

defendants may cause friction in diplomatic relations without materially advancing the goal of accountability, and failing to respect established norms of immunity *ratione personae* may interfere excessively with states' ability to conduct such relations. More narrowly tailored jurisdictional regimes, combined with appropriate, but not overly expansive, immunities, can help serve the dual goals of preserving stability in international relations and imposing consequences for international crimes. The Court's decision in *Jones* fails to offer meaningful guidance on how to achieve this balance.

CHIMÈNE I. KEITNER

University of California Hastings College of the Law

Arbitration—Indus Waters Treaty—treaty interpretation—negotiating history—Vienna Convention on the Law of Treaties—mitigating environmental harm

IN RE INDUS WATERS KISHENGANGA ARBITRATION (Pakistan v. India). Partial Award. At <http://www.pca-cpa.org>.
Arbitral Tribunal, February 18, 2013.

IN RE INDUS WATERS KISHENGANGA ARBITRATION (Pakistan v. India). Final Award. At <http://www.pca-cpa.org>.
Arbitral Tribunal, December 20, 2013.

In skillfully crafted unanimous awards in February 2013 and December 2013,¹ a distinguished seven-member tribunal constituted under the 1960 Indus Waters Treaty (Treaty)² and supported by the Permanent Court of Arbitration as secretariat, resolved significant disputes involving India's development of a hydroelectric plant in India-administered Kashmir and India's operation of this and other future plants. In the initial partial award, the tribunal found that the project is consistent with the Treaty but that the Treaty barred India's preferred method for controlling sediment in reservoirs. In its final award, the tribunal specified the minimum downstream flows that India must maintain. The case, the first arbitration instituted under the Treaty, involved a challenging array of engineering, environmental, and treaty interpretation issues.

The rivers of the Indus system rise in India and Nepal and flow into Pakistan. Following protracted negotiations, India, Pakistan, and the World Bank³ concluded the Treaty in September 1960 to allocate and regulate the two countries' use of the rivers' waters. In May 2010,

¹ *In re Indus Waters Kishenganga Arbitration* (Pak. v. India), Partial Award (Arb. Trib. Feb. 18, 2013), at <http://www.pca-cpa.org> [hereinafter Partial Award]; *In re Indus Waters Kishenganga Arbitration* (Pak. v. India), Final Award (Arb. Trib. Dec. 20, 2013), at <http://www.pca-cpa.org> [hereinafter Final Award].

² Indus Waters Treaty, India-Pak.-Int'l Bank Reconstruction & Dev., Sept. 19, 1960, 419 UNTS 125 [hereinafter Treaty]. The Treaty appears as an addendum to the Partial Award.

³ The tribunal emphasized the World Bank's central role in the "conception, mediation, negotiation, drafting and financing of the Indus Waters Treaty, an instrument critical to the life and well-being of hundreds of millions of people of India and Pakistan." Partial Award, para. 358.

Pakistan instituted arbitral proceedings against India under Article IX of the Treaty, requesting that an arbitral tribunal determine whether the Treaty permitted the Kishenganga Hydro-Electric Project (KHEP), which was being constructed in India-administered Jammu and Kashmir on the Kishenganga/Neelum, a tributary of the Jhelum River that flows into Pakistan-administered Jammu and Kashmir (partial award, para. 126). Pakistan also asked that the tribunal determine whether the Treaty allowed India to reduce the reservoir level of the KHEP and other future works below “dead storage level”⁴ to flush sediment (*id.*, paras. 5, 263).

The KHEP is designed to generate electricity by diverting water from works on the Kishenganga/Neelum to another tributary of the Jhelum River at a much lower elevation. The diverted water will flow downhill through a 23.5-kilometer system of tunnels to a powerhouse 666 meters below the Kishenganga Dam (partial award, para. 155). The falling water’s energy will turn turbines with an installed capacity of 330 megawatts of electricity (*id.*, para. 157).

A distinguished panel decided the case. Pakistan appointed Jan Paulsson and Judge Bruno Simma to the panel; India appointed Lucius Caffisch and Judge Peter Tomka, president of the International Court of Justice (ICJ). The parties could not agree on three additional umpires as required by the Treaty. In default of agreement, the Treaty provides for appointment of the umpires, one of whom must be an engineer, by specified appointing authorities. Accordingly, Judge Stephen Schwebel (former ICJ president) was appointed as chairman and umpire by the United Nations secretary-general; Franklin Berman was appointed as legal member and umpire by the lord chief justice of England; and Howard S. Wheeler was appointed as engineer member and umpire by the rector of the Imperial College of Science and Technology.

Following extensive proceedings that included two site visits, an interim measures order in September 2011,⁵ and a two-week hearing in August 2012, the tribunal issued a partial award in February 2013. The partial award did not determine the minimum flows India must maintain in the Kishenganga/Neelum throughout the year, including during low-flow periods. After further proceedings, this issue was resolved in the December 2013 final award.

Pakistan requested arbitration of two disputes, the first involving its claim that the KHEP violated multiple provisions of the Treaty. The tribunal began by rejecting Pakistan’s arguments that the project would violate provisions requiring that the diverted waters be used within the drainage basin of the Western Rivers (partial award, para. 369)⁶ and that the parties apply their “best endeavours” to maintaining existing river channels (*id.*, paras. 372–75).

The tribunal then considered whether the KHEP satisfied the Treaty’s requirements governing the design and operation of hydroelectric plants. Article III(2), a provision of fundamental importance, obligates India “to let flow all the waters of the Western Rivers” and not “to permit any interference with the waters” except for four authorized uses, including “[g]eneration of hydro-electric power, as set out in Annexure D.”⁷

⁴ Dead storage refers to the water behind a dam below the level at which water is diverted for power generation. Dead storage increases the height from which water is diverted, and thus its potential to generate power. Pondage is the water above dead storage; the level of pondage may fluctuate as needed to meet incoming flows and to generate power.

⁵ *In re Indus Waters Kishenganga Arbitration (Pak. v. India)*, Order on Interim Measures (Arb. Trib. Sept. 23, 2011), at <http://www.cpa-pca.org>.

⁶ The Treaty defines the “Western Rivers” as “The Indus, The Jhelum and The Chenab taken together.” Treaty, *supra* note 2, Art. I(6).

⁷ *Id.*, Art. III(2), *quoted in* Partial Award, para. 412 (emphasis omitted).

Pakistan argued that the KHEP violated Annexure D in three respects: by the permanent diversion of waters from one tributary of the Jhelum to another; by failure to conform to the requirements for a permitted “run-of-river plant”; and by a diversion of waters between two tributaries that was not “necessary” (partial award, para. 377). The tribunal dismissed the first argument, finding that the planned diversion between two tributaries was consistent with the plain meaning and history of the relevant provision (*id.*, paras. 378–80).

The tribunal also rejected the second objection, concluding that the KHEP satisfied Annexure D’s definition of a run-of-river plant. (This definition embraces “a hydro-electric plant that develops power without Live Storage as an integral part of the plant, except for Pondage and Surcharge Storage.”⁸) The panel found that the KHEP was “located” on a tributary of the Jhelum within the Treaty’s meaning, rejecting Pakistan’s contrary contention that it was not so located because the powerhouse lies 23 kilometers downhill from the point of diversion from the Kishenganga/Neelum (partial award, paras. 384, 386–87).

As for Pakistan’s third argument, that under Annexure D intertributary transfers must be “necessary,” the tribunal referred to the Treaty’s negotiating history in assessing this requirement (partial award, paras. 391–95). It concluded that the provision meant “necessary to generate hydro-electric power,” and that the diversion met this test. The tribunal rejected other concepts of necessity drawn from settings such as trade and investment law (*id.*, paras. 396–97).

Annexure D also provides that intertributary diversions from a tributary of the Jhelum are permissible “only to the extent that the then existing Agricultural Use or hydro-electric use by Pakistan on the [tributary receiving the water] would not be adversely affected.”⁹ The tribunal saw the definition of “then existing” uses as lying “at the very centre of the First Dispute” (partial award, para. 400). Pakistan contended that development of the KHEP could significantly harm its planned Neelum-Jhelum Hydroelectric Project (NJHEP) and other future downstream hydroelectric projects, and that the KHEP’s operation should not be allowed to impede their future development. For its part, India saw the argument that Pakistan’s future projects might require the KHEP to curtail future power generation as threatening the project’s economic viability and thus its right to generate hydroelectric power on the Western Rivers under Article III of the Treaty.

The tribunal addressed this issue with a sophisticated Vienna Convention analysis, surveying the complex provisions of Annexure D, their context, and the Treaty’s object and purpose (partial award, paras. 402–13).¹⁰ It emphasized that the Treaty’s provisions “must be interpreted in a mutually reinforcing manner to avoid forbidding with one provision what is permitted by others” (*id.*, para. 409). On the basis of this analysis, the tribunal rejected both the preferred “ambulatory” interpretation by Pakistan (under which its protected uses could evolve over time, requiring India to curtail its future power generation as needed to assure them sufficient water (*id.*, para. 419)), and the competing argument by India that the only protected downstream uses are those existing when it provided complete information to Pakistan about the KHEP’s design (*id.*, para. 426).

⁸ *Id.*, Annexure D, para. 2(g), *quoted in* Partial Award, para. 383.

⁹ *Id.*, Annexure D, para. 15(iii), *quoted in* Partial Award, para. 400.

¹⁰ Vienna Convention on the Law of Treaties, Art. 31, May 23, 1969, 1155 UNTS 331.

Noting that “[e]ach project will be unique; its progressive crystallization can be . . . episodic, with redesigns, stops and starts, changes in contractors and sources of financing,” the tribunal concluded that it should not “identify *ex ante* any one fact or formula” marking the point in time for determining existing uses (partial award, para. 428). Instead, the tribunal opted for a “critical period” interpretation that would identify existing uses as of the time “wherein a cumulation of facts—tenders, financing secured, government approvals in place and construction underway”—indicates that a project will proceed as proposed (*id.*, para. 429).

As applied to India’s KHEP and to Pakistan’s less-advanced plans for, and work on, the NJHEP, the critical period analysis indicated to the tribunal when the KHEP had “crystallized” and the NJHEP was sufficiently advanced to be a “then existing use.” A meticulous review of extensive documentary evidence (partial award, para. 437) led it to conclude that “the KHEP preceded the NJHEP, such that India’s right to divert the waters of the Kishenganga/Neelum for power generation is protected under the Treaty” (*id.*, para. 435).

Pakistan’s second claim was that the Treaty bars India from periodically lowering the water level of the KHEP’s dead storage—and the dead storage of other future hydro-projects subject to the Treaty—“for purposes of sediment control through the procedure known as drawdown flushing” (partial award, para. 464). India saw its ability to flush sediment from the KHEP’s reservoir and from other future plants by substantially emptying their dead storage as necessary to assure its right to generate hydroelectric power. Pakistan saw such flushing as threatening its right to stable and uninterrupted flows, since flows could surge during reservoir flushing and shrink, or even disappear, during refilling. Pakistan also questioned the downstream environmental impact of flushed sediment (*id.*, para. 467).

India contested the admissibility of this dispute, arguing that it involved technical matters that must be addressed by a neutral expert under the Treaty’s dispute settlement provisions (partial award, para. 475). The tribunal disagreed, finding itself competent to address any questions growing out of the Treaty, including technical questions (*id.*, para. 487).

The tribunal then reviewed the technical options for controlling sediment in hydroelectric installations (partial award, paras. 493–502). Drawing on this background, it thoughtfully analyzed the context of the Treaty’s provisions bearing on drawdown flushing, recalling that the limits on “live” storage by India (intended to restrict India’s ability to manipulate flows) were “a key point of contention” in the negotiations (*id.*, para. 504). The tribunal concluded that the Treaty’s provisions on filling reservoirs (and refilling them after an unforeseen emergency) prohibited emptying dead storage for drawdown flushing (*id.*, paras. 514–15).¹¹

This conclusion was tested against the principle that the Treaty would not authorize hydroelectric facilities that would have “an impractical and uneconomically short project life” due to uncontrolled sedimentation (partial award, para. 517). Extensive technical evidence and the opinions of the parties’ experts supported the determination by the tribunal that the Treaty’s constraints on drawdown flushing would not condemn India’s facilities to this fate. Instead,

¹¹ The tribunal’s conclusion regarding the impermissibility of drawdown flushing conflicted with an earlier determination by a neutral expert appointed under the Treaty to assess India’s Baglihar hydroelectric plant. Partial Award, para. 469.

sediment sluicing would provide a sufficient, if perhaps less economical, alternative if the KHEP's intake were redesigned (*id.*, paras. 518–21).

In the partial award, the tribunal upheld India's right to proceed with the KHEP, but also concluded that the Treaty and customary international law (applicable for the limited purpose of interpretation under paragraph 29 of Annexure G) required India to assure a continued minimum flow in the Kishenganga/Neelum riverbed (partial award, para. 446). While it found "no disagreement . . . that the maintenance of a minimum flow downstream of the KHEP is required in response to considerations of environmental protection," the tribunal did find insufficient evidence to determine the minimum flow required (*id.*, para. 455).

This issue was addressed in a second round of proceedings leading to the December 2013 final award. Determining the required minimum flow posed complex factual issues, including disputes regarding the nature and reliability of hydrologic data submitted by the parties (final award, paras. 19–37), the effect of various flows on the KHEP and the NJHEP (*id.*, paras. 38–48), Pakistan's predictions of future agricultural development in the Neelum Valley (*id.*, paras. 49–52), the KHEP's environmental impacts (*id.*, paras. 53–70), and the regime to monitor future minimum flows (*id.*, paras. 71–75).

In addressing these disputes, the tribunal observed that the hydrological estimates submitted by the parties were in fact quite similar (final award, para. 90). On other matters, it noted that Pakistan had not submitted an estimate of future downstream agricultural development (*id.*, para. 94) but expected that the minimum flow to be prescribed would be sufficient for agriculture. Weighing the parties' competing environmental assessments, the tribunal concluded that Pakistan's more in-depth assessment "is a more appropriate tool," while urging both parties "to continue or expand their attention to environmental considerations at other projects" (*id.*, paras. 100, 101).

Its analysis of the data indicated to the tribunal that "an approach that takes exclusive account of environmental considerations . . . would suggest an environmental flow of some 12 cumecs"¹² downstream from the KHEP (final award, para. 104). But environmental considerations were not the only relevant factor. The tribunal also had to give effect to India's Treaty right, affirmed in the partial award, to operate the KHEP effectively. The panel understood this right to mean that India should be able to use at least half of the average flows during the driest months (*id.*, para. 109). India's right to operate the plant effectively also had to be interpreted in light of the customary principles of international environmental law to the limited extent directed by paragraph 29 of Annexure G to the Treaty (*id.*, paras. 110–12).¹³ Here, the tribunal recalled that under customary international law states "have 'a duty to prevent, or at least mitigate' significant harm to the environment when pursuing large-scale construction activities" (*id.*, para. 112).¹⁴ It declined to go further, however, concluding that the limited interpretative role of customary international law under the Treaty made it inappropriate "and certainly not 'necessary,' for it to adopt a precautionary approach and assume the role of policymaker in determining the balance between acceptable environmental change and other

¹² "Cumec" is an acronym for "cubic meters per second." One cumec equals about 35.3 cubic feet per second (CFS), a measure of flows frequently used in the United States.

¹³ Paragraph 29 of Annexure G to the Treaty, *supra* note 2, allows reference to customary international law "but only to the extent necessary" for the purpose of interpretation or application of the Treaty.

¹⁴ Quoting Partial Award, para. 451.

priorities, or to permit environmental considerations to override the balance of other rights and obligations expressly identified in the Treaty” (*id.*).

Weighing the data, the environmental impacts, and the parties’ competing rights and obligations, the tribunal concluded that India must assure a minimum flow of 9 cumecs, a level sufficient to maintain the lowest dry-month flow ever recorded and more than twice the minimum flow ordered by India’s Ministry of Environment and Forests. The tribunal projected that this level would result in a 5.7 percent average annual reduction in the KHEP’s energy production (final award, para. 114 & n.165).

In a commendable display of realism, the tribunal recalled the uncertainty inherent in attempting to predict future environmental impacts of the 9-cumec minimum flow (final award, para. 117), finding it “important not to permit the doctrine of *res judicata* to extend the life of this Award into circumstances in which its reasoning no longer accords with reality” (*id.*, para. 118). Accordingly, the tribunal authorized reconsideration of the minimum flow after seven years but rejected Pakistan’s request for a monitoring regime, finding that a continued exchange of data under the Treaty regime would suffice (*id.*, paras. 119, 121–22).

Observing that the case had presented “difficult issues of treaty interpretation,” and that the parties had acted “with skill, dispatch, and economy,” the panel saw “no reason to depart from the principle, common in public international law proceedings, that each Party shall bear its own costs.” The costs of the tribunal were divided equally (final award, para. 124).

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The *Kishenganga* awards are notable for the fact that two states with frequently difficult bilateral relations resorted to arbitration to address vexing disputes that involved matters of great sensitivity and importance. Officials of both parties have expressed public satisfaction with the results,¹⁵ and the tribunal’s rulings should provide a framework to guide future upstream hydroelectric development by India.

The partial and final awards gave neither party all it asked for. Instead, the tribunal sought to interpret and apply the Treaty in ways intended to maintain the careful balance of rights and obligations that the negotiators of the Indus Waters Treaty in the 1950s struggled to attain. The tribunal thus affirmed India’s entitlement to develop hydropower on the Western Rivers in accordance with the Treaty, but within significant limits. India may proceed with the KHEP with some limited modifications, even though the project will lessen somewhat the future ability of Pakistan to develop its hydropower capacity. But India’s rights are subject to Pakistan’s rights to stability in flows, as reflected in the requirement to maintain a minimum flow. Perhaps of greater importance, India cannot substantially empty the KHEP’s reservoir—and those of other future hydroelectric projects—to flush sediment. This restriction relieves what some well-informed observers see as Pakistan’s greatest concern because of drawdown flushing’s threat to the stability of downstream flows as upstream reservoirs are emptied and then refilled.¹⁶

¹⁵ See, e.g., *Hague Court Backs India’s Right on Kishenganga Water*, TIMES OF INDIA, Feb. 20, 2013 (elec. ed.), available in LEXIS, News & Business Library, Individual Publications File; Zafar Bhutta & Shahram Haq, *Kishenganga Project: Victory Claims Cloud Final Arbitration Award*, EXPRESS TRIB. (Pak.), Dec. 22, 2013, at <http://tribune.com.pk/story/648986/kishanganga-project-victory-claims-cloud-final-arbitration-award/>.

¹⁶ John Briscoe, *Winning the Battle But Losing the War*, HINDU, Feb. 22, 2013, at <http://www.thehindu.com/opinion/lead/winning-the-battle-but-losing-the-war/article4439676.ece>.

The parties' arguments raised challenging issues of treaty interpretation. In addressing these, the tribunal emphasized the Treaty's overall structure and purpose by interpreting specific provisions in a manner that sought to respect the Treaty's overall balance of rights and obligations. This approach led to frequent references to the Treaty's negotiating history. While Article 32 of the Vienna Convention on the Law of Treaties assigns negotiating history a subsidiary role as a "supplementary means of interpretation" to confirm a meaning reached through the rules of Article 31 or where a meaning is ambiguous or obscure, the parties were less restrained. Both India and Pakistan drew extensively on the negotiating history of the Treaty and the "circumstances of its conclusion" in advancing preferred interpretations. The tribunal likewise appears to have been liberal in referring to the negotiating history in interpreting important provisions.

The case posed unusual evidentiary challenges. The record included a mass of evidence, much of it quite technical. The panel was undeterred, and both awards indicate thorough and critical analysis of the extensive record and careful fact-finding. The tribunal's assessment of whether the KHEP or the NJHEP first attained "critical mass" entitling it to protection under the Treaty involved the review of 120 documents (partial award, para. 437 n.627). The tribunal's analysis of the rival arguments regarding sediment control drew on numerous technical reports and included a clear and substantial discussion of reservoir sedimentation and sediment control (*id.*, paras. 495–502). While an outside observer cannot know, it may well be that the presence on the panel of a distinguished engineer significantly enhanced both its ability to assess such issues and the clarity and persuasiveness of the awards' analyses of technical matters.

The case appears to have been intensively and skillfully litigated by both parties. The proceedings were conducted with dispatch, efficiency, and fairness, as might be expected given the extensive litigation and arbitration experience of the tribunal's members. The case was initiated on May 17, 2010, and the panel's final member was named on December 17, 2010. Matters then moved briskly by the standards of complex interstate litigation. The tribunal met with the parties in January 2011 and promptly followed with a comprehensive procedural order addressing the agreed schedule and other procedural matters. Over the remainder of 2011, the tribunal conducted a site visit, held a hearing on Pakistan's application for interim measures, received the parties' memorials and counter memorials, issued a provisional measures order, and refereed the parties' disagreements regarding implementation of that order. The year 2012 brought continued controversies regarding implementation of the provisional measures order, a second site visit, Pakistan's reply, India's rejoinder, multiple rulings on procedural disputes (involving, *inter alia*, redactions from an official document, video cross-examination of an expert witness, and a request for testimony by another), and a two-week hearing in August. The 202-page partial award followed six months later, in February 2013, prompting a request by India in May 2013 for clarification or interpretation. After additional briefing, the final issue, the required minimum flows downstream of India's works, was resolved by the final award in December 2013. Thus, the proceedings took less than three years once the tribunal was in place. While this timing might not seem noteworthy in some settings, the successful resolution of a vigorously contested interstate case of such complexity in three years is a notable accomplishment.

JOHN R. CROOK
Of the Board of Editors