

God's Own Garden in Peril: Hydel Projects threaten Lepcha community in Sikkim

by Avilash Roul



The beautiful Teesta River of Sikkim

Editor's Note: Few issues of scaleable energy are harder to parse and assess than hydropower. It is renewable, it is 24 hour, it can be throttled back, the capacity is massive. At capacity China's Three Gorges complex outputs somewhat over 17.0 gigawatts. India's entire hydroelectric capacity is about 35 gigawatts. The "hydel" (hydro-electric) dams India plans to build in the Teesta river systems will pour another 5.0 gigawatts into India's electric power grid. Sikkim will be an energy exporter. And the dams will consume lands and habitats and ecosystems will be drowned. Who can make the call? The Teesta River system is one of the most beautiful watersheds of wild river left in the world. It is an unspoiled treasure of surpassing beauty. These wild rivers of Sikkim are about to be tamed, fresh water will be harvested and stored, and they will generate hydro-electric energy. What if we had no ice melt? What if we needed to store the water? Building water storage capacity is not necessarily a bad idea – what if storage and hydropower could be implemented off main watercourses? What sort of green dam engineering could be put to work in Sikkim? To simply build a dam, a powerhouse and a reservoir on every river, inundating every valley, every village, eliminating every white water haven – that is not necessarily a good idea.

On the other hand, more electricity and water abundance is worth something. There is no justification for doing anything to harm the earth or the people living on it; not one earthworm is beyond the precious purview of the environmentalist. And that is not a bad idea. So where do we leave the footprint of public utilities, so there are adequate power and water supplies for people? Should no project be began, anywhere? No large scale energy or water development can fail to be at some level to be arbitrary, unfair, heedless, yet to continue to adapt as a civilization we must balance benefits as best we can. – Ed “Redwood” Ring



“Let Us Live In Our Homeland, We Want Freedom From Hydel Project”
Source: Affected Citizens of Teesta (ACT)

The ‘God’s Own Garden’ is in peril! The only state in India claim to have green manifesto in its developmental path is going to be seriously dismantled by the state itself.

The Green Protection Index- Sikkim government’s initiative for environment protection- sordidly overlooks the environmental and cultural disruptions due to several hydel power initiatives on the Teesta River and its major tributaries.

The state government’s hydel spree of more than two dozens of projects on the Teesta River basin has been facing severe protest in the tiny Himalayan state. In the true sense of Gandhian non-violence, the indigenous communities of Sikkim are continuing their indefinite hunger strike for more than 165 days against the proposed construction of hydel projects since June 20, 2007. Various community organisation led by Affected Citizens of Teesta (ACT), along with the Concerned Lepchas of Sikkim (CLOS) and the Sangha of Dzongu are protesting projects proposed in North Sikkim, particularly in Dzongu, the holy land and exclusive reserve of the Lepcha indigenous community. The 30 MW Rathong Chu project in West Sikkim was abandoned as the lamas (Monks) protested against its impacts on the sacred landscape. A senior monk Sonam Paljor Denjongpa of the Chorten Gonpa, Deorali, Gangtok said that some of hydel projects will destroy the heart of the sacred land, Dzongue.



Site of Indefinite Hunger Strike
Source: Affected Citizens of Teesta (ACT)

33 year old Dawa Tsering Lepcha who lives in Lingdong Village, in the Dzongu Lepcha Reserve in North Sikkim, and Secretary of ACT, says, "The proposed hydropower projects will have a drastic effect on the social, cultural and religious well-being of Lepchas, not to mention on the fragile environment of Dzongu, our ancestral and present homeland in north Sikkim." Dzongu has been reserved for the Lepcha community and borders the Kanchenjunga Biosphere Reserve, which hosts a large number of biological curiosity. The Lepchas are one of the three ethnic communities resides in Sikkim. The 40,568 Lepchas as per the 2001 census, who call themselves the Rong-pa, are Sikkim's earliest inhabitants and popularly classified as hunting-gathering forest-dwelling primitive groups. The culture, customs and traditions of the Lepchas are inextricably linked to the nature. However, now the Lepchas are facing serious threat of their existence. Tenzing Lepcha, 23 years from Heegyathang village which resides 70 Lepcha family in Dzongu province says, "We want development but not on our existence cost."

Early September, under the pressure from the indigenous communities, the state government has ordered to halt all the five hydel power projects in Dzongu till a review committee submit its report within 100 days. On September 10th, the ACT responded with a Press Statement rejecting the government's statement and continuing their struggle. Dawa Lepcha says, "The entire process of constituting the Committee, appointing its members, formulating its TOR etc is done without any consultation with ACT."

Development of Power installations in Sikkim

Sikkim has been declared a 100 percent electrified state in 1995 as per definition of Rural Electrification Corporation of India- a federal government enterprise (<http://recindia.nic.in/>). However, the foundation of power was established in 1927 with the commissioning of first hydel project at Lower Sichey Busty on the bank of Ranikhola River near Gangtok with the installed capacity of 50 KW. This was distributed through 3.3KV overhead transmission line to the Royal Family and Gangtok town. Till 1954, this was managed and operated by only two persons.

The Ranikhola hydel station was further augmented in the year 1935 by adding 60KW generating set. In 1957, keeping in view of growing demand for electricity and as a standby measure, a Diesel power house was established and commissioned with a capacity of 257 KW. This was upgraded to 4 MW from the previous capacity in 1998.

Till the end of 1975, the state was having a generation capacity of only 3MW from its small hydel projects (SHP) like Jali Power House, Rimbi Micro Hydel, Rothak Micro Hydel, Manul Micro Hydel Power House and Diesel Power House at Gangtok. The 60 MW Rangit Hydel project in West Sikkim was commissioned in 1999. A 2 MW Kalez Khola hydel project in Dentam in West Sikkim and 3 MW Rabomchu power project in North Sikkim were commissioned in 1995-96 and 1998, respectively.

The state nodal agency for renewable energy has installed 1,000 solar home lighting systems and 5 solar water heating systems. Till 31st March, 2007 a total of 16 Solar Home Lighting Systems, 162 Solar Street Lighting Systems, 720 Solar Lanterns, 15 kWp aggregate capacities of solar photovoltaic plants, 5 solar water heating systems of 156 sq m collector area and 20 solar cookers have been installed in the state.



The 60 MW Rangit Power House
Source: Government of Sikkim

The State government is expected to commission 22 power projects by 2012.

A total of 5148 MW capacity hydel power generation will be added by the end of 11th Five Year Plan. From these projects, the State Power & Energy Department says, the state government will get 12 percent of free power.

At present the total Installed Capacity of the state is 95.70 MW. The per capita consumption of electricity in the state is 182 KWh. However, the government estimates total hydro power potential is 5505 MW. Out of which, a total capacity 5257 MW of 27 projects have been formulated (See Table-1).

The State government's vision document enshrines the fulfilment of this hydro potential (<http://sikkim.gov.in/ASP/Visiondocument/POWER.htm>). Under the Prime Minister's 50,000 MW initiatives, the Central Electricity Authority (CEA) have prepared Preliminary Feasibility Report (PFRs) of 162 schemes which are located in 16 states. Under this scheme, the Sikkim government has been allocated 10 schemes of 1469 MW of installed capacity.

Table: Sikkim Hydro Power Projects allotted to Private & Public Sector

Project Name	Agency	Capacity (megawatts)	Year of Completion
Teesta I (North)	Himalayan Green Energy Pvt. Ltd., New Delhi	280	2012-13
Teesta II (North)	Him Urja Infra Pvt. Ltd., New Delhi	330	2011-12
Teesta III (North)	Teesta Urja Limited, New Delhi	1200	2011-12
Teesta IV (North)	NHPC Ltd., New Delhi	495	2011-12
Teesta V	NHPC Ltd., New Delhi	510	2006-07
Teesta VI (South)	Lanco Energy Pvt. Ltd., New Delhi	500	2011-12
Lachen (North)	NHPC Ltd., New Delhi	210	2011-12
Panan (North)	Himagiri Hydro Energy Pvt. Ltd., Hyderabad	300	2011-12
Rangyong (North)	BSCPL-SCL Joint Venture, Hyderabad	117	2011-12
Rongnichu (East)	Madhya Bharat Power Corporation Ltd.	96	2011-12
Sada Mangder (South)	Gati Infrastructures Ltd., Hyderabad	71	2011-12
Chujachen (East)	Gati Infrastructures Ltd., Hyderabad	99	2009-10
Bhasmey (East)	Gati Infrastructures Ltd., Hyderabad	32	2011-12
Rolep (East)	Amalgamated Transpower (I) Ltd., New Delhi	36	2009-10
Chakhungchu (North)	Amalgamated Transpower (I) Ltd., New Delhi	50	2011-12
Ralong (South)	Amalgamated Transpower (I) Ltd., New Delhi	40	2011-12
Rangit II (West)	Sikkim Ventures Pvt. Ltd., Mumbai	60	2011-12
Rangit IV (West)	Jal Power Corporation Ltd., Hyderabad	120	2011-12
Dikchu (North)	Sneha Kinetic Power Projects Pvt. Ltd., Hyderabad	96	2011-12
Jorethang Loop (South)	DANS Energy Pvt. Ltd., New Delhi	96	2011-12
Lingza (North)	SSNR Super Power (P) Ltd., Hyderabad	120	2011-12
Thangchi (North)	Lachung Power Pvt. Ltd., New Delhi	40	2011-12
Bimkyong (North)	Teesta Power Pvt. Ltd., New Delhi	99	2011-12
Bop (North)	Chungthang Power Pvt. Ltd., New Delhi	90	2011-12
Ting Ting (West)	SMEC (India) Pvt. Ltd., New Delhi	70	2011-12
Rateychu-Bakchachu (N)	Coastal Projects Pvt. Ltd.	40	2010-11
Tashiding (West)	Shiga Energy Pvt. Ltd.	60	2011-12

The proposed Hydel sites on the rivers in Sikkim; over 5.0 gigawatts of capacity
Source: Department of Power and Energy, Government of Sikkim

Carrying Capacity of Teesta Basin

The State as well as the Federal Government wants to harness the vast hydropower potential of Teesta River as well its tributaries. Out of 104 rivers and streams in the state, the state government has taken up six stage 'cascade' plan to harness 3635 MW of hydropower within 175 kms of the Teesta River flows across in Sikkim (See Table -1). The perennial Teesta, fed by the snow and glaciers of Kanchenjunga and great Himalayas, is also an international river flows through the territories of India (Sikkim and West Bengal) and Bangladesh. The proposed and on-going projects are criticised for its various negligence on environmental aspects, forest clearances and public participations. The State environment department had also detected several violations of forest laws by the projects.

Ramamurthy Sreedhar, Earth Scientist and Director of Academy of Mountain Environics (<http://www.environicsindia.in/>) says, "The projects in Sikkim must be considered in a completely different light, as apart from the ecological implications for which comprehensive carrying capacity studies were to be made, the unique cultural situation and aspirations of the people have to be taken into account". A study on Carrying Capacity of Teesta Basin in Sikkim has been initiated in the year 2001. The Study is sponsored by National Hydro electric Power Corporation (NHPC) and coordinated by the Centre for Inter-disciplinary Study of Mountain and Hill Environment (CISMHE), Delhi University. The objective of the study was to help in formulating guidelines for overall development of Teesta Basin. Reading through the volumes of the draft Carrying

Capacity study of Teesta Basin is scary. However, the findings of the study are yet to be officially put in the public domain.

The study says that the ecology and the geology are so fragile that if any development project is undertaken, proper studies have to be done before that. The study also mentions that tunnelling will be difficult in the types of rocks present in north Sikkim. The Study also predicts more landslides and landslips, which has already increased due to construction of roads.

Souprna Lahiri, senior member of National Federation For Forest People and Forest Worker (NFFPFW) who also works with groups in Sikkim and Arunachal Pradesh on the issue of hydel projects, says, "One of the conditions for according environmental clearance to Teesta Stage V was that no further clearances will be given to any hydel project till the carrying capacity study of Teesta is carried out. The study is yet to be officially published but at least two projects Teesta State III and Panan has been cleared".

The international aspect of sharing the Teesta water is yet to be resolved between India and Bangladesh. Despite the Joint River Commissions of Indo-Bangladesh (JRC) reached an agreement in 1983 for two years to utilise the quantum of water, the issue has not been resolved yet. The impeding demand on Teesta water is definitely creating bilateral skirmishes despite institutional mechanism to resolve the problem is available like Joint Committee of Experts (JCE) on sharing of waters of Teesta and a Joint Technical Group (JTG) on sharing of Teesta Waters.

Bangladesh constructed a barrage on the Teesta River in 1990 to provide irrigation water for crop production in the Teesta Barrage Project (TBP) area. India has also constructed a barrage on this river upstream. However, unilateral withdrawal of water in India upstream, limits irrigation water availability in the TBP area. Water sharing with India is crucial in achieving food security and sustainable livelihood in Bangladesh.



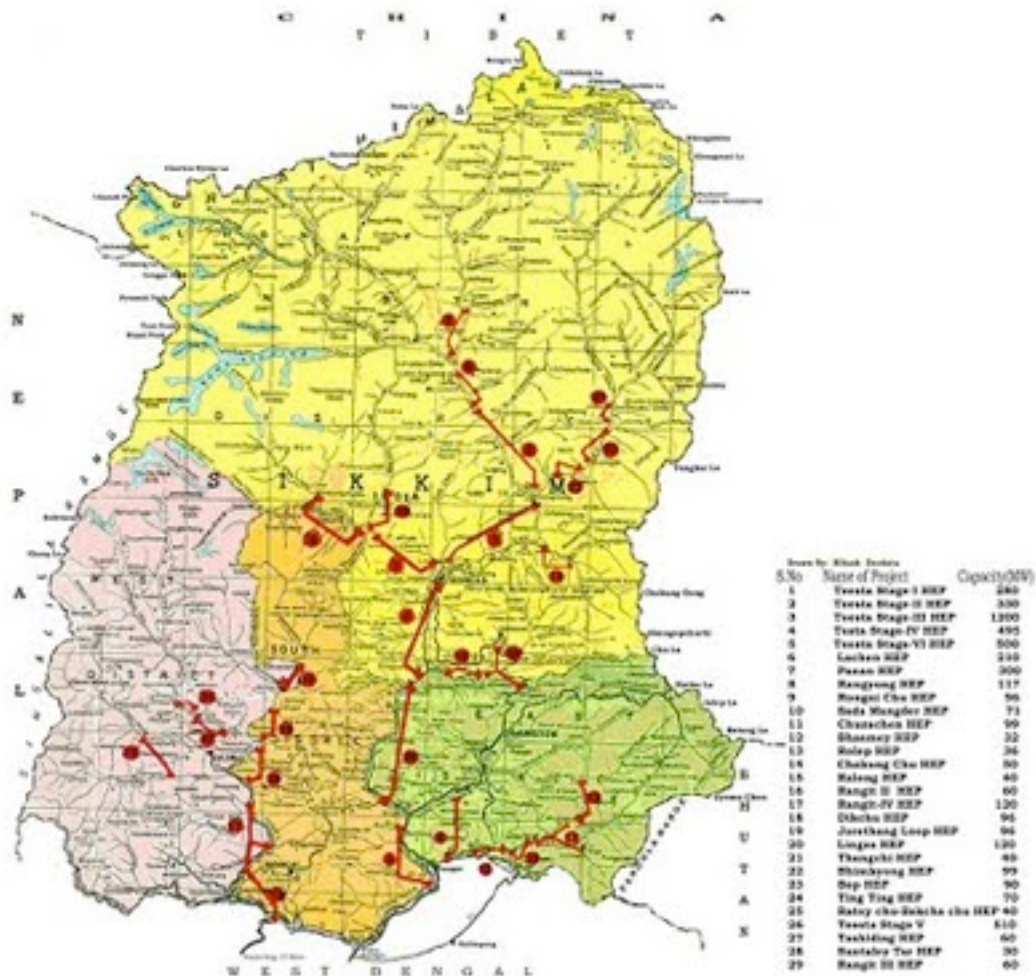
Teesta Phase III
Source: ACT

The Government's Argument

The Federal Agencies are taking serious notes of the development in Dzongu Province. In early January coming year, a member of Planning Commission may pay a visit to see the ground zero situation in Dzongu province. However, the State government is buying time to restart the projects. In a Public Hearing (mandatory for every project in India) initiated by the Sikkim State Pollution Control Board, in June 2006 in Dzongu, the government agencies cajoled, intimidated and persuaded the communities and people through their introductory notes for the hydel projects before disseminating information regarding the projects.

This process of public hearing has been questioned at large in all over India. During the Public Hearing, the Chairman of the State Pollution Control Board in her speech asked the people to support the hydel projects and should not be carried away by the remarks of people who opposed the projects. The local legislature who is also the Health Minister of the present administration said during the Hearings as 'there is not a single person displaced by this project'. However, Mr Lahiri rues, "In the Public Hearings there was considerable opposition to the project, in case of Panan, 100 per cent said no, in case of Teesta III it was 50 per cent. In the Teesta III PH, those who raised concern and

Map: Sikkim Hydro Power Projects allotted to Private & Public Sector



The proposed Hydel sites on the rivers in Sikkim; over 5.0 gigawatts of capacity
 Source: Department of Power and Energy, Government of Sikkim

protested against the project were termed as anti-social and anti national by the chairperson of the SPCB.”

The state officials have been arguing for the revenue generation amounting approximately two billion rupees from these projects per annum. The State Department claims that 100 percent of the jobs generated in these power projects are being given to the local people depending upon their qualifications. According to the government, the benefits from these hydel projects would contribute to the national GDP growth, revenues from free power and environment cess, clean power as CDM perspective, employment generation and local area development but, as community believes, at the cost of environment and unique culture.

Conclusion:

During their last two days protest in New Delhi (December 5-6, 2007), the communities from Dzongu has met various officials, conveyed their grievances, and pledged to carry forward their peaceful protest against the upcoming hydel projects in coming days. The Constitutional provision of cultural rights which are also fundamental rights will be in jeopardy in Dzongu province if the concerns of the Lepcha community are not addressed adequately and immediately.

About the Author: Avilash Roul, a doctoral fellow on international environmental negotiations, has been writing, advocating, researching, creating knowledge on Environment and Development in various English Daily media since 2000. Earlier, he worked with Down To Earth (fortnightly magazine published in New Delhi, India). He also contributed regularly in Sundays for a column in New India Express on environment and development. More recently, Mr. Roul worked as an Assistant South Asia Regional Coordinator for the Bank Information Center (www.bicusa.org), an independent, non-profit, non-governmental organization that advocates for the protection of rights, participation, transparency, and public accountability in the governance and operations of the World Bank, regional development banks, and the International Monetary Fund. Presently, he contributes his time on researching and empowering and building capacity of various communities on environment risk management, climate change, forest, mining, water and wildlife issues in South Asia as well as advisor to Society for the Study of Peace and Conflict – a Delhi Based think tank.

Source: <http://www.ecoworld.com/energy-fuels/hydroelectric/sikkims-teesta-river.html>