

# SPOTLIGHT ON INDUS RIVER DIPLOMACY: INDIA, PAKISTAN, AND THE BAGLIHAR DAM DISPUTE

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## Overview

- India is moving steadily closer to a danger zone in terms of water supply. In the last 50 years per capita availability of water in India has declined by roughly 60 per cent with an equally precipitous drop possible in the next 50 years. Meanwhile, Pakistan may be nearing “water stress” limit of 1000 cubic meters per person per year, below which serious economic and social consequences are likely.
- Rivalry over river resources has been a chronic source of severe interstate tension between India and Pakistan. With river resource issues intensifying, the possibility for violent interstate conflict will likely increase.
- Even if direct violence is avoided, inability to resolve river resource issues will undoubtedly limit the ability of both countries to manage and utilize water resources in the most efficient manner. Inadequate management of water resources will exacerbate domestic problems in these demographically explosive societies which could lead to a variety of unwanted conditions such as increasingly fertile grounds for political extremism and terrorism.
- The outcome of the important on-going dispute over the Baglihar dam has broader implications not only for future management of increasingly important interstate river issues between India and Pakistan and in the entire region of South Asia, but also for the overall character of future India-Pakistan relations. Given the current differences between the parties, the prognosis is not encouraging.

When speaking of the river resource issue in India-Pakistan relations, one is strongly tempted to caption it cleverly with the title of Norman Maclean’s poignant novella, *A River Runs Through It*.<sup>1</sup> For the Indus River runs through the history of India-Pakistan relations every bit as consequentially as the Big Blackfoot River ran through the lives of Maclean’s fictional Montana family. By the same token, Maclean’s solemn avowal at the end of the piece—“I am haunted by waters”—might well have occurred to more than a few Indian and Pakistani diplomats over the years as they contemplated the river-ensnarled diplomatic agenda between the two co-riparian neighbors. The national destinies of India and Pakistan are inextricably joined by the Indus River whose waters they share; and no aspect of their diplomatic relationship bears more heavily on those destinies than that pertaining to the Indus River.

For over a half century, bitter rivalry over river resources has been a chronic source of severe interstate tension between India and Pakistan. It has arguably been one of the leading causes of full-scale warfare between them. Today India and Pakistan are both faced with rapidly escalating problems of acute river resource scarcity. Intensified rivalries over river resources could precipitate violent interstate conflict between them in the future. Even if direct violence is avoided, the inability to resolve river resource issues between them will undoubtedly limit the ability of both countries to manage and utilize water resources in the most efficient manner. That, in turn, can be counted on to exacerbate intrastate resource conflicts as well as related domestic disaffection—developments that appear certain to reduce even further the Indian and Pakistani states’ capacities to manage peacefully the interstate resource disputes between them. Increased tensions over water, in other words, help exacerbate or intensify overall tensions, thus at worst creating a more favorable environment for interstate conflict or

at least making resolution of interstate security issues between the countries even more difficult.

The outcome of the important on-going dispute over the Baglihar dam, discussed in some detail below, can serve as a bellwether both as to whether India and Pakistan will be able to manage increasingly important interstate river issues (and hence insure internal stability and development) and also as to what direction future overall relations between these countries is likely to take.

A distinguishing characteristic of the Indo-Pakistan river resource relationship is that, in sharp contrast with India's river relationships with its other major co-riparians in the region, Bangladesh and Nepal, there is a comprehensive treaty—the 1960 Indus Waters Treaty (IWT)—that was deliberately designed to settle with one stroke, and permanently, the matter of water sharing. The IWT accomplished this by getting India and Pakistan to consent to the permanent partitioning of the Indus River system—India winning unfettered ownership of the waters of the three eastern rivers (Ravi, Beas, Sutlej), and Pakistan acquiring nearly unfettered ownership of the waters of the three western rivers (Chenab, Jhelum, Indus). Often cited as the only major bilateral agreement between India and Pakistan to have stood the test of time, the IWT is today coming under extraordinarily close, in some cases highly critical, scrutiny. There are observers on both sides of the border, and representing opposites points on the political compass, who complain that the treaty is out of date, that it obstructs rational exploitation of the Indus River's resources, and that it ought at least to be amended, if not entirely scrapped.

One reason for dissatisfaction with the IWT is that, as presently constructed, it offers very thin support to the integrated or joint development of the Indus River basin. After all, the treaty's success, in the face of huge distrust and animosity between the two signatories, had largely to do with its abandonment of customary international norms governing internationally shared rivers. In particular, it discarded the norms protecting the downstream country's traditional uses of the river waters, in place of which it offered geo-physical partition of the river system itself. This formula was conceivable only in the unique geographic and political circumstances of the Indus basin. The *division of the waters*, in its own way, represented the “unfinished business” of the subcontinent's 1947 *territorial* division. In the judgment of B. G. Verghese, one of India's most frequent commentators on river resource issues and an advocate of “joint investment, construction, management and control” of the three western rivers “allocated to Pakistan but . . . under Indian control,” Article VII (on Future Cooperation) and Article XII (a provision allowing for agreed modification of the treaty) provide ample license for constructing what he calls an Indus-II “on the foundations of Indus-I.” Indus-II, he says, should “be fed into the current peace process as a means both of defusing current political strains over Indus-I and insuring against climate change. It could reinforce the basis for a lasting solution to the J&K [Jammu & Kashmir] question by helping transform relationships across the LoC [Line of Control] and reinventing it as a bridge rather than merely as a boundary-in-the-making.”<sup>2</sup> Verghese's colleague and longtime collaborator at New Delhi's Centre for Policy Research, Ramaswamy Iyer, disagrees. According to him, the existing IWT is poorly designed for the kind of Indus II that Verghese proposes. The IWT, he argues, “was a negative, *partitioning* treaty, a coda to the partitioning of the land. How can we build cooperation on that basis?” If a new relationship between the two countries on the Indus is desired, and Iyer indicates he is in complete agreement with Verghese on that, then “a totally new treaty will have to be negotiated; it cannot grow out of the existing treaty. . . .” That undertaking, he suggests, would face enormous complications. “Perhaps,” he concludes, “it would be better to

leave things as they are, and hope that with improving political relations a more reasonable and constructive spirit will prevail in the future than in the past.”<sup>3</sup>

A second reason for dissatisfaction with the IWT is that, in practice, the treaty favors one side over the other. Pakistanis hold that they gave up more water than they gained, that the diversion of Indus River waters required to compensate for the loss to India of the three eastern rivers has inflicted heavy ecological penalties upon Pakistan, and that—worst of all—India’s retention of the right to “non-consumptive” uses of the three western rivers presents Pakistan with the endlessly frustrating and ultimately futile task of guarding its water resources against Indian poaching. Indians, in turn, hold that it is *their* side that gave up too much water in the 1960 treaty, and, moreover, that Pakistan has made it virtually impossible for India to exploit effectively the non-consumptive uses, the production of hydropower in particular, allowed them on the western rivers.<sup>4</sup> Nothing better illustrates this dimension of the debate over the IWT than the current diplomatic wrangling between the two countries over the Baglihar dam.

### **Diplomacy of the Baglihar Dam<sup>5</sup>**

The Baglihar hydropower dam is located on the Chenab River in Doda district about 110 kilometers eastward of the Pakistan border in the Jammu division of the Indian state of Jammu and Kashmir. Currently, construction is said to be somewhere between one-third and one-half complete. The dam, when finished, will rise to 144.5 meters and have an installed capacity of 450 MW (900 MW when a second phase power station is built). The Baglihar is one of eleven reported major hydroelectric projects that India has identified in Jammu and Kashmir, nine of them on the Chenab.<sup>6</sup> Along with two others, the Wullar dam (officially labeled by Indians the Tulbul navigation project) and Kishenganga hydropower project, the Baglihar dam project is presently the focus of intense diplomacy between India and Pakistan. Two rounds of formal bilateral talks on the Baglihar, first in June 2004 and then in early January 2005, failed to reconcile their positions on the question of the dam’s conformity to the restrictions set forth in the treaty’s extraordinarily detailed annexes and appendices. In mid-January 2005, Islamabad invoked the arbitration provisions of the IWT, the first time this had happened in the treaty’s history, and requested the World Bank, the formal “guarantor” of the treaty, to appoint a neutral expert.<sup>7</sup> A Swiss civil engineer, Raymond Lafitte, was appointed in May 2005, visited the site of the dam in early October 2005, and was expected to submit his report—the findings of which, in accord with the treaty, would be final and binding on both sides—sometime in the summer of 2006.<sup>8</sup>

The dispute over the Baglihar is technically complex. To simplify a bit, the Pakistanis have raised three key sets of technical objections to the design of the Baglihar dam. One set of objections relates to the dam’s *storage* capacity, a second to the *power intake tunnels*, and a third to the *spillways*. As for the dam’s storage capacity, Pakistani officials call attention to the treaty’s allowance of only “run of the river” dams. Such dams are by definition *non-storage* dams—in other words, power is generated from normal river flow, the tapping of running not dammed water. In practice, Pakistanis concede, some storage is essential (and is explicitly authorized by the treaty): there is, after all, considerable (especially seasonal) variation in the flow of rivers, a fact that necessitates installation of sufficient storage to enable stable, efficient operation of the hydroelectric plant on a regular, year round basis. What Pakistanis object to, on the one hand, is the 144.5 meter height of the Baglihar dam, which they say exceeds by nearly 100 meters what they are prepared to accept as a run of the river project and, on the other hand, the size of the live storage, or pondage, that a dam of this height allows. According to the Pakistanis, the pondage area at Baglihar is not consistent with the treaty, which was concerned above all, as they see it, with preventing India from exerting control over the western rivers’ flow.

As for the power intake tunnels, the Pakistanis object to the fact that there are two of them, which they say is not permitted by the treaty, and to their position—not high enough according to the Pakistanis, who once again want to minimize Indian discretion when it comes to the discharge of waters. The higher the power intake tunnels, the less the opportunity for them to be used to release large quantities of stored water.

Much the same reasoning accounts for Pakistani objections to the design of the spillways. Baglihar's spillways are gated, which Pakistanis have argued was unnecessary, and the gates, say the Pakistanis, reach lower (32 meters below the effective top of the dam) than they should. Once again, the issue is one of Indian control of the stored waters: ungated spillways or shorter spillways, as Pakistanis see it, are more in conformity with the treaty.

Pakistani officials maintain that the Baglihar dam's design supplies India with the means, on the one hand, to economically squeeze, starve or strangulate Pakistan, or, on the other hand, to flood Pakistan, conceivably for military purposes. They argue, moreover, that the Baglihar dam has huge precedent-setting importance: for Pakistan to compromise on Baglihar, they say, would set a precedent that India could invoke whenever it liked elsewhere on the Chenab or Jhelum rivers. A trickle of Pakistani deviations from the treaty today, said one senior Foreign Ministry official, could become a flood of them tomorrow.

Pakistani officials also cite the Baglihar's political importance. It is, they concede, an extremely sensitive domestic political issue. The government's political foes demand to know why it took so long to protest the matter to the World Bank. "Baglihar is a politically painful matter for Islamabad," admitted one Pakistani official. Baglihar and other Indian hydroelectric projects, say the Pakistanis, are also extremely useful tools New Delhi uses to win the political support of energy-deficient Kashmiris—and to drive a wedge between Kashmiris and Pakistanis. Additionally, Pakistanis point out, the Baglihar case effectively tests the thus far untested arbitration mechanism in the treaty's Article IX. The treaty is Pakistan's lifeline to the waters of the western rivers. The likelihood exists that its arbitration provisions will be invoked much more often in the future.

Asked to characterize Indian negotiating strategy, Pakistani officials asserted that (1) it was one of delay, of foot-dragging, of "tiring you out"; (2) of "creating facts"—proceeding with construction plans, even when aware that the plans might well violate the treaty, so that Pakistan, confronted eventually with *fait accompli*, would have no choice but to cut its losses and accept an unfavorable compromise settlement; and (3) insisting on a bilateral framework of talks, without intending ever to settle on any but India's terms.

Indian officials naturally have a rather different "take" on Baglihar. Its design, they contend, is fully in compliance with the treaty. Notwithstanding Pakistani objections, Baglihar, according to them, is a run of the river dam. India has built nearly 20 such dams, they point out, and neither the Baglihar's height nor storage capacity disqualify it for designation in this category. The Pakistanis, say Indian officials, are deliberately obstructionist and willfully interpret the treaty in an excessively restrictive manner. Their raising of objections to Indian projects, they say, is compulsive and ritualistic, and not based on impartial assessment of the facts. In truth, they say, the treaty's language is quite flexible, allowing adjustments that take advantage of modern dam engineering technologies. Pakistani objection to the positioning of the power intake tunnels, for instance, ignores the treaty provision specifying that they should be constructed at the highest level *consistent with sound engineering*. Sound engineering, they say, requires construction of intake tunnels to maximize the "water seal"—the

elimination of air from the tunnel, which was an important element that went into the design decision. Likewise, Pakistani objection to the gated spillway was “absurd”. Himalayan rivers, a senior Indian official pointed out, carry enormous quantities of silt, far more than one generally finds in rivers in the West. Gated spillways, lower positioned gated spillways in particular, are essential to flush the silt-laden waters through the dam. Otherwise, the silt bombards the wall of the dam, falls to the bottom and swiftly builds up sediment on the river floor—a development that modern dam builders seek to thwart in order to prolong the useful life of the dam. In the view of Indian officials, the treaty authors could not possibly have intended that hydropower projects built in 2005 should be designed to conform to technologies in use in the 1950s.

Indians also argue that Pakistani anxieties about India’s acquiring the ability to shut off the flow of water downstream, posing a threat to the economically vital farmlands of Punjab, have no basis in reality. Pakistanis claim that once its live storage had been drained off, refilling the Baglihar in the dry season would take a full 26 days, giving Indians ample time to disable the Punjab’s largely river-fed irrigation system. The Indians, however, contend that the process of refilling would take no more than 19 days—not enough time, as they see it, to throttle their neighbor’s agricultural economy!

Two reasons for dissatisfaction with the IWT have been considered here: first, that as a postscript to the region’s territorial partition, it offers very thin support to the integrated or joint development of the Indus river basin; and second, that the treaty, in practice, favors either one side or the other. In the case of the Baglihar dam, for instance, Indians have ineluctably been led to view the treaty mainly as an impediment to be artfully bypassed in the drive for increased hydroelectric power.

These two reasons are brought together with a third, still more disturbing, reason in an unusually provocative book, *The Final Settlement: Restructuring India-Pakistan Relations*, brought out by the Mumbai-based Strategic Foresight Group in 2005. This third reason for dissatisfaction is that the treaty, though highly unlikely to be abrogated by India, offers only a very frail defense against heightened conflict over river resources between India and Pakistan, and that it is only a matter of time before water war becomes a virtually unavoidable feature of the region’s political environment. In a chapter entitled “Water” and with the subtitle “The Secret,” *The Final Settlement* holds that water has been central to the Kashmir dispute from the beginning, that the public debate over Kashmir—focused on lofty goals of self-determination and human rights (and not on Islamabad’s self-interest in water security)—has always been discreetly steered away from this fundamental fact,<sup>9</sup> and that Pakistan’s mounting water insecurity virtually ensures a still deeper and volatile nexus between water and Kashmir in coming years. The book cites as evidence frequent unofficial Pakistani expressions of interest in recent years in a so-called Chenab formula of conflict resolution, according to which Jammu and Kashmir would be further partitioned, with Pakistan being granted the Kashmir Valley and a substantial (and Muslim majority) portion of Jammu, enough to give it command of the Chenab River. The Chenab, in *The Final Settlement’s* view, is the ultimate prize, possession of which by Pakistan would virtually end its water woes: with the 1960 treaty effectively terminated, Pakistan would be able to develop the Chenab’s potential to the maximum, not only in terms of storage dams for irrigation but also for hydroelectric power and flood control. This, according to the book, has in recent years been the latent objective of Pakistani diplomatic and political activity relating to Kashmir.<sup>10</sup>

Most disturbing, from *The Final Settlement’s* perspective, is that what Pakistanis feel they must have, Indians will never give up. The Chenab River is clearly not for sale. This could have dire consequences. “The treaty,” according to *The Final Settlement*, has engendered a vicious cycle. Lack of trust between India and Pakistan forced the

bifurcation of the Indus River Basin. As the gap between water availability and requirements widens in Pakistan, its desire to intensify jihadi operations will grow. Agricultural development will be affected, which in turn will produce a stratum of unemployed youth willing to service terrorist groups. This in turn would aggravate the mistrust and hostility between the two countries. This vicious cycle of depleting resources spawning unemployment and fueling terrorism is feared to intensify in the near future.<sup>11</sup>

The oversimplified correspondence between water availability and terrorism in *The Final Settlement's* analysis should trigger some skepticism about all its arguments. It is not alone, however, in calling attention to the potentially severe security implications of the region's water resource rivalry. Echoing some of the gloom implicit in the above quotation, a senior Pakistani diplomat told one of the authors of this article, "Water has become *the* core issue between India and Pakistan. . . . [As a result,] India-Pakistan relations will retain [in the future] the same level of tension [as they now have]."<sup>12</sup>

Using words reminiscent of the appeals by Verghese and others for greater India-Pakistan collaboration in the development of the Indus basin's water resources, *The Final Settlement* does finally end on a positive note. "An alternative approach to the Indus treaty issue," it says,

could be an integrated development plan for the conservation of the Indus Basin. The plan, to be jointly developed by India and Pakistan, would involve a creative solution to the political dimension of the conflict in Jammu & Kashmir. It is imperative for both India and Pakistan to envisage comprehensive development and planning in the [Indus] River Basin. A holistic approach to water resources—recognizing the interaction and economic linkages between water, land, the users, the environment and infrastructure—is necessary to evade the impending water crisis in the subcontinent. . . . The integrated development approach is Utopian. It is only possible with a paradigm shift in mindset and complete end to hostilities, both physical and psychological.<sup>13</sup>

To say the least, the recommended "integrated development approach" offers very meager encouragement. One must wonder if it is, in fact, a viable alternative. Should it not prove viable, it likely bodes ill for the future of India-Pakistan relations. An integrated or basin approach to water resource management may well turn out in the future, in the face of mounting water scarcity in the region, to be not only an attractive but *essential* approach to water resource management—in the absence of which domestic problems in these demographically explosive societies could well themselves become unmanageable, an outcome that could lead to a variety of unwanted conditions, increasingly fertile grounds for political extremism and terrorism among them. On the other hand, should the bilateral relationship progress to the point where an integrated development approach becomes possible, then perhaps vicious cycles of deepening internal dismay and escalating interstate tension can be halted or even reversed.

## Endnotes

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<sup>1</sup> Norman Maclean, *A River Runs Through It and Other Stories* (Chicago: University of Chicago Press, 1976).

<sup>2</sup> B. G. Verghese, "It's Time for Indus-II," *The Tribune* (Chandigarh), 25 May 2005.

<sup>3</sup> R. R. Iyer, "Indus Treaty: A Different View," *Economic and Political Weekly*, v. 11, n. 29 (16 July 2005), p. 3144.

<sup>4</sup> According to Verghese, on virtually every one of the 27 occasions since signing of the IWT when India has passed information to Pakistan, in accord with treaty provisions, on planned withdrawals or construction on the western rivers, Pakistan has raised objections. In his view, "the objective has been political and the motivation to delay if not deny progress that primarily benefits J&K". B. G. Verghese, "Fuss Over Indus-I: India's Rights Are Set Out in the Treaty," *The Tribune* (Chandigarh), 25 May 2005.

<sup>5</sup> This section relies in part on interviews with Indian and Pakistani government officials, including key participants in the Baglihar talks, conducted by one of this article's authors in Islamabad and New Delhi in April and September 2005. The interviews were generally conducted on the basis of non-attribution.

<sup>6</sup> S. Waslekar, *The Final Settlement: Restructuring India-Pakistan Relations* (Mumbai: Strategic Foresight Group, 2005), p. 58.

<sup>7</sup> The IWT provides for multiple levels of conflict resolution. At the start-up of any project it plans to construct on the western rivers, India is required to provide Pakistan with advance notice, including detailed plans and design. Pakistan has the right to raise questions about any aspect of the project. The "question" may be settled at either the level of the Indus River Commission, a treaty-authorized body consisting of two commissioners, one appointed by each side, or at a higher-level inter-governmental meeting. Failing agreement at that level, a "difference" is said to exist (the situation that now obtains in regard to the Baglihar), a condition warranting the World Bank's appointment of a neutral expert. The neutral expert's task is strictly to determine whether or not the project design conforms to the treaty provisions. The next level, at which a "dispute" is acknowledged to exist, would require appointment by the World Bank of a Court of Arbitration. As the treaty's guarantor, the World Bank's role is that of go-between; it does not have any enforcement powers.

<sup>8</sup> It was recently reported that the Swiss expert, Raymond Lafitte, had called Pakistani and Indian representatives for a final hearing on the Baglihar issue in the last week of May 2006. His final report was expected to be released soon thereafter. Ahmad Fraz Khan, "Baglihar Dam Final Hearing Next Month," *Dawn* online edition, 14 April 2006.

<sup>9</sup> "To the outside world," the book observes, "it is projected that Pakistan is supporting a struggle for self-determination for the people of Kashmir. Within the closed-door precincts of General Head Quarters in Rawalpindi, Kashmir has a different meaning." Waslekar, *The Final Settlement*, p. 59.

<sup>10</sup> Waslekar, *The Final Settlement*, pp. 47-53, 73-78.

<sup>11</sup> Waslekar, *The Final Settlement*, p. 68.

<sup>12</sup> Interview, Islamabad, 7 April 2005. Identity withheld on request.

<sup>13</sup> Waslekar, *The Final Settlement*, p. 79.