

To,
The Secretary,
Central Water Commission,
3rd floor (South), Sewa Bhawan
RK Puram,
New Delhi-110066

8th May 2019

Subject: With regard to complete negligence of safety and environmental norms in hydropower projects in the State of Himachal

Sir,

We are writing to you to draw your attention to repeated cases of negligence in hydropower projects in Himachal Pradesh impacting adversely houses, property, local ecology and the lives of the local population. Our submission is prompted by recent reports of cracks in the tunnel of the 100 MW Sainj Power Project¹ (3rd May 2019) and leakage in tunnel of 520 MW Parbati Stage III Hydro Power Project (HPP) (14 April, 2019)². Two years ago, a similar leakage was reported in the 800 MW Parbati Stage-II project just upstream of Parbati III, during the tunnel testing, becoming a hazard for close to 400 families.

Environmental groups, social activists and affected communities have brought to the notice of the Directorate of Energy such cases of seepages, leakages, pipe bursts, landslides, slope failures, house damages caused as a result of mindless and uncontrolled construction activity in a geologically and ecologically fragile landscape. Apart from gross neglect of local conditions specifically in planning of Hydro project construction, there is a serious issue of failure of project proponents, regulatory agencies and government authorities to ensure adherence to environmental and safety norms during and post construction. In the same regard, we have submitted a memorandum earlier, to the Principle Secretary, Directorate of Energy (DoE) on 6th December, 2015 which is the responsible authority under which the State Dam Safety Cell has been setup. (Annexure 1). However, there has been no response or action in this very urgent matter. We would like to raise that the issue of lack of an accountability mechanism, public grievance redressal and punitive action with regard to dam safety owing to negligence has remained unaddressed. In this regard we would like to put on record the key issues of concern your department so that action may be taken on this subject:

1. Severe negligence in post construction operations and no functioning state-level Dam Safety Cell

The 'Authority of Hydro Project Safety, Quality Control and Water Management' was first mandated under the Hydro Power Policy, 2006 but a state-level Dam Safety Cell was officially formed in the Directorate of Energy (DOE) through a notification as late as 10 February, 2014

¹ Divya Himachal, हिमाचल पावर कारपोरेशन का सबसे बड़ा प्रोजेक्ट खतरे में, 3 May, 2019

² Shimla Bureau, Amar Ujala. "पांच करोड़ खर्च करने पर भी एनएचपीसी की टनल में रिसाव." 12 April, 2019.

(Annexure 2). Even after this notification, the Cell still seems non-existent, as is evident from DoE's response to an accident in Kinnaur that took place in 2018. Please note the following:

- On the afternoon of July 25, 2018, water was released without warning from Kashang I Hydro Power Project in Pangri, Kinnaur, submerging trees of deodar and near-threatened Chilgoza, simultaneously impacting vegetation and land, which together amounted for a colossal damage of Rs 17, 83, 68, 336, as assessed by the Divisional Forest Officer(Annexure 3).
- The office order by HPPCL, the project proponent, mentioned that this incident took place on the opening of Sluice Valve in silt flushing tunnel by the Operation and Maintenance wing on the account of BR-I being at full reservoir level (Annexure 4).
- Agitated and concerned by the incident, the residents of Pangri submitted a memorandum to the Deputy Commissioner, demanding an inquiry into the incident (Annexure 5). When the enquiry report on the Kashang accident was sought from DOE under the RTI act, the department transferred our application to HPPCL, stating that the report *"is not made available in the record of this office"* and that the issue *"pertains to HPPCL"* (Annexure 6).
- Following the assessment of damages, the office of Deputy Commissioner wrote to the General Manager of HPPCL to *"look in the matter and take further appropriate necessary action in the matter, please."* (Annexure 7). Against such a grave loss of a public good, a toothless letter of request, raising no questions about the details of the cause of the incident shows a total absence of accountability and punitive action. The need to direct punitive actions in cases like this was also reinforced by Principle Secretary (Power), GoHP in a meeting 17th October, 2014 following the Thalout tragedy, when he strongly suggested that severe action including criminal action as per law be taken if compliance report by HPPs is not submitted.
- RTI response from DoE made available minutes of meetings of National Committee on Dam Safety (NCDS), when asked for those of the State-level Dam Safety Cell meetings. Amongst the participants of these meetings, engineers representing the Dam Safety Cell from Himachal made the list only in the years 2014, 2015 and 2016 whereas for 2017, Chief Engineer, DOE attended the meeting and no representative from the state marked presence in 2018.

With state-level Dam Safety Cell never holding a second meeting of its own since its inception, and with DoE failing to take any independent action to investigate in the Kashang case shows that the Cell is non-functional. This is of utmost despair, especially since in 2015 the NCDS was reconstituted to include DoE, with Himachal amongst its members, thereby creating the obligation of accountability for DoE to ensure dam safety. (Annexure 8)

2. Absence of Dam Safety Cells within the Independent Project Proponents

Following the tragedy of 25 persons being washed away in the Beas river in 2014, a notification was issued by DoE to independent project proponents (IPP)/government organizations, mentioning a creation of a dam safety cell under each IPP. In case of HPPCL, no such cell seems to exist, since post the Kashang incident, a committee was *formed* on an ad-hoc basis by the Director to enquire into the matter which was headed by General Manager, Shongtong Karcham HEP (also an RoR under HPPCL) assisted by Deputy General Manager, Shongtong Karcham (Refer to Annexure 4). Not only does such an inquiry bring out a conflict of interests, it also shows an absence of such a cell within the projects, which should have played the role of continuous monitoring and accountability in under-construction and operational projects as well.

The Report of Comptroller and Auditor General Of India on Social, General and Economic Sectors, March 2017 also brings to light certain non-compliances observed by three dam authorities with regards to dam safety: Bhakra Nagal, Larji and Chamera-I. It states that no dam safety cell was created by any of the selected dam authorities, no disaster management cell was constituted at project sites to ensure immediate response with regards to relief and rescue operation. As opposed to the 18 required inspections, only nine were carried out by dam authorities during 2014-17. No risk assessment study as required under central dam safety organization had been conducted in any of the selected dams, no safety audit of the dams/barrages were carried out with reference to healthiness of civil, hydro, mechanical and electromechanical structures/equipment in line with operation and maintenance manual, as required by DoE to be carried out once in every six months. A detailed response to the CAG report must be provided by the DoE with measures it is taking to ensure safety compliance.

It must also be noted that project proponents consider themselves as not liable to provide any information to public as has been seen in some cases. We would like to specifically point out the case of the 800 MW Parbati II project.

- In April 2017 when the project was testing before commissioning, about 20% of the water (from the Jiwa Nallah) was released into the tunnel on 31st March 2017. Soon after the residents of Bhoimel, Khandola and Ryan observed leakages in area near the tunnel. A few days later cracks also appeared near Rela village which is located along the alignment of the tunnel. Residents of the village explained how the cracks appeared suddenly and now pose a serious threat to the area as villagers live in fear for their safety³.
- An RTI response provided by the Directorate of Energy seeking a detailed report of the matter only provided a preliminary report which did not reveal the exact cause of the seepages. The response asked to seek the full report from NHPC. (Annexure 9a)
- The NHPC when approached for the information responded with the following, “The report cannot be shared at this stage as the seepage was outcome of testing process of Parbati II for commissioning of one unit. The testing is still continued and the information can be provided only once the testing process is over and the unit is successfully commissioned”. The same response was provided for all documents sought related to the incidence. (Annexure 9b)

³ <https://www.youtube.com/watch?v=E7apDkM5Cnc>

- It needs to be noted that the project is still under construction and the testing of the units has been under process for the last two years. Further it needs to be noted that the project has crossed its original commissioning date almost 8 years ago. It has been well accepted that the area near the project tunnel, surge shaft and power house is geologically fragile and the construction agency has been grappling with the issue of underground civil works in the area. In such a scenario, all information related to safety compliance of the project needs to be made public

3. Negligence in Planning and Impact Assessment:

- While some of the accidents are a clear case of negligence, it also needs to be noted that the areas where hydropower projects are operating are already recorded to be extremely fragile and disaster prone. According to Landslide Hazard Zonation Atlas of India, 2003 more than 97% of the total geographical area of the state is prone to landslide hazards. In the state, 56% of constructed HPPs are under serious threat of landslide hazards, as a 2015 study of State Disaster Management Authority (SDMA) warns. Hence, any negligence at the level of planning and impact assessment is bound to have disastrous consequences. The Environment Impact Assessment reports prepared for hydropower projects have failed to do a genuine assessment of the impacts often ignoring landslide proneness, seismicity issues or disaster proneness of the areas.
- On 18 June, 2018, a massive landslide occurred in Sorang HPP, leading to two working staff being buried under the landslide. In this case, a report by Himachal Sorang Power Pvt Ltd stated *"as per geological conditions of the site, the area comprised with moderately weathered rocks...in a nutshell, this rock plane was failed. And slide occurred due to excessive weathering of infilling material and seepage of water between rock joints which increase the shearing value of rock plane..."*(Annexure 10) Despite being aware of the geological conditions, construction of this HPP continued, ultimately leading to the slide.
- The performance audit of Kashang Project in Report of the Comptroller and Auditor General of India on PSUs (Economic Sector), March 2017 mentions that "no survey was done prior to the construction of buildings at a cost of Rs 2.80 crore which were badly damaged due to landslides in June 2013 and are lying unutilized." When a survey was subsequently carried out in November 2013, it showed that the area being covered with thick layer of overburden/glacial fluvial deposit was not fit for construction of the buildings. Had this been done earlier, it could have avoided an expenditure of Rs 2.80 crore. Clearly the losses borne are not just environmental, social and economic in nature but also financial.

4. Absence of a grievance redressal mechanism/authority

There is also a necessity of a public grievance mechanism, in the absence of which complaints from the public have fallen to deaf ears. Villagers in Powari village, Kinnaur had lodged oral and written complaints with HPPCL, demanding a retaining wall to prevent landslides in case of the Shongthong Karchham Project. When no heed was paid to these, in August 2018, a landslide was caused by a sudden increase in flow of Satluj River since after being discharged from the diversion

tunnel of the project, the flow of the river was being directed towards the village market.⁴ The same was the case in November 2015, when the penstock pipe of 100 MW of Sorang HPP burst during testing procedure. The residents in the affected area had warned of a leakage in the pipe which was ignored by the project authorities.

It is clear that the Directorate of Energy has failed to ensure a robust and independent monitoring authority vis a vis dams and hydropower projects in the State. It is also obvious that the DoE has neither called to account any project proponent and nor is accountable to anybody on the issue of Safety. In such a scenario it is the people in the project areas who have to bear the costs of safety failures and negligence without access to any form of compensation or justice in any form.

Based on the above we demand for the following:

- An independent inquiry/audit of the safety compliance of all under construction and operational projects specifically the projects where accidents have already been reported (refer to list at the end of the memorandum)
- Activation of an independent Dam Safety Cell at the state level (with members of all concerned departments)
- Activation of dam safety cells at the project level with complete adherence to safety norms failing which no project should be allowed to be commissioned or operate.
- An Executive order for creation of a grievance redressal mechanism for addressing issues brought forth by public.
- A white paper or independent scientific study with regard to hydropower projects and their vulnerability to disasters/accidents and revision of terms of reference of impact assessment studies on the basis of the same.
- As follow up to the CAG report of 2017 – a detailed response must be provided by the State Dam Safety Cell vis a vis action taken on the non compliance of safety conditions in select projects

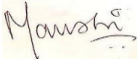
Putting in place a monitoring and accountability mechanism is imperative to ensure that the impacts of environmental hazards are minimized and losses to life and property due to safety negligence are prevented rather than treated in an adhoc manner. In a state that is highly vulnerable to global climatic changes and disasters, the aspect of safety needs to be incorporated at every stage from planning to implementation to operation in order to prevent incidences that could turn into a massive tragedy.

We hope you treat this concern with urgency.

Thank you,

Signatories

⁴ Negi, Jeet Singh. सतलुज में जलस्तर बढ़ा, पावरी बाजार में तबाह हुई दुकाने. 9 August, 2018

1. R.S Negi, Him Lok Jagriti Manch, Kinnaur
2. Jiya Lal Negi, Zilla Van Adhikar Samiti, Kinnaur
3. Sonam Targe, Spiti Civil Society, Spiti, Lahaul-Spiti
4. Shyam Singh Chauhan, Zilla Parishad member, Mandi
5. Nek Ram, Paryavaran Gram Vikas Samiti, Mandi
6. Moti Ram, Himachal Kisan Sabha, Secretary Banjar, Kullu
7. Vaishnavi Rathore and Manshi Asher, 

Himdhara Environment Research and Action Collective,

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CC: CC: Chairperson of Dam Safety Cell, DoE, Himachal Pradesh

List of incidences of hazards/accidents reported in Hydropower Projects since 2012 in HP

S.No	Date	Location	Project	Event
1	17 April 2012	Mokhar village, Chamba	231 MW Chamera III HEP	Massive leakage in the 16km HRT of the Chamera III project just above the Mokhar village leading to severe threat to the village downhill so much so that the 40 families residing there had to be evacuated. The leakage occurred during testing of the generating units.
2	December 2013	Power house site Wangtoo Kinnaur	1200 MW Karcham Wangtoo HEP	During an inspection of the 1200 MW Karchham Wangtoo project by the officials of the Central Water Commission, Department of Energy and Central Electricity Authority profuse leakages were found in the surge shaft of the 17 km long tunnel possibly due to cracks and fissures that may have developed over the course of time.
3	29 December 2013	Village Dhalanjan, Chamba	36 MW Chanju HEP	In the aftermath of construction work of the 36-MW Chanju Hydroelectric Project three villages Dhalanjan, Kuha and Makalawani, which belongs to Scheduled Caste families, will be ruined as visible big cracks have developed on the walls and floors of 51 houses.
4	12 January 2014	Between Aleo and Prini, Kullu	4.8 MW Aleo HEP	Reservoir of the newly built Aleo II hydro project on the Aleo nallah, a tributary of the Beas river, collapsed during its very first trial run on January 12 2014. Quite shockingly, neither the local authorities nor the villagers were intimated by the project authorities about its testing.
5	8 June 2014	Thalout area (Shalanala Village), Mandi	126 MW Larji HEP	25 people were washed away in a flash flood caused by the sudden opening of the flood gates at the Larji hydel project dam, 2.7 kms upstream of accident site at Thalout on the Beas river.
6	10 June 2014	Urni Village, Kinnaur	1200 MW Karcham Wangtoo HEP	In July 2014 the Urnidhank collapsed blocking the national highway which continues to be blocked. Urni is sitting precariously above the junction of the flushing tunnel, Head Race Tunnel and Adit tunnel of the newly operational 1200 MW Karchham Wangtoo project.
7	14 June 2015	Kaza, Lahaul-Spiti	2 MW Rongtong HEP	Three engineers were killed at the Himachal Pradesh State Electricity Board (HPSEB) run Rongtong power project (2MW) in Spiti valley of Lahaul-Spiti district when main inlet valve at the plant burst.

8	18 November 2015	Burang Village, Kinnaur	100 MW Sorang HEP	Penstock pipe burst of the 100 MW Sorang Hydro-electric project led to the death of three people.
9	22 November 2015	Chagaoun Village, Kinnaur	1200 MW Karcham Wangtoo HEP	A massive landslide occurred in Chagaon Village, located on the alignment of the Karchham Wangtoo project's tunnel. While houses and property was damaged .
10	29 November 2015	Power house site, Shongthong, Kinnaur	450 MW Shongthong Karchham HEP	Two laborers died in blasting operations and some others were seriously injured.
11	17 April, 2017	Sainj Valley, Kullu	Parbati II Project 800 MW	Due to continuous leakage in the tunnel of the project, landslide and displacement of people occurred. Huge cracks spread over 200 m appeared in the hills, leading to landslide & fall of soil and rocks, immediately threatening eight families of Rahan (Reina) village, though over 400 families of some 12 villages of Rella Panchayat are facing the prospects of disaster as cracks in the hill have appeared just above the villages.
12	18 June 2018	Kinnaur	Sorang HPP	A massive landslide occurred in Sorang HPP, leading to two working staff being buried under the landslide.
13	25 July 2018	Pangi Village, Kinnaur	Kashang Hydro Power Project (Stage I)	Water was released from flushing tunnel without warning from the project, submerging trees of deodar and near-threatened Chilgoza, simultaneously impacting vegetation and land, which together amounted for a colossal damage of Rs 17, 83, 68, 336, as assessed by the Divisional Forest Officer
14	August 2018	Powari Village, Kinnaur	Shongtong Karcham	a landslide was caused by a sudden increase in flow of Satluj River since after being discharged from the diversion tunnel of the project, the flow of the river was being directed towards the village market, damaging shops in the market
15	14th April, 2019,	Sainj Valley, Kullu	Parbati Stage-III	Reported leakage in tunnel endangering the lives of residents of Bihali and Sampagani villages.