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Dear FAC,

Subsequent to our previous email to you dated 21<sup>st</sup> April, and subsequent to our meeting Dr. Ullas Karanth and Dr. Harish Choudhry during their visit to Munsiri on the same day, we have the following additional submissions to make, for your consideration.

While the immediate matter under consideration by the FAC right now is the issue of Forest Clearance for the 264 hectares of land for the dam, powerhouse and appurtenances as well as the access roads to the quarries, dam and powerhouse sites, the issues hinging on the clearance sought are much larger, and we request that they be seen as such, prior to your decision on the matter.

1. The EIA on the basis of which this project had received Environmental Clearance, is shoddy in the extreme, grossly misleading, and does not address serious environmental concerns. You will have read this EIA prepared by WAPCOS and seen this for yourselves. The Environmental Clearance has been challenged in Court, but since the Forest Clearance was denied by the MoEF and the project stalled, the NGT did not consider it necessary to follow up the matter of Environmental Clearance any further, since the entire hydro-project was a closed matter. However, since the Forest Clearance is up for consideration again, the entire matter of Environmental Clearance on the basis of the EIA becomes relevant again. We had pointed out some major flaws in the EIA in our last communication to you, and this letter will highlight a few more. Above all, when around 30 hydro power projects are planned on this one sub-basin river and its tributaries, nothing short of a cumulative impact assessment requires to be undertaken, and by a competent agency. This has been the view of this FAC on some other tributaries of the Ganga, and we request that the same be undertaken for all river basins where multiple hydropower projects are being planned and constructed.
2. On the issue of Forest Clearance for the 264 hectares applied for: In this case while there is no land under Reserve Forests, most of the land comes under Van Panchayats or Village Forests, and a small portion of it comes under Protected Forests. As per the EIA, as well as per the application to the FAC, this land is being projected by the NTPC and WAPCOS on their behalf, as already degraded forests. How competent they are to judge this can be seen by their inability to even recognize major forest types in the area. In their description of vegetation in the study area, they categorize forest types into three categories; Oak forests, Deodar forests and Himalayan pastures. There are *no* Deodar forests in the entire Gori basin.

a) Their measure of degradation however, has been mainly canopy density or tree-cover, which even if done accurately, is a misleading proxy for ecological health in this case. As Dr Karanth and Dr. Harish Choudhry would have seen during their helicopter reeve (which was flying up-valley from South to North) all you would have seen above the proposed dam-site would have been entirely barren slopes on the visible (south-facing) slopes. Steep and barren (only grass-cover) south-facing slopes from Paton village (at the base of which is the proposed dam-site) is an entirely natural phenomenon for this part of the Himalaya, and this continues upvalley right upto the transition to the cold-desert Tethyan Himalaya and the water divide with Tibet. It is the north and west facing slopes here that naturally hold tree cover, which you would have only seen a little of on your return landing at Munsiri, since you were flying low and would have only seen what was directly below you. Even a brief look at tree cover patterns for the valley on satellite images will confirm this for you.

b) Most of this land comprises village forests, which have been used for at least a few hundred years by the villages in question to meet their subsistence needs. As could be expected, continued use has led to some modification in relative species abundance and density, and therefore comparing it with the notionally pristine (if there is indeed such a thing below the Equilibrium Line Altitude) is out of context. Suffice it to say that despite continued limited use, the forests in question still contain all the wild ungulates, felids and birds (even being designated an IBA) that one could hope for, and is still ecologically valuable. This is confirmed by Mr. Manoj Chandran, DFO (presently Working Plan Officer, Pithoragarh District) who wrote an email to you on the matter on the 2<sup>nd</sup> May 2012. It is another matter that the approved EIA considers these animals

in this area as 'stray wildlife'.

c) These lands for which Forest Clearance is being sought are mostly Van Panchayat Forests on which people are critically dependent for their survival. Concurrence has not been sought from these communities on the appropriation of their village commons, and neither are alternative areas being allotted. We attach a copy of a Circular by MoEF dated 30.7.2009, which requires that no forest land be diverted for non-forest purposes unless and until communities claims under the FRA (2006) have been settled, and unless there is a written consent from the Gram Sabha. This has not been done, and we would like to bring this to your notice.

d) Focussing on just the 264 hectares (only 2.64 sq km) bears the risk of missing the woods for the trees. It would be hard to find a more literal context. Even if it were supremely pristine, such a small area could be shown as 'replaceable', 'substitutable' and 'compensated for' by money as well as by compensatory tree planting and so on. As usual, for the 'larger common good'. We urge that what is being proposed on this land, and the environmental impact that it will have on the entire river and all life in and around it, as well as on dependent rural communities, be looked at instead, more closely.

Apart from this project having received Environmental Clearance on the basis of a misleading assessment report, this project has also succeeded in registering a 'successful' Public Hearing. This was actually done post-facto and behind closed doors with local contractor/politicians, despite huge public protest during the hearing. This Forest Clearance under consideration by you is the last, and seemingly minor, hurdle in the path of not just this one hydro project, but the 30 odd projects being planned on this river. It is therefore, most critical. On a river-stretch, where the average discharge in the monsoon is almost 100 cumecs, and the average discharge at minimum in winter is >15 cumecs, a minimum flow of only 2.5 cumecs is required to be maintained by this project through the year. It hardly bears saying that this one project itself will kill the river, let alone the myriad projects to follow.

WAPCOS is infamous for its cut-and-paste jobs on many EIAs. This EIA is clearly one too. Their fish-list is from entirely elsewhere. We have been conducting fish species listing as well as presence-absence surveys on the Gori for almost 10 years. No other published list matches the WAPCOS list either. We do not have access to other WAPCOS EIAs to point out how much is lifted, but they give themselves away in various places. If you look at page 42, Table 3.8, you will find the location of this proposed damsite not on the Gori, but on the on the Dhauliganga river in Garhwal , "located close to Joshimath-Malari Highway"! They obviously have not done their fish surveys on the Gori, or they would have known that even though the Gori is well stocked with fish lower down-stream, there are not fish near the Rupsiabagar dam-site. The water here is too cold here to hold even snow-trout. They however feign great concern for the imagined fish in this river-reach, and have set aside all of 13.5 million rupees to thinly stock snow-trout fingerlings 10 km upstream and downstream of the damsite in a river reach that is uninhabitable by them in the first place. In any case, just 5 km upstream of this dam, is another proposed dam, after which the river will anyway run dry for kilometers.

What is stunning however, is that after proposing work that will actually kill the river in every sense, NTPC is so concerned that local people ('labourers' and 'poachers' they call them) may 'indiscriminately' catch the fish stranded in the 'shallow pools' after the diversion of water, and even kill 'stray wildlife' that may venture near their premises, that this hydro-power company has provided a budget 4.25 million rupees to buy guns and ammunition, and hire people to wield them under what they call a 'Wildlife Conservation Plan'. You will find this in their EIA.

e) It seems to us that the Forest Clearance being sought as per their proposal, includes the approach road to the quarry site near Jimmighat village. As far as we know this Clearance is still pending. However, in addition to the road being built ostensibly to the border for 'national security' (this has been sublet by the Border Roads Organization to the RB Reddy company, and no surprises that the road also leads up to two hydro-power sites being undertaken, until two weeks ago, by the GVK Reddy Company), they have also been building another road for the past two years, in a different direction, that actually leads down to the Jimmighat quarry site. The question here is whether partial Forest Clearance has been granted for the road to the quarry site? It has not, as far as we know, but even if so, as per the convention, the area 'cleared' is the area required by the road, plus 12 meters on either side. We had a look at the road building again on the 15<sup>th</sup> of May 2012, and we attach two photographs of the road-construction to Jimmighat for you to see. The debris does not cover just 12 meters, but hundreds of meters right down to the river. Apart from setting off new landslides in an already geologically unstable setting (this is just a few of many that they have already set off, ref Manoj Chandran's letter to you), how it is affecting the aquatic and riparian zone is plain

to see. Has Forest Clearance been granted for this extent of work? Is it also a wonder why the NTPC did not take Dr. Karanth and Dr. Choudhry to this area during their visit here, but took them instead to the proposed powerhouse site much further down where work has not commenced?

3. Further, on the question of Forest Clearance, the EIA does not detail how much surface area of the river-bed is going to be mined for sand, gravel, cobble, boulders and bedrock. Only two sites have been mentioned; Jimmighat and Bhadeli. Gravel, cobbles and boulders are proposed to be quarried from here and crushed to meet the requirement of 130,000 m<sup>3</sup> of fine aggregate, 50,000 m<sup>3</sup> of coarse aggregate. They will also 'quarry' 115,000 m<sup>3</sup> of sand. They propose that 20% of this material will come from the Jimmighat quarry and 80% will come from the Bhadeli quarry. As far as sand is concerned, as of today, even at a liberal estimate, there is less than 10 m<sup>3</sup> to be had from Jimmighat since that section of the river lies before the first reach where the gradient eases off and the river widens enough to allow deposition of substantial sand. It is really at Bhadeli, about 4 km downstream, where the Gori opens out onto the first floodplain that does accumulate sand. But even here, nowhere near the hundred thousand cubic meters of sand are available. Our estimate is that not more than 10% of this requirement could possibly be had from stripping all the sand-beds at Bhadeli. You have to see this to know. Clearly sand will need to be extensively stripped from the riverbed *all* along the river, to possibly meet this requirement. It may be relevant to note here that the present MLA is the longstanding contractor and supplier of sand from Bhadeli, and a big proponent of hydro projects on this river.

To our understanding, as per law, the river too constitutes 'forests' in the ecological and wilderness sense, as does say, a marine national park. More precisely, the domain of the Ministry of Environment and Forests. Is that not why everything from extraction of sand, cobbles and boulders from the riverbed, to licences for river-rafting, to fishing licenses need the permission of the Forest Department? If so, is Forest Clearance also being sought for the extraction of such massive quantities of 'building material' that is really habitat features for all aquatic life in the river? The EIA mentions only two quarry sites, where it would be impossible to get anywhere near all the required sand. The EIA does not take into consideration any of the ecological impacts of such transformation of the river-bed, other than a mention of the need to stabilize slopes around excavation sites. The question of where the other 8 large hydroprojects slated for the Gori main stem will get their sand from, is quite another question. Even so, the extraction of sand, gravel, cobbles and boulders required for so many projects will surely finish off the aquatic habitat of the entire river. All this apart from the fact that almost the entire lower 70% of the riverbed will run dry due to diversion of water. 2.5 cumecs is unlikely to even soak the sub-surface hyporrheic zone let alone allow above surface flows. We urge that these matters be considered material in the decision on Forest Clearance too.

4. The FAC is aware that apart from the 2.64 sq km of land that Forest Clearance is being sought by NTPC, all the villages and forest areas above and around the Head Race and Adit Tunnels are likely to be further destabilized and seriously impacted. Just the Head Race tunnel is 7.47 km long. The EIA downplays the impacts. These tunnels are to be blasted out of the bedrock of the mountain, by multiple and simultaneous explosion of tonnes of explosives. All this in a seismic Zone V area. Just the research tunnel near Paton village has already caused a huge landslide (details of which have been submitted earlier as well) and also dried up some of their spring sources (by fracturing the impermeable layer that yielded the spring at the surface in the first place). Such diversion dams and tunnels in other parts of the Himalaya have clearly demonstrated how they exacerbate the frequency and scale of landslides in areas close to such projects. However, the EIA has no mention of this. Under the subject of landslides in the area, the blame again is put squarely on the local people. Their pitch is that (and we quote) "Unscientific landuse pattern is the major cause of the present deteriorating situation for which appropriate landuse regulation measures need to be implemented. Social and economic upliftment, generating new local resource based small eco-friendly practices on steeper slopes, etc can be other measures which can be implemented to control landslide hazards." Their recommendations for the control of the situation are a) "informing and educating the public", and b) "acquiring and exchanging hazardous properties".
5. We mentioned in our previous note to the FAC that as per NTPC's dam-break analysis, in the event of a dam break, water will travel 18 kilometers before receding to its 'normal level'. They also state that there are no villages within these 18 kilometers, whereas there are actually 12 villages downstream in this reach of 18 km. Another look at the EIA however reveals that NTPC has set aside 4.25 million rupees for facilitating evacuation of villages in the event of a dam-break, by providing for wireless and vsat sets in villages, as well as sirens and what they call 'awareness

programmes'. What villages might they be referring to now?

6. Finally, we would like to re-emphasise to the FAC, that the Kali (with its tributaries) is presently the least dammed river of its size in the Western Himalaya. While we have already extensively dammed our other rivers, we also need to consider letting some rivers continue to run free. The FAC hardly needs telling, that just as we have terrestrial protected areas, we would do well to also have some protected aquatic systems. The DFO's Manoj Chandran's letter to you mentions the Gori being one of valuable breeding habitats for the endangered Mahseer. Rauntis gad, one of the tributaries of the Gori is one of the best breeding streams for the Mahseer in the entire Western Himalaya. We have already compromised the metapopulation of Mahseer in the Ganga system through the building of dams in most of its breeding areas. The Kali population, which you may know, is one of the best remnant populations left. This would be decimated with the building of even this one hydro-project on this river, with greatly altered volumes and rhythms of flow. If Forest Clearance is provided piecemeal to this project, without a proper cumulative impact assessment along the entire river, and without keeping in view our last chance for a free-flowing river, the biological damage would be irreversible.
7. In view of these and the other points we have raised before, we strongly urge that Forest Clearance not be granted to this project now. If the FAC still wishes to investigate the matter further, we request that a Cumulative Impact Assessment be carried out by a competent group of biological scientists, before a decision is taken.