

Jane's
Intelligence and Insight You Can Trust

INTELLIGENCE REVIEW



Out gunned

Mexico's security dilemma

Long division

Sudan's referendum

Ebb and flow

Indian-Pakistani water relations dry up

*Co-operation between India and Pakistan over water-related issues is threatened by the construction of dams in Indian-administered Kashmir. **John Briscoe** examines the issues.*

KEY POINTS

- The 1960 Indus Waters Treaty, one of the few examples of successful co-operation between India and Pakistan, is coming under unprecedented pressure.
- Differing views over the waters of the Indus Basin have become a key issue between India and Pakistan.
- Meanwhile, the proposed Kishenganga Dam project in Indian-administered Kashmir has been taken to international arbitration.

This article was first available online at jir.janes.com on 24 November 2010.

Of all the contentious issues between India and Pakistan, water might seem of lesser importance. However, concerns over the construction of a new dam in Indian-administered Kashmir may have the potential to raise tensions between the two countries and undermine what had previously been one of the most co-operative areas of bilateral relations.

As with many of the bilateral disagreements, the roots of the potential water dispute lie in the allocation of boundaries between the two countries during partition in 1947. In the 19th century, the British constructed most of what is now the world's largest contiguous irrigation system in the Indus Basin. Eighty per cent of the irrigated area was in Pakistan, but after partition the headwaters for the rivers that serviced most of this immense area lay in Indian-administered Kashmir.

As India and Pakistan were unable to resolve this issue, the World Bank offered its help. After 10 years of negotiation, in 1960 the Indus Waters Treaty (IWT) was signed by India and Pakistan. However, despite functioning relatively effectively for 50 years, India's plans to build a new hydroelectric dam in Kishenganga have raised Pakistani concerns about the security of its water supply, embroiling the two countries in a potentially protracted international arbitration process.

The 1960 treaty had sought to remove the potential for future disputes through four

far-reaching provisions. The first related to the division of the waters, with the waters of the three western rivers (the Indus, the Jhelum and the Chenab) being allocated to Pakistan and the waters of the three eastern rivers (the Ravi, the Beas and the Sutlej) allocated to India.

The second was a financing plan to assist Pakistan in building the 'replacement works' (dams and canals) that were needed to store and transport water from rivers in the west to the irrigated areas of Pakistan, which had previously been served by the eastern rivers that India could and would soon divert in their entirety. India contributed around 20 per cent of the almost USD1 billion needed for this construction.

The third element related to use of the hydroelectric potential of the rivers before they reached Pakistan. During the negotiation of the treaty, Pakistan was concerned that its water security could be seriously compromised if India built dams that could alter the timing of water coming to Pakistan. This was especially crucial since the backbone of its economy was irrigated agriculture, built around the natural flows of the rivers. The eventual compromise was that India could use the hydropower potential of the rivers, but that there would be restrictions on the manipulable storage India could construct on these rivers, therefore removing the possibility of the dams being operated in a way that would adversely affect Pakistan.

The fourth element of the treaty was a dispute resolution mechanism, which created rules whereby the first recourse is for the Indian and Pakistani IWT commissioners to resolve potential problems. If this fails, then there are provisions for external arbitration, either through a neutral expert appointed by the World Bank, or through an international Court of Arbitration.

Troubled waters

The effective functioning of the treaty mechanisms since 1960 may be due to the comprehensive nature of these four elements, but it may also be because for many years India did little to develop the hydropower resources in Indian-administered Kashmir. Over the past decade, this situation has changed dramatically as India has initiated a major programme of hydropower

development across its Himalayan region.

This development programme is putting heavy pressure on the treaty. The disparate views of Islamabad and New Delhi collided when India started constructing the 450 megawatt (MW) Baglihar project in 1999 on the Chenab River. Pakistan believed that the Indian design violated the IWT because the dam included gated spillways, which meant the manipulable storage was larger than that allowed. The Indian view was that if it was unable to operate the reservoir more flexibly, it would rapidly fill with silt, as had happened in its earlier Salal hydroelectric project. The Indian and Pakistani IWT commissioners were unable to resolve the dispute, with Pakistan in 2005 asking the World Bank to appoint a neutral expert.

The neutral expert's verdict, delivered in 2007, was that the IWT had a provision for updating the implementation of the treaty as new knowledge accumulated and what is now regarded as global good practice for silt management would be impossible within the rigidities of the treaty. The expert therefore concluded that India should be allowed to draw water out of the dam at lower levels than those specified in the treaty.

For Pakistan the Baglihar Dam verdict, which was not subject to appeal, was a blow because it reinterpreted the IWT to remove the fundamental physical protection, namely the limits in manipulable storage, which Pakistan had relied upon to prevent the creation of an Indian ability to control the timing of flows of water into Pakistan. Disappointment over this verdict is one of the reasons why Pakistan has become so concerned by the Kishenganga project.

Problems ahead

The Kishenganga project seeks to utilise tributaries of the westward-flowing Jhelum River, which has two main tributaries in India. The northern tributary, which flows at a substantially higher elevation in the foothills of the Himalayas, is the Neelum River (called Kishenganga in India). The southern tributary, which flows at a much lower elevation, is the Jhelum itself. The two tributaries join just after they reach Pakistan. This configuration offers the opportunity to build a barrage (construction to divert water) across the Neelum,



IHS Jane's/1396933

India's plans to construct a new hydro-electric dam at Kishenganga have heightened Pakistani concerns about the security of its own water supply.

build a tunnel down to the Jhelum, construct a hydropower station at the bottom and generate substantial amounts of power. There are two obvious sites where this can be done; one upstream in India and one downstream in Pakistan.

The engineers who drew up the IWT were well aware of these possibilities and built into the treaty a clause which states "where a plant is located on a tributary of the Jhelum on which Pakistan has any agricultural use or hydro-electric use, the water released below the plant may be delivered, if necessary, into another tributary but only to the extent that the then existing agricultural use or hydro-electric use by Pakistan on the former tributary would not be adversely affected". Therefore, India can build its project only if there is no existing use which will be affected in Pakistan. India is now building the 'eastern scheme' (the 330 MW Kishenganga project) while Pakistan is building the 'western scheme' (the 1,000 MW Neelum-Jhelum project). The immediate stakes and investments are large, approximately USD350 million in India and USD1 billion in Pakistan. Disillusioned with the neutral expert process after Baglihar, Pakistan has declared this to be a dispute and taken the case to a court of arbitration.

The Neelum-Jhelum case is unique because it is the one case in terms of water management where there is a potential usage conflict between India and Pakistan. In all other cases, upstream storage of water in India could, if normal relations

pertained, be translated into benefits for downstream Pakistan, such as more reliable timing of flows, storage of some water during floods and perhaps the sharing of the energy generated. However, given the ongoing tensions between the two countries, the arbitration process is likely to become more, rather than less, contentious.

Conclusion

Ensuring water security is a key issue for both India and Pakistan and perceptions of the dispute therefore vary considerably. While India may view Pakistan's concerns as a politically motivated effort to obstruct India's hydro-electric development programme, Pakistan may believe that the cumulative upstream water storage being created by India constitutes an existential threat to Pakistan's security.

As such, the arbitration process risks escalating bilateral tensions. During his last visit to Washington in March, Pakistan's Chief of Army Staff General Ashfaq Kayani was quoted as saying that Kashmir had been replaced by water as the primary non-military concern with India. Moreover, the risk also exists that radical groups in Pakistan could seek to exploit the water issue and particularly the purported Indian connection in order to increase their popular support. Lashkar-e-Tayyiba leader Hafiz Saeed has already become vocal about the Indian role and threat to Pakistani security, accusing New Delhi of "water terrorism".

Both India and Pakistan named their representatives to the arbitration process in July but no formal proceedings have yet begun. Taking the dispute to arbitration may serve to deflect tensions for now, but these have the potential to reignite if the ruling is delayed, or proves controversial. Given Pakistan's disappointment about the Baglihar ruling, Pakistani rhetoric may be considerable if the ruling goes in India's favour. While the dispute has little potential to spark conflict, especially given previously good co-operation, the issue risks becoming politicised and feeding into the antagonistic ebb and flow of bilateral diplomatic rhetoric. ■

RELATED ARTICLES
WWW.JANES.COM

1. Cruel summer – Kashmir's season of unrest challenges India
2. Peace pipe – Iran-Pakistan-India pipeline remains in doubt
3. Sentinel: Natural resources/India

Author
John Briscoe is the Gordon McKay Professor of Environmental Engineering at Harvard University.

Search for these articles at
www.janes.com