



Centre for Air Power Studies (CAPS)

Forum for National Security Studies (FNSS)

85/17

INDIA-BHUTAN RELATIONS: UNLOCKING THE HYDROPOWER POTENTIAL FOR BETTER COOPERATION

Dr. Pamreihor Khashimwo
Research Associate, CAPS

Keywords: India-Bhutan relations, hydropower, bilateral, cooperation, energy security

The king and queen of the Himalayan Kingdom Bhutan, Jigme Khesar Namgyel Wangchuck and Jetsun Pema Wangchuck made their first visit to India since India and China terminated a 73 days long impasse on Bhutan's Doklam plateau two months ago. A statement of the India's Ministry External Affairs released on the occasion of the visit said, *"The visit would provide an opportunity to both the sides for reviewing the entire gamut of bilateral cooperation, including plans for befitting celebrations of golden jubilee of establishment of diplomatic relations between our two countries in the year 2018, and to advance the special bilateral ties of friendship and cooperation."*

India's historical relations with Bhutan date back to the 747 A.D. when the Indian saint Padmasambhava introduced Buddhism in Bhutan.¹ For many decades, India-Bhutan cooperation has been understood as ideal win-win cooperation model and it is normally

reiterated that the central element of their relationship is mutual benefit. While this has traversed a range of issues, hydropower is one worthy of note in the current times. During his maiden foreign visit to Bhutan in 2014, Prime Minister Narendra Modi laid the foundation stone of the 600 MW Kholongchu hydroelectric projects, a joint venture between India and Bhutan. The model involves India's support to Bhutan in building hydropower projects, by providing finance (grants and loans) and technical support for design and construction.

Bhutan has a hydropower potential of 30,000MW of which 23,000 MW can be tapped easily. Bhutan exports the surplus power to India and earns much-needed revenue and foreign exchange from such energy export. Bhutan's hydropower exports contribute around 40 percent of its revenue and 25 percent of its GDP.² The Punatsangchhu-I and Punatsangchhu-II and

the Mangdechhu projects are under construction, accounting for 2,940 MW of the total 10,000 MW to be generated.

For many decades hydropower development in Bhutan with the support of India has been the bedrock of Indo-Bhutan cooperation, within the framework of the India-Bhutan Friendship Agreement of 1949.³ The 2006 India-Bhutan agreement on hydropower stated that India would help Bhutan install 10,000 MW of hydro capacity by 2020, and import all the surplus power. While the scale of hydropower development was slow, the projects now are bigger and more in number. Currently, India has 58 hydropower projects planned in Bhutan by 2030 and 15 hydropower projects under construction and Planning in Bhutan by 2020.⁴ India is keen to deepen the cooperation, particularly in the energy sector.

Many projects have been delayed and their costs have increased immensely. The *Vasudha Foundation* report of 2016 said the cost of the 1,200 MW Punatsangchhu-I has gone from estimated BTN/INR 34 billion (USD 510 million) to BTN/INR 97 billion (USD 1.46 billion). For 1,020 MW Punatsangchhu –II project, the cost has gone to BTN/INR 74 billion (USD 1.1 billion) from BTN/INR 38 billion (USD 570 million) and for the 720 MW Mangdechhu to BTN/INR 45 billion (USD 675 million) from BTN/INR 29 billion (USD 435 million).⁵

Moreover, the entire project costs with a 60 percent grant component and 40 percent loan, financed by India have been reversed with loan component now comprising of 60 percent grant and 70 percent loan. Stobdan said, various factors such as the differences over power tariffs, operational aspects, and control assets producing fissure that could spill over into political sphere, for they also involve the psychological factor of being exploited.⁶ All this has affected the economics of the projects. Thus, the hydropower project has lost a lot of its financial lustre in recent time.

Bhutan also has its own domestic concerns and challenges of environmental and social issues to address. These include major environmental impacts, such as loss of forestlands and disturbance to wildlife habitat, which will impede the on-going and planned hydropower projects. Thus, addressing environmental and social issues associated with large-scale hydropower development will be a major challenge for Bhutan in the coming years. Likewise, Eleventh Plan document of Bhutan acknowledges, *“lack of economic diversification has resulted in a situation of high growth rates driven by the hydropower sector without a commensurate increase in gainful employment for a rapidly growing and educated labour force, which poses significant macroeconomic challenges for Bhutan.”*

Certainly, the hydropower development based India-Bhutan cooperation model is evolving, which urgently needs upscaling of the engagement through greater energy trade, so as to also help India's energy security. India will certainly benefit in diversifying India's energy investment from renewable energy sources such as hydropower from Bhutan. It is necessary to periodically evaluate the progress of projects under construction and those planned for the future. For Bhutan, it is important to appraise the overall contribution of the hydropower sector to its economy and assess the viability of electricity from hydropower projects. Going beyond India and Bhutan, the broader implications and importance of India-Bhutan hydropower lies in the fact that such cooperation can be promoted as a model for other bilateral trans-boundary arrangements like those between India and Nepal, and even with Myanmar.

In a world of increasing interdependence, energy security will depend much on how countries manage their relations with one another, whether bilaterally or within multilateral frameworks. To ascertain that both countries and their citizens' benefit equally within the framework of friendship, it is necessary to critically review the modalities of the friendship arrangement based on energy trade and the various implications of hydropower projects on the economy, environment, and people of Bhutan.

The takeaway from this trip of the royals for both Governments should be that policymaking ought to include and prioritise energy as an important yardstick for defining Bhutan's development and India's energy policy and give it due consideration for long-lasting relations.

(Disclaimer: The views and opinions expressed in this article are those of the author and do not necessarily reflect the position of the Centre for Air Power Studies [CAPS])

Notes

¹ Bandyopadhyay, Lopamudra(2009), "Indo-Bhutanese Relations: A historical Perspective," Global India Foundation.

² *The Third Pole, Understanding Asia's Water Crisis*, "India Bhutan hydropower cooperation fraying at the edges"<https://www.thethirdpole.net/2016/10/04/india-bhutan-hydropower-cooperation-fraying-at-the-edges/>

³ Ibid.

⁴ Ibid.

⁵ Vasudha Foundation (2016) "*A study of the India-Bhutan Energy Cooperation Agreements and the implementation of Hydropower Projects in Bhutan*, January 2016, New Delhi http://www.vasudha-foundation.org/wp-content/uploads/Final-Bhutan-Report_30th-Mar-2016.pdf

⁶ Stobdan, P. (2014), *India and Bhutan: The Strategic Imperative*, IDSA Occasional Paper, No. 30. pp- 84.