

India's Dam Building Abroad: Lessons from the Experience at Home?

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In sectors such as steel, automobiles, oil and gas, wind and hydro power, Indian companies and state-owned enterprises have rapidly expanded their overseas investments in recent years. Not least motivated by the example of Chinese investors, they are trying to gain access to foreign resources, win international contracts, and strengthen their relations with trading blocks such as the ASEAN countries. They have had a presence in neighboring countries such as Nepal and Bhutan for a long time, and are now also spreading to more distanced countries in Asia and Africa.

Leading corporate actors and government representatives have adopted the mindset of economic globalization. India's Prime Minister Manmohan Singh said: "Brand India has begun to make its mark on the world stage. This is just a beginning and the best is yet to come." And Montek Singh Ahluwalia, deputy chairman of India's Planning Commission, added: "Indians have superior management skills. Acquisitions are essential to make a global impact."¹ The Indian government supports Indian foreign investments through its export credit agency and other tools.

This paper presents the Indian institutions which are engaged in building dams and other power projects abroad, and provides an overview of the projects which they are involved in. It summarizes the track record of Indian dam builders at home, and analyzes some of the problems which their new projects have created. The paper concludes with recommendations for future action.

The actors

A large number of Indian companies are involved in the current foray into foreign power projects. They include

- state-owned hydro and thermal power developers and equipment suppliers (National Hydroelectric Power Corporation NHPC, Sutej Jal Vidyut Nigam Ltd. SJVN, National Thermal Power Corporation NTPC, Bharat Heavy Electric Limited BHEL),
- private power plant developers and equipment suppliers (GMR Energy, Reliance, Alstom India),
- wind power companies (Suzlon),
- transmission companies (e.g. Power Grid Corporation of India Ltd, Tata Power Ltd, Power Trading Corporation),
- and state-owned and private consultancies (e.g. the Water and Power Consultancy Services (India) Ltd WAPCOS, the Central Electricity Authority CEA, the Central Water Commission CWC, and Sivaguru Energy Consultants & Software Development Pvt Ltd SECS).

¹ Manmohan Singh and Montek Singh Ahluwalia quoted in The Hindu Business Line, November 24, 2006

The Export Import Bank of India has provided support for Indian power projects abroad through various instruments. They include direct loans (e.g. a US\$45 million loan for the Nam Chien Project in Vietnam) and lines of credit (e.g. for projects in Burma, Nepal, Uganda and Rwanda). The Indian government has also offered Nepal and Tajikistan outright grant assistance for the construction of hydropower projects by Indian developers.

Overview of projects

The following is a brief overview of foreign dam projects with Indian involvement. It shows that a lot of projects are already being implemented in Nepal and Bhutan, India's neighbors to the north. A small number of projects are also going forward in other Asian countries, while projects in Africa are still in the exploratory phase.

- Afghanistan: WAPCOS and to a lesser extent NHPC have been involved in a number of projects in various capacities, including in the 118 MW Kajakai Hydropower Project, the 40 MW Salma Dam Project, and the 40 MW Khanabad Hydropower Project.
- Bhutan: India has been involved in most hydropower projects in this country, from planning to funding to construction and the purchase of power. These projects include the 336 MW Chukha Hydropower Project, the 1020 MW Tala Hydropower Project, and the 60 MW Kurichu Hydropower Project. More projects are in pipeline. Among other companies, WAPCOS, CWC, Tata Power and the Power Grid Corporation have been involved in these projects in various capacities.
- Burma: In October 2007, India provided a loan of US\$ 60 million to Burma to help fund construction of the 113 MW Thahtay Chaung hydropower project. The funds were made available via a Line of Credit from the Export-Import Bank of India. CEA and WAPCOS carried out the design and engineering of the 25 MW Sedawyagi Hydroelectric Project. NHPC prepared a pre-feasibility report for the 1200 MW Tamanthi multipurpose storage project on the Chindwin River in the Irrawady Basin and seems to be involved in further stages of development.
- Congo: In November 2007, senior NHPC representatives met with officials from the Democratic Republic of Congo and Ethiopia to explore opportunities for Indian hydropower projects in these countries. At the 4th India-Africa business conclave in Delhi in March 2008, Congo's energy minister also advertised his country's potential for Indian hydropower companies. So far, no specific projects have been identified at least in the public domain.
- Ethiopia: WAPCOS commissioned a master plan for hydropower development in Ethiopia already in 1988/89. The head of Ethiopia's electricity utility also encouraged Indian companies to invest in his country at the business meeting of

March 2008, and NHPC has expressed an interest in taking up Ethiopian hydropower projects.

- Ghana: SECSO, an Indian consultancy company, carried out a series of studies to identify potential private power projects in Western Ghana, and to prepare pre-feasibility and feasibility studies for a series of projects on the Pra, Tano and Ankobra rivers. Various Indian institutions were also involved in small hydropower projects in Ghana, but none of the projects seem to have been completed.
- Indonesia: WAPCOS was involved in Batang Hari Hydropower Project.
- Iraq: WAPCOS had contracts in the Bakuman and Khalikan Dam projects.
- Malaysia: WAPCOS was involved in the 21 MW Sungai Piah Hydropower Project.
- Nepal: Indian institutions are involved in a series of hydropower projects in Nepal at different stages of development. India's Power Trading Corporation will purchase all the power produced by the 750 MW West Seti Project, which is currently being developed by Australia's Snowy Mountain Engineering Company. In February 2008, Nepal's government awarded the 300 MW Upper Karnali Project to GMR Energy Ltd, a private Indian company, and the 402 MW Arun III Hydropower Project to the Sutej Jal Vidyut Nigam Ltd.

In October 2006, the Indian government offered Nepal grant assistance for the construction of a hydropower project of up to 250 MW. The 240 MW Naumure Project on the West Rapti River is currently being considered for this purpose. In September 2007, the Export Import Bank of India also extended a Line of Credit of US\$100 million to the government of Nepal in support of various projects, including hydropower projects.

Finally, India is in the process of planning and investigating the 5600 MW Pancheswar under the Mahakali Indo-Nepal Treaty that came into force in June 1997 for a period of 75 years. The two countries are also in the process of planning the Sapta Kosi High Dam Multipurpose Project and Sun Kosi storage and diversion scheme.² India's gigantic River Linking plans crucially hinge on the construction of huge storage dams in Nepal (and Bhutan).

- Rwanda: In October 2007, the Export Import Bank of India approved the first tranche of US\$ 20 million of a US\$ 80 million line of credit for a hydropower project in Rwanda.

² Annual Report of Central Water Commission for 2006-07, page 86.

- Sri Lanka: WAPCOS is involved in the biggest hydropower project currently planned in this country, namely the 150 MW Upper Kotmale Project.
- Tajikistan: An Indian delegation, including NHPC engineers, visited this mountainous country in August 2007 to explore hydropower projects. According to the Tajik ambassador to India, NHPC and BHEL stand ready to reconstruct the Varsob I Hydropower Project.³ The Indian government has offered US\$13 million in support of this project.
- Uganda: In February 2008, Alstom India got the contract to supply electro-mechanical equipment for the controversial 250 MW Bujagali Hydropower project in Uganda. In March 2008, India approved a US\$ 350 million line of credit for the development of a 100 MW hydropower project by BHEL at Isimba Dalls in the Upper Nile basin.
- Vietnam: In January 2008, the Export Import Bank of India approved a loan of US\$45 million for the 200 MW Nam Chien Hydropower Project in Northern Vietnam. BHEL will provide equipment for this project.

The impacts

No detailed studies on the impacts of India's foreign investments, including hydropower projects, exist. The paper by Deborah Moore and Thayer Scudder in this report summarizes some of the findings of the World Commission on Dams regarding the development effectiveness of dams. There is evidence that Indian dams abroad also have serious impacts on affected communities and the environment. Here are some examples:

- According to students' groups from the affected region, the Tamanthi Hydropower Project in Burma will submerge about 68 square kilometers of land, and displace about 30,000 people from 35 villages. The affected communities belong to the indigenous Kuki people. Some of the affected people have already been displaced by the country's military rulers without any compensation, and the students' groups have protested against the project in India.
- The West Seti Hydropower Project in Nepal will submerge 22 square kilometers of land, displace at least 1500 families, and dry out a long stretch of the Seti River.
- The Tala Hydropower Project in Bhutan has almost totally dried up a 30 kilometer-long stretch of the Wangchu River, and adversely impacted the rich biodiversity of a much larger region. The project is located in a geologically fragile area, and suffered extensive damages from flooding in 2000.

³ The Ambassador of the Republic of Tajikistan, Message, see www.tajikembassy.in/message%20by%20the%20ambassador.html

Conclusion

Dams in India have a long and extremely conflictive history. Poor, marginalized and often tribal people bore the brunt of dams' impacts, but received few if any of their benefits. Dams have triggered many large-scale social mobilizations, with huge demonstrations, the blockade of construction sites, hunger strikes, court cases and other forms of conflict. Indian dam builders and financiers have not developed credible policies to address the negative social and environmental impacts of their projects. In numerous cases, they have circumvented laws, government and court decisions. Already, dams with Indian involvement have also triggered protests and court cases in Nepal, Burma and Uganda.

In many host countries of Indian projects, there are no appropriate laws and policies which regulate the social and environmental impacts of dam projects. In countries such as Bhutan, Burma, Ethiopia and Vietnam, there is no political space for an independent civil society, judiciary, and media. In such countries, foreign investors and financiers have a particular responsibility to address the social and environmental impacts of their projects.

The paper by Deborah Moore and Thayer Scudder in this report introduces the recommendations of the World Commission on Dams. These recommendations were elaborated in an open and inclusive process in which stakeholders from all sides of the debate were involved. Two of the Commission's twelve members were from India, one of the WCD's ten in-depth case studies covered India's experience with dams, and India's Ministry of Water Resources was a member of the WCD Forum. The WCD framework is therefore highly relevant for Indian dam builders and financiers.

As they expand their foreign operations, Indian dam builders and financiers risk exporting their negative domestic track record and creating conflicts over their projects abroad. The Export Import Bank of India and companies such as NHPC, BHEL, SJVN, GMR, WAPCOS and others are well advised to adopt the WCD's recommendations for good practice in water and energy sector development, to avoid getting embroiled in international conflicts over their projects.