

From Indus-I to Indus – II

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Backdrop

The Indus Water Treaty must rank among the triumphs of the United Nations system since it was signed in 1960. It has worked remarkably well in keeping the peace, with the onus of performance falling almost entirely on India, as the upper riparian, despite constant nit-picking by Pakistan. Is Islamabad now essentially intent on cranking up political “disputes” on the Indus by raising objections to India’s Baglihar and Kishenganga projects on the Chenab and Jhelum?

Having taken an 180 degree turn on the ideological or territorial (“unfinished business of Pakistan”) aspect of the J&K question, Pakistan wants to demonstrate that it has not relented on the “core” issue. Hence the charge that India is threatening its lifeline by not merely misappropriating Indus waters in violation of the Treaty but, in so doing, is developing strategic capability to hurt Pakistan by drying up these rivers or causing floods!

The “lifeline” issue was first raised when East Punjab cut off supplies to the Central Bari Doab and Dipalpur Canals on April 1, 1948, a day after the expiry of the Standstill Agreement on canal waters signed in December 1947. These supplies amounted to six percent of the canal flows to Pakistan and did not affect the far larger flows serving dozens of its other canals. Supplies to the CBD and Dipalpur Canals were restored on April 30 and the new agreement was ratified by India and Pakistan on May 4. Nehru was furious with the East Punjab for acting unilaterally in the first place. Chaudhury Mohd. Ali, Pakistan’s Secretary-General, was later to write in “Emergence of Pakistan” (Columbia University Press, 1967) that while East Punjab showed “Machiavellian duplicity”, West Punjab displayed “neglect of duty, complacency and lack of common prudence” in failing to renew the original standstill agreement in time.

The Treaty

The Canal Water Dispute triggered the complex negotiations culminating in the Indus Water Treaty, brokered by the World Bank. The 168 million acre feet (MAF) average annual flow of the Indus was divided 80:20, with Pakistan getting the lion’s share in the form of the entire flows of the three Western Rivers (the Indus, Jhelum and Chenab) plus the Kabul, barring some limited Indian uses in Jammu and Kashmir (J&K). India

was, in turn, allocated the entire waters of the three smaller Eastern Rivers (Ravi, Beas and Sutlej), less some minor uses for Pakistan from the Ravi.

Pakistan received generous assistance from a Bank-led consortium and India was called upon to pay 62 million pounds sterling to Pakistan towards replacement works to be built by it within a transitional period of 10 years ending in 1970. With this settlement, Pakistan was able to develop a completely independent irrigation system with storages at Tarbela (Indus) and Mangla (Jhelum), while India was able to redesign and complete Bhakra and later build the Pong and Thein Dams (on the Beas and Ravi) and other storages. Assurance of these waters was an important factor making for the Green Revolution that followed.

Subsequently, in the 45 years since 1960, despite wars, proxy-war, cross-border terrorism and alarms and excursions of every kind, when everything else failed, the Indus Commissioners have met and the Indus Treaty has worked. The “lifeline” problem had demonstrably been laid to rest.

India’s Rights

India’s rights on the three Western Rivers are clearly and specifically set out in the Treaty. All existing irrigation, hydro, flood moderation and navigational uses in J&K were protected. Over and beyond that, India was permitted to develop additional irrigation of 1.34 million acres in J&K, against which only 642,477 acres has been achieved so far, leaving a balance of over half a million acres. Further, India is allowed 3.60 MAF of storage (0.40 MAF on the Indus, 1.50 MAF on the Jhelum and 1.70 MAF on the Chenab). This in turn has been categorised sector-wise: 2.85 MAF for conservation storage (divided into 1.25 MAF for “general storage” and 1.60 MAF for “power storage”) and an additional 0.75 MAF for “flood storage. These have been further classified under the heading of main rivers and tributaries. The fact is that until today, India is well below the permissible limits in every sector and category of usage and has built practically no “storage” (as opposed to run-of-the-river “pondages”).

The Treaty binds India to inform or consult Pakistan on planned withdrawals and works on the Western rivers and to ensure no harm or derogation of its water rights. There have been 27 occasions when such information has been passed or consultations organised and the record shows that Pakistan has raised objections in virtually all cases, even with regard to mini/micro hydro plants with miniscule pondages in respect of which “adverse comments” have been passed and the matter dropped if below 1 MW capacity. The objections have generally been qualitative (“Treaty violation”) without quantification and substantiation. In other words, though dressed up as design or engineering objections or queries, the objective has been political and the motivation to delay if not deny progress that primarily benefits J&K.

Responses From J&K

This, and admittedly some of our own internal delays, has irked J&K opinion, which feels that the State has had to bear the burden of the Indus Treaty with the benefits flowing to Punjab, Haryana, Rajasthan, Delhi and others. Abrogation of the Treaty has sometimes been advocated. This is a mistaken view as J&K and India as a whole have yet to utilise their full entitlement. Moreover, talk of abrogating the Treaty would gratuitously revive and breathe life into Pakistan's "lifeline" argument.

India has complete entitlement to the entire waters of the Sutlej, Beas and Ravi, leaving Pakistan with no rights on them excepting for no more than 100 acres of irrigation from the Basantar, a tributary of the Ravi. Despite this, it released as much as 4.85 MAF (mostly flood waters) down the Sutlej and Ravi into Pakistan on an average between 1990 and 2002. This has since reduced to about 3 MAF after the completion of the Thein dam on the Ravi, with the balance still escaping on account of the dispute over the Sutlej-Yamuna Link and the fact that the final phase of the Indira Gandhi (Rajasthan) Canal is still to be completed.

It is against this statement of water accounts under the Treaty, that one should view Pakistan's objections to the Baglihar and Kishenganga projects.

Baglihar is a run-of-the-river peaking project on the Chenab, above the Salal Dam, and over 110 km from the Pakistan border. It has an installed capacity of 450 MW and a live pondage of 37.5 million cubic metres of water (or 46,570 acre-feet), the balance of the gross 396 cumecs pondage being dead storage. In accordance with the Treaty, the volume of water received in the pond over each seven day period shall be returned to the river below the dam within the same week, each 24-hour return flow ranging between a minimum of 30 per cent and a maximum of 130 per cent of the inflow received within that same 24-hour period. Baglihar should start generating by 2007.

With basically no more than the addition of more turbines and some other minor works, Baglihar-II will generate another 450 MW for three or four monsoon months.

Pakistan's Objections

Pakistan was informed as far back as 1992 that India planned to go ahead with Baglihar. Work commenced in 2000 on the basis of 25-year flow data that has been communicated to and never challenged by Islamabad. The minimum average flow of the Chenab at Baglihar in January is 125 cumecs (4375 cusecs) and the dam is designed to pass a maximum flood of 12,600 cumecs. It is only in the last couple of years that objections have been pressed and in January 2005 that they were specified. The six objections raised variously relate to pondage, gated spillways, under sluices and level of intake channel. But the punch line is that the dam will be able to store/release a sufficient quantum of water to flood Pakistan or dry up the river for several days.

These fears are fanciful as all the parameters conform to the Treaty and flooding or drying up of the river (and Pakistan's canal anti-tank ditches) is simply not possible. The fallacy lies in adding dead storage to live pondage and assuming mala fide intent that would primarily, and first, adversely affect the Indian villages along the Chenab valley and the Salal Dam. Indeed, Pakistan is so far away that any floodwaters would dissipate before they reached the border.

The same argument of flooding or drying up the river has been used to stymie other Indian proposals, be it Salal, Uri, Dul Hasti. In short, Pakistan's argument appears to be that every dam can be used as a strategic weapon of war. This is perverse reasoning .

The Factual Position

Indian experts are of the view that if another couple of rounds of talks had been held after Pakistan quantified its objections, maybe complete convergence could have been reached. Unfortunately Pakistan insisted on resort to the difference-dispute settlement mechanism under the Treaty. The Neutral Expert since appointed can either give a finding that will be binding or certify a "dispute" which either party may then refer to arbitration as provided under the Treaty. Pakistan's condition for continuing talks on Baglihar was and on Kishenganga (after a July 2005 deadline) is that construction must stop. The Treaty does not provide for this and India has accordingly declined to do so, especially in view of the fact that it agreed to a temporary stoppage of work on the Tulbul Project, which has since languished unresolved for 17 years.

The Jhelum was traditionally used for navigation and floating timber down to Sopore and Baramulla in North Kashmir but the river has silted. The Tulbul Project was accordingly designed to retard the Jhelum flood within the natural confines of the Wulur Lake through which the river passes. Instead of emptying swiftly with the receding flood, a control structure at the Lake's exit would have permitted steady releases of this natural pondage of some 300,000 acre feet of water through the lean months from October to May. This would have reduced silt flows down-stream to the benefit of both - the Uri and Mangla projects in India and Pakistan respectively by augmenting their power output. However, Pakistan argues that Tulbul would be a storage dam and is therefore barred by the Treaty. India looks on it as no more than a flood retardation device. Thanks to Pakistan, Tulbul remains in limbo.

Turn to Kishenganga, or the Neelum as this tributary of the Jhelum is known in Pakistan. Rising near Gurez, the river flows through J&K and then crosses the LOC to enter POK before falling into the Jhelum near Muzaffarabad. The Indian Project envisages a 75 m high concrete dam on the Kishenganga at Gurez , at an altitude of about 8000 feet. It will store 140,000 MAF of water and divert flows southwards through a 23 km tunnel into a Jhelum tributary, the Madmati Nala, that flows into the Wulur Lake through which the Jhelum also runs. The water diversion is quite small but, given a high head of about 600 metres, an installed capacity of 330 Megawatt (MW)

is planned. The quantum of displacement and environmental impacts, however, raise sensitive issues that will have to be internally addressed.

An incidental advantage of the Kishenganga diversion would be to flush the Wulur Lake and help rejuvenate this important water body.

India communicated its intention of going ahead with the Kishenganga project in June 1992 and Pakistan responded soon after, listing three objections. The first is that inter-tributary diversions are barred and that water drawn from a given river must be returned to that same river. The second is that existing Pakistani uses must be protected and India's Kishenganga Project would deprive it of 27 per cent of the river's natural flows, thereby doing injury to its existing 133,000 ha of irrigation in the Neelum Valley and a 900 MW Neelum-Jhelum hydro station on which construction had commenced at Nowshera. The third objection relates to certain design features of the dam.

The Indian response is that the Treaty is unambiguous. Section 15(3) of Part 3 (New run-of-river plants) of Annexure D, pertaining to "Generation of hydro-electric power by India on the Western Rivers", reads as follows:

"Where a plant is located on a tributary of the Jhelum on which Pakistan has an 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".

A plain reading of this would suggest that inter-tributary diversions in the Jhelum basin are permitted and that only "the then existing" agricultural and hydro-electric uses shall be protected.

The next question is what the phrase "the then existing" uses implies? Pakistan has to substantiate and not merely assert 133,000 ha of irrigation. Hard evidence on this has not so far been forthcoming. And what is the stage of construction or operation of the Nowshera hydro-electric plant and what are its specifications? A planned use would be a future use and not an existing use. Would the same argument apply to a planned diversion by India on which work has recently commenced? In any event, the Neelum catchment below the Kishenganga dam river receives several influent flows that make the discharge at Nowshera many times larger than that the mean flows at Gurez.

The Indus Commissioners at their last meeting in Lahore on May 10-12 decided on further meetings and site inspections. This will hopefully clarify issues.

It has throughout been India's position that it has scrupulously abided by the Indus Treaty and should any genuine problem be pointed out by Pakistan, it would be

prepared to make suitable modifications. This assurance has once again been held out by the Indian Prime Minister, Dr Manmohan Singh.

Both sides are to visit the others' Kishenganga/Neelum sites before the end-July deadline Pakistan has set before it formally calls for reference of this "difference" as well to a Neutral Expert. The only extension it is willing to consider is if India agrees to halt construction on the Kishenganga project. India has declined to entertain the proposition knowing from past experience that delay means denial.

India will need to build storages to utilise the irrigation potential permitted under the Treaty. J&K also has considerable hydro potential that should be exploited for the benefit of the State and the country as a whole. Schemes like Sewa (120 MW), Sawalkote (600 MW), Burser (1029 MW) and Pakaldul (1000 MW), both on a Chenab tributary, Kirthai I and II (600 MW), Parnai, (37.5 MW, on the Poonch river), Ujh (96 MW, on a Ravi tributary) and several smaller and mini/micro schemes are on the anvil in the State and Central sectors. These will stimulate development and employment in J&K and help open up remote areas by providing connectivity.

A 1987 river resource reassessment by the CEA placed J&K's identified unutilised hydro potential at 14,146 MW (installed capacity) - 17 per cent of this on the Indus spread over a number of small schemes, 19 per cent on the Jhelum, and over 63 per cent on the Chenab (some of this in Himachal Pradesh).

The Role of Indus Commission:

The Indus Commission is required to submit an annual report to the two Governments in June each year and may undertake at the request of either Commissioner a tour of inspection of such works or sites as may be considered necessary by him for ascertaining the facts connected with those works or sites. This is in addition to the duty enjoined on the Commission to undertake " a general tour of inspection" every five years to ascertain facts pertaining to the Rivers and works thereon. It would be in the fitness of things that this right is exercised as developments are taking place or planned or under discussion in the Northern Areas (NA), POK and Pakistan that require closer understanding and public airing.

Impact on Human Development

Pakistan has an entitlement to 135 MAF of the total waters of the Indus system. Inter-provincial discords have come in the way of their fuller utilisation through further storages. The Kalabagh dam (gross storage of 7.9 MAF) has been stalled for years by NWFP and Sind. A run-of-the-river Ghazi Barotha hydro project came on stream in June 2004, but the Bhasha-Daimer storage dam on the Chitral-NA border has run into opposition at the feasibility stage. [Later cleared for construction in February 2006, and followed by an Indian protest.]

The Mangla dam on the Jhelum was completed as part of the transition works under the Indus Treaty. It had a gross storage of 4.5 MAF but has suffered heavy siltation that has reduced its effective capacity. Pakistan accordingly contracted the China International Water and Electric Corporation in June 2004 to raise the height of the dam by 30 feet to store an additional 2.88 MAF of water and yield some 12 per cent more energy. The project will displace 44,000 persons and 15,780 acres of land is being acquired for a new resettlement city. A bridge across the Jhelum and an 18 km Mirpur by-pass are also part of the compensation package. The project is due to be completed by September 2007.

Failure to pay adequate compensation and provide alternative connectivity for villagers displaced and divided by the Mangla lake in the 1960s led to a mass exodus of marginalised Mirpuris to the UK. Divided families on the Indian side must now hope that the resettlement and compensation package this time around does not lead to a further exodus.

What has triggered far greater anxiety is the investigation being pursued by Pakistan's WAPDA amidst much controversy of a giant Skardu dam on the Indus at Katzara, downstream of Skardu. According to the *Jang* newspaper and its English stable-mate, *The News*, the 35 MAF Skardu Dam reservoir is likely to submerge the entire Skardu bowl and Shigar Valley leading up to K2, displacing a population of around 300,000. The hydro potential of the site is also said to be enormous and the driving force. Fatehullah Khan, former Chairman of the Indus River System Authority (IRSA), and the chair of WAPDA's Technical Committee on Water Resources, reportedly believes that the Skardu project could be more than a substitute for the Kalabagh and Bhasha dams and an answer to Pakistan's long term water requirements.

However, this will all but drown and obliterate the finest in Balti culture and heritage and displace possibly half the Balti population in the NA. This cannot be good news for the Indian Baltis in Kargil district. The Balwaristan nationalists too are up in arms and so are Pakistani conservationists and even sections of the security community who say that the project would submerge Pakistan's strategic roads, airfields and military supply lines in the region.

The Skardu Dam, as presently designed, may never move beyond the drawing board. But India should want to know more about it – and other POK/NA projects - and could seek the necessary information and site visits if necessary to ascertain the facts and assess the situation. Where would these 300,000 Baltis go? Such questions need to be asked and answered, whether through the Indus Treaty mechanism or otherwise. There has already been much demographic change in the politically closed NA to the detriment of the local Shia, Ismaili and Sufi communities.

A Case for Indus-Water II

There is another and more rational way for Pakistan to seek water security. It finds mention in the Indus Treaty itself. Article VII on Future Cooperation points to a “common interest in the optimum development of the Rivers” and calls upon both sides “to cooperate, by mutual consent, to the fullest possible extent ...in undertaking engineering works in the Rivers”. The 1960 Treaty was a crisis management, conflict resolution arrangement that divided the waters so that immediate problems could be set aside and development plans could move forward. It has served that purpose admirably well. But it leaves behind a possibly large untapped potential in the upper catchments of the three Western Rivers that are allocated to Pakistan, barring certain uses to India, but which are under Indian control.

This potential needs to be thoroughly surveyed and could thereafter be harnessed through joint investment, construction, management and control. Pakistan cannot continue to deny India its limited legitimate entitlement in the Western rivers and also freeze all further development if it wants to grasp what could be a far larger prize by way of additional storage, flood moderation and hydro-power which both could share. India too could benefit from cooperative drainage arrangements in the middle and lower Indus basins. Were this to happen, Pakistan would not have even to think of grotesque schemes such as the Skardu dam that spells doom to a proud civilization.

Article XII of the Treaty provides that its provisions “may from time to time be modified by a duly ratified Treaty concluded for that purpose between the two Governments”. Thus an Indus-II could be constructed on the foundations of Indus-I. When the original Treaty was being negotiated, India suggested a 2.5 MAF storage on the Chenab at Dhiangarh with a tunnel at Mahru to divert waters to the Ravi and Beas for delivery to Pakistan below Ferozpur in lieu of some other replacement works.

That was totally unacceptable to Pakistan at the time. Would it still be feasible and acceptable to Pakistan and India today were it to offer promise of adding to net water availability on both sides? The Chenab could perhaps store more water in its upper reaches and the Indus has not really been surveyed from the point of view of storage. There may be little or nothing there. Do we know for certain?

That both sides could benefit from Indus-II is certain. What is not known for sure is the quantum of benefits and the costs involved.

Equally pertinent is the fact that, with climate change, glaciers are in retreat both in the Karakoram, one of the most glaciated regions in the world that has the largest glaciers outside Antarctica, as well as on the Tibetan Plateau, which is where the Indus and Sutlej rise. The Plateau is underlain by “tjale” or permafrost that shows signs of thawing. This suggests that enhanced glacier melt and thawing permafrost could increase flows in the Indus basin for some decades before declining sharply over the

ensuing decades as the body of ice shrinks. This may be accompanied by shifts in rainfall patterns with a possibility of episodic bursts of precipitation in some areas. The uncertainty underlines the need for maximising conservation storage within the limits of prudence and sustainability. Climate change will not respect boundaries and both Pakistan and Northwest India, as wards of the Indus, therefore have a common interest in concerting action to study glacial behavior and insure against future hazard from diminished glacial melt and stream flows combined with possibly more, though erratic, rainfall.

The Indian Prime Minister, Dr. Manmohan Singh has stated that that J&K's boundaries cannot be redrawn but soft borders can render them increasingly irrelevant. Pakistan President General Pervez Musharraf goes along with this, with the rider that the Line of Control (LOC) as a permanent boundary cannot be a final and lasting solution by itself. The challenge is to find a solution within these three parameters.

At his meeting with the Editors Guild of India on April 18, 2005, President Musharraf was asked if he would be ready to explore Indus-II as part of the answer to his conundrum. He replied in the affirmative, provided confidence was first assured on Indus-I. Soft borders, trade, tourism and management of Indus-II could, with other blossoming relationships, create cross-border mechanisms in J&K that foster interlocking jurisdictions on both sides of the LOC without derogation of the existing twin de facto sovereignties. Indus-II could therefore be fed into the current peace process as a means both of defusing current political strains over Indus-I and insuring against climate change? Moreover, it could reinforce the basis for a lasting solution to the J&K question by helping transform relationships across the LOC and reinventing it as a bridge rather than merely as a boundary-in-the-making.