## To Chief Minister Arunachal Pradesh

Dear Dorjee Khandu ji,

We have seen your letter of Oct 11, 2010, addressed to Union Minister of State for Environment and Forests (IC) Shri Jairam Ramesh on the issue of Hydropower Projects in Arunachal Pradesh. We would like to bring some basic facts and perspectives of the people of North East India to your attention.

As a matter of fact we are quite shocked to see that your letter is only representing the perspective of the hydropower developers and not the perspectives of the people of Arunachal Pradesh, particularly those living in the vicinity of the projects, those living upstream and downstream, those depending on the forests and river, those along the rivers further downstream in Assam or the perspectives of the future generations or the environment. An elected representative is not expected to speak only on behalf of those who have vested interests in developing the hydro projects.

We are however glad that you recognise that a 1000 MW project would provide direct and indirect employment to just 6000 people. But a river that even a 100 MW project would destroy gives and nourishes livelihoods for lakhs of people and all of it gets endangered when the hydro projects that are developed for these handful of people. Incidentally, even a run of river hydropower projects destroys the integrity of river and has river basin wide impacts and these are certainly not even studied in Environment Impact Assessment and Environment Management Plans, leave aside the question of mitigating these impacts through such means as you have claimed. Please give us some examples of EIA/EMPs of hydropower projects of Arunachal Pradesh that has studied the river basin wide impact of fisheries.

**Basin Impact Studies** The development of the cascade of hydropower projects that you mention in your letter, either in India (Teesta, Krishna, Sutlej or any other river) has happened without the river basin impact study and that is not a desirable development at all. Even the additional Chief Secretary of Himachal Pradesh, in his report to the Himachal Pradesh High Court in June 2010 has said, "Individual EIAs and EMPs for individual projects do not address the larger concerns for, where environmental impacts are concerned, the whole is larger than the sum of the parts... The Committee therefore recommends that the state govt should carry out basin wide EIAs for all the river basins of the state and till these are finalised no more hydel projects should be allotted or, where allotted, their clearances should be withheld. [This is precisely what has been ordered by the Forest Advisory Committee of the MOEF in respect of more than 100 proposed hydel projects in Ganga basin of Uttarakhand.]" Incidentally, this wisdom has not new. This is apparent when we look at the fact that Teesta basin study was demanded more than a decade back (that study is not the best example of such a study), the World Commission on Dams had recommended the need for such studies a decade back and so on. Incidentally, let us add that the basin wide studies being done by WAPCOS for Arunachal Pradesh will not be acceptable; WAPCOS has a very poor track record and is not an independent

organisation. So it is better to wake up now and cancel those studies being done by WAPCOS and hand them to a credible independent agency.

**Dam Safety** Your letter forgets to mention that the North East is not only seismically very active, but is also a geologically fragile zone and also one of the richest biodiversity zone where people's dependence on the natural resources is the highest. To build hydropower projects in such a zone, and that too when the electricity produced by the projects is neither required nor likely to reach the people of the region and when the people of the region has no role in planning or decision making of the projects or options thereof.

Floods after the dams We are surprised that your letter does not mention how the character of the floods in the rivers after the dam completely changes. And there is no assessment of such changes in any EIA, EMP or any other document. Moreover, the cumulative impact of all the components of each of the projects, including the dams, the roads, sedimentation, the deforestation, the townships, the tunnels, the blasting for tens of kilometre long tunnels, the mining for materials for the projects and so on, on all the aspects of the rivers, including the dams makes the floods much more sudden, prolonged, more frequent and more devastating for the downstream regions, rather than a predictable, known, and bringing fertilising silt for the plains. If you do not believe, come and see yourself, the impacts of sedimentation caused by the Bogiebeel Railway project in the Dhemaji and Lakhimpur districts. We wish you were better advised on these aspects.

In theory, storage dams can moderate floods. In practice they do exactly the opposite and create devastating floods in the downstream areas, due to their wrong operations.

To illustrate, in August 2006, Surat city on Tapi River in South Gujarat experienced the worst floods in its history due to sudden release of 7 to 10 lakh cusecs of water from the upstream Ukai dam. At least 150 people were killed, 80% of the city was under water, over 20 lakh people were trapped inside the flooded city, without flood, drinking water, milk, electricity or communication for four days and nights.

The Ukai Dam story was repeated in many river basins across India in 2006, including the Mahi, Sabarmati, Chambal, Narmada, Krishna, Godavari and Mahanadi basins. Sudden high releases of water from dams (many of them having high premonsoon storages) were the prime reason for the flood damages in these basins.

The floods of 2006 were in no way unique. Some such instances of mismanagement of dams leading to avoidable floods in downstream areas include: Mahanadi floods in Orissa in September 2008 due to wrong operation of Hirakud dam, the floods in Damodar basin in 2009, the floods in Punjab in 1988 and in 2010 due to sudden releases from Bhakra and Pong dams, the floods in Krishna basin in late Sept-early Oct in 2009 due to wrong operation of Upper Krishna, Tungabhadra, Srisailam and Nagarjunsagar dams, among others. Over the years, India has seen its flood damages increase even though the total area supposedly protected by flood-control engineering projects has grown.

We hope you have wide-ranges of information on the impacts of floods caused by Ranganadi in Arunachal, Kapili and Karbi-Langpi in Assam and Kiruswu in Bhutan.

In 2008, on 14<sup>th</sup> July the flood caused by Ranganadi dam killed 22 people in the Lakhimpur district. The entire town was in flood. The impact in the Bihpuria LAC was unbelievable. In fact, Ranganadi has died and this has crippled our agriculture. The entire fishery system has disappeared. Flushing sediments and siltation has wiped away the agricultural fields. Wetlands have disappeared. The local varieties of rice have disappeared. Roads and communication is nowhere to be seen. Will you promise to bring back all these? Can you promise to replace this entire population by giving them honorable jobs in your projects?

You will be happy to know that due to Karbi-Langpi project (100 MW) parts of Nagaon and Karbi-Anglong have been under permanent inundation leaving these areas as waste-lands. Due to Kapili HEP (200 MW) large tracts in Nagaon and Marigaon have to face recurrent flood often 6 times in a year. We donot have any better mechanism to estimate the areas of these tracts, but any common man will tell you that it is thousands and thousands of hectares. In the history of Assam, we have suicide committed by the peasants (as in the case of Morigaon in 2010) due to such artificial flood. Similar is the story for western Assam i.e. Nalbari, Baska and Barpeta due to Kiruswu dams in Bhutan. Please come and see yourself.

Your another wild claim that as Arunachal does not have easy communication system, all materials will be brought from Assam. It is not only funny and amusing on behalf of a Chief Minister, but also utterly misleading. Does Assam produce any equipment, materials which are needed for hydro-power projects? Do you have any proof of it? We will be happy to rewrite Assam's economic history.

In this respect, your statement "In recent floods, Projects like Tehri have been instrumental in moderating the floods downstream" is shocking and completely wrong, see for details Annexure below. It is clear from the facts that the wrong operation of TEHRI was responsible for the avoidable flood disaster in the downstream areas in Sept 2010.

All this goes to show that due to lack of publicly known norms of transparency and accountability in operation of reservoirs they are more like time bombs that can explode multiple times. The experience in North East is no different.

**Diminishing generation from hydropower projects** We would like to bring to your attention how the power generation from hydropower projects have been diminishing in India over the years. You can see from the graph below, put together from the figures from the Central Electricity Authority, that power generation per MW installed capacity has reduced by 40% from the peak of 1994-95 to 2009-10 and there is a clear downward trend line. Rather than hankering for new hydropower projects, we need to ask why this is happening and how we can improve the performance of hydropower projects we have already created.



Similarly, do you know that 89% of India's currently operating hydro projects generate below their promised generating rates? And that 50% of them generate at below the 50% of promised generation rates? Why are we not asking these questions and rather going for questionable projects.

In your letter you have also talked about hydropower projects providing peaking power. But do you know how much of the power generated by hydropower projects in India provides power during peaking hours? You should be shocked to know that such an assessment has never been done. On the contrary, even the Central Electricity Regulatory Commission of India has noted that many of the large hydropower projects have been operating as baseload stations when they COULD HAVE operated as peaking stations. So again, rather then hankering for more hydro projects in the name of peaking power, it may benefit us much more to see that we get more peaking power from existing generating stations and also take up measures to reduce peak hour demands.

**Fraudulent EIAs** Your claims about public hearings, about the EIAs, EMPs and the Expert Appraisal Committee ensuring proper environmental scrutiny is clearly no acceptable. It may be useful to note the following paragraph from an article from Assam Power Minister how these EIAs get done: "Environment and Forest ministry carries out an Environment Impact Assessment (EIA) study for every single project. Usually a small group of experts would fly down from Delhi, Mumbai or Kolkata to a location in the North East for EIA study. They stay for a night in a hotel in Gauhati, or in a nearest urban centre. Maybe the entity, which is going to promote this power project, would have a helicopter commissioned for such a study. They will fly around the zone; they will have an aerial view of the proposed site. Then they will get back to Delhi and they will file their EIA". (Source: Tehelka, Sept 9, 2010).

The impacts of the projects on the local people and NE region as a whole will be so wide spread, intense and far reaching that the region could see increased militant activities as people gets disempowered, their livelihoods destroyed, they become destitute and impoverished in their own lands.

Thus we need a much more rational, pro people, democratic and pro environment approach to the very issue of development and unless we are ready for that, such projects will continue to face opposition from all of us in Assam and all over North East. We would be happy to meet you and discuss all this, but we urge you to stop all hydropower projects in Arunachal Pradesh in the meantime. We believe that as Chief Minister you will speak the truth only and not quote verbatim which are written for you by the hydro-power companies.

With Kind Regards

(Akhil Gogoi) General Secretary

(Mulan Laskar) President

Krishak Mukti Sangram Samiti, Assam

Copy to:

- 1. Dr. Manmohan Singh, the Honourable Prime Minister of India, New Delhi
- 2. Mrs. Sonia Gandhi, Chairperson, UPA, New Delhi
- 3. Mr. Sushil Kumar Schinde, Union Power Minister, New Delhi
- 4. Mr. Jairam Ramesh, Minister of Environment and Forests (Independent), New Delhi.



## 5. Annex 1 How wrong operations of Tehri lead to flood disaster in Sept 2010

The filling of the Tehri reservoir saw multiple blunders. The allowed Full Reservoir Level of the project till Aug 27, 2010 was. The dam was filled upto that level by Aug 27, see the above graph. This was first big blunder of THDC. Days before that, the Tehri Hydropower Development Corporation filed a petition in the Supreme court, saying that they be allowed to increase the FRL to 830 m, making a misleading claim that if that was not done, there would be catastrophic floods in the downstream area. They also produced misleading certificates of completion of R&R from the Uttarakhand govt. The Uttarakhand govt was clearly hand in glove with THDC here. A week later, the Uttarakhand govt told the Supreme Court that R&R is not complete and it also suspended the two officials who gave the completion certificate to THDC. But that was too late. In one of the gravest mistakes of its kind, the Supreme Court, on Aug 27 2010 allowed THDC to raise the FRL to 830 m. As events turned out, this was a very grave mistake on its part. The following week the SC did "scold" THDC and the Uttarakhand government counsels for their fights, and R&R suffering in the process, but SC did not reverse its decision of Aug 27, which it should have.

As can be seen from the graph above, THDC started increasing the level of water in Tehri reservoir, from next day, that is Aug 28 itself, as if it was fully confident of SC decision. By Sept 19, even the fraudulently obtained higher FRL of 830 m was almost achieved. This was third big blunder of THDC. Even if SC had allowed it to increase water level on Aug 27, it should have waited till the end of the monsoon. As things turned out, when Tehri reservoir was full to the brim on Sept 20, the water level in Ganga River downstream at Haridwar breached the previous highest ever recorded flood level of 296.23 m and reached 296.3 m.

So when the downstream river was in its highest ever flooded condition, the upstream Tehri was also full to the brim was releasing massive flows downstream, adding to the flood disaster downstream. This was criminal. The dam should not have been filled to the brim when the monsoon was fully active and almost at its peak.

Following the blunders committed by the THDC in filling up Tehri reservoir, the dam authorities have also hurt its own project, besides creating avoidable disaster in the downstream area. The sudden release of huge quantity of water from the Tehri dam by THDC submerged the hydropower machines, including transformers of the under construction 400 MW Koteshwar dam. This will mean losses of hundreds of crores, besides the delay in commissioning of the project that this will cause. Will the THDC officials who bungled in the reservoir operation be held accountable for this?