

Chinese Dams in Tibet and Diversion of Brahmaputra : Implications for India

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Introduction

Future wars are likely to be more over water and not fuel, due to ecological reasons. In recent times, the world has witnessed a major surge in regional unrests caused primarily by the shortage of water. Tension builds up between two or more countries when an effort is made by any upper riparian country to control the waterways of trans boundary rivers. Factors like population surge, industrialization and other development activities compel a country to control waterways. When such activities begin to affect the livelihood, ecology and growth of the lower riparian countries, they become a source of dispute. Already, growing tension is being witnessed in South Asia due to unilateral decision of China to construct dams and river diversion projects in Tibet partly driven by internal economic compulsions and partly by the desire to acquire a dominant position.

Arunachal Waters

There have been talks between India and China on various facets like maritime and strategic defence dialogue, border issues etc to smoothen out the rough spots. Yarlung Tsangpo (Brahmaputra), the highest river in the world, is a watercourse that originates at Tamlung Tso Lake in western Tibet, southeast of Mount Kailash and Lake Manasarovar. It later forms Tibet Valley and Yarlung Tsangpo Grand Canyon, before entering India North of Tuting in Arunachal (Figure1). However, there is evidence and concern on receding water level in the river near Pasighat town and that it almost dried up. Tako Dabi, political adviser to Arunachal Pradesh Chief Minister Nabam Tuki, expressed apprehension that it could either be due to diversion of the course of the river or an artificial blockade as a result of dam building activity of China over Brahmaputra river. Water level in the Siang, as noted on 09 June

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2000, suddenly rose by 30 metres and inundated almost the entire township causing widespread destruction to property besides claiming seven lives following the collapse of a hydropower dam in Tibet, according to Dabi. Video footage from the scene shows the Siang, which is several kilometres wide at Pasighat, said Dabi — reduced to flowing in several narrow channels in the large sandy riverbed.¹

Tibet-Nepal Waters

The Tibetan plateau happens to be the largest water reservoir in the world. All the 10 major river systems of Asia including the Indus, Sutlej, Brahmaputra, Irrawaddy, Salween and Mekong originate in the Tibetan plateau. It constitutes the lifeline of the world's nearly two billion (29 per cent) people living in South Asia; from Afghanistan to the Ganga-Meghna-Brahmaputra basin, and in Southeast Asia.² Any diversion of waters from Nepalese rivers originating in Tibet would directly affect the flow of water of the Ganga, the soul of the people living in the Indian subcontinent including in Nepal. The holy river Ganga desperately needs fresh water from its tributaries. Nepal alone accounts for 46 per cent of the flow in the Ganga and its contribution grows to 71 per cent during the lean season.³



Figure 1 : Tsangpo – Brahmaputra River from Tibet – Siang (Arunachal) – Dibrugarh (Assam)

Chinese Game Plan for the Development of Tibet and Its Repercussions

In an important meeting held at Beijing in January 2010, China's plans to achieve rapid development and lasting stability in Tibet Autonomous Region (TAR) in a bid to ensure China's development as a whole could be sensed. Chinese President Hu Jintao and other senior leaders attending the Fifth meeting on the work of Tibet, from 18-20 January 2010 agreed that more efforts must be made to improve living standards of the people in Tibet, as well as strengthen the ethnic unity and stability. He attached great importance to the work of Tibet, saying "it was a pressing task in carrying out the Scientific Outlook on Development, building a well-off society in an all-round way, establishing a national ecological protective screen and realizing sustainable development". Senior leaders also meted out plans to develop Tibetan-inhabited areas in Sichuan, Yunnan, Gansu and Qinghai during the meeting.⁴ The building of dams and diversion projects in Tibet by China is a matter of grave concern for the lower riparian states. When the Chinese Foreign Ministry spokesperson Hong Lei was asked about this issue on 19 April 2011, he said that China would not do anything that would harm the interests of the lower riparian states including India.

It was Prime Minister, Manmohan Singh, who raised India's concerns about this project when he met Chinese President, Hu Jintao last year. He also raised the issue when he met Chinese Premier, Wen Jiabao in Thailand and during Wen's visit to India in November 2010; but there was no positive response. However, China has assured India that it will not begin work on any diversion project without first notifying New Delhi through the joint working group mechanism the two countries have set up to discuss water-sharing issues.⁵

In view of the crucial meeting and after staking claims over Arunachal Pradesh in India; reports now claim that China has started constructing a huge dam on its side of the Tsangpo River (Brahmaputra) in Tibet. Despite repeated promises and denials, China has already built a barrage on the Sutlej River. Since November 2010, it has started construction work for damming / diversion of the Tsangpo (Brahmaputra) in Tibet. The detailed planning for the Tsangpo project was approved by the State Council

in 2006 and has the support of Chen Chuanyu, its main architect, and Hu Jintao. Apart from the diversion project on the Brahmaputra River, China also plans to construct fifteen dams along the Lancang (Mekong) River. In addition, China plans to tap the waters of most of the big rivers flowing from the Tibetan plateau.

There are reports that, China's state owned electric power companies have already contracted with the TAR Government for the development of hydropower in different rivers of Tibet. China is also working towards developing road connectivity with Nepal and other South Asian countries. It not only wants to develop hydropower, partly to reduce the development gap between its eastern and western provinces, but to also sell the electricity generated to neighbours as well and thus promote cross-border integration of economies. The energy produced in Tibet might also be used to tap the region's rich mineral reserves including uranium, borax, lithium, copper, zinc and iron.⁶

Not just this, the dam is being constructed at a place called Namcha Barwa on the eastern plateau of Tibet. It is at this point in Tibet that China is reportedly building the world's largest dam, with 26 turbines, expected to generate 40 million kwh of hydroelectricity. There is sufficient evidence to suggest that the Zangmu hydroelectrical project was inaugurated on 16 March 2009 and the first concrete was poured on 02 April 2009. A consortium of five top Chinese power companies is overseeing the 1.138 bn Yuan project. Offering their support to the project, some Chinese engineers have reportedly suggested that the dam could provide cheap electricity for India, Nepal and Bangladesh, and that the dam could facilitate flood control in the Brahmaputra-Ganges basin. However, it is also believed that the diverted waters from the river would irrigate the northwestern part of China's Gobi desert in Xinjiang and Gansu, up to 650 kms away, and recharge the dying Yellow River, which now runs dry for much of the year.

In its presentation to the Committee of Secretaries (CoS) formed to assess Chinese plans regarding possible diversion of the Brahmaputra's water, the National Remote Sensing Agency (NRSA) presented evidence of "houses, construction/excavation and movement of trucks" in and around a 3-4 km range at the site. Accordingly, the CoS, headed by former Cabinet Secretary KM Chandrasekhar, decided that the issue was too significant to be

handled by the expert-level mechanism on floodwater data sharing. Instead, it decided that it would be better to tackle the issue at the political level through the Ministry of External Affairs.⁷

Authentic Confirmation of Dams

For the first time in May 2011, the State Council (the Chinese Cabinet) acknowledged the serious problems faced by the mega Three Gorges Dam.

A statement on government's website affirmed: "At the same time the Three Gorges project provides huge comprehensive benefits, urgent problems must be resolved regarding the smooth relocation of residents, ecological protection and geological disaster prevention."⁸ The statement came at the end of a meeting chaired by Premier Wen Jiabao: "Problems emerged at various stages of project planning and construction but could not be solved immediately, and some arose because of increased demands brought on by economic and social development", it explained.

The last time India officially heard about the diversion of the Brahmaputra was in November 2006 when President Hu Jintao was to visit India. China had decided to assuage the legitimate worries of the Indian government.

At that time, Chinese Foreign Ministry spokesman Liu Jianchao also confirmed: "The Chinese government has no plans to build a dam on the Yarlung Tsangpo River (Brahmaputra) to divert water to the Yellow River." Though, the Indian NRSA confirmed that construction was on at the Zangmu site on the Chinese side of the Brahmaputra River, prompting the Government to take up the matter with China at a "political" level.⁹

Reports on Seismic Tibetan Plateau Warns Disastrous Ecological Results

In the post Fukushima era, it is logical to expect that Chinese government would have honestly studied the geology around these mega projects. These 'irreversible' issues should also trigger fresh researches into the most seismic region on the planet: the Tibetan plateau. Hope, officials planning the construction of myriads of dams on the Tibetan rivers have taken into account the seismic conditions before starting the constructions? Adverse effects cannot be solved once dams are built.

Qin Hui, a professor in the School of Humanities and Social Sciences of Tsinghua University declared: "We have to take the international response into consideration. It is undoubted that the lower reaches of Yarlung Tsangpo River are within India's Assam Province, where it is a lifeline for local agriculture and backbone of the economy, just as it is further downstream in Bangladesh." Qin added, "It is so obvious that the proposed damming project will have a cascading effect leading to a natural disaster in the lower foreign reaches of the Brahmaputra, Salween and Mekong rivers."

Liu Changming, a hydrologist at the Chinese Academy of Sciences who has advised the Government on these proposals, confirmed that a team of water experts from the Chinese Academy of Engineers, an advisory group of prominent scientists had concluded that "the proposal to tap the Brahmaputra River would be far too expensive, technologically unfeasible and ...too controversial". He nevertheless admitted, "There may be some retired officials that support the plan, but they're not the experts advising the government."¹⁰

Now, **Professor Wang Guangqian** of the Chinese Academy of Sciences seems to say that China has no choice but to do it. Wang Guangqian speaks of a newly proposed route, "Brahmaputra waters are expected to be rerouted to Xinjiang along the Qinghai-Tibet Railway and the Hexi Corridor – part of the Northern Silk Road located in Gansu Province. Wang admitted "We thought this would be a plan 50 years later," adding that presently Chinese experts and governmental officials are still studying the feasibility and possible impacts of distinct proposals.¹¹

It is an established fact that Tibetan ecology is delicate and it cannot absorb the damming, river water diversion projects, mining and transportation, industrial and other related activities. Such activities would lead to receding glaciers in Tibet and in the Himalayas. Unfortunately, some of these activities might invite eco-disaster resulting in meltdown of Himalayan glaciers, further resulting in the drying of rivers. Any distortion in the ecology of Tibet and its delicate river system is likely to affect the global environment.

Implications of Diversion of Rivers and Construction of Dams

Perhaps, China well understands what George Ginsburg wrote, "it could dominate the Himalayan piedmont by virtue of holding Tibet, and by doing so, it could even threaten the Indian subcontinent, and thereby further threaten the entire South-east Asia and so to say all of Asia". This is one of the reasons why China has not signed any bilateral treaty in regard to the utilization of water resources with any of its neighbours, and has not signed the 1997 UN Convention on the Law of the Non-Navigational Uses of International Waterways.

Two important factors merit reflection in this context. First, hydropower lobbies have a financial interest in 'concretising' the project as soon as possible. In 2011, an article in *The Financial Times* said that "China's Three Gorges Project Corporation has proposed a \$ 15 billion hydropower scheme to Pakistan to dam the Indus river valley at several points, in a project aimed at controlling floods and tackling electricity shortages."¹² Dams, whether in Pakistan or Tibet, mean big business and the large Chinese corporations will continue to lobby hard to get the projects through.

Second crucial factor is the cost-benefit perspective. Chinese spokesman said, "If the price of transferring water is cheaper than conservation or getting water from the sea, China will go ahead."

Indian Concerns of Brahmaputra's Receding Waters

River Brahmaputra is very important for both India and Bangladesh. The Brahmaputra River Basin in India is most generously gifted with a fabulous water wealth that accounts for nearly 30 per cent of the total water resources and about 40 per cent of the total hydropower potential of the Country.

However, the Chinese government had in 2006 categorically dismissed claims that Beijing had plans to divert the Brahmaputra River that flows from Tibet into India. China's Minister for Water Resources, Wang Shucheng, then said the proposal was "unnecessary, unfeasible and unscientific," and had no Government backing. Wang's comments appeared to be part of an official effort to quell Indian fears that China had designs on the river water. However, this would also ensure that lower riparian countries like India and Bangladesh would be at China's mercy during the dry spell and for protection from floods during the rainy season.

Several organisations in Assam and Arunachal Pradesh have aired grave concern over the reported move by China to construct a dam on the main channel of Brahmaputra in the upper reaches of Tibet, to generate electricity. This move is bound to jeopardise the flow of the Brahmaputra, the lifeline of the Assam valley. Experts have raised fears that the construction of the dam may trigger devastating floods in Assam during the rainy season and dry up the river in winter.

Conclusion

When it makes its calculations, Beijing will however have to take into account the cost of a serious conflict with India. The price of water may then become exorbitant. And Beijing should look again into the disastrous performance of the Three Gorges Dam before taking a hurried decision.

The dependability of the Chinese on such issues is doubtful and hence India and Bangladesh must jointly take up this issue with the Chinese Government in order to safeguard the interest of their countries before it is too late. If the results of the negotiations are not fruitful, which is more likely to happen, the issue must be raised at the UN Security Council as the lives of millions of people from India and Bangladesh will be endangered once the dam is completed.

End Notes

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