

Hydro-Power projects a boon or bane for Sikkim?

by D. B. Rai



The Teesta River

The 510 MW Teesta Stage V hydel power station commissioned by National Hydro Power Corporation (NHPC) was dedicated to the nation recently by Union Power Minister Sushil Kumar Shinde in a formal ceremony at Baluwatar located in East Sikkim along the Teesta river, some 40 kms away from the Gangtok, the capital of Sikkim.

Built at a cost of Rs. 2619 crores and completed in a span of eight years, the Teesta Stage V mega power project had been fully commissioned in March last year and is one of the largest hydel power plants in the Northeast region.

The electricity being generated at Teesta Stage V plant is being supplied to power the deficit States of West Bengal, Orissa, Jharkhand and Bihar which had previously entered into a purchase agreement with NHPC.

Mr. Shinde said that the Teesta Stage V plant would go a long way to tide over the power shortage in West Bengal, Orissa, Jharkhand and Bihar. The Union Minister also added that *the commissioning of the hydel plant has also helped the Himalayan state of Sikkim financially as it has been getting 12 per cent free power of its installed capacity which fetches it about 125 crores annually. This has emerged as a permanent source of*

revenue which could be utilized for various development works. The Union Minister lavishly praised Chief Minister Pawan Chamling for his commitment to the state's development. Mr. Shinde said that it was due to Mr. Chamling's leadership that the border state of Sikkim will become financially self-reliant in years to come, once all the ongoing power project construction works are completed and get commissioned. Chief Minister Chamling termed the inauguration of the project as an exemplary act of development done by Sikkim.

However, ACT, an NGO based on North Sikkim, is in no mood to say that the hydro power projects being set up in the state are completely for the prosperity of the Sikkimese people. It is demanding that the heavy hydro power projects being set up in Dzongu, the place of origin of the Lepcha community, the primitive tribe of India, should be stopped. The organization has been staging a continuous relay hunger strike since 20th June, 2007.



Protestors voice their grievances to deaf ears

Mr. Dawa Lepcha and Tenzing Lecpha had even staged a continuous month long hunger strike without even drinking water. Later on, they withdrew their strike on the assurance from the government that some of their demands would be taken into consideration. However, the state government did not stick to this promise.

Despite all this, ACT was the talk of the state till the period before the general elections of 2009. The political observers were also of the view that Lepcha votes would go against the SDF, the ruling party. And the movement was also able to earn the sympathy not only from Lepchas but also from other communities, so much that some political parties had even tried to fight the election, riding on ACT.

However, with the announcement of the election results, the ACT movement took a back seat as the SDF won the election with a thumping majority of all 32 seats in the Assembly and also the Lok Sabha seat. Mr. Sonam Gyathso Lepcha, MLA of Dzongu

constituency, also won by a huge margin from the constituency. These election results speak of the popularity of the SDF and the people's support of the mega hydle power projects. SDF chief Mr. Chamling rewarded the Dzongu MLA Mr. Lepcha by promoting him to the post of Power minister from a mere MLA.

ACT holds the view that besides the threat to the Lepcha community, the power projects have affected the environment too. Mr. Tseten Lepcha, coordinator of the organization said that the Panan project one of the hydro power projects in Dzongu is being developed by encroaching into the Khangchendzonga National Park as the developers are undertaking catchments area treatment there.

On the other hand, the state as well as the developers contended that this was not a project component and would be returned after completion of the catchments area treatment. This is in violation of Supreme Court orders. Other grievances of ACT are influx of outsiders into the Lepcha reserve of Dzongu and the resultant dilution of Lepcha culture and heritage..

Are hydro power projects really dangerous for the environment?

Experts are of the view that hydro power is more reliable and efficient and a less expensive energy source than geothermal, biomass, wind, and solar energy. It is a clean source of power as it produces no carbon dioxide, sulfurdioxide, nitrous oxides, or any other air emissions. In addition, it produces no solid or liquid waste. Hydro power is also one of the least expensive sources of electricity.



One of the tunnels at the Teesta River

Mr. S. K. Garg, Chairman & Managing Director, NHPC Ltd, also adds that while developing hydropower projects, NHPC is very sensitive and concerned about R&R and environmental issues and adopts a very balanced approach. He says NHPC obtains site, environment and forest clearances as per the statutory requirements and also tries to utilize minimum forest area. Environment impact assessment is conducted and based on that, an environment management plan (EMP) is framed to properly address the environmental issues. Close monitoring is done to ensure effective implementation of EMPs. Post-construction EIA to evaluate pre- and post-construction scenario to ascertain the efficacy of environment management plan is also undertaken.



What is left of our Children?

According to him, NHPC has formulated detailed compensation packages based on various approved relief and rehabilitation guidelines. Compensation package includes various allowances for shifting, subsistence allowances until a family member finds employment, special grants for SC/ST families, and rehabilitation sites for affected families with adequate infrastructure, sanitation, educational and other amenities. NHPC also ensures a public hearing process and tribunals for redressing public grievances on these issues.

But it is also a fact that most hydroelectric projects have dams whereby a river habitat is often replaced by a lake habitat. Thus, habitats for wildlife on land and for organisms in the water are destroyed or altered by impoundments of rivers. Examples in Tennessee are the Little Tennessee River and Tellico Lake. The biggest issue in the Northwest has been blocking upstream and downstream movement of fish. Salmon must be able to migrate upstream from the ocean to reproduce in fresh water. Even with the use of fish ladders to help salmon go up over dams and enter upstream spawning areas, the presence of hydroelectric dams essentially has changed the migration pattern of fish. The coho, chinook, and sockeye salmon populations of the Northwest, which once were abundant, are either on or will soon be on the endangered species list. They are headed for extinction, in part, because of hydropower. However, federal dams, not nonfederal dams, are primarily responsible for the reduction of the Pacific Northwest salmon population from about 16 million to 300,000 wild fish each year. The bottom line is that hydropower production is decreasing as new environmental protection is enforced. Another big problem now is getting the young fish back downstream and into the ocean. On the way they can be killed as they pass through the turbines. Development of hydroelectric dams can have adverse effects on water quality in several different ways. Tree clearing can result in soil erosion and landslides, causing a buildup of sediments that can clog up streams. Spilling of water over spillways can result in super saturation of the water with gases from the air. The gas bubbles, which are absorbed into fish tissue, may cause damage and ultimately kill the fish.

Another problem with dams is that, even if the water quality is not degraded, major habitat changes can occur if the natural hydrology of the river is changed. This issue is normally lumped under the term “in stream flow” problems. If the amount of water released downstream changes, either on a seasonal basis or, in the short term, say, on an hourly basis, that can have adverse effects on fish and other organisms.

Source:

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