

Suspend ECs to Hydropower Projects in Uttarakhand **Institute independent enquiry into the role of HEPs in increasing the disaster**

The scale and impact of the Uttarakhand tragedy was magnified by the unprecedented number of Hydel projects commissioned and under construction in the State. Still, hundreds of projects are planned or are in line for clearances from the Ministry of Environment and Forests. A letter endorsed by over 20 individuals and organisations, has demanded that Environmental Clearance granted to projects should be suspended and no new clearance should be granted unless an independent inquiry investigates into the role of Hydropower projects in magnifying the disaster. The letter was sent on 20th July 2013 to Union Minister and Secretary, Ministry of Environment and Forests. Its relevant sections are reproduced here.

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1. Uttarakhand Disaster and Hydropower projects It is now beyond doubt that existing and under construction hydropower projects in Uttarakhand have played a significant role in increasing the magnitude of disaster in Uttarakhand this June 2013. Here are a few examples just to illustrate:

▷ **Srinagar HEP** This 330 MW project under construction had been illegally dumping the muck

into the river or piling heaps on the slope without an adequate retaining wall. Moreover, it is learnt that the project closed the gates of the dam on the evening of June 16, 2013, but opened them up suddenly in the early hours of next morning, which led to flooding of hundreds of houses and buildings in the downstream Srinagar town. The piled muck heaps were washed into the town. The town was submerged in not only water, but also 10-30 feet of muck. The project itself has suffered damages.

▷ **Singoli Bhatwari and Phata Byung HEPs on Mandakini river** The 99 MW Singoli Bhatwari and the 76 MW Phata Byung HEPs are both under construction projects on Mandakini river in Rudraprayag district. Both projects have been illegally dumping muck along the river banks, which was carried by the river to the downstream villages and towns upto Rudrapayag and beyond. Both the projects have suffered severe damages. Water levels in the Mandakini River rose 30 to 40 feet at various locations, destroying roads, private and public properties. All bridges downstream of the S-B project were washed away snapping links across the river and causing enormous hardships to the local people, rescue, relief and rehabilitation efforts.

▷ **Vishnuprayag HEP on Alaknanda River** The operators of the 400 MW project did not open the gates in time, leading to the reservoir behind the gates filled with boulders, see before and after photos at: <http://matuganga.blogspot.in/2013/06/press-note-30-6-2013.html>. The river then bypassed the project and created a new path as can be seen in the photos, firstly, creating a huge flash flood in the downstream area and also eroding the banks and the road. Lambagad market and Govindghat township have suffered massive destruction of private property and public property, including the bridge to the Hemkund Sahib trek, endangering the lives of pilgrims and tourists.

▷ **Maneri Bhali I and II** Due to **lack of protection wall and lack of timely opening of the gates**, the people residing on the banks of the project suffered huge flood disaster, large number of houses were washed away and lives lost. Maneri Bhali I is itself damaged and yet to start generation, even Maneri Bhali II started generation only after July 12, 2013.

▷ **Dhouliganga HEP** This 280 MW Dhouliganga HEP of NHPC is also being held responsible for floods in the downstream area, the power house of the project itself was submerged and project is yet to start generation.

▷ **Small HEPs** A large number of small HEPs have suffered damages and are also being held responsible for increased disaster impacts. Such projects include 4 MW Kaliganga I and 6 MW Kaliganga II, 9.5 MW Madhyamaheshwar HEP, 5 MW Motighat HEP, Assiganga I and II HEPs, among others. We have been urging the MoEF to amend the EIA notification to include all hydro projects above 1 MW under category B1 so that they all have EIAs, EMPs, ECs, EAC sanction and public consultation process. Kindly make this change urgently.

2. List of Uttarakhand Hydropower projects with EC on the MoEF website As per the legal norms under the EPA 1986 and EIA notifications of 1994 and Sept 2006 (both are relevant since some of the projects got clearance under earlier notification), the developers are supposed to send six monthly

compliance reports to MoEF and it is also legal obligation of MoEF to put such compliance reports on the MoEF website, see section 10(i) and (ii) of the EIA notification of Sept 2006. It is very important to note that these reports are supposed to reflect the extent to which the projects are complying with the conditions of environment clearance and environment management plans. These reports are an important mechanism for MoEF to know about the status of compliance of the projects. A perusal of the Environment clearance site of the MoEF (<http://environmentclearance.nic.in/Search.aspx>) and looking for the Uttarakhand river valley projects granted Environment clearance, we find that the site displays a list of seven hydro projects, in which since Srinagar project figures twice, the site effectively contains only six names. In the first place this is the first illegality of MoEF, since this is not a complete list. To illustrate, the 76 MW Phata Byung HEP under construction on Mandakini river does not figure on this site, there are other projects too that does not figure on this list. We urge MoEF to kindly put up the full list here and also fix responsibility for this legal lapse for not putting up full list.

3. Compliance reports of Under Construction of HEPs not available Since full list of under construction HEPs of Uttarakhand is not displayed on MoEF website, the MoEF is also unable to fulfill its

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legal duty of putting up compliance reports. Even among the project displayed on the MoEF website, latest compliance report is available only for one project, namely Singoli Bhatwari HEP (it is file of massive size at 30 MB, most people won't be able to download this, MoEF should ask for file size of 1 MB or below and upload them in smaller size segments). So for the rest of the projects there is no compliance report on the MoEF website. This is clearly a serious violations on the part of the MoEF and MoEF needs to urgently hold accountable those who are responsible for this serious legal lapse. The

MoEF also needs to take urgent action against those that have not submitted the reports as required, suspension of their environment clearance can be the first step.

4. Suspend Environment Clearance of the projects *prime facie* responsible for disaster damages MoEF should urgently suspend environment clearance of those projects that have been found to be *prime facie* responsible for the damages. We urge MoEF to suspend the clearances of following projects: Singoli Bhatwari, Phata Byung, Srinagar (all under construction projects), Vishnuprayag, Dhouliganga, Maneri Bhali I and II (all operating projects), for the reasons described in para 1 above. As a direct consequence there off, MoEF should also ask these projects to suspend their work including repair and reconstruction work till further orders. These are also required from the point of view of future safety of the downstream people and areas and also to revisit the features of the projects from this perspective.

Such suspension is also necessary since the projects need a review considering that following issues have not been considered while giving clearances to the projects:

- 1) Change in climate due to HEPs leading to, among other changes, more erosion and landslides, more irregular rainfall patterns, more violent cloudbursts.
- 2) Inadequate assessment of landslide impacts of the project by GSI and MoEF.
- 3) The only norm for use of explosives has been made by Director General of Mines Safety for mines and pucca houses. These norms are being mindlessly applied to the fragile Uttarakhand hills and structures there.
- 4) Impact on forests of explosives via (1) loosening of soil; (2) depletion of aquifers.
- 5) Impact on global warming by deforestation and depletion of aquifers.
- 6) Impact of project on disaster potential and implied cost of disaster.
- 7) Reservoir Induced Seismicity. NCS DP only looks at the safety of the dam structure. There is no agency that looks into the impact on the area, including hills, forests, water sources, houses and other structures.
- 8) The performance of the projects in view of changing climate, receding glaciers, possibilities of increased flashfloods, landslides and so on.

5. **Institute credible, independent enquiry** MoEF should urgently institute credible, independent enquiry into the disaster impacts due to the wrong and illegal functioning of the projects mentioned in first para above, including the impacts on people, their lives and property, on the property of the state and other institutions. This should be done on urgent basis so that an assessment of the existing situation can be done urgently before the ground realities change significantly and while the memory of the events are fresh in everyone's mind.

6. **Change EIA notification to include all hydro projects above 1 MW** As noted in last bullet in para 1, we urge the MoEF to amend the EIA notification to include all hydro projects above 1 MW under category B1 so that they have EIAs, EMPs, ECs, EAC sanction & public consultation process.

7. **Change EIA notification to include commissioned projects to send six monthly compliance reports and also undergo 5 yearly review** For example, in US, the Federal Electricity Regulatory Commission has detailed regulations as to what happens once a project undergoes such emergency situation (<http://www.ferc.gov/industries/hydropower/gen-info/regulation/dam-safety.asp>). FERC regulations include, "Every 5 years an independent consulting engineer, approved by the Commission, must inspect and evaluate projects with dams higher than 32.8 feet (10 meters), or with a total storage capacity of more than 2,000 acre-feet (2.5 MCM)..."

US Federal Electricity Regulatory Commission: "Every 5 years an independent consulting engineer, approved by the Commission, must inspect and evaluate projects with dams higher than 10 m, or with a total storage capacity of more than 2.5 MCM... The Commission staff also evaluates the effects of potential and actual large floods on the safety of dams. During and following floods, the Commission staff visits project dams and licensed projects, determines the extent of damage, if any, and directs any necessary studies or remedial measures the licensee must undertake." Indian regulator, MoEF has no such norms. Such norms need to be in place urgently.

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Most hydropower projects of Uttarakhand would come under above description and MoEF as a regulator should be following similar comprehensive review process for all projects sanctioned by it every five years and also ensure that even projects once commissioned also send six monthly reports to MoEF ensuring compliance of the norms, irrespective when they were given clearance and what was the EC norms than. Make necessary changes in EIA notification for this. Such a mechanism has also been recommended by the BK Chaturvedi committee.

Hence we urge MoEF to urgently review the EIA notification to ensure submission of six monthly compliance reports for commissioned projects, mandatory annual visits by MoEF staff and also ensure 5 yearly review of the environment

clearances.

Endorsed by: Ravi Chopra, People Science Institute, Dehradun, psidoon@gmail.com, **Dr Bharat Jhunjhunwala**, Former professor of IIM Bangalore, Uttarakhand, bharatji@gmail.com, **Prof Prakash Nautiyal** Aquatic Biodiversity Unit, H N B Garhwal University, Srinagar, Uttarakhand, lotic.biodiversity@gmail.com, **Dr Mohan Singh Panwar**, H N B Garhwal University, Srinagar, Uttarakhand, mohanpanwar310@yahoo.in, **Malika Virdi**, Himal Prakriti, Uttarakhand, malika.virdi@gmail.com, **E Theophilus**, Himal Prakriti, Uttarakhand, etheophilus@gmail.com, **K. Ramnarayan**, Save the Rivers Campaign and Himal Prakriti, Uttarakhand, ramnarayan.k@gmail.com, **Dr Prakash Chaudhary**, Uttarakhand Peoples Forum, drprakashchaudhary@gmail.com, **Vimal Bhai**, Matu Jan Sangathan, Uttarakhand, bhaivimal@gmail.com, **Prashant Bhushan**, Senior Supreme Court Lawyer, New Delhi, prashantbhush@gmail.com, **Neeraj Vagholikar**, Kalpavriksh, Pune, nvagho@gmail.com, **Dunu Roy**, Hazards Centre, Delhi, gadeeroy@gmail.com, **Shripad Dharmadhikary**, Manthan Adhyayan Kendra, Pune, manthan.shripad@gmail.com, **Dr A Latha**, River Research Centre, Kerala, rckerala@gmail.com, **Samir Mehta**, International Rivers and River Basin Friends, Mumbai, samir@internationalrivers.org, **Valli Bindana**, Ganga film maker, Delhi, vallibindana@gmail.com, **Marthand Bindana**, Ganga film maker, Delhi, marthand.bindana@gmail.com, **Madhu Bhaduri**, Ambassador of India (Retd), Delhi, madhu.bhaduri@gmail.com, **Vandana Shiva**, Navdanya, Delhi, Vandana@vandanashiva.com, **Manoj Mishra**, Yamuna Jiye Abhiyaan, Delhi, yamunajiye@gmail.com, **Himanshu Thakkar & Parineeta Dandekar**, South Asia Network on Dams, Rivers & People, 86-D, AD block, Shalimar Bagh, Delhi, <http://sandrp.in/>, ht.sandrp@gmail.com