



TARIQ MUSHTAQ

INDIA'S DEVIOUS ACT

VIOLATING "INDUS WATER TREATY"

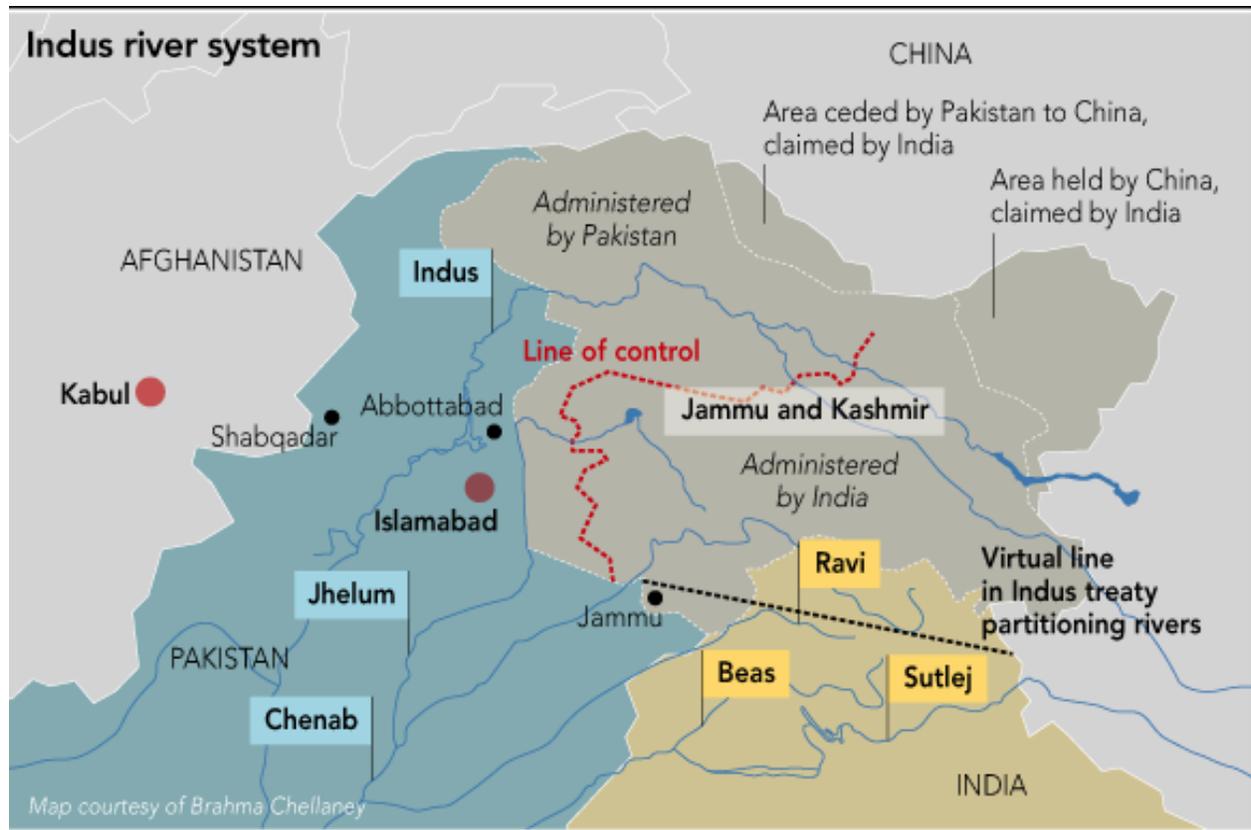
DAMS ON RIVER CHENAB IN INDIA

“Rivers are not merely power producing channels, they have been providing and continue to provide millions of other services to the communities and ecology. Indian Government and its departments and agencies cannot simply push ahead their own big dam agenda at the cost of the environment and communities”

During sixteenth and seventeenth centuries worldwide wars were fought for control on waters. Wars in eighteenth and nineteenth centuries were for territorial controls, the present century once again seems moving for wars on water.

Pakistan is facing “Water War” since 1947, its independence. British government, while partitioning India, **may be deliberately**, left a number of conflicts between the two newly formed states, especially over the plentiful waters of the Indus basin. The World bank, to wrap up the conflict, offered a proposal, stepping beyond the limited role it had apportioned for itself and forced the two sides to consider concrete plans for the future of the basin. So, **“INDUS WATER TREATY”** was signed in 1960 at Karachi. For Pakistan, it was signed by the President Field Marshall Muhammad Ayub Khan and for India by the Prime Minister Jawahar Lal Nehru, President of the World Bank Mr. Eugene R. Black was the main witness.

As per Treaty, all the six rivers were divided into two part, the Eastern Rivers and the Western Rivers. The term “**Eastern River**” means The Sutlej, The Beas and The Ravi, taken together, and The term “**Western Rivers**” means The Indus, The Jhelum and The Chenab, taken together.

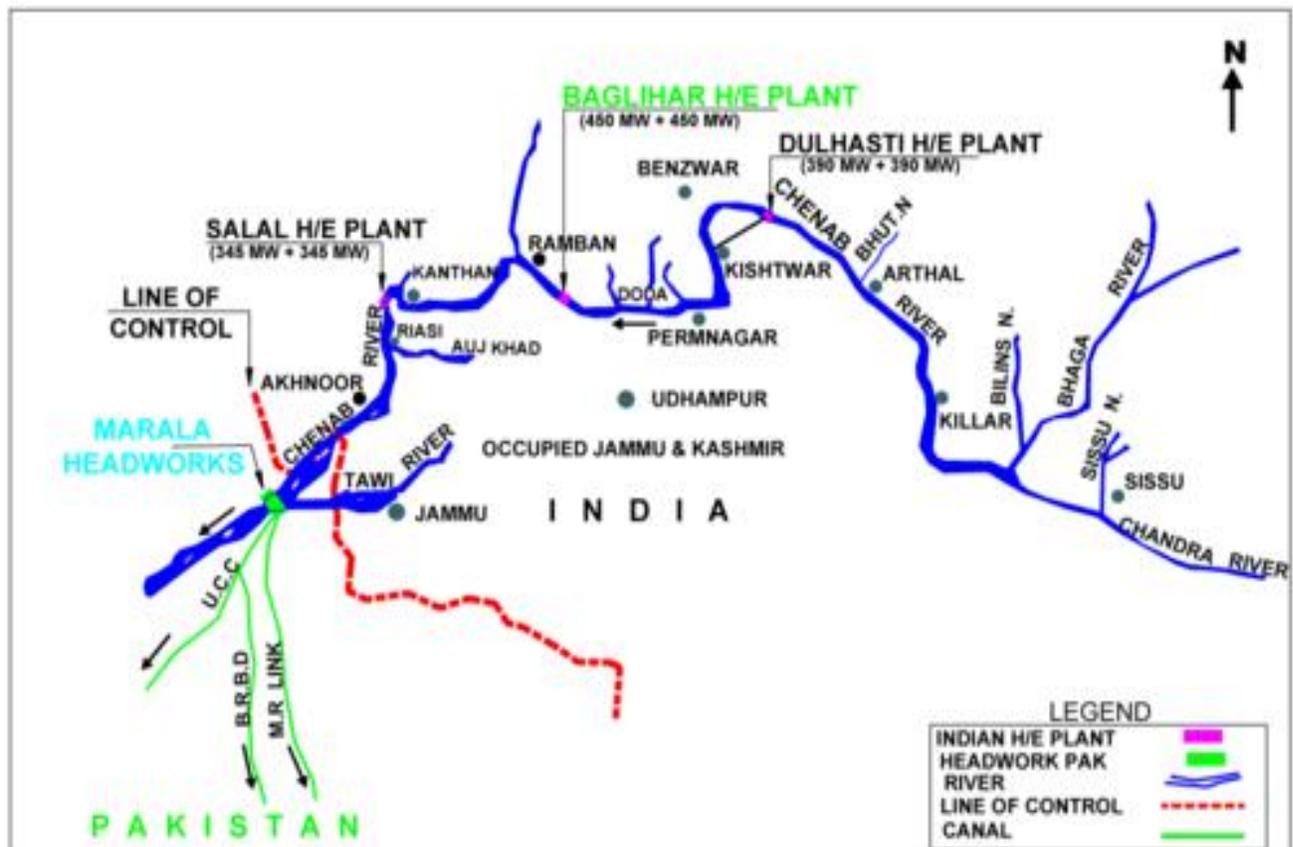


WESTERN RIVERS: Pakistan shall receive for unrestricted use all those waters of the Western Rivers (Indus, Jhelum & Chenab) which India shall be under obligation to let flow all the waters of the Western Rivers, and shall not permit any interference with these three waters. Pakistan will have the unrestricted use of all waters originating from source other than the Eastern Rivers.

EASTERN RIVERS: It was decided that all the waters of the Eastern Rivers shall be available for the unrestricted use of India. Pakistan shall be under obligation to let flow, and shall not permit any interference with the waters of the Sutlej Main and Ravi Main in the reaches where these rivers flow in Pakistan and have not yet finally crossed into Pakistan. The points of the final crossings were taken at Sulemanke for The Sutlej and one and half mile upstream of siphon on BRBD. All the waters while flowing in Pakistan of any Tributary which, in its natural course, join the Sutlej Main or the Ravi Main after these rivers have finally crossed into Pakistan shall be available for the unrestricted use of Pakistan.

As things stand now; In India, at a place called “Tandi” two rivers Chandra and Bhaga meet and form river Chenab (Chand-Aab), Chandra-bhaga, or the Moon River. It flows for 130 kilometers in Himachal Pradesh, and holds a tiny proportion of the basins catchments area: 7500 sq kms of its total 61000 sq kms. In this tiny area of Himachal Pradesh, in clear violation of **“INDUS WATER TREATY”**, India is planning, constructing and implementing 49 hydroelectric projects of various sizes on River Chenab.

Presently, Rivers Sutlej, Beas and Ravi as well as smaller streams and tributaries in Himachal are almost completely dammed or in the process of being finished off, Chenab was the last comparatively free flowing, healthy rivers of the region.



If all the planned projects are implemented, less than 10% of the river can be seen flowing as all Dams are being planned bumper to bumper in a very tight sequence, where water from one hydro project meets not the river, but reservoir of the next hydro project in line. This conversion of a living river into a series of puddles, alternating with dry stretches, bypassed by the tunnels has a profound impact on ecology, biodiversity, hydrology, sociology and water availability of the region.

Himachal is already facing all these impacts in the Sutlej basin where scores of projects are being implemented and where Luhri project, funded by the World Bank, will destroy the last remaining 50 kilometres free flowing stretch of the river. In the neighbouring state of

Uttara-khand which is facing a fate similar to Himachal, **such cascades on Alaknanda and Bhagirathi Rivers led to wide protests in the entire country.**

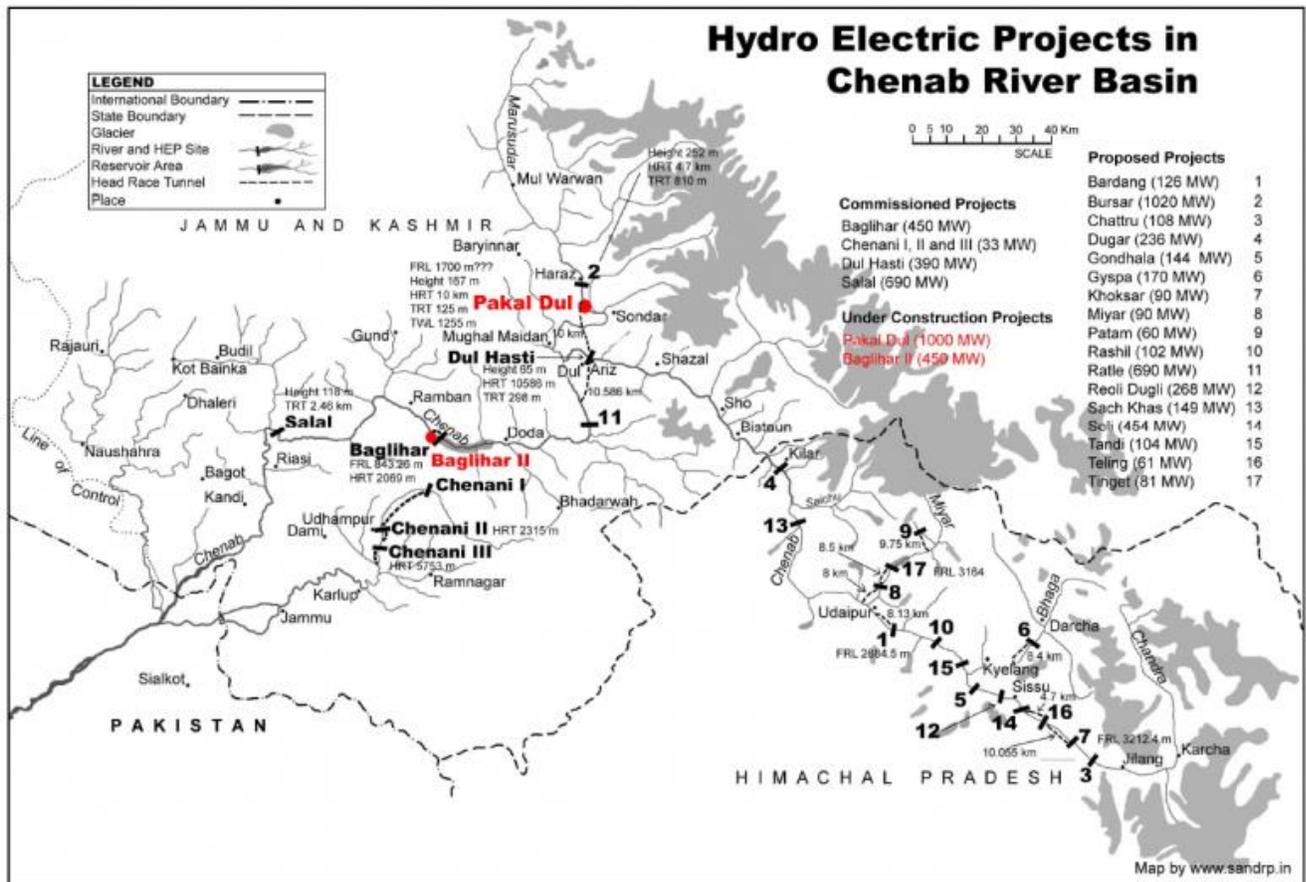
Himachal Pradesh Government, on the other hand, is aggressively saying that condition of Cumulative Impact Assessment for projects in Chenab put by the MoEF (Ministry of Environment, Forest & Climate Change) should be lifted as "it's unilateral and contrary to the state's interests". As many as 28 hydroelectric projects of combined generation capacity of 5,800 MW are at an advanced stage of obtaining MoEF clearances. All these projects are located on the Chenab, violating **"INDUS WATER TREATY"**.

Services obtained from a River like water availability, groundwater recharge, fishing, irrigation through smaller streams, climate regulation, tourism and protection of lands, forests, mountains or biodiversity should have been taken of more importance.

Even when the entire world is making efforts to restructure impacts of hydropower dams, when there is promising literature pointing to the impacts of hydrological fluctuations on ecology, when USA has actually decommissioned more than 1000 dams, majority of those hydropower projects, for their impacts on ecology, the Indian government said before a meeting of Expert Appraisal Committee (EAC) of the MoEF on Cumulative Impact Assessment study of Chenab that "so far there is no conclusive study indicating that the Hydropower projects in that area have detrimental effects on the river health". This is completely a wrong and unscientific statement demonstrating clear bias of the state government for hydel projects. And the Expert Appraisal Committee, whose primary task is to look at environmental impacts of all major Hydro projects of the country and sanction projects based on the severity of these impacts, did not object to this statement.

Dams on Chenab in Himachal ecologically and socially are fragile, in highly seismic District of Lahaul and Spiti, more than 20 projects of various sizes are sanctioned or are under process. Interestingly, most of these projects are being developed by powerful private players like Tata Power, Reliance, DCM Sri Ram and Moser Baer. All of these projects are extremely opposed by the locals.

The region is dotted with Buddhist Monasteries, is famed for its peas and potatoes, swift and scenic rivers and thriving population of trout fish. 300 MW Gyspa Project has been facing stiff local opposition because of its submergence and displacement of more than 1000 families. The region has very few places fit for year long inhabitation and cultivation making rehabilitation is very difficult task for close knit communities. In addition to dams on Chenab, dams on Spiti River, tributary of Sutlej also fall in Lahual & Spiti region, adding to the unimaginable stress on the vulnerable and highly seismic region.



Nearly all projects fall in seismic zones IV or V. The MoEF sanctioned TORs for conducting Cumulative Impact Assessment (CIA) of Chenab. In February 2012, very surprisingly, this critical task was entrusted to the Directorate of Energy, Government of Himachal Pradesh. Can there be an agency with a greater conflict of interest than the Directorate of Energy to conduct this study? Can one expect this department, which has been hell bent on damming all flowing rivers, streams and nallahs in Himachal, to conduct this study in an unbiased manner? Even as the Directorate put out request for proposal for contractors to conduct this study, it did not mention that the consultant has to be an independent agency with credible track record. This was specifically instructed by the EAC. This seems to be just a beginning of a biased study, heavily favouring hydro projects.

The MoEF on its part, seems to have meekly accepted Himachal Pradesh's demand of delinking Environmental Clearances with Cumulative Impact Assessment Study without any questions asked. EAC and MoEF have been according clearances and TORs to projects on Chenab with great efficiency. In September 2015, the EAC approved TORs and revised capacities for as many 6 Projects in Chenab in Himachal, without even mentioning that recommendations of the Cumulative Impacts Assessment Study will have to be adhered to. As it is, there's not a single example of a project being dropped or modified significantly after Environmental Clearance.

If the assessment of cumulative impacts is not going to inform the decisions, heights, capacities and lengths of Head Race Tunnels for the projects keeping in mind various aspects of impacts and carrying capacity, what is the use of the cumulative impact assessment? EAC and MoEF should immediately stop considering any projects in the basin for consideration before a credible, independent CIA is completed and assessed in participation with the Chenab valley residents and others concerned, who are extremely disturbed.

In addition to this, Central Water Commission has reported of increased water availability as indicated in CWC's revised hydrological studies. Urgent studies are needed to understand why water availability in these regions is increasing sharply. One of the most probable reasons is increased glacial melt due to Climate Change. This needs to be analyzed further as it has many far reaching implications on water security and disaster management. This can lead to increased danger of extreme climate events like the devastating floods. Local communities are also raising these issues in most of the public hearings, without getting satisfactory responses.

As Chenab descends from Himachal and enters Jammu and Kashmir, it is dammed by even bigger projects, under construction or planned. According to the Central Electricity Authority, Projects totaling 4200 MW are planned in the 12th Five Year Plan while additional Projects for 2075 MW have been identified. Some projects are under consideration for forest and environmental clearance like 1200 MW Bursar project in Kishtwar district, which requires area 1665 hectares of land, including 1077 hectares of Forest, which is against the international law of environmental preservation and Global warming. It will also affects more than 5000 families in over 14 villages. 1200 MW Sawalkote Dam will require 1099 hectares of land, including 600 hectares forest, again, against the international law of environmental preservation and Global Warming. Some of these dams are submerging parts of the Kishtwar High Altitude National Park. Here again, projects are planned bumper to bumper, no environmental mitigation measures like fish passes or ladders are included and social impacts appear to be huge, adding to the overall cumulative impacts. Despite of this, no cumulative impact assessment study by a credible independent agency is being undertaken for Chenab basin in Himachal Pradesh and Jammu and Kashmir.

One of the biggest controversial dam is Baglihar Dam, also known as Baglihar Hydroelectric Power Project, it's announced a run-of-the-river power project on the Chenab River in the southern Doda district of the Indian occupied state of Jammu & Kashmir. This project was conceived in 1992, approved in 1996 and construction began in 1999. The first phase of the Baglihar Dam was completed in 2004, the completion of the second phase is still under process.

Design controversy and verdict;

After construction began in 1999, Pakistan claimed that design parameters of Baglihar project violated the **“INDUS WATER TREATY”** of 1960. As mentioned above, the

treaty provided India with exclusive control over three eastern rivers, while granting Pakistan exclusive to three western rivers, including Chenab River. However it contained provisions for India to establish run-of-river power projects with limited reservoir capacity and flow control needed for feasible power generation. Availing this provision India established several run-of-the-river projects, while Pakistan objecting to these. Also in the case of the Baglihar and Kishanganga Hydroelectric Project, Pakistan claimed that some design parameters were too lax than were needed for feasible power generation and provided India with excessive ability to accelerate, decelerate or block flow of the river, thus giving India a strategic leverage in times of political tension or war.

Given below is picture of Baglihar dam, if some one calls it a run-of-the-river, he must be out of his brains. It's clear violation of the “INDUS WATER TREATY”.



During 1999-2004 India and Pakistan held several rounds of talks on the design of projects, but could not reach an agreement. After failure of talks in January 2005, Pakistan raised six objections to the World Bank, a broker and signatory of Indus Water Treaty. In April 2005 the World Bank determined the Pakistani claim as a “Difference”, a classification between the less serious “Question” and more serious “Dispute”, and in May 2005 appointed Professor Raymond Lafitte, a Swiss civil engineer, to adjudicate the difference.

Lafitte declared his final verdict in February 2007, in which he upheld some objections of Pakistan, declaring that pondage capacity of Baglihar Dam be reduced by 13.5%, height of dam structure be reduced by 1.5 meter and power intake tunnels be raised by 3 meters, thereby limiting some flow control capabilities of the earlier design. Lafitte rejected

Pakistani objections on height and gated control of spillway declaring these conformed to engineering norms of the day. **The Indus Waters Treaty of 1960 bars India from interfering with the flow into Pakistan while allowing it to generate electricity, only run-of-the-river.** However the key issue that any dam constructed by India should be strictly run of the river was rejected. Pakistan government expressed its disappointment at the final outcome. Unfortunately, both parties (India and Pakistan) had agreed that they will abide by the final verdict.

The verdict acknowledged India's right to construct “gated spillways” violating Indus water treaty 1960. The report allowed pondage of 32,580,000 cubic meters as against India's demand for 37,500,000 cubic meters. The report also recommended reducing the height of freeboard from 4.5 m to 3.0 m.

Magnifying the impacts on all aspects: downstream hydrology, muck generation and disposal, cumulative impacts of submergence, resettlement, cumulative impacts of loss of forest land and habitats, impacts on fish like famous Chenab Trout by series of high dams, impacts on region's seismicity, silt discharge of the river, impact of blasting and tunnelling, transport and road construction, construction and management of workers camps and colonies, ambient air quality, disaster risk, impact on local water sources and groundwater, cumulative impacts on region's waters security, fragile cultural fabric, Cumulative impacts of cascading mega hydro projects of all the above issues are unmistakably huge, irreversible and negative. In Chenab basin there is the additional issue of limitations imposed by the Indus water treaty of 1960 with Pakistan.

Up-till 1988, India didn't dare to violate the treaty because of Pakistan's strong and sturdy governments of Field Marshal Ayub Khan, Z.A.Bhutto and Gen Zia ul Haq. Since 1988, after Zia ul Haq's government, no Pakistani government, civil or military, has assertively tried to pursue the World Bank or International Arbitration Court, to stop India from the violations of “INDUS WATER TREATY”. In addition to the violation of “INDUS WATER TREATY”, India also requires to take impacts of cascading mega projects seriously.

Since 1947, India is always in the hunt for every possible way which could harm Pakistan. There's another term of the treaty, which probably India is overlooking, that Pakistan will allow the flow of all the four drains (Hudiara Drain, Kasur Nala, Salimshah Drain and Fazilka Drain) from India and will maintain in good order its portion of the drainages. If India finds it necessary that any of the drainages mentioned should be deepened or widened in Pakistan, Pakistan agrees to undertake to do so as a work of public interest and India will pay the cost of the deepening or widening.

India should always remember, if Pakistan also violates the treaty and blocks the flow of all the four drainages, or limits the usage, then?

Indian leadership should also keep in mind, **rivers are not merely power producing channels, they have been providing and continue to provide millions of other services to the communities and ecology. Indian Government and its departments and agencies cannot simply push ahead their own big dam agenda at the cost of the environment and communities.**

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