Governance in South Asia Part I: Regional Co-Operation and Food and Water Security

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Key Points

- Strong governance mechanisms between countries are crucial to ensuring that physical supplies of water throughout the region are maintained and able to sustain agricultural production.
- India and Pakistan have developed what is considered to be a model treaty for riparian governance (the Indus Waters Treaty), but other riparians including India and Bangladesh, and Afghanistan and Pakistan, have not been able to develop a similar system.
- Treaties as a mechanism of governance must be responsive and flexible enough to adapt to various external factors that influence water-sharing (including climate change, demographic change and politics).
- Good governance among riparians is essential to ensure that future populations remain food and water secure, while helping to ensure that peace prevails within the region.

Summary

This paper examines the governance mechanisms that exist within South Asia to enable inter-state co-operation on regional food and water security. Some countries have a stronger riparian relationship than others, particularly India and Pakistan, which maintain the Indus Waters Treaty as a model for good water governance. Co-operation and communication between countries within the region is often hindered by a number of barriers. Effective governance structures are crucial to maintain food and water security within the region and, ultimately, help ensure that the probability of conflict over shared resources remains low.
Analysis

This paper is the first of a two-part series examining whether the countries and sub-state governments of South Asia recognise that their interests are best served through good governance and co-operation. This series examines what this co-operation could (or does) look like, or if these countries and provinces will risk conflict in a bid to secure a greater share of the region’s water.

Governance is relatively old concept, yet its importance is arguably understated. The United Nations Economic and Social Commission for Asia and the Pacific defines governance as ‘the process of decision-making and the process by which decisions are implemented (or not implemented).’ Good governance is essential for the management of collective resources in an international context. In particular, the number of shared water sources throughout South Asia is very large; the decisions that governments make have crucial consequences for the food and water security of their riparian neighbours.

Characteristics of good governance include: participation, responsiveness, adherence to the rule of law, effectiveness and efficiency. Good governance also requires that mechanisms be put in place to foster accountability and transparency. Ensuring that government data remains open for all to see is a crucial component to respectable decision making.

Food and water security is largely dependent on the availability of water resources. Not only is the physical supply of water crucial for drinking and domestic use, but water that traverses the South Asian region is also responsible for ensuring a large portion of its food supply. If countries suddenly cease to have access to riverine water sources for agricultural purposes, then not only will their populations suffer from thirst, but they will also suffer from heightened food insecurity (not to mention, a loss of livelihood).

Strong governance is crucial to maintaining institutional integrity; if institutions are weak, poverty reduction tends to decline. The level of poverty throughout South Asia is important when considering the economic elements of food and water security. In other words, the greater the level of poverty, the less sophisticated agricultural and irrigation systems are. Inefficient methods of sourcing food and water lead to greater insecurity for a wider population which eventually jeopardises national and regional security. Effective governance is also crucial for environmental resource management, as well as the physical allocation of water resources.

Pakistan and India: The Indus Waters Treaty

The Indus Waters Treaty (IWT) is considered one of the more successful forms of bilateral engagement. Despite the volatile and uncertain relationship between India and Pakistan (which has seen the countries engage in four wars with each other), the IWT has survived since it was brokered by the World Bank in 1960. The IWT was created to manage riparian relations over the six rivers that traverse the Indus basin.

Two of the six rivers that India and Pakistan share originate in the Tibetan Plateau, with the other four commencing in Kashmir. Sharing the Indus waters became a major concern after India and Pakistan were partitioned in 1947, particularly for downstream Pakistan. The IWT
allocates the three western rivers (the Jhelum, Chenab and Indus) to Pakistan, while India is allocated the three eastern rivers (the Ravi, Beas and Sutlej). This arrangement means that India is restricted from building storage and irrigation systems on any of the western rivers, except for domestic use, non-consumptive use, existing agricultural use with some limited expansion, and generation of hydro-electric power through run of the river projects.

The Limitations of the Indus Water Treaty

India is dissatisfied with the IWT because of the restriction that it places on building storage and irrigation systems on any of the western rivers. India claims that Pakistan denies any requests that would enable India to extract water from these western rivers, due to the political rivalry that the countries share. As the downstream riparian, Pakistan is anxious that India will attempt to control the waters of the Indus and its tributaries.

In November 2016, the World Bank convened a Court of Arbitration to investigate Pakistan’s complaints over the construction of the Kishenganga and Ratle river hydropower projects. India claimed that the World Bank’s involvement was biased in Pakistan’s favour, while Pakistan claimed that Indian plans to conduct three other hydroelectric projects (the Pakal Dul, Miyar and the Lower Kalnai) in the Indus River basin were in breach of the IWT. India and Pakistan then met again with the World Bank in Washington during August 2017, and talks appear to have been more constructive than on previous occasions (although the issue remains unresolved).
While the countries may seem to engage over the Indus waters, the IWT nonetheless remains vulnerable to the mutual mistrust and suspicion held by Pakistan and India. If tensions begin to boil rather than simmer, it is possible that some of the characteristics of governance upholding the IWT will be threatened; in particular, respect for the rule of law and participation.

The IWT also fails to address contemporary issues prevalent in the Pakistani-Indian relationship. In particular, the IWT does not account for increasing populations. When the treaty was created in 1960, the demand for water from the Indus River basin did not outstrip supply. The combined population of both countries, however, has rapidly increased from 486 million in 1961, to 1,390 million in 2011. Demand for water has concomitantly increased, placing additional strain on finite water supplies.

The IWT does not consider demographics, nor does it account for climatic- and environmental-related changes. The flow of the Indus headwaters, originating in Tibet, is increasingly threatened by glacial melt; a phenomenon attributed to climate change. Glacial melt may result in more water in the short term, but in the long term the flow of the river will be seriously compromised. Once water flow begins to dry up, this is likely to lead to the increasing desertification of agricultural areas, resulting in greater food insecurity and the risk of conflict due to the growing scarcity of essential resources. If the water flowing from the Indus River basin begins to dry up, there are no provisions in the IWT to accommodate for this change.

The IWT is a water apportionment treaty setting out the terms of water use, rather than a framework for water sharing (like, for example, the 1997 UN Convention on the Law of the Non-Navigational Uses of International Watercourses). This difference restricts the ability for the two parties to broaden the terms of their agreement. As an instrument for ensuring water co-operation, it means that the IWT operates within a rigid scope rather than being flexible enough to respond to the external environment. Instead of adjusting the agreement to be able to meet the changing demands of local populations, both India and Pakistan have been unable to reformulate the arrangement for both the eastern and western rivers. Future Directions International has noted previously that the IWT is unlikely to be revised by either country because of the fragility of the Pakistani-Indian relationship. As this next section will discuss, however, there are elements of good governance within the IWT that contribute to its success.

The Success of the Indus Waters Treaty

Models of good governance express a clear vision and clearly articulate a set of governance principles to reach this vision. Such models also involve an open and transparent decision-making process, and facilitate the participation of stakeholders. Good governance also involves a respect for the rule of law. Both states recognise that they have a common interest in the development of the Indus basin rivers, as articulated in Article 7 of the IWT. They also declare their intention to co-operate to the fullest possible extent. One of the factors that makes the IWT a success are the provisions that stating that India and Pakistan are to turn to neutral experts and arbitration to resolve disputes. To this end, the IWT sets out a step-by-step guide for the countries to resolve their disputes, first through the
Permanent Indus Commission (PIC), then through a neutral arbitrator appointed by the World Bank and, failing that, through the Permanent Court of Arbitration. These provisions for dispute resolution have ensured that decisions are respected and pertain to the success of the IWT.

The PIC is a bilateral commission made up of Indian and Pakistani officials. It has met every year since 1960 (including during the wars of 1965 and 1971), and is advised by experts who analyse disputes over the water usage from the six rivers allocated under the IWT. The PIC met again in Pakistan in March 2017 after India suspended talks following the Uri attacks by Pakistani hardliners in September the previous year. Although it took two months for the World Bank to convince Pakistan to extend an invitation to India, and for India to agree to resume PIC discussions, the survival of this forum indicates the importance both countries affix to good governance in the management of their riparian relations.

Despite a number of impasses and short-comings, the IWT is a successful model for managing water-related disputes. Despite their differences, India and Pakistan are pragmatic about water sharing. The language in the IWT is clear and there are specific steps that both countries must follow to resolve disputes and ensure continued co-operation. The IWT has remained viable because it has sustained dialogue between India and Pakistan on transboundary water issues.

India and Bangladesh: The Ganges Water Treaty

Both India and Bangladesh face increasing pressure to meet rising water needs. Bangladesh is a lower riparian country that heavily relies on the flow of the Ganges River to meet its food and water demands. Any change in the flow of the Ganges significantly affects its ability to meet these demands. The Ganges Water Treaty (GWT) was signed between India and Bangladesh in 1996, and determines the water-sharing arrangements between India and Bangladesh. Its ability to suitably divide riparian water rights and foster co-operation, however, is limited at best. As the two become more water-scarce, and population pressures further reduce water availability, conflict may erupt in the absence of a robust water-sharing arrangement.

The GWT allows India to withdraw up to 40,000 cusecs (1,133 cubic metres per second) of flow at Farakka between 1 January and 31 May each year. If the flow rate falls below 70,000 cusecs (1,982 cubic metres per second), water withdrawals are equally divided between India and Bangladesh. Ultimately, India has the upper-hand in this arrangement. Given that the upper Ganges flows almost entirely through India, if flow is reduced at the Farakka

![Figure 2: India and Bangladesh Trans-Boundary Rivers. Source: Bangladesh Embassy UAE](image-url)
Barrage, there is little in the agreement that ensures India will not extract water further upstream.

**The Limitations of the Ganges Water Treaty**

Average river flows were calculated from information gathered between 1949 and 1988. Upstream withdrawals (particularly from the agricultural sector) have slowly decreased the average river flow, rendering the data that the GWT is based on outdated and inaccurate. On several occasions, Bangladesh has not received the agreed flow because the data that determines allocations has not been updated. Weak governance structures, as illustrated by the GWT, contribute to inefficient systems of management, as well as low transparency and poor accountability.

The existence of the GWT does not necessarily equate to meaningful co-operation between the parties. It does not factor in effects of upstream use on the availability of water at the Farakka Barrage, nor does it take a whole-of-basin approach. Given the high dependency on the Ganges’ waters and Bangladesh’s position as a lower riparian, the arrangement between Bangladesh and India seems to favour Indian hydro-interests.

Unlike the IWT, the GWT lacks a strong method for dispute resolution. A Joint Committee, with equal numbers of representatives from India and Bangladesh, is tasked with examining disputes, but it is only required to meet if the river flow were to fall below 50,000 cusecs (1,416 cubic metres per second). This baseline was established from outdated data, and 50,000 cusecs is now considered to be at crisis point. Current agricultural, urban and industrial water requirements mean that Bangladesh reaches crisis point much earlier than under the terms of the GWT. The GWT also only allows India to withdraw a maximum of 40,000 cusecs. Given that Bangladesh is located on a deltaic floodplain, it is highly susceptible to flooding. If the river flow were to reach two million cusecs at Farakka, not only would the river breach its banks, but the GWT would not allow India to withdraw more water for flood alleviation.

The GWT is not a comprehensive water-management solution, but rather an arrangement for dividing up water allocations. It does little to ensure Bangladeshi food and water security. Bilateral co-operation might be enhanced by developing early warning systems for floods and droughts, but alternative methods of co-operation must also be employed to ensure that the interests of both countries are protected while reducing the potential for conflict.

**Pakistan and Afghanistan Water Sharing**

Afghanistan shares 90 per cent of its water resources with neighbouring countries, yet it has only one bilateral water treaty, with Iran. This is despite efforts by the World Bank in 2006 to consult with Pakistan and Afghanistan over a joint treaty on the Kabul River basin. These efforts failed, and, in 2011, Pakistan requested the aid of the United States and the World Bank to create a water-sharing treaty with Kabul. These efforts also failed, and, to-date, there is no agreement governing riparian rights between Pakistan and Afghanistan.
Pakistan and Afghanistan share seven trans-boundary rivers. In particular, the Kabul River (a major source of hydropower) has been the main source of conflict between Pakistan and Afghanistan. The 700-kilometre-long river is a tributary of the Indus River and irrigates Kabul and Jalalabad, two of Afghanistan’s largest cities, before flowing into Khyber Pakhtunkhwa, a north-western province of Pakistan. Both countries are reliant on the water that flows through Afghanistan for food and water security (particularly irrigation). Pakistan currently has a water storage capacity of 30 days (by comparison, India has enough water stored for roughly 120-220 days, while the US has a capacity of 900 days). Future Directions International has previously written about the Afghanistan-Pakistan riparian relationship, and further information can be found here.

Within the Kabul Basin, there are rivers that flow from Pakistan into Afghanistan, and vice versa. This means that while Pakistan may be the upper riparian of some transboundary rivers, others commence in Afghanistan and later cross the border into Pakistan. Any attempt to establish a stable system of governance between the countries must ensure that both are fully willing to negotiate due to the unique and entwined river systems.

**Barriers to Governance**

A complex set of political, environmental and societal factors make the task of securing a water-sharing agreement between Pakistan and Afghanistan challenging. Politically, both states are subject to turmoil and insecurity. Both riparians have also accused each other of supporting non-state terrorist groups. Accountability and transparency are crucial in any bilateral relationship; if the relationship between the countries continues to be plagued by mistrust and insecurity, it is doubtful that Pakistan and Afghanistan will be able to negotiate and uphold a water-sharing treaty.

Parts of the border between Pakistan and Afghanistan are porous. Tribal groups, large families and insurgents often move freely between the two countries, and, often, there are...
historical tribal relations that may impinge upon co-operation. The unique nature of tribal relations can often be difficult for outsiders to understand, but implementing any water development arrangement needs local support to uphold the participatory nature required for good governance. Conflict in parts of the region (especially where the terrain is particularly rugged) has prevented regular data collection. Local knowledge from community farmers may be able to assist by filling gaps in the data.

Environmentally, the Kabul Basin is heavily affected by climate change. Both Pakistan and Afghanistan are agrarian societies that cannot afford any future water shortages. Rising temperatures around the basin mean that water will continue to evaporate at a faster rate. This is only likely to increase tensions as water scarcity becomes increasingly threatening to both countries, not only for the supply of water, but for its use in agricultural production. These factors indicate the distinct lack of co-operation between Pakistan and Afghanistan with regards to water sharing; any bilateral or collective action within the region requires both countries to commit to meaningful action to avoid future water disputes.

Conclusion

As the South Asian region continues to develop economically and as its population grows, good governance is crucial to ensure that this growth is sustainable and inclusive. For countries that seek to ensure good governance in the interest of ensuring future food and water security, treaties must be responsive to changing conditions. They must have the ability to respond to the surrounding environment, particularly when the effects of climate change and world politics are inherently fluid. The IWT is currently considered the “model” for establishing governance structures between riparians, but even it has limitations that may pose a threat to future food and water security. Good governance among riparians is essential to helping ensure that future populations remain food and water secure, while maintaining peace and co-operation over shared resources within the region.

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