

India China Water Disputes: Brahmaputra Conflict

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India's neighbour, China is planning to harness the lower reaches of the Brahmaputra river, commonly known as Yarlung Tsangpo in China. Number of projects listed under China's new five-year plan are going to be built very close to the border of the two nations. This has raised more questions on China's intention behind building water projects so close to national boundaries.

In news: China's new Five-Year Plan outlines push for key strategic projects

Placing it in syllabus: Foreign Affairs

Dimensions

- What does the plan aim to do?
- Geographical Aspects (Given the Map As well)
- Importance of the River to India
- Importance of the River to China
- What is the conflict about?
- Agreements Signed and problems with the agreement
- Impact of the plan and India's options

Content:

What does the plan aim to do?

- China formally approved the outline of its 14th Five-Year Plan (2021-2025), which highlights a number of key strategic projects to be pursued as a priority.
- **The major projects of concern for India include:**
- the first dam in Tibet on the lower reaches of the Yarlung Zangbo or Brahmaputra

- In this Project, China could build up to 60 gigawatts (GW) of generation capacity on the river which would make it the world's biggest hydropower project, overtaking China's 22.5 GW Three Gorges Dam.
- a Sichuan-Tibet railway line near the India border, and
- a push for self-sufficiency in emerging industries such as Artificial Intelligence (AI).

Other Important Facts:

- China's new five-year plan calls for a move toward less dependence on the outside world, both for advanced technology and as a source of final demand.
- Beijing's efforts to promote indigenous innovation have failed in the past and are unlikely to be successful in the future.
- Following the 'socialist road' is incompatible with increasing the share of household consumption in Chinese GDP.
- Any actual disengagement with the international economy will be driven by US government sanctions and multinational corporations' supply-chain rerouting, not by the requirements of the plan.

Geographical Aspects

- The Brahmaputra/Yarlung Tsangpo is a trans-Himalayan river with its origin in the Jima **Yangzong glacier (Mansarovar Lake region)** near the Mount Kailash, located on the northern side of the Himalayas in Burang County of Tibet.
- Over 56% of it flows in Chinese territory.
- The Yarlung Tsangpo enters India after passing the **Great Bend**, through Arunachal Pradesh where it is known as Siang/Dihang, then onto Assam where it is called Brahmaputra, and thereafter to Bangladesh where it is named Jamuna.

- Data suggests that annual outflow of Yarlung Tsangpo from China is less than that from India's Brahmaputra.
- As the river crosses the Himalayan crestline, it receives annual rainfall of about 2,000-2,100 mm, which results in swelling of the river line while entering India.
- The Brahmaputra gets mightier as it flows downstream because of the flow contribution of **tributaries** such as **Dibang, Lohit and Subansiri**.
- In terms of sediment flow, the flow volume and discharge is not sufficient to generate and transport the large sediment load that is characteristic of Brahmaputra downstream.
- China completed the **Zangmu Dam** (510 MW capacity) built on the upper reaches of Brahmaputra in 2010. Three more dams at **Dagu** (640 MW), **Jiacha** (320 MW) and **Jeixu** are currently under construction.
- The work on **Zam hydropower station**, which will be the largest dam on Brahmaputra, too commenced in 2015



Importance of the River to India

- People and communities adjoining River Brahmaputra to meet their livelihood such as wading of cattle, fishing, and cultivation of different types of crops, irrigation and riverine transport.
- Brahmaputra delta is home to 130 million people and 600 000 people live on the riverine islands. These people rely on the annual 'normal' flood to bring moisture and fresh sediments to the floodplain soils, hence providing

the necessities for agricultural and marine farming.

- Till India became independent in 1947, the Brahmaputra River was utilized as an important shipping canal. In the 1990s, the length amid Dhubri and Sadiya in India was proclaimed as National Waterway No.2, and it offers facilities for freight carriage
- It also has potential for hydroelectric power generation. India is planning a multipurpose 10,000 MW hydropower project in Arunachal Pradesh

Importance of the River to China:

- China's unique position as the only country in the region which is completely upper riparian, lends it an unparalleled advantage and power to influence the flow of water to nations downstream.
- China has been historically a water scarce country with uneven distribution of its water resources. The inter-regional disparity in water resources is stark.
- China has undertaken gigantic water diversion projects such as the **South-North Water Transfer Project (SNWTP)** to address its regional water distribution imbalance. The western line of this project includes building a dam on the Great Bend of Yarlung, where the river curves into the Assamese plains of India
- Yarlung Tsangpo is also a source of drinking water and agriculture for the parched areas of Tibet.
- Brahmaputra River and increasingly damming trans-boundary rivers are key to achieve China's intended goal to triple its hydropower capacity to 300 GW.

What is the conflict about?

Chinese decision to build more and more dams on Yarlung/Brahmaputra has been an issue of major concern for India.

- **Type of Projects:** China, on its part, insists that the

dams are and will continue to be run-of-river projects, wherein water will be returned to the river after use. As such there ought to be no fears of diversion, hoarding, and release of water later. This claim was taken with a pinch of salt by the Indian Government.

- **Water Hegemony:** These dams are large enough to be converted and used as storage dams, especially if the purpose is flood control and irrigation (as is the case with Zangmu Dam). In the absence of a water treaty, China depriving India of water during lean seasons becomes a possibility.
- **Flooding:** Another risk is the release of flood waters during the monsoon season, which could inundate the already flooded Brahmaputra river basin in Assam. There is much apprehension that the Brahmaputra may lose the silt, which makes the plains in its basin fertile, because of sediment trapping in the dams.
- **Seismic Instability:** all hydropower projects, particularly around the Great Bend, are located in a highly volatile tectonic zone. Their proximity to known geological fault lines, where Indian Plate collides with the Eurasian Plate, makes them extremely earthquake-prone. In 2008, the Three Gorges Dam on the Yangtze River gave way under the stress of an earthquake (7.9 on the Richter scale) in the eastern rim of Tibet, resulting in loss of many lives. This raises serious concerns about risks posed by big dams built in such seismically sensitive areas
- **Pollution:** In building its dams, China has also polluted its rivers. The quality of water that flows downstream into India needs to be taken into account. The disruption of natural flood cycles of the river could also adversely affect the rich geo-environmental and bio-physical settings in India's Northeast.
- **Use principle of prior appropriation to influence Arunachal Pradesh:** Principle of prior appropriation favours neither the upstream nor the downstream State

but the one that puts the water to first use, thereby protecting the right to first use of water as in the past. China has priority rights since it was the first to build dams on Yarlung Tsangpo. By building dams especially near the Great Bend, after which the river flows into India through Arunachal Pradesh, China could be seeking to leverage its position over the Indian state of Arunachal Pradesh

- **Effect on Farming:** The newest dam which has been envisaged by China on the lower reaches of the Brahmaputra river in Tibet will also hold back the river silt, which provides essential nutrients to the soil for farming and is the reason for the fertility of the plains of Assam.

Agreements Signed and problems with the agreement

- As of now, there is no institutionalised mechanism on water cooperation between India and China.
- China has signed no such treaty with India or any of its neighbours and continues to act in a unilateral manner in the region.
- However, in 2002, India and China had entered into a Memorandum of Understanding (MoU) wherein China agreed to share hydrological information about Yarlung Tsangpo (Brahmaputra) including its discharge at Nugesha, Yangcun and Nuxia stations from June 01 to October 15 every year.
- This was helpful in the formulation of flood forecasts by the Central Water Commission. When this provision ended in 2007, it was renewed for another five years.
- In 2006, a Joint Expert Level Mechanism was set up between the two countries in order to exchange hydrological information and ensure a smooth transmission of flood season hydrological data.
- In 2013, this provision was renewed with the change that 2014 onward sharing of data would take place twice a day

from May 15 to October 15.

- However, China had refused to share hydrological data during the Doklam standoff last year.
- Although hydrological data sharing resumed in 2018, the Doklam face-off showed how China could use water for political leverage.
- By refusing to share data which is crucial for flood control and planning during the monsoon period in India, China demonstrated that it is not averse to using water as a political weapon to control and force compliance on its downstream neighbours.

China has refused to:

- to ratify the 1997 UN Convention on the Law of the Non-navigational Uses of International Watercourses which provides a framework for multilateral cooperation on water.

to sign and ratify the **Helsinki Rules on the Uses of the Waters of International Rivers (or Helsinki Rules)** which is a codification of the principles of international law relating to transboundary water resources. The Rules provide each state within an international drainage basin has the right to a reasonable and equitable part of the beneficial use of the basin waters.

Impact of the plan and India's options

- China seems to have chosen a policy of absolute sovereignty rather than one of national integrity over shared water resources.
- Any forward movement on ensuring hydro security in the Brahmaputra basin would require a long-term understanding between the two countries.
- India's hydro-diplomacy thus faces the daunting challenge of engaging China in a sustained dialogue and securing a water sharing treaty that serves the

interests of both the countries.

- If necessary, the international community should also be involved.

Mould your thought: Having control over cross-boundary rivers are potential tools or weapons to use water as a weapon against India. Evaluate.

Approach to the answer:

- Introduction
- Discuss about China's plans to build Dams across Brahmaputra
- Write about how these could be used as a weapon against India
- Mention India's options
- Conclusion