

The 240 MW Kuthar Hydroelectricity Project (HEP) is to be situated upstream of the Chamera III HEP and downstream of the proposed Bajoli Holi HEP on the Ravi river in District Chamba of the state of Himachal Pradesh, India. The project has applied for CDM benefits with the UNFCCC. In our view, the project does not deserve these benefits due to the following reasons:

1. The project is not additional

The project was accorded concurrence by the Central Electricity Authority of India on 31st August, 2010 with a total cost of Rs. 1778.99 crores (<http://www.cea.nic.in/reports/appraisal/private-hydro.pdf>). This also finds mention in the annual report for the year 2011 of JSW Energy, the project proponent (http://www.jsw.in/investor_zone/pdf/Energy/JSW%20Energy%20Full%20Page%20Annual%20Report_22.06.2011.pdf). With reference to the Kuthar HEP, the annual report informs the shareholders (on page 13 and 14):

“Your Company is implementing the 240MW (3X80 MW), run of the river Hydro Electric Project (HEP) on the upper reaches of river Ravi in the district of Chamba, Himachal Pradesh. An Implementation Agreement (IA) is signed with Himachal Pradesh Government on 4th March, 2011.

Central Electricity Authority (CEA) has granted consent for the project on 31st August, 2010 and has approved the estimated project cost at 1,798.13 crores. The Company intends to finance the Project with a Debt Equity ratio of 75:25.

In terms of IA, the Company will be required to sell certain quantum of power to the Government of Himachal Pradesh with the balance power being available for sale by way of short-term power purchase agreements through JSWPTC.

The Project is progressing well and your Company has invested 119.42 crores into the Project upto 31st March, 2011.”

In both the documents there is no mention of the techno-economic clearance given by the Central Electricity Authority being conditional to the project obtaining CDM benefits. The project activity is being projected as being financially viable as per the information in both the documents. Hence, there is no finance related barrier preventing the implementation of the proposed project activity without the CDM benefits. As such, the project cannot be considered as additional and does not deserve to be given any CDM benefits. In the past, according CDM benefits to hydroelectric projects in Himachal Pradesh that were not additional (eg Allain Duhangan HEP and Budhil HEP) has encouraged the project proponents to blatantly violate environmental laws and get away by paying for the damages.

2. The project would be disastrous for the riverine ecology

The Expert Appraisal Committee (EAC) of Indian Ministry of Environment and Forests appraises and considers River Valley and Hydroelectric Projects for Environmental Clearance. The EAC, while considering the Kuthar HEP during its meeting held on 12th November, 2010, had noted that there was no free flow of the river between upstream and down stream projects of Kutehr HEP (the proceedings of the meeting are available at <http://164.100.194.5:8081/ssdn1/getAgendaMettingMinutesSchedule.do;jsessionid=43A720708914C0039FD2460F118CFC37?indCode=RIVNov%2012,%202010>). Consequently, the developer was advised by the EAC to make two changes in project parameters i.e. Full Reservoir Level to be lowered by 5-7 meter and the Tail Water Level to be raised by 10 meter or so by shortening the H R T to about 13.5 km and shifting the power house location about 1.0 km upstream.

During the meeting of the EAC on the 21-22nd January, 2011, the project proponent cited certain technical reasons for its inability to comply with both the parameter changes that were essential to allow for even a token 1.0 Km of free flowing river between the projects upstream and downstream of Kuthar HEP. The EAC did not ask the project proponent to further shorten the length of the head race tunnel which might have reduced the generation potential of the project but would have left a minimal stretch of river to flow freely (which is necessary for the river to rejuvenate itself). The EAC did recommend the project for Environment Clearance despite the ecological disaster that this absence of free flowing stretch of the river would result in. This particular stretch of the river, the impending ecological disaster and the apathy of the approving government agencies finds mention in the report of the one man committee appointed by the Himachal Pradesh High Court (available at http://hphighcourt.nic.in/Environmental_Compliance.pdf) which has noted:

*A typical ROR project consists of a dam or a weir which impounds the waters which are then diverted away from the river into an HRT for a few kilometers, and then dropped into a power house via a pressure shaft or penstock to turn the turbines, and then released back into the river through a tail race tunnel. **Where this process appears to become an environmental hazard in HP is that practically no linear distance is being left between the tail race tunnel of one project and the intake of the next.** This would eventually result in rivers drying up, their waters diverted into tunnels and serving no purpose other than generation of power – certainly not what nature had intended. This impending disaster-in-the-making is established by the survey of the Ravi valley carried out by us. The approximate length of the river between Chamba and Bajoli (upstream in Bharmour) is 70 Kms. There are 4 HEPs sanctioned along this stretch – starting from top these are: Bajoli-Holi (at clearance stage), Kuthar (at clearance stage), Chamera III (under execution) and Chamera II (commissioned). When all these projects are commissioned then there shall be only 500 m of open river left between Bajoli-Holi and Kuthar, 500 m. between Kuthar and Chamera III and 2 Kms. between Chamera III and Chamera II. **In other words, in this entire 70 Kms. stretch, only 3 Kms. of the river shall flow in its original bed and 67 Kms. shall disappear underground.** This cannot be anything but an unmitigated disaster, for a river is not just a flowing mass of water – it is an entire eco-system sustaining human, animal and rich aquatic life within it and along its banks, creating green belts of vegetation on both sides, recharging underground aquifers, feeding surface streams, creating micro-climates along its path. And yet, the state or the central governments haven't carried out any EIAs of such a cascading pattern from independent experts before allowing this cascade of projects. (emphasis is as per the original report).*

The report of the one man committee has recommended a minimum project to project distance of 5 Kms. to be maintained till an independent study conducted by experts determines such distance.

The Environment Clearance by the Ministry of Environment and Forests to Kuthar HEP has been accorded without a carrying capacity study or basin level cumulative impact assessment having been done. Such an ecologically disastrous project does not deserve any CDM benefits.

3. The project shall be disastrous for the local people

a. Run of the river projects typically involve construction of tunnels through mountainous areas. In this case the mountains happen to be the Himalayas which are still rising and still very fragile. In the past, hydroelectricity projects involving the construction of tunnels (including Chamera III, Budhil and Chamera II downstream of the Kuthar HEP in the same river valley) have resulted in immense loss and hardships to the local people on account of natural water sources drying up and houses developing cracks. Once a natural water source dries up, it is difficult to make available the same quantity and quality of water to the local people.

- b. The blasting activity that would be carried out for constructing these tunnels shall create dust clouds which have known to destroy rich horticulture and agriculture of entire areas.
- c. The muck generated from tunnelling is usually deposited indiscriminately (despite provisions for muck dumping in the project documents) by project proponents which creates immense ecological hazard, disruption of transport and irrigation channels, forest loss and danger of flooding.
- d. The project involves diversion of 75 Hectares of forest land which includes areas under tree cover and natural pastures that are used by the local people for grazing cattle. The local economy in this area inhabited by the Gaddi tribal people revolves around animal rearing and pastures are a critical common resource. While diversion of forest land for the project would mean loss of livelihoods for the forest dependent people, the project has no mechanism for compensating these people in perpetuity for the losses that they would suffer. The loss of trees for the project would also contribute to local deforestation, accelerated soil erosion and carbon emission.

There is no reason to believe that these impacts would not happen in the case of Kuther HEP. Thus, the project would be disastrous for the local ecology and livelihoods.

4. Issues related to public consultation

Public Consultation is a mandatory process under the Environment Clearance procedure in Indian law. Its objective is to inform the local public about the environmental impacts of a project and obtain its responses on the documented and perceived impacts.

- a. The Public Consultations for the project was held in the third week of April, 2010, a time when a sizeable proportion of the local public had still not returned to the area. The project area is inhabited by Gaddi tribals and their primary occupation is goat/sheep rearing. These people traditionally migrate to lower valleys during winters and to higher pastures in other valleys during summers with their animals. The migratory graziers start coming to the area only in the month of May each year. Many local people, other than the migratory graziers, also migrate to the Kangra valley during the winter months to escape the bitter cold in the project area. As most of the people do not return to the area by the third week of April (when the Public Consultation was held), some local people and organisations had written to the Himachal Pradesh Pollution Control Board on 9th April, 2010 to postpone the Public Consultation to a more suitable date when more people could participate in it and express their views about the project. However, this request was ignored by the authorities thus depriving a sizeable local population from participating in the Public Consultation process.
- b. While discussing the issues related to tunnelling during the Public Consultation held at Dalli on the 16th April, 2010 a representative of our organisation had recommended the use of Tunnel Boring Machine during the construction to prevent some of the damages associated with blasting, visible in other hydroelectricity projects. However, the representatives of the project proponents cited vague technical reasons for their inability to use Tunnel Boring Machine. The company, thus, is not sensitive to ecological ramifications of its construction activities and not ready to adopt more advanced technologies that can prevent some of the environmental damages during the construction phase.
- c. The capacity of the project that has been given environment clearance by the Ministry of Environment and Forests is 260 MW as against 240 MW as stated in the CDM project document. Please refer to the relevant minutes of the EAC meeting at <http://164.100.194.5:8081/ssdn1/getAgendaMeetingMinutesSchedule.do;jsessionid=43A720708914C0039FD2460F118CFC37?indCode=RIVNov%2012,%202010>

Due to above reasons we sincerely hope that CDM benefits are not accorded for the Kuther HEP.

