Peter Engelke and Russell Stricklor, "Water Wars: The Next Great Driver of Global Conflict?," Text, National Interest, 15 September 2015, retrieved from

<sup>&</sup>lt;http://nationalinterest.org/feature/water-wars-the-next-great-driver-global-conflict-13842>

<sup>&</sup>lt;sup>6</sup> Michael Kugelman, "Why the India-Pakistan War Over Water Is So Dangerous", Wilson Center, 04 October 2016, retrieved from <<u>https://www.wilsoncenter.org/article/why-the-india-pakistanwar-over-water-so-dangerous</u>>

<sup>&</sup>quot;Violence in the disputed territory of Kashmir led to a declaration by India that it would withdraw from the Indus Waters Treaty."

<sup>&</sup>lt;sup>7</sup> Marcus King, "The Weaponization of Water in Syria and Iraq," The Washington Quarterly 38, no. 4, 2016, Pg. 153-69.

resources. It is because of the inherently international nature of the issue that politics surrounding transboundary watercourses are influenced to a large extent by the power dynamics between States and the involvement of third parties such as international organizations. Moreover, water conflicts are not only caused by droughts but also due to challenges in water supply, insufficient responses from authorities to changing conditions, or lack of required infrastructure.

Around the world, there are plenty of examples where tensions are high – the Aral Sea conflict comprising Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan and Kyrgyzstan; the Jordan River conflict amongst the Levantine states; the Mekong River dispute between China and its neighbours in Southeast Asia. None of these have yet boiled over into conflict but there are some that might.

For instance, since 2007, diverging interests between upstream and downstream countries have brought negotiations pertaining to the Nile River Basin to a standstill, pitting Egypt (and, to a lesser extent, Sudan) against upstream riparians, especially Ethiopia. Furthermore, the building of the Great Renaissance Dam by Ethiopia triggered extreme reactions from Sudan and Egypt, since all three countries are riparins of the Nile River Basin. When the Ethiopian government announced plans to press ahead regardless of concerns being raised, Egypt and Sudan held a joint war exercise, pointedly called "Guardians of the Nile".

Similarly, Afghanistan has been making efforts to harness the waters of the Helmand River, in an attempt to begin post-conflict reconstruction. Afghanistan's actions did not sit well with Iran. The Iranian government perceives Afghanistan's agricultural expansion and dam construction activities as threats to water security in its eastern and northeastern provinces. The issue remains that there is no transboundary water cooperation treaty and so there are no agreed upon parameters of both countries' engagement on water issues. Moreover, both countries' volatile political relationship further complicates the issue between the two.

Turkey, Syria and Iraq share the Euphrates-Tigris Basin, with Iran comprising part of the basin. Since the 1960s, unilateral irrigation plans altering the flows of the rivers, coupled with political tensions between the countries, have strained relations in the basin. Disputes have prevented the three governments from effectively co-managing the basin's rivers. Although cooperation efforts were renewed in the 2000s, these have yet to result in a formal agreement on managing the basin waters.

Similarly, the conflict over the Indus Waters Basin, threatens to destabilize the South Asian region. Currently, the Indus Waters Treaty is the governing document that manages the relationship over the Indus Basin between Pakistan and India.

Above are just some of the examples of brewing international conflicts over transboundary water courses. According to UN Water, "Transboundary waters account for 60 per cent of the world's freshwater flows. 153 countries have territory within at least one of the



286 transboundary river and lake basins and 592 transboundary aquifer systems."<sup>9</sup> At the same time, only 32 countries have operational arrangements and institutional mechanisms on the sharing of these international waters. It is now accepted that the successful management of transboundary watercourses is contingent upon consideration of potential avenues of conflict and how they might impact cooperation between riparian countries.

#### WEAPONIZATION OF WATER

Weaponization of water is defined as the exploitation of the human need for water, by deliberately rendering it scarce and/or insecure. Weaponization of water has remained a military and coercive tactic since recorded history. In ancient Mesopotamia, conflict and cooperation over the Euphrates River resulted in the first ever recorded treaty between two Sumerian cities. Moreover, during World War Two, for example, the Royal Air Force Squadron 617 conducted "Operation Chastise" to destroy three German-controlled dams in Germany's industrial core.<sup>10</sup> Two of the three targeted dams, Möhne and Eder, collapsed, significantly damaging hydroelectric infrastructure in the country. This is a classic case of water weaponization, and the practice has continued through to this day—all while climate change continues to place serious stress on water resources. Examples of water weaponization have taken many forms.

In the 1990s, during the reign of Saddam Hussein in Iraq, Hussein used water to manipulate the movement of particular groups of people, namely, his Shiite opposition (Aquastat). He drained the Iraqi Marshes throughout the 1990s, through the use of dams to diminish the amount of water feeding the marshes.

In many conflicts in Iraq and Syria, over the past three decades, water has played a key role in military actions. Warring parties have used water as a weapon by deliberately targeting water infrastructure. Control over major parts of the water system, such as dams, is also a priority for military forces due to the power this brings. When conflicts involve the water system, they have far-reaching impacts on Iraq and Syria's population, affecting everything from health and sanitation to education and gender disparities.

India was faced with the weaponization of water in 2017, when at the height of the Doklam crisis, China refused to share hydrological data with it, which in turn resulted in unusual flooding in the Brahmaputra River in Assam. The fact that apart from Doklam, India had also refused to attend the first Belt and Road Initiative Summit in China further exacerbated the issue. This refusal to share data was in violation of two legally binding accords between

<sup>&</sup>lt;sup>10</sup> Imperial War Museums, "The Incredible Story of The Dambusters Raid", retrieved from <<u>https://www.iwm.org.uk/history/the-incredible-story-of-the-dambusters-raid</u>.>



<sup>&</sup>lt;sup>9</sup> UN Water, "Transboundary Waters", Water Facts, retrieved from <<u>https://www.unwater.org/water-facts/transboundary-</u>

waters#:~:text=Transboundary%20waters%20account%20for%2060,and%20592%20transboundary%20aquifer %20systems.>

the two countries. Incidentally, China shared this hydrological data with Bangladesh, while refusing to do so with India.

The Russia-Ukraine conflict shows that the weaponization of water continues to happen at the state level. Since 2022, numerous instances of water contamination, destruction of ecosystem services, and targeting of water infrastructure have occurred – limiting water availability that is essential for basic survival, as well as Ukrainian agriculture and energy systems. For instance, in late 2022, Russia began to deliberately drain the Kakhovka reservoir, in an attempt to hinder the movement of Ukrainian agricultural production and the Ukrainian army. Moreover, there have been concerns, from both sides, regarding the breach of dams using explosives. This has led to severe issues surrounding food shortages and environmental disasters.

Most significantly, the primary example of Ukrainian strategic water weaponization occurred in 2014 prior to the current stage of the conflict, when Ukraine constructed a dam along the North Crimean Canal. This essentially eliminated all water access to the Russian-controlled Crimean Peninsula and diverted water to Ukraine's Kherson region. This action was designed both to punish Russian aggression and compel a Russian retreat. In early 2022, Russia destroyed the dam to restore the Northern Crimea Canal water flow.<sup>11</sup>

Owing to the above, international law may also be a useful instrument when national governments, as opposed to subnational actors who do not recognize its jurisdiction, are the main perpetrators of water weaponization. The applicable international laws and treaties might include inter alia the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques, Additional Protocol II of the Geneva Conventions on deliberate destruction of civilian infrastructure, and the Geneva List of Principles on the Protection of Water Infrastructure. However, one weakness of these agreements is that each instrument has limited signatories and countries with access to large water resources such as Syria, Turkey and China have not signed and/or ratified them.

#### **INDUS RIVER BASIN AND NATIONAL SECURITY**

The national security threat related to the Indus Waters Basin can be attributed to two factors. Firstly, water scarcity and the rapidly diminishing supply of usable water tends to create a problematic situation as each country tries to ensure a sufficient supply of water for its population. Pakistan is headed towards acute water shortage. By 2030, experts understand that Pakistan will decline from being water stressed to water scarce. Secondly, geo-political hostilities between the two countries exacerbate the threat related to water scarcity in the Indus

<sup>&</sup>lt;sup>11</sup> "Water Wars: Drought by the Dnipro, the New Conflict between Russia and Ukraine" retrieved from <<u>https://www.sdafa.co.uk/water-wars-drought-by-the-dnipro-the-new-conflict-between-russia-and-ukraine.</u>>



Waters Basin.<sup>12</sup> Both these factors have gone a considerable way in contributing to the emerging conflict over water between Pakistan and India.

According to the United Nations, both Pakistan and India are facing acute water stress.<sup>13</sup> Pakistan has seen a surge in the demand for water because of a growing population and increased industrialization.<sup>14</sup> However, primarily owing to political instability, Pakistan has failed to construct an adequate amount of dams to store all the water that flows within its territory, which leads to the loss of a significant amount of usable water.<sup>15</sup> Similarly, despite an aggressive policy of dam construction undertaken by the Indian government, which remains a contentious issue between the two countries, India is still facing water stress.<sup>16</sup>

Water dynamics between Pakistan and India need to be seen from a lens of traditional and non-traditional security. Water stress is closely associated with non-traditional security issues such as climate change, economic security and political stability. The matter at hand is that perceptions of the Treaty fluctuate in both countries according to the overall bilateral relations between the countries. As a result, bilateral relations on other levels impact the water relationship between Pakistan and India.

The fact that the military establishments of both countries are active stakeholders in the water crisis further radicalizes the issue. In the face of unpredictable decision making on both sides of the border, both countries have politicized water in an attempt to fulfill their hydrological needs.<sup>17</sup>

Moreover, the politics surrounding Kashmir has also had a significant impact on the water relations between Pakistan and India. Prior to abolishing the special status of Kashmir, India's fervor towards dam building was questionable. However, since 2019, India has fast tracked the building of dams on the Chenab, Jhelum and Ravi rivers. Moreover, in 2020, roughly 2 billion dollars was infused as a part of the Atmanirbhiar Bharat Abhiyan (Self-reliant

<sup>&</sup>lt;sup>17</sup> Dr. Mubeen Adnan, "Hydro Politics: A Conflict between Pakistan and India", Journal of Political Studies, Special Issue, 2018.



<sup>&</sup>lt;sup>12</sup> Michael Kugelman, Deputy Director and Senior Associate for South Asia, "Event- Water Security and U.S. Foreign Policy in India, Pakistan, and the Philippines", Woodrow Wilson Center, 09 May 2017, retrieved from <<u>https://www.wilsoncenter.org/event/water-security-and-us-foreign-policy-india-pakistan-and-the-philippines</u>>

<sup>&</sup>quot;Water is deeply intertwined [in] longstanding political disputes between India and Pakistan... It is 100 percent wrong to claim water is a 'soft' issue [...]"

<sup>&</sup>lt;sup>13</sup> Colonel Daniel Rivière, "The Thirsty Elephant – India's Water Security Challenges: A test for regional relations over the next decade", Indo-Pacific Strategic Papers, Vice Chief of the Defence Force, Australian Defence College, Centre for Defence and Strategic Studies, September 2015, Pg. 3.

<sup>&</sup>lt;sup>14</sup> UNDP Pakistan, "Water Security in Pakistan: Issues and Challenges", Development Advocate Pakistan, Volume 3, Issue 4, December 2016.

<sup>&</sup>lt;sup>15</sup> *Ibid*.

<sup>&</sup>lt;sup>16</sup> Woodrow Wilson Center, "Water Security and U.S. Foreign Policy in India, Pakistan, and the Philippines", Event, 09 May 2017, retrieved from

<sup>&</sup>lt;https://www.wilsoncenter.org/event/water-security-and-us-foreign-policy-india-pakistan-and-the-philippines>

India) to enable Jammu and Kashmir to clear outstanding power purchase payments.<sup>18</sup> It is hypothesized that in the long run, India plans to turn the region into an energy exporter, while using hydropower to generate employment in the area. Such projects are in line with India's broader plan to fully integrate Kashmir into the region.

Following the 2016 Uri terrorist attack, Indian Prime Minister Narendra Modi proclaimed that "blood and water can't flow together", and temporarily suspended the PIC while setting up a high-level task force to evaluate the treaty. Pakistan replied to this threat by stating that any attempt by India to tamper with the flow of water would be perceived as an act of war.<sup>19</sup> This threat by India was repeated in 2019, following a terrorist incident in Indian occupied Kashmir.<sup>20</sup> It should be realized that even the slightest chance of an eventuality of war needs to be promptly addressed especially considering the fact that both Pakistan and India, are nuclear-armed hostile neighbours.

Thus, the water dynamic between Pakistan and India, even though regulated by the Indus Waters Treaty, has to be evaluated by other national security considerations of both countries. This includes understanding the larger security dynamic between the two nonaligned neighbors.

#### THE WAY FORWARD

In light of the mounting security threats associated with water sharing and scarcity, it is essential that mechanism are in place to enhance cooperation among riparian states.

### Third Party Involvement

One crucial method of improving cooperation between the two countries is for third parties, including the guarantor, the World Bank, to play a more active role in the Indus Waters dynamic. Intervention by third parties is an efficient and effective tool for dispute resolution.

<https://library.ecc-platform.org/blog/why-india-pakistan-war-over-water-so-dangerous>

<<u>https://www.theguardian.com/world/2019/feb/22/india-again-threatens-to-restrict-flow-of-river-water-to-pakistan-as-tension-builds</u>>

<sup>&</sup>quot;"Our government has decided to stop our share of water which used to flow to Pakistan," Nitin Gadkari, transport and water resources minister, said in a tweet on Thursday. He added that the country would divert water from eastern rivers and supply it to its people in Jammu and Kashmir and Punjab states."



<sup>&</sup>lt;sup>19</sup> Michael Kugelman, "Why the India-Pakistan War Over Water Is So Dangerous", Wilson Center Staff, ECC Platform Library, 20 October 2016, retrieved from

<sup>&</sup>lt;sup>20</sup> The Guardian, "India again threatens to restrict flow of river water to Pakistan as tension builds", 22 February 2019, retrieved from

Third party involvement can take any form, for example, it could be diplomatic, economic or both.<sup>21</sup> The level and nature of involvement is completely dependent on the parties.

Third party participation refers to how an external actor may influence the actions of riparian countries sharing a transboundary watercourse. Some commentators are of the view that effective cooperation among riparian countries in managing transboundary watercourses is dependent on the involvement of third parties.<sup>22</sup> Diplomatic third party involvement has taken different forms throughout history.<sup>23</sup> The oldest form of third party involvement came under the guise of colonialism. However, in recent history, third party involvement has come in the form of another country's assistance, a non-governmental organization's involvement and/or the involvement of an international organization.

Water scarcity and the threat it poses to international peace has brought the issue of cooperation among riparian countries to the attention of all national and international stakeholders, such as the United Nations and the World Bank. Hence, although third parties have historically been part of the negotiating equation between countries sharing a watercourse, the threat to peace associated with water scarcity has forced third parties to become involved in and play a more active role in solving conflicts associated with transboundary watercourses.

With regards to the Indus Waters Treaty, the role and jurisdiction of the World Bank is spelled out by the Treaty. Under the Treaty, the World Bank agreed to provide financial and logistical support in the formation and functioning of the Indus Basin Development Fund.<sup>24</sup> Under Annexures F and G of the Treaty, the World Bank also assumed the responsibility of assisting in the appointment of the Neutral Expert and the empanelment of the Court of Arbitration, respectively. However, it is time that the World Bank plays a more active role in ensuring water cooperation between the two countries, especially in light of the increasing water scarcity in the South Asian region.

#### Enhancing the Role of Institutional Mechanisms

As the issue of water scarcity becomes an increasingly global concern, riparian countries are tilting towards having institutional mechanisms in place for effective and swift resolution of disputes that may arise with regards to water distribution and utilization. This

<sup>&</sup>lt;sup>24</sup> Indus Waters Treaty, 1960, Article V



<sup>&</sup>lt;sup>21</sup> Martina Klimesova, "Using Carrots to Bring Peace? Negotiation and Third Party Involvement", Institute for Security and Development Policy, Sweden, December 2015

<sup>&</sup>lt;sup>22</sup> Ahmed Tayia, "Transboundary Water Conflict Resolution Mechanisms: Substitutes or Complements", Centre for Environmental Policy (CEP), Imperial College London, 28 June 2019

<sup>&</sup>lt;sup>23</sup> Stephen C. McCaffrey, John S. Murray and Melvin Woodhouse, "Promoting Equity, Cooperation and Innovation in the Fields of Transboundary Waters and Natural Resources Management: The Legacy of Dr. David J.H. Phillips", BRILL, 20 February 2017, Pg. 178

chapter will look at the growing conflicts surrounding transboundary watercourses in different parts of the world and the efficacy of having institutional mechanisms in place.

Research has established that a precedent of cooperation between stakeholders, through the workings of institutional mechanisms such as treaties<sup>25</sup> and inter-governmental bodies can reduce the risk of conflict over transboundary watercourses.<sup>26</sup> It has been proven that once institutional capacity is created and mechanisms put in place, cooperation and conflict over shared waters continues in a streamlined fashion even in times of adversarial relations between riparian countries.<sup>27</sup>

Enhancing institutional capacity, through the formation of bilateral and multilateral treaties and the creation of river basin commissions and organizations has become a favoured approach in the management of transboundary watercourses.<sup>28</sup> The same can be seen in the case of the Indus Waters, where the Commission is charged with serving "as the regular channel of communication on all matters relating to the implementation of the Treaty."<sup>29</sup> Historically, the ability of both Commissioners to communicate freely and independently, irrespective of the political situation between the countries, has been seen as one of the main reasons for the success of the Treaty. Moreover the Commissioners' right and responsibility to monitor the development of the Indus Waters Basin has added to the efficacy of the Commission as an effective institutional mechanism.<sup>30</sup>

However, in recent times, the workings of the Commission have been overshadowed by the political dynamics between the two countries. For instance, mounting tensions between Pakistan and India have led to the Indian Commissioner requesting for a renegotiation of the historic Indus Waters Treaty, vide a letter dated 25 January 2023.

<sup>&</sup>lt;sup>30</sup> The monitoring function of the Commission has eased fears amongst the governments and the populations of both countries regarding the non-compliance by either Pakistan or India with the provisions of the Treaty. *See*, Neda A. Zawahri, "India, Pakistan and cooperation along the Indus River system", Water Policy (2009) 11 (1): 1–20, 01 February 2009



<sup>&</sup>lt;sup>25</sup> S. C. McCaffrey, "The need for flexibility in freshwater treaty regimes. Natural Resources Forum", 27, 2003, Pg. 157

<sup>&</sup>quot;Treaties stabilize [the relations of states sharing a river] giving them a certain level of certainty and predictability that is often not present otherwise."

<sup>&</sup>lt;sup>26</sup> A. T. Wolf, K. Stahl and M. F. Macomber, "Conflict and cooperation within international river basins: The importance of institutional capacity", Water Resources Update, 2003, Pg. 125

<sup>&</sup>lt;sup>27</sup> A. T. Wolf, "Water wars' and water reality: Conflict and cooperation along international waterways", in S. Lonergan Ed., Environmental change, adaptation, and security (NATO ASI Series Vol. 65), Dordrecht: Kluwer Academic Press, 1999

<sup>&</sup>lt;sup>28</sup> A. T. Wolf, K. Stahl and M. F. Macomber, "Conflict and cooperation within international river basins: The importance of institutional capacity", Water Resources Update, 2003

<sup>&</sup>lt;sup>29</sup> Indus Waters Treaty, 1960, Art. VIII

With regards to the Indus River Basin, water demand, water availability and aging water infrastructure are on a collision course, which will be made worse by uncertainties associated with climate change. In light of this it is essential that cooperation between Pakistan and India improves for the stability of the entire region.

