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To
The Secretary (MPP and Power),
Government of Himachal Pradesh
Shimla.

7th December, 2013

Dear Sir,

We, as members of Himdhara Environment Research and Action Collective, have been working on issues related to the environmental impacts of hydroelectricity projects in Himachal Pradesh and are deeply concerned about the manner in which today's public consultation regarding the cumulative impact assessment study of Satluj river basin is being conducted. Regarding this, we would like to bring the following issues and concerns to your notice:

1. The public consultation has been called at a very short notice. The first notice for the public consultation appeared in a local daily on the 3rd of December, a mere 4 days notice before the public consultation. Whereas this period was inadequate for all the stakeholders to be informed about such a consultation, many of those who did get informed would not have been able to attend it (like us) or would be inadequately prepared in case they are able to attend it.
2. There is no draft report put up for scrutiny/inspection so that the public can respond to it during the consultation. Today's public consultation would be the first instance when any information regarding the details of the draft report would be made public. 3 hours of the public consultation is a very inadequate duration to share all the details of the report, wherein not only the details of the draft report have to be shared but the public also has to raise its concerns as well as the consultants try to address these concerns.
3. The document that had been attached to the public notice posted on the website of the Directorate of Energy, reported:

A first consultation on the CEIA has already been held under the Chairpersonship of the Secretary (MPP and Power) which had been attended by all the "major stakeholders (Hydropower developers)". (emphasis added)

It seems from this official document that only the project developers are considered as the major stakeholders by the government and not the public which is ultimately left to suffer the adverse consequences of hydroprojects.

4. Considering the short notice to the public consultation, the fact that the draft report has not been put up for public display well before the public consultation and that the report is proposed to be submitted to the government by the end of the month, this public consultation seems to be a mere formality/eyewash – just for the purpose of disproving any

questions arising on account of consultation with local public not having been conducted. If the government was serious in conducting public consultation, then it should have done this well within time, with adequate notice to the public and after having put the draft report up for public scrutiny, as they have done in the case of the project proponents. With the final report to be submitted to the government by the end of December, 2013 in case there are any important issues that are pointed out by the public during the consultation, there is no time for any new information to be collected, incorporated into the report and changes made into the recommendations of the report accordingly.

5. With no draft report having been put up for display we are afraid that many important things might have been left out from the report such as:

- a) **Has ICFRE studied the impacts of tunneling in the case of the existing operational as well as underconstruction projects like Rampur, Nathpa-Jhakri, Karccham Wangtoo, Baspa-II projects, Tidong I and Behna Nala?**

Has ICFRE specifically looked into data as well as ground evidence in the tunnel affected villages to establish a link between tunnelling and disappearance of water sources and springs.

Series of data that we have obtained from the Irrigation and Public Health department (IPH) confirms that villages located directly above the tunnels have been impacted as a result of reduction in discharge or complete drying up of water sources and springs. This has not only disrupted drinking water supply but has also adversely affected the soil moisture regime, thus affecting agricultural/grassland productivity. Data for the Karchham Wangtoo, Budhil, Chamera, Parbati II, Parbati III and Larji hydroelectricity projects indicates this. The case of Randal village having become dependant upon water supply through tankers due to the construction of Rampur HEP is well known in the area. However, no studies are conducted as a part of the Environment Impact Assessment process whether alternative sources of water are available in case of drying up of existing water sources, no precautions taken to avoid this happening in the first place and no budget kept for the mitigation measures. Like in the case of Karcham Wangtoo HEP, the money given to IPH for alternative arrangement is from Local Area Development Fund (LADF) which is for the overall development of the project affected area and not for the mitigation measures due to impact of the project. **Has ICFRE studied the mitigation measures and alternatives provided by the project proponents in the case of existing projects?**

Has ICFRE studied the aftermath of such disappearance of water sources and springs in terms of the impacts on the livelihood, health and culture of the affected village communities?

Has ICFRE been able to identify the exact geo-hydrological processes that are unleashed by tunneling that lead to the impact on water sources? Has ICFRE been able to identify specific geo-hydrological regimes or characteristic features which are not favourable for tunneling? If yes, evidence of this should be provided. Further, has the consultant suggested technological or other alternatives to tunneling for minimising the adverse impact?

- b) **What are the indicators that have been used to measure the carrying capacity of the Satluj River Basin considering the number of projects that have been planned on the Satluj and its tributaries? Has ICFRE looked into the ecological, economic, social and cultural impact of the Obstruction of the Natural flow of**

the river: This is perhaps the most serious issue as far as a tunnels are concerned considering that there will hardly be any long stretch of the Sutlej, that will be free-flowing once all the projects that are being planned, come up. This is bound to lead to an ecological crisis in the long run. More importantly, for a river to be called a 'river' there needs to be free-flowing water in it. In many cases, the distance between two successive projects on a river is less than a Km with some of the projects like Rampur HEP receiving water directly from the tail race of the upstream projects. **Has ICFRE specifically looked into the impacts of the existing projects on the riverine flora and fauna as well as on surrounding ecosystems? Has ICFRE cited any international studies, accredited papers with regard to this and the issue of ecological flows?**

Has ICFRE studied the maintenance of ecological flows by existing and operational projects as per the guidelines of the MoEF? According to the 2012 report of the Comptroller Auditor General on Himachal Pradesh's hydropower performance – the minimum environmental flows of 15% was not maintained by any of the power producers in the projects they studies.

- c) **Has ICFRE studied the impact of blasting, for all type of construction including building of roads and tunnels on the stability of the land?**

In areas where projects have been built or under construction affected villagers encounter frequent landslides, erosion and cracks that have begun to appear in their houses as a result of the heavy underground blasting activities. In most villages where projects are under construction, being planned or proposed, the opposition to them seems to have grown after the June 2013 calamity of excessive rainfall and flash floods. People seem to have established a clear linkage between the construction activities – especially roads and tunneling, and erosion leading to destabilisation of slopes. There was also the issue of deforestation leading to soil erosion and causing massive landslides. Rarang, Khadura, Jangi, Akpa villages on the right bank of the Satluj are particularly vulnerable due to two projects being planned here – phase three of the Integrated Kashang project and the other, Jangi-Thopan-Powari. These villages are sitting on a massive landslide already. The 450 MW Shongtong-Karchham which is going to impact 5 villages also has a tunnel going underneath the Talangpi landslide. The people of Barang have stopped the construction activities for the project. In the Pooh region, Gram Sabhas have also passed resolutions against the Sumla Yangthang, Yangthang Khab and Chango Yangthang projects after June 2013. In Pangi, the road constructed by HPPCL to the Kashang – 1 dam site, has led to massive landslides which were exacerbated in the rains impacting apple orchards. **Has ICFRE looked into this very critical issue of construction activities in a geologically and ecologically fragile area especially in terms of the disaster prone-ness? Has ICFRE especially looked into the linkages between the impacts of the June 2013 calamity and areas where construction activity for hydropower has been massive?**

- d) **Has ICFRE studied other impacts of the dust and air pollution during the construction phase and its impacts especially on the health and livelihoods?** Muck disposal has several impacts as the muck increases the silt in the river. The dust that rises during the muck dumping or once the muck is dumped, has an impact on people's health as well as crops, hampering the agricultural and horticulture production. In the case of the Karchham Wangtoo project a report dated 19.2.09 has details of joint inspection report in affected villages with observations of crop losses and also dust sampling results indicating high level of SPM. The joint inspection committee also studied 3 villages of Sangla valley, a non affected area, and found

normal crops in that area as against 70% loss in the project affected area. Yet these villages are excluded from the definition 'project-affected' in project reports, environment impact assessment studies and rehabilitation plans.

- e) **Has ICFRE studied the issue of seepages and cracks in the tunnels and the related issue of safety of tunnels? This especially in the case of the existing Karchham Wangtoo Project?**

There is no authority in the state for control and monitoring of safety and water flows as required by the Hydropower Policy 2006 of Himachal Pradesh. In December 2012 during an inspection by the officials of the CWC, DOE and CEA, in the case of the 1200 MW Karchham Wangtoo project, profuse leakages were found from the surge shaft possibly due to cracks and fissures that may have developed. Through an RTI application we had sought some information wrt the incident and we found the following:

The letter issued to the project proponent by the authorities provided no details of the exact nature and extent of the leakage. A news report with appeared in The Tribune on January 27th, 2013ⁱ mentioned the quantum to be 5 to 9 cumecs which is a substantial amount. The response also clearly states that so far there is no authority in the state for control and monitoring of safety and water flows as required by the Hydropower Policy 2006 of the state of Himachal Pradesh.

In the meanwhile while several hydropower projects have been/are being constructed and some are even ready for commissioning in the absence of any safety control monitoring authority. This is a matter of serious concern considering that this not the first time that there has been a safety issue reported for a hydro project. Please refer to news item of the Tribune dated 17th April, 2012ⁱⁱ regarding leakage from the head race tunnel of Chamera III HEP. Similar reports have also come from the villages affected by the Parbati III HEP.

Even today, local communities from villages around the Karchham Wangtoo tunnel are reporting about leakages in some portions of the tunnel.

- f) **Has ICFRE looked into the impact of muck dumping as a result of hydropower projects– legal and illegal, on the riverine ecology and over-all environment? Has the consultant assessed the cumulative impact of such muck disposal? What is the condition of the existing muck disposal sites? Has ICFRE studied the stability as well as effectivity of retaining walls and other such measures? Has ICFRE looked at violations and flouting of norms – which in turn provide an insight into probable impacts of future muck dumping?**

We have studied data of the Pollution Control Board for three separate projects – Parbati II and III, Chamera III, Allain Duhangan, Karchham Wangtoo – and found that the environmental violation for which maximum show cause notices are issued to projects is dumping of muck in unallocated sites along the river bed and absence of adequate mitigation measures like construction of retaining walls etc. More than 95% of the times there is no follow-up or punitive action by the State Pollution Control Board beyond the perfunctory issue of the notice.

- g) **Has ICFRE done a thorough assessment of the loss of forests and pastures as a result of the existing and upcoming projects, and the ecological and socio-economic impacts of such a loss? What will be the impacts of diverting forest land for hydroprojects at the ecosystem level?**

Like in case of Kinnaur district, as per Himachal Pradesh Forest Department's statistics, of the 10335 hectares of Forest land diverted towards non- forest uses in the last twenty years (upto 2012), almost 61% i.e about 6298 hectares has been for hydro power projects and transmission linesⁱⁱⁱ. In a state where a large part of the landscape comes under forests and pastures, and where agricultural land is less than 10%, the dependence of local people on the forests for their day to day survival – fuel, fodder, non-timber forest produce, medicinal plants etc – is extremely high. A diversion of these forests means alienation of the locals from their resource base and an emerging livelihood crisis. In a district like Kinnaur, which has seen serious hydropower development with projects like Nathpa Jhakhri, Jaypee's Karcham Wangtoo, integrated Kashang, Tidong I, Baspa II and many other smaller projects, there has been a gradual decrease in forest cover in the last ten years. According to 'India State of Forest Report' 2011, out of the total geographical area of Kinnaur i.e. 6401 sq. kms less than 10% is under forest cover and 40% of this small percentage of forest area is open forest. According to the report, in comparison to 2001 data, the total area under forest cover, especially dense and moderate, has reduced by 7.25%. We strongly believe that this decrease in forest cover is connected with the forest land diverted for hydro power projects and other development activities. And it is this which is exacerbating the phenomenon of global climatic change in a ecologically and geographically fragile region like Kinnaur. Unfortunately, the diversion of forests is carried out in a piece-meal way for each project, and sometimes for a single project in several parts. Violations of Forest Clearance conditions are frequent and include destruction of excess trees, illegal dumping of muck over forest land and illegal quarrying in forest area. The State Forest Department has been totally incapable of imposing penal provisions for preventing the recurrence of such offences in individual projects. It merely imposes fines for the loss of 'forest wealth' which is totally inadequate to rein in the repeat-offending project proponents.

Until and unless there is a cumulative assessment of diversion of forests in a river basin, there is no way to assess the exact extent of ecological damage and its adverse impacts.

How much area has been brought under forest cover under compensatory afforestation plan in the existing projects project like Nathpa Jhakri, Baspa and KarchamWnagtoo? What is the survival percentage of these plantations? Which are the species planted under compensatory afforestation plan?

What is the impact of diversion of forest land on the Chilgoza and other rare and endangered species?

According to “State of Environment Report” prepared by Department of Environment, Science & Technology Government of Himachal Pradesh in association with H.P. State Council for Science, Technology & Environment HP and State Pollution Control Board:

*(Annex-3) Section 5: Forest & Environment, Sub section: 5.10 Forest Produce Extracted from HP Forests Page 199: **Collection of Non-Timber Forest Produce:** Villagers and farmers close to the forests traditionally collect various NTFPs, such as Anardana, Chilgoza, Guchhi and various medicinal and aromatic plants, either free or on payment of some nominal fee. Scientific exploitation of chilgoza and other minor forest produce is needed. The chilgoza or neoza pine, known botanically as *Pinus gerardiana* Wall., is a compact medium-sized tree. **In Himachal Pradesh, it occurs naturally in dry temperatures zone, i.e. parts of Kinnaur and Chamba (Pangi) districts covering an area of about 2,060 hectares.***

Among the bigger projects in the neoza producing areas are-

- i. Karcham Wangtoo (Commissioned)
- ii. Shongtong Karcham (UC)
- iii. Baspa-II (Commissioned)
- iv. Thopan Powari (Proposed)
- v. Jangi Thopan (proposed)
- vi. Tidong-1 (UC)- 39 hectare of forest land diverted and 751 Chilgoza trees will be cut down
- vii. Tidong-2 (proposed)
- viii. Ropa (Proposed)
- ix. Kashang-1
- x. Kashang-2 and 3
- xi. Kashang-4

In this regard has ICFRE studies how much forest area is going to be diverted from the limited area under Chilgoza belt? Considering the poor regeneration and slow growth of this species and other species like Junipers what recommendations has ICFRE made with regard to mitigation measures?

- h) **Has ICFRE looked into the impacts of the existing as well as proposed transmission lines of hydropower projects and their impacts in terms of the forest and land diversion involved?** The need for transmission of this power to the consumption centres outside the state means that the mountains are criss-crossed by a web of transmission lines. These lines, along with the towers to support them, require additional land as well as diversion of forests, which is rarely factored in the social and environmental costs of the hydro-project itself. In fact the project EIA reports and the proposals for the diversion of forests for the main project rarely include the transmission line component of the the project, as a result assessing the over-all impacts of the project is never possible. With more than 10000 MW of power being evacuated from Satluj valley – the extent of transmission line construction will be large and this needs to be looked into in a separate chapter.
- i) **Has ICFRE looked at long term impacts on and of the changing climate and linkages with this extent and magnitude of construction activity? Has ICFRE looked at all impacts zone wise – depending on the climatic variations and habitats?**

It is also fairly well understood that the Himalayan region, like coastal areas and other ecologically fragile landscapes, are at the centre of the climate change crisis. These are areas where the impacts of global warming are manifesting themselves starkly, be it in the receding glaciers, the erratic rainfall patters, the changing weather patters, the rising temperatures and phenomena like floods and cloud bursts. Example is the year 2013 which saw excessive sudden snowfall in January and rainfall with snowfall in June. Each of these has in turn cause loss of lives and affected agriculture, horticulture and livestock based livelihoods. Impacts are visible on forest habitats and more importantly on the geology and river flows. **Has ICFRE taken this crisis into account and studied the recent disasters in the light of the uncontrolled hydropower development in the region?**

6. The proposal to invite the public for a Dham (lunch) is objectionable. This seemingly generous act, made at public expense, is designed to create an atmosphere that would favour the approval of the report by the public. It would also bring to the venue many elements who may not be interested in the proceedings of the actual consultation but are there only for

what comes after the consultation, thus compromising the seriousness that is expected at such a meeting. When such lunches are also discouraged at the public consultations held for the hydroelectricity projects and other projects by the State Government itself then how could it think it wise to hold it on this occasion?

Considering the issues and concerns outlined above, the holding of this public consultation at such a short notice, without circulating/displaying the draft report well in time is totally unacceptable. We strongly urge that the Government of Himachal Pradesh, if it is serious to consider the views of the affected public, should call another public consultation after circulating copies of draft report and posting it on its website with at least one month's notice. Not taking these actions would only bring into the question the process of preparation of the final report.

Sincerely,

Prakash Bhandari

- Prakash Bhandari

Manshi Asher

Manshi

Rahul Saxena

Rahul Saxena

Also endorsed by:

1. Himanshu Thakkar, South Asia Network on Dams, Rivers and People, New Delhi
2. Samir Mehta, International Rivers Network (India Chapter)

Copy to :

1. Director/Incharge, Impact Assessment Division, Ministry of Environment and Forests
2. Member Secretary, Expert Appraisal Committee (River Valley Projects), MoEF
3. ICFRE, Dehradun
4. Chief Secretary, Government of Himachal Pradesh

- i <http://www.tribuneindia.com/2013/20130128/himachal.htm#7>
- ii <http://www.tribuneindia.com/2012/20120418/himplus.htm>
- iii Himachal Pradesh Forest Department, www.hpforest.nic.in