

TIBET

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Yarlung Tsangpo Dam: China's Silent Weapon Against India?

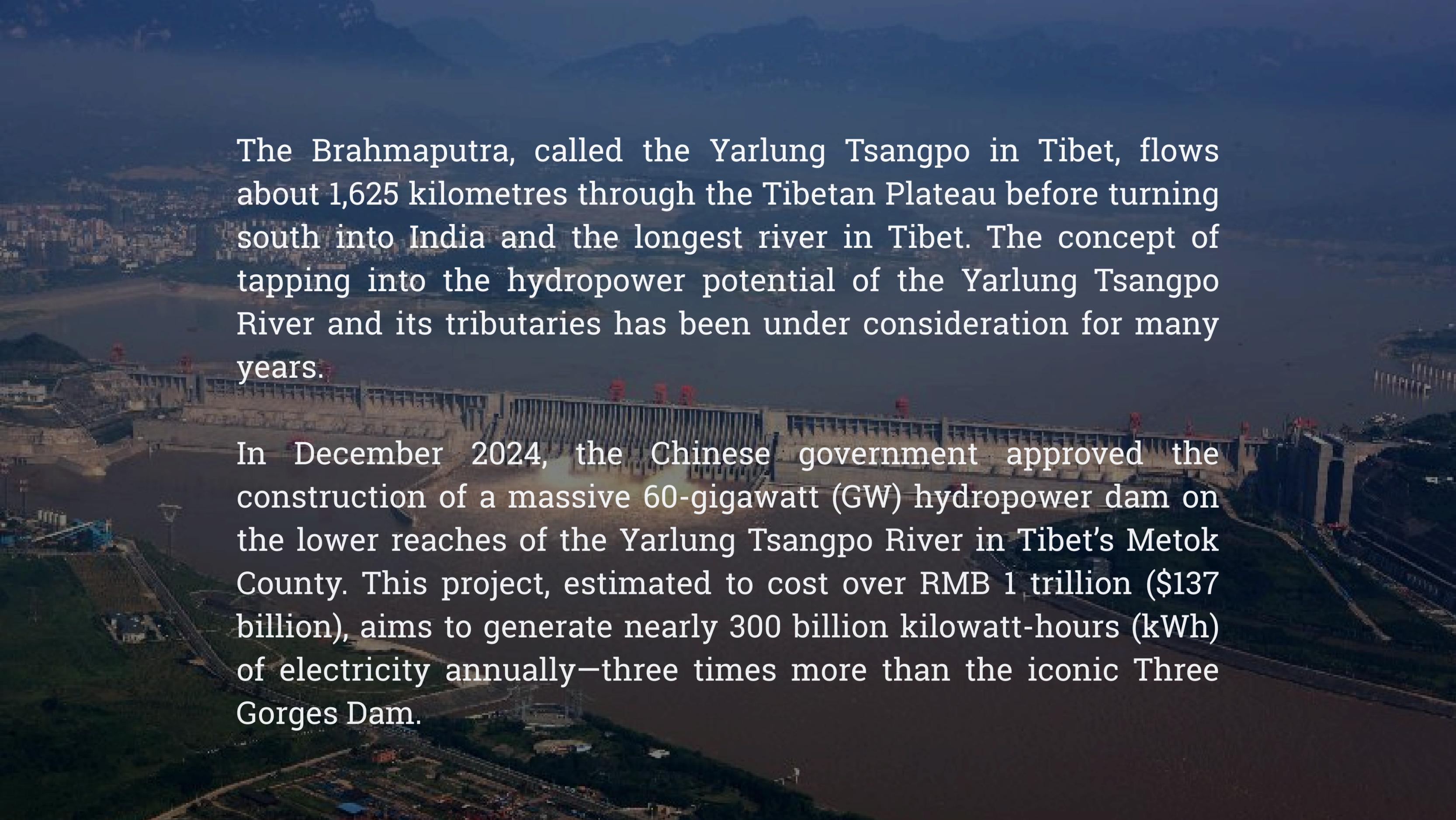
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Snippets

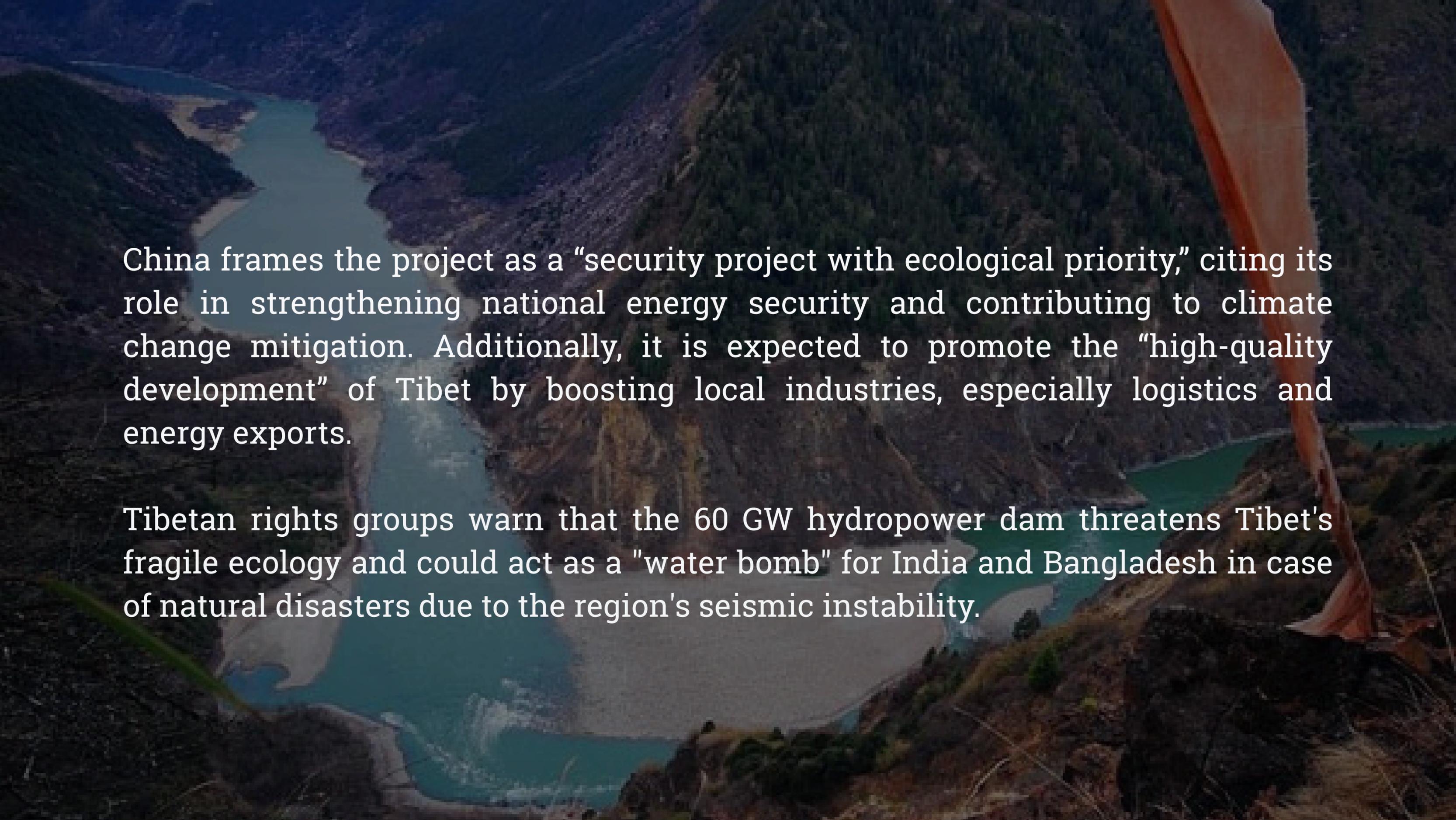
PROJECT	Yarlung Tsangpo Dam China's silent weapon against India?
LENGTH	1625KM
AIM	Construction of 60-Gigawatt hydropower project
IMPLICATIONS FOR INDIA <ul style="list-style-type: none">• Water security issue• Geopolitical leverage• Ecological instability	
RECOMMENDATIONS <ul style="list-style-type: none">• Push for a binding water treaty• Enhance satellite and on-ground monitoring• Strategic sanction• Regional water diplomacy collaborate	



An aerial photograph showing a massive dam under construction on a wide river valley. The dam structure is long and stretches across the width of the valley. The surrounding landscape is hilly and appears to be in a developing or construction phase. The sky is clear and blue.

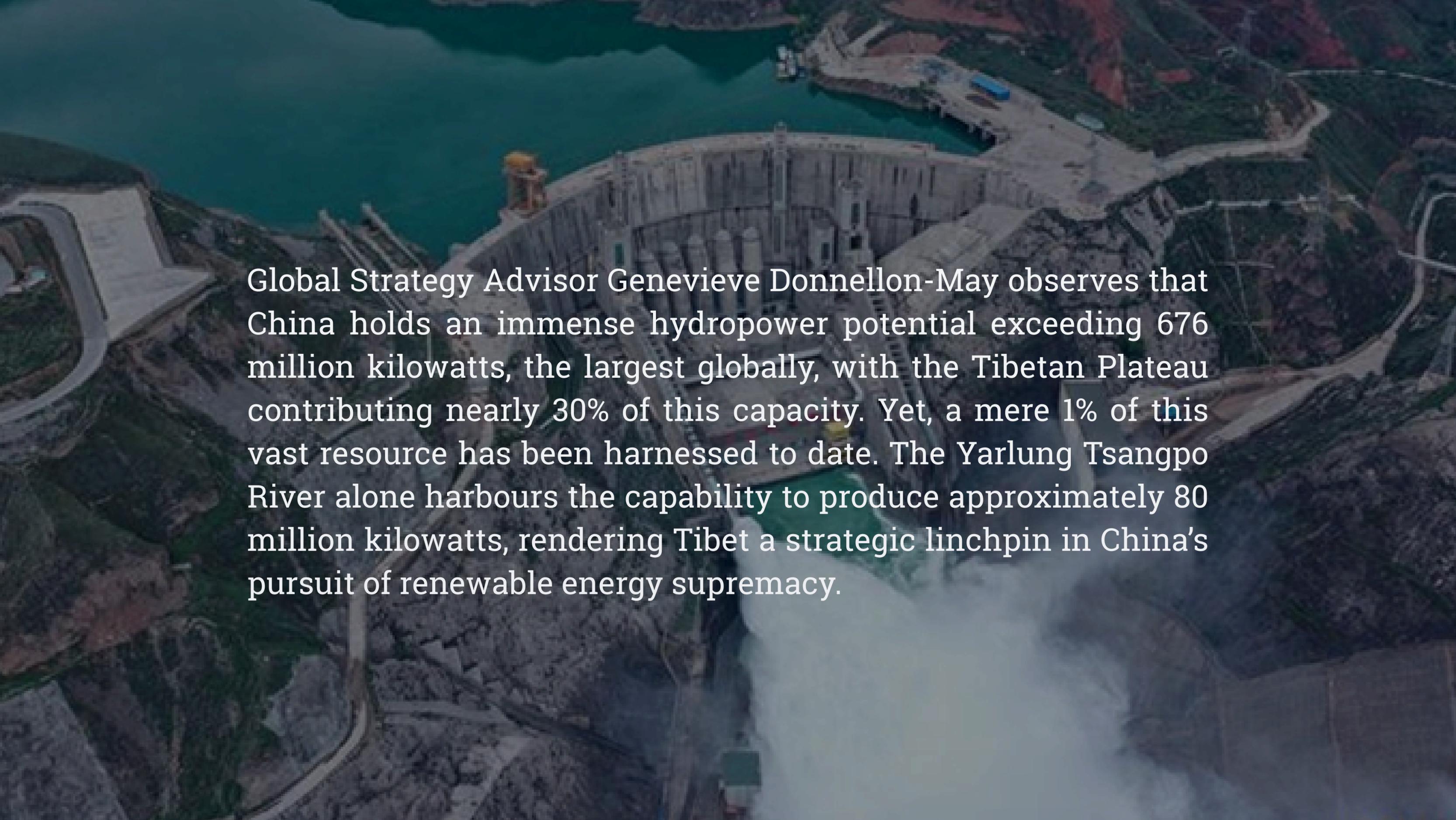
The Brahmaputra, called the Yarlung Tsangpo in Tibet, flows about 1,625 kilometres through the Tibetan Plateau before turning south into India and the longest river in Tibet. The concept of tapping into the hydropower potential of the Yarlung Tsangpo River and its tributaries has been under consideration for many years.

In December 2024, the Chinese government approved the construction of a massive 60-gigawatt (GW) hydropower dam on the lower reaches of the Yarlung Tsangpo River in Tibet's Metok County. This project, estimated to cost over RMB 1 trillion (\$137 billion), aims to generate nearly 300 billion kilowatt-hours (kWh) of electricity annually—three times more than the iconic Three Gorges Dam.

An aerial photograph of a river valley. The river is a vibrant blue-green color, winding through a valley with brownish, rocky terrain. In the distance, a large dam structure is visible, spanning across the river. The surrounding landscape is rugged and mountainous. The text is overlaid on the left side of the image.

China frames the project as a “security project with ecological priority,” citing its role in strengthening national energy security and contributing to climate change mitigation. Additionally, it is expected to promote the “high-quality development” of Tibet by boosting local industries, especially logistics and energy exports.

Tibetan rights groups warn that the 60 GW hydropower dam threatens Tibet's fragile ecology and could act as a “water bomb” for India and Bangladesh in case of natural disasters due to the region's seismic instability.

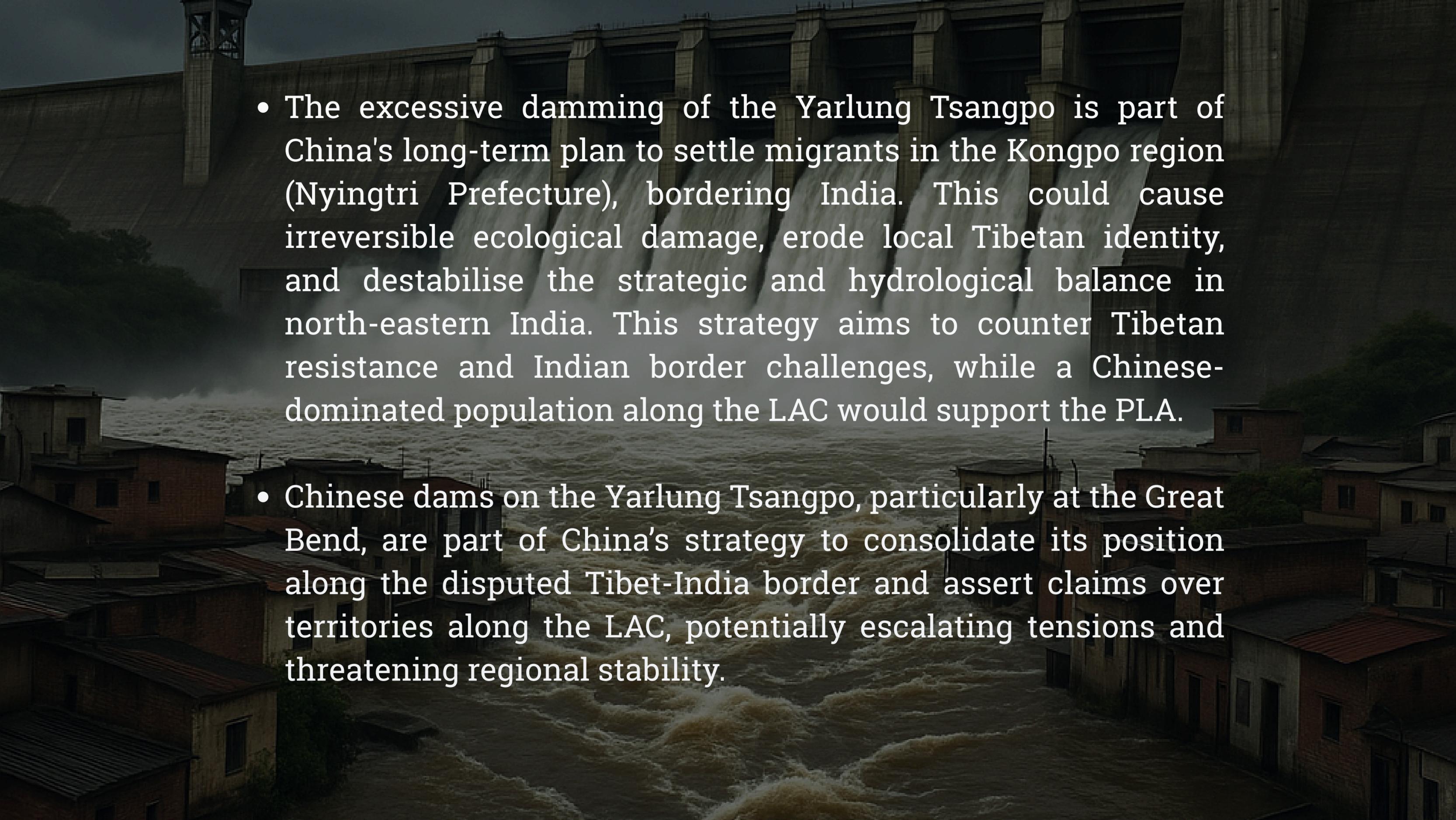
An aerial photograph of a massive concrete dam structure, likely the Yalung Tsangpo Dam, situated in a high-altitude, mountainous region. The dam is a long, curved wall of grey concrete, with several tall, narrow spillways. Behind the dam is a large, deep reservoir of clear, turquoise water. The surrounding landscape is rugged and mountainous, with some green vegetation visible on the slopes. The sky is a pale, hazy blue. The text is overlaid on the lower-left portion of the image.

Global Strategy Advisor Genevieve Donnellon-May observes that China holds an immense hydropower potential exceeding 676 million kilowatts, the largest globally, with the Tibetan Plateau contributing nearly 30% of this capacity. Yet, a mere 1% of this vast resource has been harnessed to date. The Yalung Tsangpo River alone harbours the capability to produce approximately 80 million kilowatts, rendering Tibet a strategic linchpin in China's pursuit of renewable energy supremacy.



Serious Ramifications for India

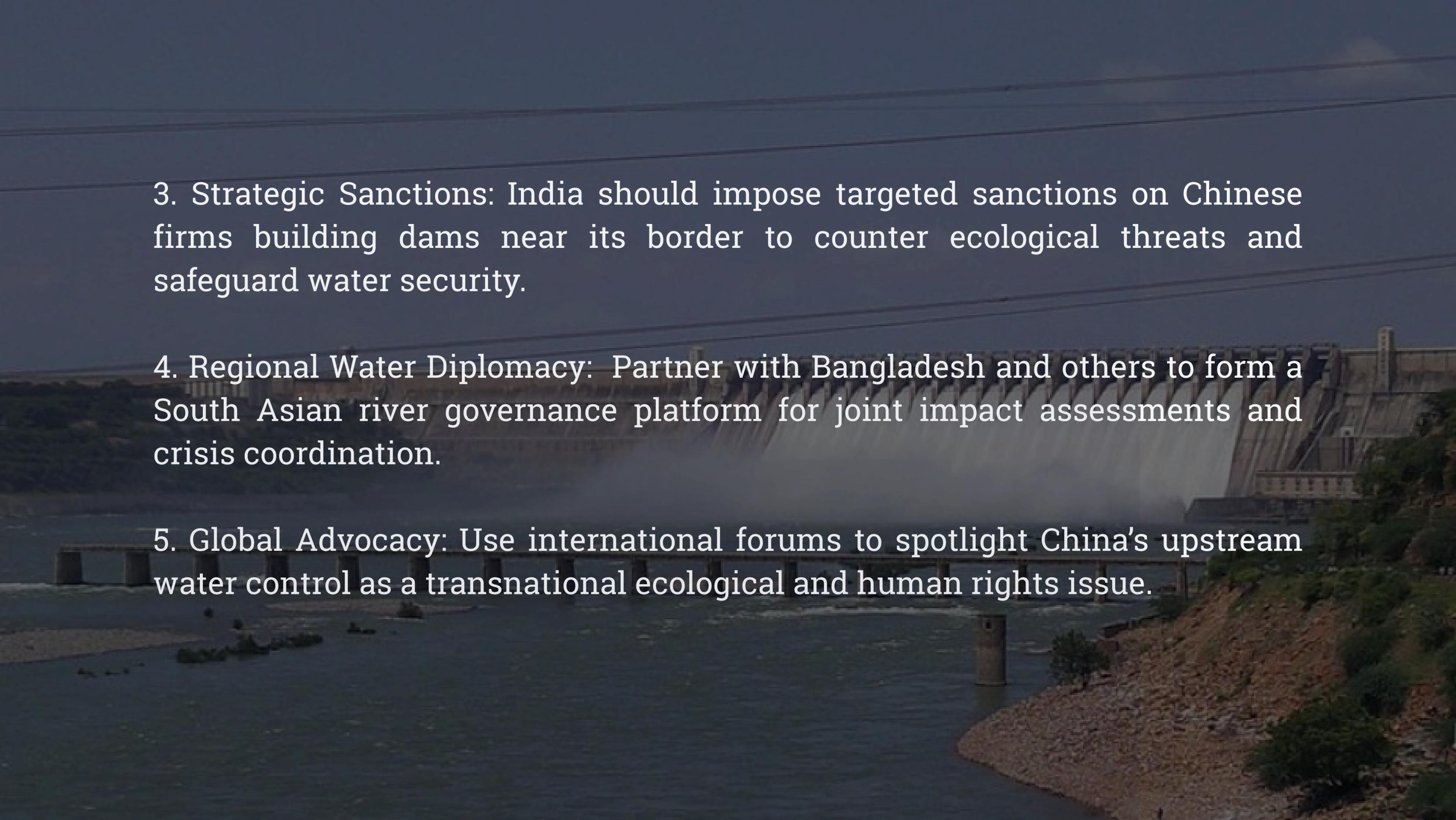
- The Brahmaputra River is vital for Northeast India. Any major upstream diversion or damming by China could disrupt water flow, impacting irrigation, drinking water, and hydropower in Arunachal Pradesh and Assam. This will create a water security issues for India in future.
- Tibet is a geologically unstable region, remaining ecologically sensitive and seismically active. Despite this, China continues its ambitious plan to expand hydropower generation, which poses a significant threat to India during natural calamities.

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- The excessive damming of the Yarlung Tsangpo is part of China's long-term plan to settle migrants in the Kongpo region (Nyingtri Prefecture), bordering India. This could cause irreversible ecological damage, erode local Tibetan identity, and destabilise the strategic and hydrological balance in north-eastern India. This strategy aims to counter Tibetan resistance and Indian border challenges, while a Chinese-dominated population along the LAC would support the PLA.
 - Chinese dams on the Yarlung Tsangpo, particularly at the Great Bend, are part of China's strategy to consolidate its position along the disputed Tibet-India border and assert claims over territories along the LAC, potentially escalating tensions and threatening regional stability.



Policy Recommendations for India

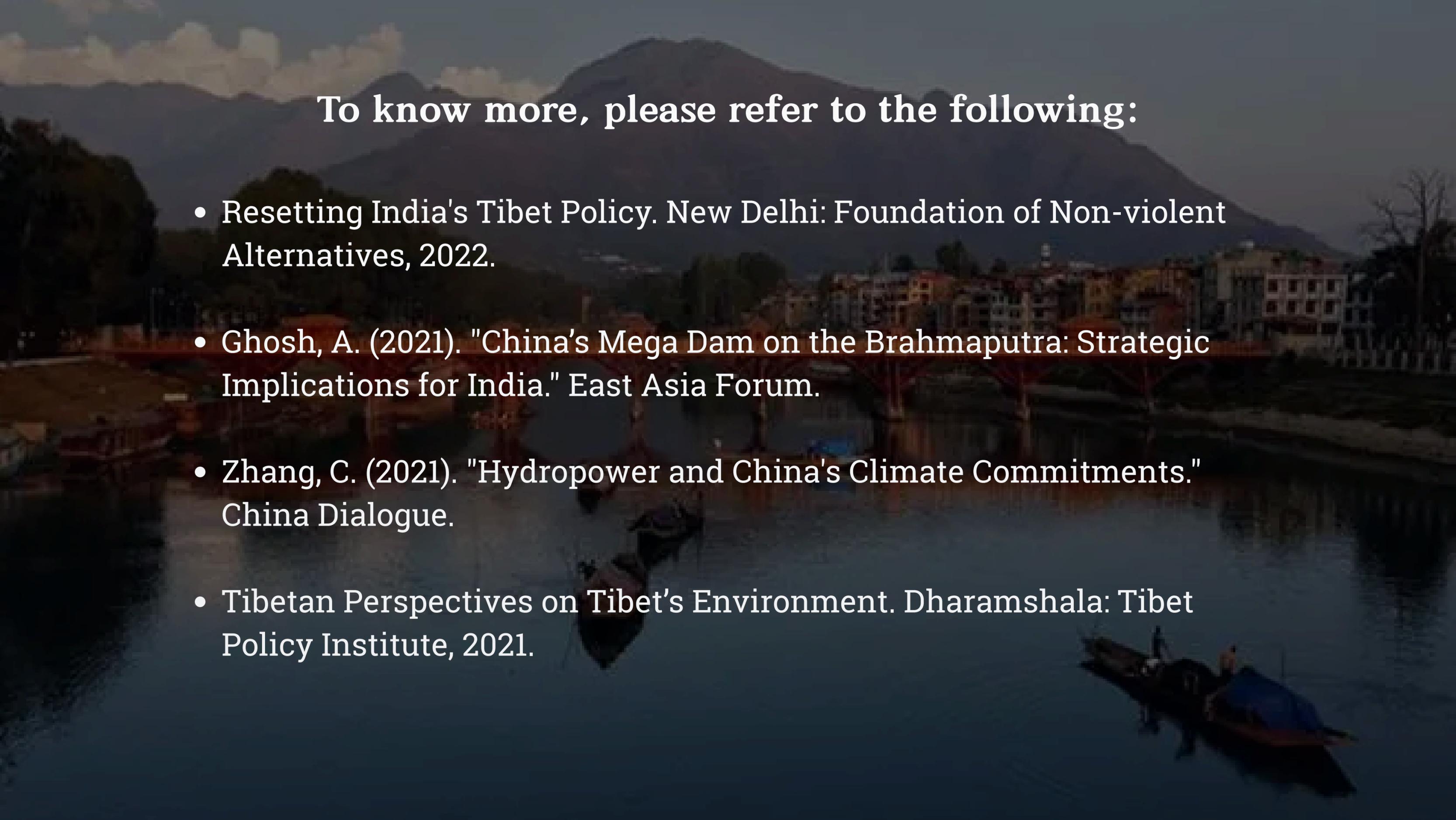
- **Push for a Binding Water Treaty:** India should diplomatically push for a legally binding bilateral or multilateral water-sharing agreement with China, modeled on existing international frameworks like the Indus Waters Treaty. This would ensure transparency, guaranteed water flows, and data-sharing protocols.
- **Enhance Satellite & On-Ground Monitoring:** Invest in real-time satellite surveillance, river sensors, and hydrological forecasting systems along the Brahmaputra to independently monitor changes in water flow, dam activity, and potential risks.



3. Strategic Sanctions: India should impose targeted sanctions on Chinese firms building dams near its border to counter ecological threats and safeguard water security.

4. Regional Water Diplomacy: Partner with Bangladesh and others to form a South Asian river governance platform for joint impact assessments and crisis coordination.

5. Global Advocacy: Use international forums to spotlight China's upstream water control as a transnational ecological and human rights issue.

A scenic view of a river valley with mountains in the background and buildings along the riverbank. The image is dimly lit, suggesting dusk or dawn. The text is overlaid on the image in a white, sans-serif font.

To know more, please refer to the following:

- **Resetting India's Tibet Policy.** New Delhi: Foundation of Non-violent Alternatives, 2022.
- **Ghosh, A. (2021). "China's Mega Dam on the Brahmaputra: Strategic Implications for India."** East Asia Forum.
- **Zhang, C. (2021). "Hydropower and China's Climate Commitments."** China Dialogue.
- **Tibetan Perspectives on Tibet's Environment.** Dharamshala: Tibet Policy Institute, 2021.