

Brahmaputra Dam Project

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Brahmaputra Dam Project: A Looming Crisis for Arunachal and Beyond

Context

China has officially commenced the construction of a **massive \$167.8 billion hydropower dam** on the **Brahmaputra River (Yarlung Zangbo)** in Tibet, near the Indian border in **Arunachal Pradesh**. This project is located near the "**Great Bend**", just before the river enters India as the **Siang**. Once completed, it is expected to be the **largest hydropower dam in the world**, with a capacity of **60,000 MW**.

Introduction

The dam project has triggered significant concerns in **India** and **Bangladesh**, both of which are **downstream riparian states**. Fears revolve around potential **alteration in river flow**, risks of **flooding, ecological degradation**, and **geopolitical implications**. India continues to monitor the developments closely while also engaging diplomatically.

Key Concerns and Regional Responses

Arunachal Pradesh's Response:

- The **Chief Minister** of Arunachal Pradesh has termed the project an "**existential threat**", describing it as a potential "**water bomb**".
- He warned that a **sudden water release** could cause severe **flooding in the Siang region**.
- There are fears that the long-term flow of the river could be **drastically reduced**, impacting **local livelihoods** and **tribal communities**.
- Experts highlight the **seismic vulnerability** and **ecological fragility** of the zone where the

dam is being built.

Assam's Perspective:

- The **Chief Minister of Assam** offered a more balanced view, noting that the **Brahmaputra becomes a major river only after entering Assam**, where it is fed by **tributaries from Bhutan and Arunachal Pradesh** as well as **monsoon rains**.
 - He stated that China contributes only **30-35%** to the Brahmaputra's total flow, mostly through **glacial melt** and **Tibetan rainfall**.
 - He suggested that reduced flow from China may help in **flood management** during monsoons.
 - However, he acknowledged the existence of various **uncertainties and theories** regarding the dam's downstream impact.
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India's Official Stand and Diplomatic Engagement

- India has not issued a formal response to the **groundbreaking ceremony**, but continues to **closely monitor** the situation.
- The **Ministry of External Affairs (MEA)** has reiterated:
 - India's status as a **lower riparian state** with **established rights**
 - The need for **transparency, consultation, and data-sharing**
- In **January**, MEA urged China to **avoid actions** that could affect **downstream interests**.
- China has responded by asserting its **sovereign rights** and promising **hydrological cooperation**.

Diplomatic Efforts:

- In **October 2024**, both countries agreed on **patrolling arrangements** along the LAC to ease earlier tensions.

- In **March 2025**, talks included **cross-border cooperation**, including **river management**.
 - India resumed issuing **tourist visas to Chinese nationals** and restarted the **Kailash Mansarovar Yatra**, indicating **cautious diplomatic engagement**.
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India's Mitigation Strategy

Strategic and Technical Measures:

- Experts recommend **scientific assessments** and **infrastructure development** to manage uncertain flows.
- Construction of **storage structures on Brahmaputra tributaries** is considered essential.
- The **Upper Siang Project** in Arunachal Pradesh, featuring a **300-metre-high dam**, is viewed as vital for both **hydropower generation** and **flow regulation**, though delayed due to **environmental opposition**.
- Suggestions include creating **inland water channels** to divert excess water and long-term **river interlinking** between the **Brahmaputra and Ganga basins**.

Regional Coordination:

- Continuous access to **hydrological and project data** from China is considered critical.
 - Coordination with **Bangladesh, Bhutan, and Myanmar** is essential to develop **early warning systems** and enhance **disaster preparedness protocols**.
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Conclusion

China's hydropower project on the Brahmaputra poses a complex mix of **environmental, strategic, and geopolitical challenges**. While India remains diplomatically engaged, a robust response involving **scientific planning, regional cooperation, and infrastructure development** is imperative to safeguard the interests of **downstream states** and maintain **riverine security** in the eastern Himalayan region.