

Teesta Dams & the Sikkim Earthquake

Hydropower Dams on Teesta have been in the news for all the wrong reasons since their inception. These include environmental violations like dumping of debris in the river, faulty EIA and EMP reports, neglect of affected population, lying about CDM credits and so on. Right from their planning stage, a number of experts had raised doubts about the soundness of setting up the huge cascade of hydropower dams in the seismically most volatile region of India. Entire Sikkim falls in Seismic zone V. Now on the Sept 18, the region experienced a strong earthquake measuring 6.8 on Richter scale. The official number of casualties has crossed 130. The earthquake has raised many questions about the feasibility of major projects in this area, all of which involve extensive blasting and tunnelling of the fragile mountains.

According to Professor Jeta Sankrityayan, former member State Planning Board, W Bengal and also a member of the landslide expert committee 1998, ***the presence of multiple dams on the river Teesta and its tributaries could accelerate earthquakes and increase the damages.*** The committee on landslides, which had also studied the tectonic plate movement, had handed over recommendations to the government of W Bengal in 2000. The committee had recommended that no constructions should be allowed on the rivers in this seismic zone. ***"It is very unfortunate that the Government does not pay heed to recommendations of its own committee for which the public have to suffer. Something more devastating can happen any day. It is time the public woke up and pressurized the Government to act more reasonably. Electricity in lieu of lives is not a very human option"*** said Prof. Sankrityayan. "A full scale inspection and study should be conducted by geologists and earth scientists into the recent quake, the damages and their relation with the hydro projects. It should be an independent probe not influenced by the Government. We should not be accelerating or bringing in such natural events otherwise we will definitely have to pay a dear price" he suggested.

According to Prof C.P. Rajendran, a palaeo-seismologist at the Centre for Earth Sciences, IISc-Bangalore, "A time-bomb is ticking away; it's not a question of if but of when the big earthquake of more than Richter 8 will strike northern India." His concerns are echoed by Harsh Gupta, noted seismologist and former secretary in the Union ministry of earth sciences. "A great earthquake in the Himalayan region is overdue. It could occur any time." However, these scientific predictions do not seem to deter the hydel power boom in the fragile Himalayan region. A major fault line is located at Kalijhora (considered the best location to study Himalayan fault lines) and Teesta Low Dam Stage 4 is located at Kalijhora.

16 hydro power employees perish in the quake
Workers of the Teesta III hydro power project abandoned the dam site after **16 of their colleagues died** in the earthquake that hit Sikkim on Sept 18. The earthquake has caused massive damage to some structures at two of the project sites of the 1,200 MW hydro project in the upper reaches of the Teesta River. According to the Senior Deputy General Manager, landslips caused massive damage to office buildings, workers' colonies, tents and approach roads at the two sites. Moreover, it is feared that at least 40 workers at Teesta III site in North Sikkim's Saffo might have perished within minutes, caught in a mountain duct when the tectonic plates under the lower Himalayas shook. Dozens others are missing and feared trapped in the same hydel project site and there's no confirmation of the number of people engaged there.

The tragedy has actually come to light in a twisted way. On the 20th September, officials of the Teesta Urja Company which is a joint venture between the Hyderabad-based Athena and the Sikkim Power Department chartered a chopper to airlift the body of a senior officer. When government sources learnt of the airlift, they asked company officials where they had found the body. The officials tried to hide facts initially, but later came out with a shocking story.

The officer had entered an access tunnel leading to the 1,200 MW Teesta Stage III Hydel Project site deep in the mountain recess when the earthquake occurred. At the time, about 40 workers were drilling through the mountain to carry water from the dam at Chungthang, 100 km from Gangtok, to the generation plant downstream at Mangan. According to some government sources, some tunnels may have collapsed burying the men deep in the mountain. ***"It is unlikely that any of the workers survived the earthquake (that measured 6.8 on the Richter scale). And even if they did, it's doubtful that they'd hold out for very long. The area is mountainous and it will take days before tunnels are re-excavated and the bodies pulled out."*** Indeed as Tseten Lepcha of ACT told SANDRP, the relief and rehabilitation work took a long time to gather momentum.

Now there are fears that Teesta Urja hasn't come out with the full disaster story. Several hundred workers were engaged at the construction site at the time of the earthquake. From Sept 21, there has been a mass exodus of workers employed by the company as well as contractual labourers engaged by sub-contractors. Hundreds of workers have trekked hilly tracks and walked over the debris of blocked roads for more than three hours from different project sites before arriving at Mangan and boarding buses that would take them to their homes.

In another instance of earthquake induced damage to hydro project leading to damages to the people, the canal supplying water to the Legyap Hydro Power Project had been damaged and water hit the Nandok village (Syari Constituency, KT Gyaltshe) collapsing 18 houses including Nandok Secondary School and partially damaging 210 houses. Repairs to all the damages caused by the bursting of the water canal of Legyap Power project would be carried out by the Central Public Works Department along with the treatment to the injured as Legyap Hydro Power Project falls under CPWD, the speaker of Sikkim Legislative assembly assured.

Dams have been scientifically shown as causes of earthquakes in several instances including in India and China. Following the precautionary principle, it will be wise to drop all plans for hydel power projects coming in the North East immediately. All the private and government companies have been aware of the high seismicity and fragility of the region and have been neglecting the fact, passing the risk to the local population. The current earthquakes stand testimony to extent of damage to life and property of local communities which can be caused by large scale infrastructure in the remote area. ([IBN Live 180911](#), Sikkim Mail, [The Times of India 210911](#), [The Outlook 031011](#))