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Building the difficult balance between development and environment:

The Kishenganga case (Pakistan / India)

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INDIA MAJOR RIVERS



THE INDUS RIVER BASIN

INDUS RIVER REGION



Indus River Basin



INDUS BASIN COUNTRIES



POLITICAL DIVISION



THE INDUS RIVER BASIN

- The transboundary Indus river basin, the twelfth largest river in the world, has a total area of 1.12 million km² distributed between
- Pakistan: 520,000km² - 47% of the Basin - 65% of the country
- India: 440,000 km² - 39% of the Basin - 14% of the country
- China: 88,000km² - 8% of the Basin - 1% of the country
- Afghanistan: 72,000km² - 6% of the Basin - 11% of the country

The Basin rivers flow from the Himalayan mountains in the north out into the Arabian Sea.

At least 300 million people are estimated to live in the Indus basin.

The climate in the Indus plains is arid to semi-arid.

Average annual rainfall on the Indus plains is about 230mm. On the lower plain is about 90mm

THE INDUS BASIN DISPUTE BETWEEN INDIA AND PAKISTAN

1947 - At independence, the British colony of India was divided into two countries, India and Pakistan

1948- The irrigation system, conceived originally as a whole, was divided between both countries without considering the irrigated boundaries resulting in an international water dispute.

The World Bank assisted the countries in the ensuing negotiations to solve the dispute.

1954 - A World Bank draft agreement proposed to divide the basin into two parts: it allocated to Pakistan “the exclusive use and benefit” of the entire flow of the Western Rivers (Indus, Jhelum and Chenab) and to India “the exclusive use and benefit” of the entire flow of the Eastern Rivers (Ravi, Beas and Sutlej).

THE TREATY

THE INDUS WATERS TREATY (1960)

On September 19, 1960, at Karachi, the negotiations achieved the signature of the Indus Waters Treaty between the Governments of India and Pakistan, and the World Bank (IBRD)

The Treaty established the Permanent Indus Commission for the implementation of the Treaty

RIVERS IN THE INDUS WATERS TREATY

- Definitions (Article 1):
- The term “The Indus,” “The Jhelum,” “The Chenab,” “The Ravi,” “The Beas” or “The Sutlej” means the named river (including Connecting Lakes, if any) and all its Tributaries :
- Provided, however , that (i) none of the rivers named above shall be deemed to be a Tributary

SPLITTING THE BASIN RIVERS

Definitions (Article 1):

- (5) The term “Eastern Rivers” means The Sutlej, The Beas and The Ravi taken together.
- (6) The term “Western Rivers” means The Indus, The Jhelum and The Chenab taken together.
- (7) The term “the Rivers” means all the rivers, The Sutlej, The Beas, The Ravi, The Indus, The Jhelum and The Chenab.

EASTERN RIVERS

Article II

PROVISIONS REGARDING EASTERN RIVERS

- (1) All the waters of the Eastern Rivers shall be available for the unrestricted use of India, except as otherwise expressly provided in this Article.
- (2) Except for Domestic Use and Non-Consumptive Use, Pakistan shall be under an obligation to let flow, and shall not permit any interference with, the waters of the Sutlej Main and the Ravi Main in the reaches where these rivers flow in Pakistan and have not yet finally crossed into Pakistan. The points of final crossing are the following : (a) near the new Hasta Bund upstream of Suleimanke in the case of the Sutlej Main, and (b) about one and a half miles upstream of the syphon for the B-R-B-D Link in the case of the Ravi Main.

WESTERN RIVERS

- *Article III*
- PROVISIONS REGARDING WESTERN RIVERS
- (1) Pakistan shall receive for unrestricted use all those waters of the Western Rivers which India is under obligation to let flow under the provisions of Paragraph (2).
- (2) India shall be under an obligation to let flow all the waters of the Western Rivers, and shall not permit any interference with these waters, except for the following uses, restricted (except as provided in item (c) (ii) of Paragraph 5 of Annexure C) in the case of each of the rivers, The Indus, The Jhelum and The Chenab, to the drainage basin thereof :
 - (a) Domestic Use ;
 - (b) Non-Consumptive Use ;
 - (c) Agricultural Use, as set out in Annexure C ; and
 - (d) Generation of hydro-electric power, as set out in Annexure D.
- (3) Pakistan shall have the unrestricted use of all waters originating from sources other than the Eastern Rivers which are delivered by Pakistan into The Ravi or The Sutlej, and India shall not make use of these waters.

THE [EASTERN AND WESTERN] RIVERS

Article IV

- PROVISIONS REGARDING EASTERN RIVERS AND WESTERN RIVERS
- (1) Pakistan shall use its best endeavours to construct and bring into operation, with due regard to expedition and economy, that part of a system of works which will accomplish the replacement, from the Western Rivers and other sources, of water supplies for irrigation canals in Pakistan which, on 15th August 1947, were dependent on water supplies from the Eastern Rivers.
- (2) Each Party agrees that any Non-Consumptive Use made by it shall be so made as not to materially change, on account of such use, the flow in any channel to the prejudice of the uses on that channel by the other Party under the provisions of this Treaty. In executing any scheme of flood protection or flood control each Party will avoid, as far as practicable, any material damage to the other Party, and any such scheme carried out by India on the Western Rivers shall not involve any use of water or any storage in addition to that provided under Article III.

DEVELOPMENTS IN THE INDUS RIVER BASIN

In 2005, the total dam capacity of Pakistan was estimated at 23.36 km³.

In 2008, the total harvested irrigated cropped area in Pakistan was estimated at 21.45 million ha, most of it in the Indus Basin

In 2010, India had six large dams in the Indus basin with a total dam capacity of 18.6 km³

THE DISPUTE

INDIA'S KISHENGANGA/NEELUM HYDRO-ELECTRIC PLANT (KHEP)

- The Kishenganga/Neelum River, in which the Kishenganga Hydro-electric Plant (KHEP) is located, is a tributary of the Jhelum River which originates in India-administered Jammu and Kashmir at an elevation of 4,400 metres.
- It flows through India-administered Jammu and Kashmir, crosses the “border” Line of Control into the Pakistan-administered Jammu and Kashmir, and joins the Jhelum River at Muzaffarabad in Pakistan-administered Jammu and Kashmir.
- The flow in the Kishenganga/Neelum River is strongly seasonal. The highest flows occur from May to August, and there is a long low flow season from early October to the middle of March

PAKISTAN'S OBJECTION TO THE PROJECT

The Pakistani Commissioner objected to the KHEP on the grounds that:

- (1) the planned diversion was not permitted by Annexure E to the Treaty;
- (2) the KHEP would have a significant adverse impact on Pakistan's agricultural and hydro-electric uses on the Kishenganga/Neelum River, and in particular on the NJHEP, thus contravening Paragraph 10 of Annexure E to the Treaty; and (3) the KHEP's design did not conform to the design criteria of Paragraph 11 of Annexure E to the Treaty

COMMUNICATIONS TO THE COMMISSION

- In 1988 India started a scheme envisaging diversion of the waters of the Kishenganga River into Wullar Lake.
- 14 December 1988, Pakistan requested that India interrupt the works and provide Pakistan with information on the Project, because it would adversely affect Pakistan's hydro-electric projects and other uses of the River.
- 12 May 1989, India's Commissioner recalled that the project was in accordance with Paragraph 10, annex E, of the 1960 Treaty, and requested Pakistan information about its agricultural and hydro-electric uses.
- 2 June 1994, India communicated to Pakistan the details of the Project (Paragraph 12 of Annex E)

RE-DESIGN OF THE KHEP

- The India's KHEP Project was conceived as a Storage Work, a 77-metre high dam with 220 million/cubic metres (MCM) capacity.
- However, in 2006 the Project was re-designed , comprising:
 - 1) a 35.48 metre dam in the Gurez valley;
 - 2) a reservoir with a storage capacity of 18.35 MCM;
 - 3) a 23.5 km tunnel to divert water from the Kishenganga/Neelum River to the powerhouse;
 - 4) a powerhouse at the downstream end of the tunnel;
 - 5) a channel which after power generation will deliver water into the Bonar Nallah, another tributary of the Jhelum, and will then rejoin the Jhelum River. The design makes use of the natural 666-metre denivelation between the dam and the powerhouse for the generation of power.

THE COURT OF ARBITRATION

COURT OF ARBITRATION

A Court of Arbitration was then constituted in accordance with the procedure established by the Treaty:

- Judge Stephen M. Schwebel (Chairman) (UN SG)
- Sir Franklin Berman KCMG QC (Lord Chief Justice)
- Professor Howard S. Wheeler FREng (Imperial College)
- Professor Lucius Caflisch (IN)
- Professor Jan Paulsson (PK)
- H.E. Judge Bruno Simma (PK)
- H.E. Judge Peter Tomka (IN)

- Secretariat: Permanent Court of Arbitration

PAKISTAN REQUEST INTERIM MEASURES

- Pakistan requested the Court to issue an order for provisional measures in the following terms:
- (i) India shall cease work on the KHEP until such time as the Court renders its award on the merits in these proceedings;
- (ii) India shall inform the Court and Pakistan of any actual or imminent developments or steps in relation to the Kishenganga project that may have a significant adverse effect upon restoring the *status quo ante or that may in any other way seriously* jeopardise Pakistan's rights and interests under the Treaty;
- (iii) Any steps that India has taken or may take in respect of the KHEP are taken at its own risk and without prejudice to the possibility that the Court may in its decision on the merits order that the works must not be continued or must be modified or dismantled; and,
- (iv) Such further relief as the Court considers to be necessary.

INDIA'S INTERIM MEASURES

India requested the Court “to reject Pakistan’s Application for Provisional Measures, and to decide that the circumstances of the case are not such to justify the ordering of interim measures under the 1960 Treaty.”

ORDER ON INTERIM MEASURES

Site Visit to the Project

- June 15-21, 2011 The Court carried out a site visit to the Neelum-Jhelum and Kishenganga hydro-electric projects and surrounding areas located on the Kishenganga/Neelum River
- The visit was a relevant element for the decision on the Interim Measures requested by the Parties, which allowed some works to continue (those on India's own risk) while halting others (those that could prejudice the final decision)

Order on Interim Measures

September 23, 2011 The Court issued the Order on Interim Measures:

- “140. Pakistan’s claims of Treaty violation challenge the permissibility of the construction and operation of the KHEP on the river Kishenganga/Neelum.”
- “[...] the Court cannot exclude the possibility that India’s planned installations, or elements of those installations, on the Kishenganga/Neelum would not be in conformity with the Treaty.”
- 142. [However] “[...] the construction and completion of these elements of the KHEP occur at some distance from the Kishenganga/Neelum riverbed, and would thus not in and of themselves affect the flow of the river.” [and] “[...] no violations of Pakistan’s rights would have been caused by the tunneling and power house construction aspects of the KHEP].”

Order on Interim Measures (2)

- “143. In the Court’s view, the continuation of such activity is appropriately governed by the “proceed at own risk” principle of international law, as specifically recognized by India during the hearing.” [...] “and there seems to be no further risk of “prejudice to the final solution,” in terms of the Court’s Award, in allowing these aspects of the KHEP’s construction works to proceed.”
- “146. Conversely, the Court considers that the construction of the permanent dam which India proposes to emplace in and on the Kishenganga/Neelum riverbed falls squarely within the category of works that create a significant risk of “prejudice to the final solution.””

Order on Interim Measures (3)

- “146. [...] It is the dam that would eventually enable India to exercise a certain degree of control over the volume of water that will reach Pakistan; the temporary obstruction of the river and its channeling through a by-pass tunnel does not have any such effect. Moreover, it is the dam that would eventually place India in a position to divert parts or all of the waters of the Kishenganga/Neelum river into the Bonar-Madmati Nallah, thus potentially affecting water supplies in downstream areas of the Neelum valley.”
- “150. In the circumstances, the Court concludes that the construction of this portion of the KHEP is capable of leading to “prejudice to the final solution . . . of the dispute,” and that it is necessary to enjoin India from proceeding with the construction of permanent works on or above the Kishenganga/Neelum riverbed that may inhibit the full flow of that river to its natural channel until the Court renders its Award.”

Joint Inspection by the Parties

- Pursuant to the Interim Measures [paragraph 152 (2)] the Parties should carried out periodic joint inspections of the dam site at Gurez in order to monitor the implementation of the Order
- Although the Parties made the joint inspections, they did not agree on joint reports, and presented separate documents

Second Site Visit

From 3 to 6 February 2012, a Court's delegation of three members (two judges and the Secretary) made a second visit to the works in progress

Partial Award

- On February 18, 2013, after written and oral submissions by the Parties on the Merits, the Court delivered a Partial Award
- The Court dealt with the arguments of the Parties regarding the First and the Second Disputes

First Dispute

Interpretation of Paragraph 15(iii) Annex D

- Annex D Paragraph 15. Subject to the provisions of Paragraph 17, the works connected with a Plant shall be so operated that (a) the volume of water received in the river upstream of the Plant, during any period of seven consecutive days, shall be delivered into the river below the Plant during the same seven-day period, and (b) in any one period of 24 hours within that seven-day period, the volume delivered into the river below the Plant shall be not less than 30%, and not more than 130%, of the volume received in the river above the Plant during the same 24-hour period : Provided however that :
 - (i);
 - (ii); and
 - (iii) **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**.

Views of the Parties

- Pakistan asserts that the Treaty is premised on the idea that “the flow of the waters that make up the Indus Basin system should be definitively and permanently divided between the two States.”
- India maintains that the Treaty was purposefully designed around a “principle of freedom of action,” while also giving the Parties different rights, as appropriate to their differing interests and geographies. Accordingly, the production of hydro-electric power has “always been contemplated as an integral part, and indeed objective,” of the approach to the development of the Indus basin taken by the Treaty

Waters and the Use of Waters

The Court should decide **whether India is permitted under the Treaty to deliver the waters of the Kishenganga/Neelum River into another tributary** in the course of the operation of the KHEP. Pakistan maintains that it is not in conformity with the Treaty, because Articles III (2) and IV (6) restrict Indian uses of the Western Rivers in general.

369. [...] The Court's considered that Article III(2) restricts what India may do with the waters of the Western Rivers, and not with the products that may be generated from their use.

- 375. [...] The Court cannot accept that Article IV(6) **debars the construction and operation of works** specifically contemplated by the Treaty.

Exceptions authorized by the Treaty

- 376. The Court stated that the right to generate hydro-electric power, if conducted in accordance with Annexures D or E, **is an express exception** to India's obligation to let flow the waters of the Western Rivers.
- 399. Potential downstream harm is not irrelevant. [...] When **necessity** is invoked under customary international law **...proportionality may properly be considered.**

Object and Purpose of the Treaty

- Paragraphs 410- 413

410. [...] the Treaty establishes a regime of qualified rights and priorities in respect of specific uses, which governs the interpretation of Paragraph 15.

413. [...] Any interpretation of Paragraph 15 the logical result of which would be to allow Pakistan unilaterally to curtail the ability of such Indian Plants to operate would subvert an important element of the object and purpose of the Treaty.

Balance to guide Treaty Interpretation

- 400. The essence of First Dispute is a difference of views between the Parties as to the proper interpretation of Paragraph 15(iii) of Annexure D
- 433. “The Court is guided by the need to reflect the equipoise which the Treaty sets out between Pakistan’s right to the use of the waters of the Western Rivers (including the Jhelum and its tributary, the Kishenganga/ Neelum) and India’s right to use the waters of those rivers for hydro-electric generation [...]”
- 436. [...] “India’s right to divert the waters of the Kishenganga/ Neelum cannot be absolute. [...] Paragraph 15(iii) protects Pakistan’s right to a portion of the waters of the Kishenganga/ Neelum throughout the year for its existing agricultural and hydro-electric uses.”

Preservation of downstream flows

Paragraphs 445 - 454

- 445. [...] “these limitations require India to operate the KHEP in a manner that ensures a minimum flow of water in the riverbed of the Kishenganga/Neelum downstream of the Plant.”
- 446. [...] “The requirement to avoid adverse effects on Pakistan’s agricultural and hydro-electric uses of the waters of the Kishenganga/Neelum cannot, however, deprive India of its right to operate the KHEP—a right that vested during the critical period of 2004–2006.”
- 447. India’s duty [...] “also stems from the Treaty’s interpretation in light of customary international law” (para 29 Annexure G)

Transboundary harm

The Court addresses the principle not to cause injury to the territory of another State, relying on existing case-law and principles, stating that,

448. “Well before the Treaty was negotiated, a foundational principle of customary international environmental law had already been enunciated in the *Trail Smelter arbitration*” [...] which is also embodied in Principle 21 of the 1972 Stockholm Declaration.

449. [...] “In particular, the International Court of Justice expounded upon the principle of “sustainable development” in *Gabčíkovo-Nagymaros*, referring to the “need to reconcile economic development with protection of the environment.

450. In the Pulp Mills case [...] “the International Court of Justice emphasized that such duties of due diligence, vigilance and prevention continue “once operations have started and, where necessary, throughout the life of the project.”

451-452. The Court invokes the duty to prevent or at least mitigate significant harm to the environment recognized by the *Iron Rhine* arbitration when large scale works are undertaken even under an existing Treaty.

Minimum flow

- 453. [...] “The Court takes note of India’s commitment to ensure a minimum environmental flow downstream of the KHEP at all times.
- 454. The Court also takes note of Pakistan commitment to EIA for the NJHEP and concludes that “that hydro-electric projects (including Pakistan’s projects) must be planned, built and operated with environmental sustainability in mind.”
- 455-456-457-458. The Court will need further data, which the Parties will provide, to determine the precise rate of the minimum downstream flow, to be fixed in the Final Award.

Second Dispute: The Permissibility of Reservoir Depletion

- 464. The Parties disagree as to whether India may, within the terms of the Treaty, periodically lower the water level in the reservoir at a Run-of-River Plant on the Western Rivers for purposes of sediment control through the procedure known as drawdown flushing.

Decision on the First Dispute

In relation to the First Dispute

- The Kishenganga Hydro-Electric Project constitutes a Run-of-River Plant for the purpose of Paragraph 15 of Annexure D to the Indus Waters Treaty. Then, India may divert water from the Kishenganga/Neelum River and deliver the water below the power station.
- However, India is under an obligation to construct and operate the Plant in such a way as to maintain a minimum flow of water in the Kishenganga/Neelum River, at a rate to be determined by the Court in a Final Award.

Decision on the Second Dispute

- In relation to the Second Dispute,
- Except in the case of an unforeseen emergency, the Treaty does not permit reduction below Dead Storage Level of the reservoirs of Run-of-River Plants on the Western Rivers.
- Accordingly, India may not deplete the reservoir below that level.
- There are no further restrictions on the construction and operation of the KHEPlant.
- The Interim Measures are lifted

INDIA'S REQUEST FOR INTERPRETATION

MAY 30, 2013

- On December 20, 2013, the Court of Arbitration ruled that India's request for clarification or interpretation of the Court's Partial Award of 18 February 2013 is timely and admissible.
- Subsequently, the Court interprets that “the prohibition on the reduction below Dead Storage Level of the water in the reservoirs of Run-of-River Plants on the Western Rivers, [established in Paragraph B(4) of the “Decision” section (Part V) in the *Partial Award of 18 February 2013*] except in the case of unforeseen emergency, is of general application.”

Final Award

- On December 20, 2013, the Court of Arbitration decided on the effect of minimum flow on power generation and the economics of the KHEP .

The Decision determined the minimum flow, maintaining the priority accorded to the KHEP in the Partial Award (para 105)

The Court stated that after 7 years of the diversion of water, either Party may seek reconsideration of the minimum flow through the Permanent Indus Commission

Discussion

- (a) The Jammu and Kashmir region have an underlying sovereign dispute that enlarges the significance of submitting the Kishenganga controversy to a jurisdictional solution. In this case, the importance of solving the difference about the legality of the use of a transboundary river waters made possible to put aside the subjacent territorial dispute.
- (b) Even if the decision emphasizes the need to take into account environmental principles, construe at the same time the Treaty in favor of the conclusion of the Plant.
- 1. Does it mean that development is the stronger side of the equation?
- 2. Or is it the minimum flow duty relevant enough in order to balance environment and development?

Environment and Development

- Should interpretation modified the provisions of a Treaty incorporating subsequent rules?
- The possibility was not accepted in the approved text of the 1969 VCLT
- The Court of Arbitration seemed to abide by that rule