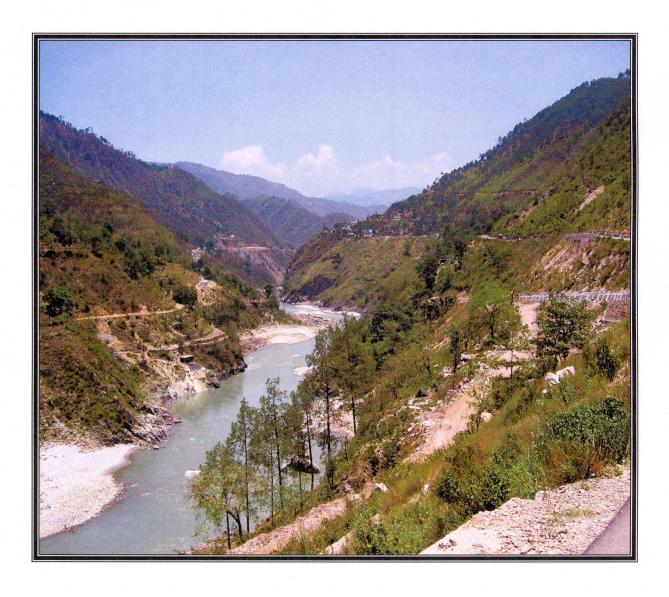
REPORT TO ASSESS THE STATUS OF ENVIRONMENT & FORESTS CLEARANCES OF HYDRO POWER PROJECTS ON RIVER MANDAKINI





MINISTRY OF ENVIORNMENT&FORESTS
GOVERNMENT OF INDIA

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1 BACKGROUND

1.1 General

The river Mandakini, a major stream of river Alaknanda, emanates from hills of Kedarnath peaks. It covers a length of 82 kms before joins to river Alaknanda at Rudrapryag. The river originates from the springs fed by melting snow of Chorabari glacier about one kilometer from Kedarnath temple. All contributing streams of river Mandakini are snow fed. The River Mandakini travels through a deep and narrow gorge in the majority of its stretch. The Government of Uttrakhand has taken a decision of trapping the hydroelectric power from the stream of river Mandakini. Some projects have been approved to establish the hydro power projects on the river Mandakini and few are in pipeline.

A delegation led by Smt. Brinda Karat met the Hon'ble Minister of State (Independent charge) on 28th April 2010 and represented to stop the construction of hydro power projects proposed on river Mandakini in Kedarnath valley. The Representation to the Hon'ble Minister pointed out various environmental problems arisen due to construction of two hydro power projects proposed on river Mandakini. Major issues highlighted are; loss of vegetation, negative impact of blasting in construction of tunnels, pollution of noise and air, threat to wild life, loss of florafauna in aquatic system, impact to water resources, etc. A copy of this representation is at **Annexure-I**. As per the instruction of the MoEF, a team comprising Chief Conservator Forest (CCF), Regional Office of MoEF and representative of National River Conservation Directorate of MoEF visited the sites for on the spot assessment for ensuring compliance of conditions stipulated in the environment and forest clearances granted by MoEF in respect of two hydro power projects namely Phata-Byung and Singoli-Batwari on 29-30th May 2010.

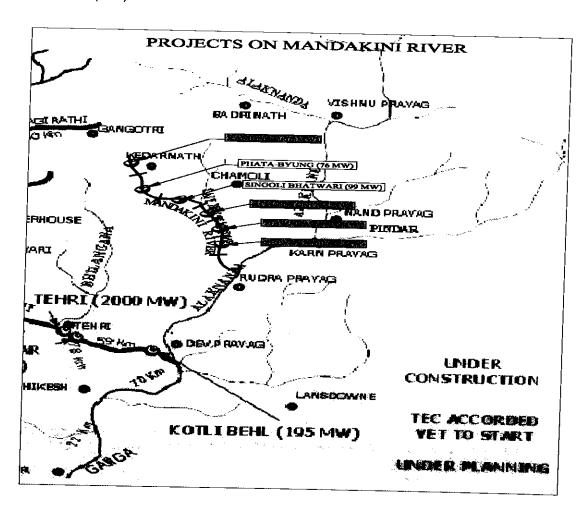
1.2 Hydro Electric Projects on River Mandakini

In Mandakini river cascade development has been proposed by the Govt. of Uttarakhand and Central Electricity Authority to make use of River of Run (RoR), the flow of water in power generation. The Govt. of Uttarakhand has identified the potential of power generation through water resources in compliance to the central Govt. policy to enhance power generation in the country. As informed, a number of

hydro power projects have been proposed/ under implementation on river Mandakini:-

SI No	Name of the Project	Type of Scheme	Capacity in MW	Status of Project	
1	Rambara	RoR*	76	Under Planning	
2	Phata-Byung	RoR	76	Under construction since October 2008	
3	Singoli- Bhatwari	RoR	99	Under construction since November 2009	
4	Agastmuni	RoR	25	Under Planning	
5	Tilwara stage –l	RoR	25	Under Planning	
6	Tilwara stage –II	RoR	25	Under Planning	

^{*}Run of River (RoR)



It can be seen that out of total six hydro power projects (capacity above 25MW) on river Mandakini, 2 projects are under implementation and remaining four at the Planning stage. It roughly estimated that 45-50 Km of tunnel length would be constructed. Therefore, in stretch of about 50 Km, river may not flow in the natural condition before it joins to river Alaknanda at Rudrapryag.

1.3 Hydro Electric Projects under Construction

Two hydro electric projects under discussion namely Phata-Byung (76 MW capacity) and Singoli- Bhatwari (99 MW capacity) are being constructed on river Mandakini at Rudraprayag district of Uttarakhand. Both hydro power projects are the Run of River (RoR) schemes. Necessary environmental and forests clearances in respect of these projects have already been granted by the Ministry of Environment and Forests.

(A) Phata-Byung Hydro Power Project

The project is a RoR scheme and envisaged to generate 76 MW of electricity. The proposed barrage site of Phata-Byung project is located just 1.4 km downstream to the confluence point of Vasuki Ganga with river Mandakini, near Sitapur village. The power house generating units of this project is located near Byung village about 800 meter downstream on the right bank of Mandakini river. It is proposed to lay underground Head Race Tunnel (HRT) for length of 9.38 Km with 3.6m of diameter. Dam of 26 m height is proposed to construct, having submergence length of 520 m. The total project cost is Rs 484 crore The salient features of the project is at Annexure-II.

Regarding physical progress, various components in the project are at different stages of progress. Dam excavation, HRT and Power House have achieved physical progress up 100%, 35% and 5% respectively till May 2010. Other components such as diversion channel, Adits and approach road are at advance stage of completion. Some other components namely Switch yard and Pressure Shaft are at initial stages. As per the project authority, 35% as overall physical achievement has been assessed till May 2010.

(B) Singoli- Bhatwari hydro power

The Singoli- Bhatwari hydro power project is situated at the downstream of Phata-Byung project and envisaged to generate 99 MW of electricity. Both projects are adjacent to each other. The barrage site of this project is located at village Kund and Power House is located Phalai Village.

It is proposed to lay underground HRT for length of 11.87 Km, having 4.65m of diameter. Dam of 21 m height is proposed to construct, having submergence length of 1250 m. The total project cost is Rs. 666 crores. The salient feature of the project is at **Annexure-III.**

Regarding physical progress, 85% of approach road works has been completed. Barrage excavation, power excavation and tail race channel works are reported to start after monsoon. The work of Adit 1, Adit 2 and Adit 5 excavation and horizontal pressure shaft has been completed. About 8% of Head Race Tunnel excavation completed. It was reported that works of vertical pressure shaft would be started after completion of Adit 4 and the excavation of Adit 3 will be commenced after completion of approach road to Adit 3. As per the project authority, overall physical of 10% of the work has been assessed till May 2010.

2. PUBLIC INTERACTION AND VISIT TO PROJECT SITES

2.1 GENERAL

A visit to the project sites was undertaken on 29th May, 2010 to assess the impact of Phata-Byung and Singoli-Bhatwari hydro electric projects on nearby areas and to ascertain the views of the complainant, local community and district administration.

2.2 VISITS TO PHATA- BYUNG HYDRO ELECTRIC PROJECT SITE

The site of the proposed 26 m high Dam and Adit no.1 at Phata-Byung project near Rampur village was inspected. The project authority made the presentation at the site office. During presentation, the salient features of the project were explained including the proposed impoundment of water and the projected rise in the water level after construction of the dam. The length of reservoir will be 520 m. It was observed no provision has been proposed within the dam for releasing minimum water as environmental flow. Project authority assured to look in to the matter.

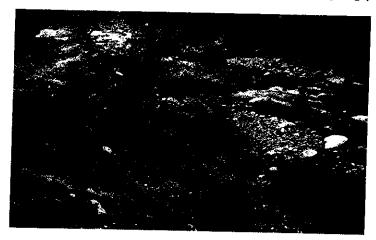
The project authorities explained that total 9 sites are earmarked for muck disposal, out of which 6 sites are utilized/being utilized for dumping. It was seen that some stretches of muck disposal area are provided with stabilization arrangement but slopes of some areas are not properly stabilized. It seems that there is chance of spillage into the river in the event of flash flood and heavy rainfall. It was also informed that dumping site at Barasu and Phata are not being used due to local problem. The total committed expenditure on the project is Rs 484 crore (CEA approved) out of which Rs. 200 crore have been already spent.

On the way to power house, complainant shown the area, near Adit, where natural spring have dried and water coming out of the tunnel, which is common thing in hydro electric projects. Strong argument was held on drying up of sources of water on account of tunnelling. At power house of the project, near Phata village, complainant shown a few stretch of muck disposal site, where some spillage of muck was noticed. The project authority informed that the work is still in progress and necessary correction would be taken up soon. At the site complainant along with other activities shown the areas where some vegetation was damaged and trees were cut down along the river. Forest department of Uttarakhand explained that forest clearance have been sought for felling of 793 trees for the project works and

1710 trees for the road work. The Forest officials informed that the actual felling was less then the approval accorded, which was carried out by the Forest Corporation only and the after the completion of the work plantation work will be taken up in the area available for plantation. Illegal felling was not reported in Phata-Byung project.



(Local person addressing view during presentation by Phata-Byung project authority)





(Muck Disposal and Protection arrangements (Crate walls) near Dam site of Phata-Byung project)

2.3 VISIT TO SINGOLI- BHAWARI HYDRO ELECTRIC PROJECT SITE

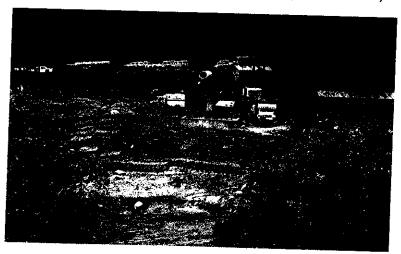
The barrage site of this project is located near kund village, about 5 km from power house of Phata-Byung hydro electric project. Team inspected the barrage site, Adit-1 and the various components of the project namely the HRT, Adits and diversion channel complex. Detailed discussions were held with project authorities on the status of work. The total committed expenditure so far is Rs. 666 crore (CEA approved) out of which Rs. 145 crore have been already spent. Construction of project was started in November 2008 and work is currently under progress. Various features of the Barrage & Diversion structure were discussed at length. It was explained that the average depth of water will be 8m and length of submergence under reservoir is about 1.25 km. Major works include dewatering, ventilation, construction of adits/ tunnels/ caverns and slope stabilization works etc. are in progress.

The environment protection measures to avoid spillage of muck in the natural drainage channel/ river Mandakini by constructing gabion/ wire crate walls at the toe of the muck disposal area were also shown to the team. Further, the dumping areas are being reclaimed and are used for project construction activities. Some slackness in proper management of muck disposal was noticed.

Regarding issues of unauthorized cutting of tree, complainant shown the area at Badubagad, near power house of the project. Numbers of trees were allegedly felled by the project authority. It was informed by Forest Department that permission for clearing tree is given after the forest clearance and the Forest Corporation was given the job of felling of trees. However, proper norms of felling were found missing. The complainant has also shown the natural land slide hill where tunnel is proposed to be constructed and apprehended that the proposed works would further enhance the erosion process. On discussion arguments were given that tunnel may impact the house of village over hill in the event of construction of tunnel. Overall there was some slackness on the part of L&T implementing authorities in developing confidence of the local people in convincing them for taking up works of the project. Muck disposal were not done properly which they assured to look into.



(Tree cutting area in the project site of Singoli- Bhatwari)





(Muck protection arrangement at disposal site of Singoli- Bhatwari project)

2.4 INTERACTION WITH DISTRICT ADMINISTRATION, PUBLIC AND COMPLAINANT

Team held discussions with the District Administration, Rudraprayag, Forests Department, Govt. of Uttarakhand and complainant on 30.05.10 in presence of the complainant. The Govt view is that the proposed activity is in the interest of the state and would help in overall development. The following points emerged:-

- (i) On the complaint of blasting at night is causing disturbances to the people, the ADM has informed that the administration has issued the instructions that the blasting should be taken up in night only taking into consideration of heavy vehicular traffic during yatra season. The blasting has also been carried out by the Border Road organisation for construction of road in the area.
- (ii) A construction activity for tunnels in hills has developed cracks in the houses of nearby villages. Regarding development of crack in houses of project command areas, district administration has conducted the survey through PWD department so that the extent of damage to houses of local area could be ascertained. Most of the affected families have received compensation. Instances of demanding compensation by few families have also come up who have not been affected by the on going hydroelectric project activities.
- (iii) District Administration have taken several steps for employment of local people in the projects and facilitated in transfer of compensation from project authority to local people. Despite the efforts of District Administration, complainant expressed dissatisfaction.
- (iv) Complainant also raised the issue of illegal cutting of tree by project authority. He opined that proper procedure for tree cutting through Gram Pradhan was not followed.
- (v) Complainant was of the view to abandon the hydro electric projects on the river Mandakini and suggested to shift these projects on other side of the valley where habitation is less.

The minutes of the meeting are at Annexure-IV.

Public interaction was also held on 29.05.10 in nearby areas of project. Large numbers of public including village pradhans were interacted. The complainant,

forest department officers of Uttarakhand Govt. and officials of both the project authorities were also present. Team discussed various issues as pointed out by the complainant in the background clearances granted by MoEF with respect to proposed Hydroelectric Projects. Divergent opinions were expressed regarding the construction of the proposed projects on river Mandakini. There was consensus on the need to maintain balance between development and environment. Most of the participants were of the view that the project, where most of works were completed, has helped in creation of significant direct and indirect employment opportunities for the local people. In case the project is abandoned the local population will be deprived of these benefits. However, some persons highlighted the negative aspect of the project viz. due to tunnelling activities; cracks are developed in houses even they do not fall in the command area, air and water pollution etc.. An opinion was expressed that the cumulative effect proposed back to back projects on the river should be carefully examined as this is likely to result in severe diminution of flow over a long stretch of Mandakini. Issue of drying up sources were also raised at places where work of main tunnels and Adits is completed.

The matter was also discussed with the local MLA, Smt. Asha Nautiyal over telephone during the visit; she vehemently supported the on going work of hydroelectric works and subsequently sent a statement in support of the work. The representation given by some gram pradhans in favour of the project are enclosed as **Annexure-V**.

During public interaction one common thing which emerged was that the villages which are being involved in this project are by and large are in favour of this project, may be on account of people are getting direct or indirect employment from the project and/or the project authority are taking up support activities also in these village. But the villages which are away from the work site and which are not involved in the work people are opposing the project. It may be because of they feel deprived of the opportunity which are availed in other villages. People of one of villages even demanded compensation of Rs. 10 lakh to each villager. Letter given by one such village is enclosed as **Annexure-VI**. In addition to above, district administration pointed out on credibility of the complainant as several criminal cases are filed against him

3.0 STATUS OFCOMPLIANCE OF THE CONDITIONS OF ENVIRONMENTAL & FORESTS CLEARANCES

3.1 General

Environmental clearances for different categories of projects are given under the EIA Notification 1994, as amended from time to time. In this regard, the EIA report submitted by project proponents is appraised by the Expert committee. Diversion of forest land for non-forestry purpose also requires prior approval of the Central Government under the Forests (Conservation) Act, 1980. The forest clearances are accorded in two stages. The stage-I or in principle approval is issued with certain stipulations for mitigating the environmental damages due to these diversions. These stipulations, in general, relate to Compensatory Afforestation (CA), deposit of the Net Present Value (NPV) for different environmental services provided, Catchment Area Treatment (CAT) Plan for the treatment of the catchment of the Hydroelectric projects, Muck Disposal Plan, Reclamation measures for quarrying sites, etc.. The stage-Il/final approval is issued after compliance of these conditions by the User Agency. Only then, the forest land is transferred to the User Agency for non forestry use.

The project wise compliance status of Environmental & Forest clearances to the Phata-Byung and Singoli-Bhatwari projects is as under:-

3.2 PHATA-BYUNG PROJECT

3.2.1 Status of compliance to Specific Environmental Conditions The project was considered by the Expert Committee for River Valley & Hydroelectric projects in the meeting held on 16.01.2008. The Environmental clearance for this project has been granted by MoEF on 18.2.2008. A copy of environmental clearance is at **Annexure-VII.**

The observations on status of compliance to specific condition to the Environmental Clearances granted by MoEF are given below;

Blasting and amount of explosive used

Blasting process is a part of project activity, however, methods used for controlled blasting and amount of explosive used per day is not indicated in six monthly report submitted by Project Authority. It was informed that wedge cut process is used for blasting and about 300 kg/day of emulsion (explosive) is being used. In this context, it is proposed that during six monthly monitoring visit of Regional Office this condition should be suitably verified with information provided by the project authority. As per discussion with local public and district administration, cracks have been developed in some houses due to blasting. But project authority was of the view that blasting is being done in a controlled manner and when ever the district administration refer any case of house damage due to the proposed activities compensation is being paid by the project authority.

Catchment Area Treatment (CAT) Plan

Total 979.45 ha of catchment area has been identified under the project for treating the degraded areas under biological and engineering. The State Department has prepared a CAT Plan at a cost of Rs 9.40 crores. This amount deposited by project authority with the state forest department for the work of CAT Plan. It is observed that work has not been started as amount is not released from CAMPA.

Fulfilment of commitments to Public Hearing

The condition regarding fulfilments of commitments to public hearing, the project authority has not provided the relevant documents regarding fulfilment of this condition. However, the project authority in the report submitted to RO, MoEF indicated that this condition being complied. It is suggested that the same should be verified in length during six monthly monitoring visits by the Regional Office, Lucknow.

Biodiversity Conservation & Management Plan

Project authority is yet to provide detailed information w.r.t. Biodiversity Conservation and Management Plan but assurance is given to comply with the condition. The Project Authority needs to submit the detailed Plan to the MoEF.

Muck /Solid Waste Disposal Plan

Total 9 sites for disposal of muck have been identified in the project. Out of which 6 sites are being used for disposal and 2 sites at Barasu and Phata are under dispute with the local public. This condition is yet to comply fully. It is not cleared by project authority that these two disposal sites are selected after consultation of local community.

It was also seen that the crate/gabion wall, at few stretches for muck disposal are provided to avoid spillage but their slopes are not properly stabilized, resulting the chance of spillage into the river in the event of flash flood and heavy rainfall. It was observed that sites are fully filled with muck but not covered with Geomembrane or proper stabilization measures. The project authority has informed that excess quantity of muck could have been reclaimed if stone crusher is operational. However, it is now stopped by the orders of the High Court of Uttarakhand. The project authority is pursuing with the Court. In total this condition is partially complied.

• Fisheries Development and Management Plan

For conservation of fisheries a supplementary fish stocking programme shall have to be implemented for snow trout in the project area. Detailed plan in this regard is not provided by the project authority. Presently this condition is not complied with. Status of implementation needs to be assessed during the six monthly monitoring /visit of the Regional Office.

Noise Management during project construction

Status of implementation of this condition also need be assessed thoroughly with noise measurement devices at areas where heavy machineries are causing noise pollution. The works at the time of visit was not in full swing. Therefore, noise level could not be assessed. It is proposed that DG set and other equipment should be equipped with noise controlling device and provided with acoustic arrangements.

In addition to above, while issuing environmental clearance, no provision of environmental flow has been made for this project to ensure that river must flow in its

natural state during lean season. Compliance report of the conditions stipulated in Environment clearance accorded by MoEF has submitted by the project authority.

3.2.2 Status of compliance to Specific Forest conditions

Two proposals for the Forest clearances submitted by the State Govt. for Phata-Byung hydroelectric project have been granted approval of GOI under FCA-1980, for which the total land requirement is 22.72 ha. Out of which, about 17.77 ha of land is required for project components like dam, head race tunnel, surge shaft, power house and switch yard and balance 4.95 ha land is for the access roads. Out of 17.77 ha land, 16.37 forest /Government land and 1.40 ha is private land (Annexure-VIII). The total submergence is 4 ha. However, there is no displacement of any local population. The Chief Wildlife Warden has certified that the project site lie entirely outside of Kedarnath Wildlife sanctuary area.

1. The state govt. vide its letter no. 668/IG-2014, Dt. 27.08.2000 had forwarded the proposal for Diversion of 4.921 ha. of forest land for construction of approach roads from Sitapur-Narain Koti Road to driffer/adit at different location to Lanco Hydro Industries Pvt. Ltd. on lease for 30 years in Distt. Rudraprayag, for the approval of Central Govt. under the FCA. The legal status of land involved for the project is-

Reserve forest -- 0.060 ha,

Civil Soyam forest -- 1.281 ha

van panchayat land -- 3.580 ha.

Total -- 4.921 ha

Small portion of 0.024 private land is also involved. The approach road required to the various project components to facilitate approach to the site for detailed survey, investigation and construction activities of the project are as follows.

Sr. No	Description of Road	Area	No. of tree felling
1.	Approach road to power house	1.84 ha.	564

	Total	4.921	1710
8.	Approach to adit -6	.58	577
7.	Approach to adit -5	.095	66
6.	Approach to adit -4	.06 ha.	28
5.	Approach to adit -3	.8 ha.	6
4.	Approach to adit -2	.4 ha.	239
3.	Approach to adit -1	.5 ha.	175
2.	Approach road to dam	.646 ha.	55

The total tree felling involved is 1710 out of which 1100 trees are below 20 cm. diameter. The area is not a part of wild life sanctuary or National Park and all the 7 concerned gram panchayats have given their consent for proposed activity in their area. The user agency as paid the cost of compensatory afforestation in 9.921 ha of civil soyam forest and required NPV has also been paid for the proposed activity. The approval was accorded by the Regional Office, Central vide no. 8B/UCP/06/248/2007/FC/928 dated 26.09.2007. The conditions stipulated by the Govt. of India are being complied in this case. However, since the user agency has paid the cost of CA, NPV and for other plantation, which has been deposited in CAMPA, the works have not yet been taken up. As and when the CAMPA fund is released, the conditions of plantation etc. will be taken up in the proposed site. As informed by the DFO, Wildlife Division the fauna is not being affected by the proposed activity. Whereas the vegetation lost are not more than the trees proposed for felling.

2. Diversion of 16.37 ha. of forest land for construction of Phata-Byung HydelProject to Lanco Industries Pvt. Ltd. on lease for 30 years in Distt. Rudraprayag. The State Govt. has subsequently submitted the above mentioned proposal vide their no. 2667/1G-288, Dated 24.03.2008, for approval of Central Govt. under FCA. The break up of land required for construction of hydroelectric project at phat-byung by Lanco Industries Pvt. Ltd. is as follows-

Reserve Forest - 0.17 ha. Civil soyam (PF) - 14.67 ha. Van Panchayat - 1.53 ha.

Total - 16.37 ha.

1.40 ha. of private land has also been used in the project. The activities for which the land is required are-

		Forest	Non Forest
1.	Submergence area along the river course	3.9 ha.	0.10 ha.
2.	Underground structure _	5.25 ha.	
3.	Temporary Over ground Structure -	6.39 ha.	0.35 ha.
4.	Permanent over ground structure -	.83 ha.	0.95 ha.
	Total	16.37	1.40

The total tree felling involved is 793 for different activities which come to 48 trees per hectare. The area is not a part of wild life sanctuary or national park. All 7 concerned gram panchayat have given the consent for taking up the proposed activity by Lanco. Geological report furnished also approved the project subject to certain condition which the user agency has agreed to abide by. The CA is proposed in 33 ha. in civil soyam land for which the user agency has paid the required money alongwith the NPV, Catchment Area Treatment Plant as required under FC Act. The user agency has also given the plan for muck disposal at nine places for proper disposal of muck coming out of the proposed activity. Approval of central govt. was conveyed after having being approved by the SAG and the Ministry vide this office letter no. 8B/UCP/01/59/2008/FC/191, Dt. 02.05.2008. The conditions stipulated by the Govt. of India are being complied in this case. However, since the user agency has paid the cost of CA, NPV, Catchments Area Treatment plan and for other plantation, which has been deposited in CAMPA, the works have not been taken up as yet. As and when the CAMPA fund is released, the conditions of plantation etc. will be taken up in the proposed site. As informed by the DFO, Wildlife Division the fauna is not being affected by the proposed activity. Whereas the vegetation lost are not more than the trees proposed for felling.

3.3 SINGOLI- BHAWARI HYDRO POWER PROJECT

3.3.1 Status of compliance to Specific Environmental Conditions The project was considered by the Expert Committee for River Valley & Hydroelectric projects in the meeting held on 19.7.2007. The Environmental clearance for this project was granted by MoEF on 24.8.2007. A copy of environmental clearances is provided at Annexure-IX. To confirm the status of compliance to the environmental conditions, the project authority is required to submit the six monthly compliance reports to the Regional Office, Lucknow. However, the same has not been provided by the project authority till the visit is completed. The observation on status of compliance to some of specific conditions of the Environmental Clearances granted by MoEF is given below;

Catchment Area Treatment (CAT) Plan

Out of 3018.79 ha of catchment area, degraded catchment area has been identified based on silt yield index (SYI) method of All India Soil Survey and land use. A detailed biological & engineering treatment measure in the catchment area has been proposed covering afforestation in 204.38 ha; regeneration of existing forest in 177.10 ha; pasture development in 134.72 ha and NTFP generation in 40 ha. Besides this crate wires in 358.95 ha and Bench terracing in 1513 ha would be developed under the Engineering measures.

The state forest department has prepared a CAT plan and the cost amount deposited by project proponent with the state forest department for the work of CAT plan. The work will start after release of funds from CAMPA.

Rehabilitation and compensation to affected families

The project does not involve any displacement of people. However a total of 112 families are likely to be affected due to this project. It is gathered that a detailed R & R Plan has been prepared by project authority in consultation with Government of Uttarakhand however; status of implementation could not be ascertained in absence of report by the project authority. District Administration informed that compensation has been provided to affected families.

Release of 10% of minimum flow during lean season

As per the stipulated condition, the project authority needs to develop adequate arrangements for ensuring the minimum flow in the river. Since the work for construction of dam is at the initial stage, therefore, condition cannot be verified. On discussion the project authority has informed that arrangement would be made in the dam site to ensure release of the minimum flow in the river.

Safeguard to protect vegetation, slope failure due to road construction

During visit few stretches of river bank were found to be provided with arrangement of slope stability. Certain area near dam site where approach road is under constructed, weak arrangements for slope stabilization was noticed.

Treatment of suspended solid generated in Stone Crusher

The construction activities would require a crusher to crumble large lump of rocks to the requisite size for coarse as well as fine aggregate. The effluent generated from the crusher will have high suspended solids. The effluent needs to be treated before disposal. Settling tank of appropriate size for treatment of effluent from crushers has to be provided by the project authority. One settling tank was also seen operational at Adit-1. On discussion it revealed that one settling tank is proposed for construction near Adit-2 where stone crusher is installed. Hence, this condition is being complied.

Safeguard for muck disposal

Total 9 sites for muck disposal have been identified and accordingly Plan is to be prepared for disposal at these sites. Large quantity of muck is likely to be generated due to excavation. The exact quantity, however, was not reported by the project authority during the visit. As per the Plan, consolidation and compilation of the muck is to be carried-out in the muck dumping sites and the dumping sites should be above high flood level. The muck so generated is proposed to be utilized during construction & back filling and the balance muck is to be placed in a series of terraces of boulder/crate wall and masonry wall to protect from flood water during monsoon. These arrangements were seen near Adit1 but at few areas near dam

site, proper stabilization measures need to be provided by project authority. The completed/filled up sites are also need to be covered with proper stabilization measures with Geo-textile cover after reclamation.

Other major conditions such as fulfilment of commitments to Public Hearing, Noise reduction measures, constitution of Monitoring for R & R, etc. could not be ascertained in absence detailed compliance report, which is not submitted by the project authority.

3.3.2 Status of compliance to Specific Forest conditions

The second proposal was for Diversion of 34.341 ha. of forest land for construction of Singholi-Bhatwari Hydel Project to L & T Uttaranchal Hydro Power Pvt. Ltd. on lease for 30 years in Distt. Rudraprayag was submitted by the State Govt. vide their letter no. 2420/1G-2161, dt. 25.02.2008, for approval of central govt. under FC Act. The entire forest land acquired in this project is civil soyam land which is having status of protected forest under the control of revenue department. 3.877 ha. of private land is also involved in the project.

The project site is located between Kund Chetti Village- Singholi & Bedu Bragar in Tehsil- Okhimat in Rudraprayag. The break of land required for different activities are as follows.

		Forest	Non forest
1.	For construction activity (Barriage, Power House and Residence)	2.864 ha.	0.131 ha.
2.	Under ground works	5.640 ha.	
3. 4.	Approach Road Submergence Area	3.505 ha. 7.760 ha.	-
5.	Muck Disposal Area	10.962 ha.	2.493 ha.
6.	Miscellaneous	3.610 ha.	1.253 ha.
	Total	34.341 ha.	3.877 ha.

The total tree felling involved is 2158 for different activities which come to 62 trees per hectare. The area is not a part of wild life sanctuary or national park. All 9 concerned gram panchayat have given that consent for taking up the proposed activity by L&T. Geological report furnished also approved the project subject to certain condition which the user agency has agreed to abide by. The CA is proposed in 68.70 ha. in civil soyam land for which the user agency has paid the required money alongwith the NPV, Catchment Area Treatment Plant as required under FC Act. The user agency has also given the plan for muck disposal at nine places for proper disposal of muck coming out of the proposed activity. Approval of central govt. was conveyed after having being approved by the SAG and the Ministry vide this office letter no. 8B/UCP/01/53/2008/FC/1158, Dt. 16.01.2009. The conditions stipulated by the Govt. of India are being complied in this case. However, since the user agency has paid the cost of CA, NPV, Catchments Area Treatment plan and for other plantation, which has been deposited in CAMPA, the works have not been taken up as yet. As and when the CAMPA fund is released, the conditions of plantation etc. will be taken up in the proposed site. As informed by the DFO, Wildlife Division the fauna is not being affected by the proposed activity. Whereas the vegetation lost are not more than the trees proposed for felling.

4.0 SUGGESTIVE MITIGATION MEASURES

The issues covered in the complaints in the two ongoing hydro electric projects are; loss of vegetation, unauthorized tree cutting, negative impact of blasting in construction of tunnels, pollution of noise and air, threat to wild life, loss of florafauna in aquatic system, impact to water resources, etc. Team has examined these issues to the possible extent in light of environment and forest clearances granted by MoEF. The status of compliance of conditions stipulated in Environmental and Forests Clearance has already been explained in the chapter 3. Based on the field visit and interaction with local people, complainant, project authority and district administration, it is felt that additional safeguard with proper monitoring & supervision would help in protecting environment in these project area. Therefore, in addition to existing conditions as stipulated in the Environmental Clearance granted by the Ministry of Environment & Forests for Phata-Byung and Singoli-Bhatwari projects, the following suggestions are proposed for incorporation:

- 1) Total six hydro power projects (capacity more than 25 MW) are proposed to be constructed on river Mandakini. The Environmental and Forest clearances for two projects under discussion have been granted by MoEF. These clearances were granted in isolation manner i.e. individual project-wise. However, the cumulative impact hydro electric projects proposed at the upstream and downstream of these projects needs to be assessed in totality rather than in isolation. Therefore, while considering the new projects on the Mandakini River, environment and forests impact assessment should be examined in totality by the Expert Appraisal Committee.
- Regarding release of minimum flow into the river, it is observed that only Singoli-Bhatwari hydro electric project has been instructed to release 10% of minimum flow during the lean season while the project at its upstream i.e. Phata-Byung, no such provision is made in the Environmental Clearance (EC). Minimum flow in the river is essential to maintain the ecology and flora & fauna in aquatic life. Therefore, in order to ensure that river must flow in its natural condition at the stretch of about 15 Km, it is suggested that a provision

- of 10% of minimum flow during lean season should be provided for Phata-Byung project.
- 3) Since both projects are located close to each other, a definite quantity of flow as estimated in EC for Singoli-Bhatwari project i.e. 10% of minimum flow should be released by both projects on the basis of discharge available during the lean season. As per the discharge data of CWC (during the year 1995-2005), at dam site of Phata-Byung project, the average minimum flow in lean season (December- March) in the river is 4.97 cumec, accordingly about 0.49 cumec (17.29 cusec) of water should be released by Phata-Byung Project Authority. Similarly, as per the discharge data available at dam site, the Singoli-Bhatwari project have to release higher value up to 1.40 cumec (49.42 cusec), as few streams are contributing flow in between these project. This will ensure natural flow of water in the river Mandakini during lean season in total stretch of about 35 Km fall within these two projects.
- 4) The excavated material at both the project sites is being dumped at designated muck disposal sites by providing retaining structures (Gabions). However, at certain stretches, muck was not adequately stabilized. Since these disposal sites are located in close vicinity of the Mandakini River, the retaining / protective measures need to be strengthened to mitigate the spillage of excavated material, in case any eventuality including flash flood / heavy flow.
- In this regard, it is suggested that the reclamation work should commence as soon as the dumping of excavated material at muck disposal sites is over. All muck disposal sites were found uncover in the projects site. In this context, progressive reclamation from muck disposal sites needs to be carried out, wherever feasible. The reclamation should be carried out systematically and scientific manner using Geo-textile and plantation of suitable native species to prevent erosion / surface run-off and stabilization of reclaimed area. A detailed time bound reclamation plan in this context should be submitted and implemented.

- Regarding the issue pertaining to the perennial source of water feeding to village, it was apprehended by the local people that water sources have dried-up as result of tunnelling. In this context, immediate need is to provide alternate water supply by the project authorities to the affected areas in consultation with the local administration and concerned department. Further high density forests may be developed in these areas in consultation with the forest department. This would help in restoration of water resources as a long term measure.
- Regarding air pollution at the sites, daily monitoring of both stack and ambient air quality needs to be ensured as per frequency prescribed under Ambient Air Quality Standards (AAQS). Air emissions from the crusher, DG sets and other sources need to be controlled effectively to meet the prescribed standards. Monthly report with statistical interpretation in this regard may be submitted to the concerned pollution control Board.
- Mitigating measures including regular sprinkling of water needs to be taken to control fugitive emissions from movement of vehicles, road construction and other activities during construction phase.
- The multi disciplinary committees to oversee the effective implementation of suggested safeguard measures should be constituted for both projects. It should meet on a six monthly basis to monitor the compliance of stipulated environmental conditions. The minutes of the meetings of these committees should be submitted by project authorities along with six monthly compliance report to concerned regulatory agencies.
- 10) It is suggested that a sub group of Expert Appraisal Committee should periodically undertake site visits (six monthly) to see the implementation of the stipulated conditions and environmental safeguards measures during the construction phase of the project, which may besides overseeing the implementation of these conditions may also suggest mid course correction, if any, required in the project.

The above suggested measures need to be reviewed / examined by the Expert Appraisal Committee for River Valley Project of the Ministry before taking any final decision.

5.0 CONCLUSION & RECOMMENDATIONS

The Phata-Byung and Singoli-Bhatwari hydro power projects which are the subject matter of this report are Run of the River (RoR) projects on the river Mandakini. The series of RoR projects proposed/under construction are an example of cascade development.

Electrical energy produced from the water resource is considered to be the clean power as it is non- polluting and renewable in nature. The generation of electrical energy from thermal and nuclear resources invariably poses many challenges on environmental front due to emission of green- house gases and susceptibility of nuclear plants for harmful nuclear radiations due to technical and man made mistakes. In RoR schemes, water is diverted for generation of power without any provision for storage. Some schemes may provide diurnal storage, i.e., storage for a day to enable generation of power to meet the peak energy demand. Submergence is thus minimal obviating the need for large scale relocation of people, an advantage over storage schemes. The impact to the environment could be detrimental, particularly in absence of release of minimum flow in the river for maintaining ecology and flora and fauna in the aquatic system.

In pursuance to the representation made by complainant to Hon'ble Minister, various issues associated with Phata-Byung and Singoli-Bhatwari hydro power projects has been examined in the background of environmental and forests clearances granted to these projects. Views of complainant and local people have also ascertained during the visit. Divergent opinions were expressed regarding the construction of the proposed projects on river Mandakini. Most of the participants were of the view that the project, where most of works were completed, has helped in creation of significant direct and indirect employment opportunities for the local people. In case the project is discontinued the local population will be deprived of these benefits. However, the complainant without much support to team was adamant in scraping the hydro electric projects, referring the projects on river Bhagirathi. The complainant and some other activist were not courteous to share with the solution to short terms problems arisen in the project. The complainant in

the compliant has raised several issues with regard to these two projects. The parawise comments/observations to the issues is placed **Annexure- I-A.**

The proposals have been initiated by the State Govt. which after proper assessment have been accorded approval by the Ministry under the EPA and FCA. Fairly large portion of the works have already been taken up in the two projects and at this stage it may not be worth while to abandon the project. However certain remedial measures as proposed in chapter -IV should be taken up to mitigate the damage if any caused to the environment and local villagers.

The Phata-Byung hydro power project has been under construction since October, 2008 and 35% of overall physical progress is achieved. While Singoli-Bhatwari project which is under construction since November 2009 has attained 10% of overall physical progress till May 2010. Taking into account of the field visit and interaction with local people, complainant, project authority and district administration, it is felt that additional safeguard with proper monitoring & supervision would help in protecting environment in these project area. Therefore, in addition to existing conditions as stipulated in the Environmental Clearance granted by the Ministry of Environment & Forests for Phata-Byung and Singoli-Bhatwari projects, the following suggestions are proposed for incorporation;

- To ensure that river must flow in its natural condition at the stretch of about 15 Km, a provision of 10% of minimum flow during lean season should be provided for both the project. A proper display of water flow from the dam site into the river Mandakini should be put in place and discharge value is accessible to public for both the projects.
- 2. Since both projects are located close to each other, a definite quantity of flow as estimated in EC for Singoli-Bhatwari project i.e. 10% of minimum flow should be released by both projects on the basis of discharge available during the lean season. As per the discharge data of CWC (during the year 1995-2005), at dam site of Phata-Byung project, the average minimum flow in lean season (December- March) in the river is 4.97 cumec, accordingly about 0.49 cumec (17.29 cusec) of water should be released by Phata-Byung Project Authority. Similarly, as per the discharge data available at dam site,

the Singoli-Bhatwari project have to release higher value up to 1.40 cumec (49.42 cusec), as few streams are contributing flow in between these project. This will ensure natural flow of water in the river Mandakini during lean season in total stretch of about 35 Km fall within these two projects.

- Since muck disposal sites are located in close vicinity of the Mandakini River, the retaining / protective measures need to be strengthened to mitigate the spillage of excavated material, in case any eventuality including flash flood / heavy flow.
- 4. In this regard, the reclamation work should commence as soon as the dumping of excavated material at muck disposal sites is over. The reclamation should be carried out systematically and scientific manner using Geo-textile and plantation of suitable native species to prevent erosion / surface run-off and stabilization of reclaimed area. A detailed time bound reclamation plan in this context should be submitted and implemented.
- 5. After the completion of the projects the vacant land available shall be used for plantation wherever possible at the cost of user agency. This plantation should be in addition to the afforestation proposed in the conditions stipulated in the forest clearances under FCA.
- 6. Regarding the issue pertaining to the perennial source of water feeding to village, the immediate need is to provide alternate water supply by the project authorities to the affected areas in consultation with the local administration and concerned department. Further high density forests may be developed in these areas in consultation with the forest department. This would help in restoration of water resources as a long term measure.
- 7. The State Govt. should take initiative in getting the fund from CAMPA and ensure the plantation activities proposed and strict implementation of CAT plan in the two projects.
- 8. Regarding air pollution at the sites, daily monitoring of both stack and ambient air quality needs to be ensured as per frequency prescribed under Ambient Air Quality Standards (AAQS). Air emissions from the crusher, DG sets and other sources need to be controlled effectively to meet the prescribed

standards. Monthly report with statistical interpretation in this regard may be submitted to the concerned pollution control Board.

 Mitigating measures including regular sprinkling of water needs to be taken to control fugitive emissions from movement of vehicles, road construction and other activities during construction phase.

10. Project authorities should have more interaction with the people and wherever possible the justified demand of people, for the support activities should be provided to the people in consultation with the district administration.

11. Environmental impact assessments of individual hydro electric projects on river Mandakini have been made on a standalone basis. In view of the fact that a series of hydro electric projects are planned/under implementation, the new projects on the Mandakini River should be examined in totality for environment and forests impact assessment by the Expert Appraisal Committee.

12. The multi disciplinary committees to oversee the effective implementation of suggested safeguard measures should be constituted for both projects. It should meet on a six monthly basis to monitor the compliance of stipulated environmental conditions. The minutes of the meetings of these committees should be submitted by project authorities along with six monthly compliance report to concerned regulatory agencies.

13.A sub group of Expert Appraisal Committee should periodically undertake site visits (six monthly) to see the implementation of the stipulated conditions and environmental safeguards measures during the construction phase of the project, which may besides overseeing the implementation of these conditions may also suggest mid course correction, if any, required in the project.

(L.K. Bokolia)

Joint Director

Chief Conservator of Forests

National River Conservation Directorate Regional Office (Central), Lucknow

ANNEXURES

No. J-12011/64/2007-IA.

Government of India

Ministry of Environment and Fores

IA.I Division

Paryavaran Bhawan CGO Complex, Lodhi Road

New Delhi -110 003 Telefax: 2436 2827

BY SPEED POST

Dated: 3rd May, 2010

Shri Azam Zaidi Chief Conservator of Forests (C) Regional Office Kendriya Bhawan, 5th Floor, Sector -H, Aliganj Lucknow -226 024

Subject:

Phata-Byung Hydro Electric Project of Lanco and Singoli-Bhatwari Hydro Electric Project of L&T Uttaranchal Hydro Power Ltd. in

Sir.

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The undersigned is directed to inform you that a delegation led by Shrimati Brinda Karat met the MEF on 28th April, 2010 and requested to stop these projects from implementation due to haphazard development in the region. The copy of the representation submitted to MEF is enclosed herewith. The Hon'ble MEF has desired that an inspecting team consisting of CCF, Lucknow and representative of National River Conservation Directorate of MoEF should visit the site for on the spot inspection for ensuring compliance of conditions stipulated in the environment clearance letter and submit the report by 10th June, 2010.

Yours faithfully,

(Dr. S. Bhowmik) Additional Director

Copy to:

Shri L.K. Bokolia Joint Director NRCD, MoEF

.............. Nominated by NRCD for inspection along with Regional Office, Lucknow. As such you are requested to be in touch with CCF, Lucknow for the inspection.

From:-

Kedar Ghati Vachao Sangharsh Samiti District Rudraprayag.

Handred ever i

To,
Shri. Jai Ram Ramesh
Hon'ble Union Minister of State
For Environment and Forest (Independent Charge)
Paryavaran Bhawan Lodhi Road,
New Delhi-110013

Subject: To stop Hydro- Electric Projects through tunnel Process on River Mandakini in Kedarnat Valley in Rudraprayag district (Uttarakhand)

Dear Sir,

With respect we people belong to the above mention area hopefully urge you to drown your intention to the following problems: that the people are not willing to accept the construction of any hydropower project on River Mandakini. We give below the problems which the people are facing. These problems have arisen because of violations of various laws by the developers. We submit that these problems cannot be mitigated and the only solution if for the projects to be stopped forthwith

- 1. The project was required to ensure that no adverse impact on vegetation and livestock will take place (condition 6 of Forest Clearance dated 16.01.2009) The dust and noise during is making the livestock and wildlife to flee from the area. Disposal of muck in river yields and growth of plants. Small plants are being covered with muck.

 2. A huge negative impact on water many that a plants are being covered with muck.
- 2. A huge negative impact on water resources, "according central water commission water discharge of river Mandakini was 35 to 50 qc per minute before 5 years and this remain cremation grounds is taking place. Groundwater sources are getting dry because of tunneling. This is in violation of National Rehabilitation and Resettlement Policy. Pact 4.2.2.
- These projects are imposing huge cost on the nation through various environmental impacts. Deterioration in the quality of water due to deprivation of contact with sun and air; (3) Deterioration in quality of air due to methane emissions from the reservoirs: (4) Harm to biodiversity due to submergence of forests and drying of riverer bed; (5) Loss of minor forest sugnation of water in the barrage: (8) Reduction in aesthetic and spiritual value of river show that these projects are harmful for Uttarakhand and the nation and are only providing the affected people under National Rehabilitation and resettlement Policy Para 1.3. This has impacts have not been disclosed to the affected people as required under the Environment Protection Act.
 - Developers are cutting forests—without approval of Van Panchayats and—even more trees as permission given by the Govt, for example in Fata Byung project the Lanco Hydro Pvt.Ltd govt, of India letter no.8B/U-C-P/06/248/2007/F0C0/928 date 125.09.2007 and Ministry of

Environemt and Forest Govt. of Uttarakhand letter No. G.I./56/7-1-2007-300(928)/2007 Van and Paryavaran Department Dehradun dated 29 Oct. 2007 but developers company cuts lakhs of trees in whole area not only this but developers company disposses without taking any lawful process and giving any compensation to them.

Van Panchayats. The loss of forest can't be mitigated.

Local people are being put to loss due to non-availability of sant and fish from the river. This

N.O.C. from Gram Pradhan has been obtained fraudulently without holding Gram Sabha

hence the Forest Clearance is illegal.

Rights of local people during felling of trees has not been protected (in violation of Condition 9 of Forest Clearance dated . (16.01.2009.

Agricultural land includes land used for grazing and loss of the same can not be compensated.

This is wiolation of National Rehabilitation and resettlement Policy Para 3.1(e)

Explosives are being used leading to cracks in houses in so many villages. Houses in the entire valley are shaking due to excessive use of explosive to reduce cost. This is violation of 9. 🍃

No plan is made for the closing of tunnels after useful life of 30 years. This will become a danger for the area after that time. The impact of project in Seismic Zone 5 has not been 10.

There are more berign alternatives for generation of hydropower which do not require taken into account. making of barrage and tunnel. An open canal can be made instead of a tunnel. A partial obstruction of the river can be made instead of a barrage. Such alternative will drastically <u>J</u>1. reduce the negative environmental impact of the project. The developers are required to examine alternaives to minimize displacement (National Rehabilitation and Resettlement Policy Para 1.4.2 (a) 4.2.1.5.5.(i) the developers have not considered these benign alternatives.

Labour laws are not being followed by the developers.

The people of the area have resolved not to allow construction of these projects 'which are being made in violation of law. We request you, as custodian of law and people welfare and 12. the authority responsible for implementation of these laws and order.

(a.) Please stop Byung-Phata, Singoli-Bhatwari and other projects, which are being started as proposed in Mandakini River or Mandakini Valley immediately.

(b)Please set-up a high level enquiry about all illegal work done by the developers.

With regards and Thanks.

Yours Truly

(Gangadhar Nautiyal)

President.

Date 28.04.2010

Kedarghati Bachao Sangharsh Samiti Janpad Rudraprayag (Uttrakhand)

The president of Kedar Ghati Bachav Sangarsh Sameeti Shri. Ganga Dhar Nautiyal in his complaint addressed to Hon'ble Minister for Environment and Forests cited the various issues related to hydro power projects, which have been verified in the field and accordingly point-wise observations pertaining to MoEF are:

1. The project was required to ensure that no adverse impact on vegetation and livestock will take place (condition 6 of Forest Clearance dated 16.01.2009). the dust and noise during blasting is making the livestock and wildlife to flee from the area. Disposal of muck in river is killing many yields and growth of plants. Small plants are being covered with muck.

Observation - In all the cases of forest land diversion under FCA a general condition is imposed that during the construction activity the project authority shall ensure that no damage is caused to the fauna and flora of area. In these project also these conditions were imposed. The DFO Kedarnath was also present given the inspection who has informed that as such no damage has been caused to the animals in the Kedarnath Wildlife Sanctuary which is on an average is 2 km. away from the nearest project site. There is no migration of wild life from the area as per his information. However, there is always some disturbance being caused to the animal on account of noise and dust caused during the construction activity particularly during the blasting for making roads and tunnels. There is no report of killing of many species of fish. With the construction of dam the fishes are more or less confine in the submergence area. The dust deposition on trees and plants are the common things seen in the construction site which is not much of relevance as the plants are being cleaned regularly with wind blow and rain fall which is a common phenomenon. For every damage of tree the account is being given in the proposal for which approval has been granted. However, the small herbs and shrubs are not been accounted which are being damage during the muck disposal. Once the muck is stabilised the small plants may come up along with the plantation being carried out.

 A huge negative impact on water resources, "according central water commission water discharge of river Mandakini was 35 to 50 qc per minute before 5 years and this remain cremation grounds is taking place. With regard to aesthetic and epidemic is concerned, adequate arrangements to slope stabilization alongwith plantation shall be carried out as per the clearances granted to MoEF and sign of epidemic may not arise as no major storage is being done for the longer period. Plan for biodiversity is being prepared and implemented to protect the environment.

4. Developers are cutting forests without approval of Van Panchayats and even more trees as permission given by the Govt. for example in Fata Byung project the Lanco Hydro Pvt. Ltd. got lease of 4.921 ha land and only 1790 trees by Ministry of Environment and Forest, Govt. of India letter no. 8B/UCP/06/248/2007/FC, Dt. 25.09.2007 and the Ministry of Environment and Forest Govt. of Uttarakhand letter No. G.I./56/7-1-2007-300(928)/2007 Van and Paryavaran Department Dehradun dated 29.10.2007 but developers company cuts lakhs of trees in whole area not only this but developers company disposes without taking any law full process and giving any compensation to them. Compensation has not been paid to Van Panchayats. The loss of forest can't be mitigated.

Observation- As per the information furnished in the three proposals as well as informed by the forest officers in the field the total tree felling involved in these three projects are -

a. Construction of road - 1710

b. Phata-Byung HEP - 793

c. Singoli- Bhatwari HEP - 2158

As per procedure follows the tree felling what so ever involved is being carried out by Uttarakhand Forest Corporation. The marking of trees are being carried out by the territorial forest divisions staff and after marking the area is being handed over to the forest corporation for felling of mark trees. Apparently in phata-byung in the area diverted for road construction of 4.921 ha. 1710 trees but as informed by the project authorities less than 1500 trees have been felt by the forest corporation and wherever possible where felling could be avoided trees have been saved from felling. At no place any excess felling was noticed in the field therefore it is most unlikely that large number of trees as mentioned in the complaint has been felled.

However, in case of Singoli- Bhatwari HEP some lapses have been noticed at Bedu bagad plantation where 424 trees of miscellaneous was

blasting and about 300 kg/day of emulsion (explosive) is being used. Similarly Singoli-Bhatwari project about 800 Kg per day of explosive is used. Both projects are covering controlled methods of blasting in consultation with the district administration.

No plan is made for the closing of tunnels after useful life of 30 years. This
will become a danger for the area after the time. The impact of project in
Seismic Zone 5 has not been taken into account

Observation-Project has been designed and implemented based on detailed Engineering design. As per the design, provisions have also been made for stabilization of tunnels in the event of completing the design period.

10. There are more alternatives for generation of hydropower which do not required making of barrage and tunnel. An open canal can be made instead of a tunnel. A partial obstruction of the river can be made instead of a barrage. Such alternative will drastically reduce to negative environmental impact of the project. The developers are required to examine alternatives to minimize displacement (National Rehabilitation and Resettlement Policy Para 1.4.2 (a) 4.2.1.5.5 (i) the developers have not considered these benign alternatives.

Observation- The above proposal needs to provide scientific base with Engineering calculation that suggested technology is serving the purpose of power generation and has no impact on environment.

Salient features of Phata-Byung HEP

District Tehsil River 2. HYDROLOGY Catchment Area (up to Dam site)

1. LOCATION

Snow Bound Catchment Area 1 in 50 year flood
3. RIVER DIVERSION
Diversion arrangement
Diversion discharge

4. DAM Full Reservoir Level (FRL) Minimum Draw down Level Deepest River Bed level

Height of Dam 5. INTAKE Type No. of Intakes

Design Discharge 6. DESILTING BASIN (Chamber) Ño.

Size Partial Size to be Removed Flow through velocity (max)

Size of Gate No. of Gates

Design Discharge 7. H.R.T. Length Diameter

Design Discharge Shape

Velocity

Туре

8. SURGE SHAFT

Diameter Max Upsurge level

C/L of water conductor at surge shaft Top elevation of surge shaft

9. PRESSURE SHAFT Main

Diameter Length

10. POWER HOUSE Location Type

Size Type of Turbine Generating Units Max Gross Head Rated net Head C.L. of Turbine

Tail water level **Draft Tubes Gates** Transformer Type of Switchyards

11. TRT Type

Shape 12. POWER GENERATION
Installed capacity

Annual energy generation in 90% dependable year 340 GWh

13, CONSTRUCTION PERIOD 3&1/2 Years

14. FINANCIAL ASPECTS
Sale rate of Power at Power House

Uttarakhand Rudraprayag Okhimath M andakini

247.98 sqkm 2,605.94 ha 1106 cumec

D-shaped tunnels 150 cumec

1635m 1625m 1637m 1611m 28m

Vertical straight 02 12.5 cumec

B2 140m (L), 9m (W), 11.5m (D) 0.15 mm & above 0.137 m/sec D/S 2.5m x 1.24m 1 for each Desilting Chamber

11.267 cumec for each basin

9.38km 3.6m 20.8 cumec

Modified horse Shoe 2.64 m/sec

Restricted ORIFICE type

6m 1667.7m 1596m 1670m

> Steel Lined 2.5m & 1.75m 662.25m

Byung Village Underground

45.4m (L), 14.4m (H), 33.4m (H) Francis

02 442.5m 414.5m 1190 1192.5 2 Nos. 2 Nos. GIS

Underground Tunnel

3.5m Dia

2x38MW

Rs. 3.00/kWh

SINGOLI-BHATWARI HEP (3 X 33 MW)

SALIENT FEATURES

LOCATION

State : Uttaranchal

District : Rudraprayag

Tehsil : Okhimath

Nearest Rail head : Rishikesh

Nearest Airport : Dehradun

River : Mandakini

Diversion site

Longitude : 79°05`22``E

Latitude : 30°30'17''N

Location : Kund Village

Power house site

Longitude : 79°02`58.2``E

Latitude : 30°24`39.2``N

Location :Phalai Village

HYDROLOGY

Catchment area(upto Barrage) : 963.2 Sq. Km

Design flood

: 4684 Cumec

RESERVOIR

Gross Storage at FRL

: 0.701 Mm³

Live storage

: 0.495 Mm³

Length of submergence

: 1250 m

DESILTING BASIN

No., Type & Size of desilting chamber

: 3 bay, Dufour type, 10mx14.0mx105 m

Particle Size to be removed

: 0.2 mm and above

Flow through velocity (max)

: 0.3 m/sec

Flushing velocity

: 5 m/sec

Size of Desilting Basin Intake Stoplogs

: 9.5m x 10.0 m

No.of Stop logs at Intake

: 3 sets

Size of Desilting Basin Exit Stoplogs

: 9.5m x 10.0 m (1 set)

Design Discharge

: 59.6 Cumec + 10 % Flushing

Trash rack

: 3 bays of 9.5m x 10.5m

POWER INTAKE

Туре

: Vertical Intake

No of intakes

: 1

Design Discharge

: 59.6 Cumec

Invert level

: 999.5 m

Intake gate

: 4.3 x 4.65 m

Main

: 1 No

Туре

: Circular, Steel lined

Diameter & length

: 3.80 m, 358m

Branch Pipe

: 3 Nos

Туре

: Circular, Steel lined

Diameter

: 2.20 m

Length

: 42 m (Middle)

: 34m & 48m (Side Branches)

Type & thickness of steel liner

: ASTM -537 Class-II, 16 mm to 32 mm

POWER HOUSE

Location

: Right Bank of River Mandakini

Type

: Surface

Size

: 79 m x 19.5 m x 37.5 m

Type of Turbines

: Vertical Francis

Generating Units

: 3 x 33 MW

Maximum Gross Head

: 214.23 m

Net Head

: 188.17 m

C.L of turbine

: 798.370 m

Minimum tail water level

: 802.770 m

Maximum tail water level

: 809.500 m

Draft tube gates

: 3 nos 4.65 m x 2.75 m

Transformer

: Out door, 42 MVA,11 / 229 kV 3ϕ ,

प्रभागीय वनाधिकारी रूद्रप्रयाग के कार्यालय में दिनांक 30.05.2010 को जनपद रूद्रप्रयाग के अर्न्तगत निर्माणाधीन फाटा—व्यूंग जल विद्युत परियोजना तथा सिंगोली भटवाड़ी जल विद्युत परियोजना में

अनियमितताओं के िकायत के निरीक्षण के उपरान्त बैठक का कार्यवृत्त

आज दिनांक 30.05.2010 को श्री आजम जैदी, मुख्य वन संरक्षक (केन्द्रीय) भारत सरकार, पर्यावरण एवं वन मंत्रालय क्षेत्रीय कार्यालय लखनऊ की अध्यक्षता में जनपद रूद्रप्रयाग के अन्तर्गत निर्माणाधीन फाटा व्यूंग जल विधुत परियोजना तथा सिंगोली—भटवाडी जल विधुत परियोजना के रथलीय निरीक्षण के उपरान्त अनियमितताओं की िकायत पर निम्न िकायतकर्ता एवं निम्न उच्च अधिकारियों के साथ विचार विम िरूद्रप्रयाग वन प्रभाग के कार्यालय कक्ष में किया गया। जिसके विन्दुवार आख्या निम्न प्रकार से हैं :—

सर्वप्रथम भारत सरकार से आये हुए मुख्य वन संरक्षक (केन्द्रीय) द्वारा उप जिलाधिकारी से विधुत परियोजना के सम्बन्ध में प्र न पूछे गये कि उक्त क्षेत्रों में दरार कैसे आयी? एस०डी०एम० द्वारा अपने उत्तर में दिया गया कि बांध प्रभावित क्षेत्रों में ब्लास्ट की वजह से दरार आ रही है तथा इस सम्बन्ध में लो०नि०वि० के वि शिज्ञ ही दरारों की वजह बता सकते हैं।

उपजिलाधिकारी द्वारा बताया गया कि कम्पनीयों के पास रोजगार की कोई नीती नहीं है तथा ये मनमाने तरीके बिना मानक के आधार पर एक ही गांव के कुछ लोंगो को रोजगार दे रहें हैं जिससे कि गांव वाले आपस में लड़ रहे हैं।

कितने लोगों को मुआवजा दिया गया? उपजिलाधिकारी द्वारा बताया गया कि कुछ लोगों को सीधे ही मुआवजा दिया गया तथा कुछ लोंगों का राजस्व विभाग द्वारा मुआवजा देने की कार्यवाही की गयी।

श्री लक्ष्मण सिंह भण्डारी ग्राम डमार पो० भीरी जनपद रूद्रप्रयाग द्वारा बताया गया कि निर्माणाधीन कम्पनी द्वारा जो विस्फोट किये जा रहें हैं उनसे जल स्रोत बहुत नीचे बैठ गये हैं। पहले आप उन स्थानों का सर्वेक्षण कराये। निर्माणाधीन कम्पनियों द्वारा रात के 12:00 बजे ब्लास्ट किये जाते हैं जिससे कि ग्रामीणों को रात्रि में घर छोड़ने हेतु विव ा होना पड़ता है।

भारत सरकार के प्रतिनिधी द्वारा श्री लक्ष्मण सिंह भण्डारी से पूछा गया कि जिन घरों में विस्फोट से दरार आयी हैं, क्या उनकी जांच हो गयी है? उत्तर में श्री भण्डारी द्वारा बताया गया कि अभी तक कोई जांच नहीं की गयी है, और न ही कम्पनी द्वारा प्रभावितों को ही कोई मुआवजा दिया गया है।

श्री श्रीधर प्रसाद पुरोहित ग्राम बेलनी रूद्रप्रयाग द्वारा बताया गया कि इन कम्पनीयों के द्वारा अनियमितताके सम्बन्ध में कोई व्यक्ति बोलता है तो वह कहते हैं कि हमारी नौकरी चली जायेगी।

श्रीमती सु ीला भण्डारी ग्राम रायड़ी द्वारा बताया गया कि निर्माणाधीन कम्पनीयों द्वारा पूर्व में गांव के ग्रामीणों को वि वास में नहीं लिया गया। इसमें उपजिलाधिकारी द्वारा बताया गया कि पहले फलई गांव के लोगों द्वारा इस क्षेत्र में विरोध किया गया तथा उनको यह बताया कि आप अपनी न्यायोचित मांगों को ही रखे जो कम्पनी द्वारा पूर्ण की जा सके। कम्पनी द्वारा उनकी न्यायोचित मांग को मान लिया गया है। हमारे सम्बन्ध में ग्रामीणों एवं कम्पनीयों को यही बताया जाता है कि क्षेत्र में भांति व्यवस्था बनी रहे।

श्री गंगाधर नौटियाल एडवोकेट अघ्यक्ष केदारधाटी बचाओ समिति द्वारा उपजिलाधिकारी ऊखीमठ से प्रश्न पूछे गये कि बतायें कि कम्पनी द्वारा विस्फोट रात को किये जाने हेतु कोई नियम हैं ? इसमें उपजिलाधिकारी द्वारा अवगत कराया गया कि मुझे इस सम्बन्ध में कोई जानकारी नहीं है। इस सम्बन्ध में कम्पनी को सख्त निर्देश दिये गये हैं कि यात्रा सीजन में दिन में कोई विस्फोट न किये जाए। आपके द्वारा जो भी कार्य किये जाये वे रात्रि में ही करें।

श्री नौटियाल जी द्वारा दिनांक 17.07.2008 को प्रभागीय वनाधिकारी, रूद्रप्रयाग से सूचना के अधिकार के तहत मांगी गयी सूचना तथा सूचना न मिलने पर अपीलीय अधिकारी वन संरक्षक, गढवाल वृत्त उत्तराखण्ड पौड़ी की प्रति भी भारत सरकार के प्रतिनिधियों को उपलब्ध करायी गयी।

श्री नौटियाल द्वारा बताया गया कि लैंको हाइड्रो प्राइवेट लि0 कम्पनी फाटा द्वारा अवैधानिक तरीके से रात्रि में डायनामाईड विस्फोट दिनांक 15.01.2010 एवं 16.01.2010 को 2:00 बजे निर्माणाधीन कम्पनी द्वारा ग्राम ब्यूंग के पावर हाउस से भाक्ति ॥ली विस्फोट किये गये जिससे कि पूरे इलाके में भयंकर हलचल हुयी। तथा गांव के नीचे जो टनल बन रहें हैं उनके कारण ग्रामीण रात को सो नहीं पा रहे हैं। इसमें मेरे द्वारा जिलाधिकारी एवं उपजिलाधिकारी को िकायतें की गयी, परन्तु उस िकायत में कोई ध्यान नहीं दिया गया। श्री गंगाधर नौटियाल द्वारा िकायत की प्रति भारत सरकार के प्रतिनिधियों को दी गयी।

આંશા નોડિયાન

सवा सचिव लोक विर्माण विभाग, उत्सराखण्ड सरकार



उत्तराखण्ड शासन

विधान भवन, उत्तराखण्ड

कक्ष सं०-14

दूरभाष/फैक्स : 0135 2666952 (का.)

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पत्रांक अमे 2010-11

दिनांक 23/04/2010

उत्तराखण्ड की जल विद्युत परियोजनाओं में जनपद रूद्रप्रयाग की लैको हाईड्रो प्रोजेक्ट फाटा का कार्य निर्माणाधीन है। परियोजना का कार्य सन्तोषजनक रूप से चल रहा है। परियोजना के कार्य से जहां क्षेत्र के बेरोजगारों को रोजगार के अवसर बढे है। वहीं परियोजना द्वारा गावों के छोटे— छोटे विकास कार्यों को भी गति मिली है। परियोजना निर्माण से जहाँ उत्तराखण्ड की सबसे बड़ी समस्या विद्युत की है, वह काफी हद तक सुलभ हो सकेगी।

- यह प्रोजेक्ट जन सुनवाई एंव सभी प्रकार की मंजूरी के उपरान्त ही शुरू किया गया
 था, मेरी जानकारी के अनुसार इस प्रोजेक्ट के कार्य से पर्यावरण को किसी भी
 प्रकार की क्षति नहीं पहुंच रही है।
- यह प्रोजेक्ट प्रदेश व देश के लिए लाभकारी है, क्योंकि यह विद्युत उत्पादन जैसी बुनियादी सुविधाओं के विकास का महत्वपूर्ण क्षेत्र है।
- यह प्रोजेक्ट, प्रोजेक्ट क्षेत्र के कई बेरोजगारों को रोजगार प्रदान कर रहा है।
- लैंको द्वारा कई समाज सेवा की गतिविधियाँ चलाई जा रही है। जैसे छात्रों को युनिफॉम वितरण, चिकित्सा के क्षेत्र में एम्बूलेन्स, क्षेत्र में स्वास्थय शिविर स्थानीय ग्रामीणों की मांग के आधार पर अन्य विकास कार्य संचालित किये जा रहे हैं। मैं कम्पनी के उज्जवल भविष्य की कामना करती हूं।

अशा नौटियाल सभा सचिव/विधायक

काराय जारा हिंदि। ब्रिस्टिंग किया किया किया है। विकास खण्ड ऊखीमठ, जनपद-रुद्रप्रयाग (उत्तराखण्ड) जयन्तीं प्रशाद कूर्माचली ग्राम खड़िया, पोस्ट - फाटा विकास खण्ड ऊखीमठ जनपद-रुद्रप्रयाग (उत्तराखण्ड) 室 01364-265349 Mob.9410593725 पत्रांक..०.४.५.०.७ दिनांक.2.5.5 उत्तराखण्ड की जाल विध्वपरियोजना में फाटा यें प्राजेक्ट ने हम उत्तराव्वण पेपदा मे प्यम राज्य की मांग के समय हम सभी पेपरा की जनता की एक मांग ब्री पहाइ का पार्स की जवारी हम व्यक्ती पृहाइ के काम को रेसी परियोजनाय प्यानरण रावं जो रन आज बीवर दारा बनाये र्द्धी उत्पर्वण्ड वासियो की एक नर्यान-रेसी पिर्नाणना बनने से हमारे पहाड़ी पदरा मिसते विमे निमली हतीर के द्वारा जांबी में विकास की माजगर्य वनाइ या यह है। दात के सहमान के लिये की रूम्बलेन्स् त्यार्था स्वार्थ्य लागके निमें रुक महत्व पूरी मधन है, गानी-एकं नेना की र्यवार्थ स्वयं महिलायों की देगा स्थावरण को दशा कदम दे जाज उत्तरायना के 母初村 वियोजनाम वन्ती अत्यन्त महत्व

तिहाशि वास ततातप खादरी

विकासखण्ड - ऊखीमत्, जनपद - श्रद्धप्रयाग

सुराप्ता हुन्। विकास किन्ना

> व्रधान १५॥ऽ५१३ ी

ग्राम - न्याल पो०ओ० - ग्रमपु

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लेनको हाइड़ा इनमें छोनेका कारा व्यांग के द्वारा जनहित में जो छे लेनकारा जा रहा है पर एक उत्तरास्वण्ड राज्य की अहम हिल है छाए।।।।।।। को अला के पहनान होती।

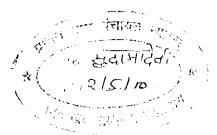
1- कमानी के हारा लहें प्रथम गांव की जांतर। तो विश्वास में लिया।

उनके प्रस्तावों के अनुक्ष गांव के किमाप के कार्य भी विभी मा मेटे हैं

शांम लभा - पालध्र की जानता के प्रस्तावों के अनुक्ष, द्वार मान्दि निर्मा लामि प्राप्त पर आस कारते के लिए पुल निर्माण सीलापूर भरवोगा स्वहः की की माने अपने असि प्रका प्रमावरा। की सुरक्षा हत महिला मांल - पालक्ष को है। नो की दिन दिन हैं दे हैं कार्य मानदेप, कार्य के लिए आने कार्यों की विश्वास कार्यों कार्यों मानदेश की कार्या कार्यों की विश्वास कार्यों कार्यों कार्य कार्यों की विश्वास कार्यों कार्यों मानदेश कार्यों कार्यों कार्य कार्यों के विश्वास कार्यों कार्यों कार्यों के विश्वास कार्यों क

मान स्वामियों के अवन किराये पर साथ ही अन्य विकास योजनारते

अतः हम आशा करते है कि, नम्मते हमारे क्षेत्र के लिए एक लरदान साबत होते। हम भी कम्मती के कार्यों की सराहन। करते हुए कम्मती के कार्यों की छोटसाहित करने का आश्वतासन हेते हैं। में मार्था करता है। के भाष मेरे क्षेत्र, के माह्य में शहतक, नेरोज्ञारीं को रोज्ञार के



लेंबो हारों पानर जो जेर प्राया - जुंग से जहाँ ए और उत्तराखंड निजली होन में अगलनियर नो वहीं ह्यांतीय जनता (वेरोजगारी) ना पलापन राकेगा जहाँ तर में सरपंच वन पंचापत ह्यूँग उत्तीमः जिला - राक्ष्मणण भी नाल कहूँ तो गाँच कम्पनी के लिए जो एगीमेन हो रखा है, पिला कम्पनी उस पर खरी उत्तर रही है, पद्चल की बात करें तो तम्मनी से निजिसी भी प्रकार का के प्राप्ति को तहीं हो रहा है

महामहिम राष्ट्रपति भारत सरकार द्वारा पुरस्कृत निर्मल ग्राम पंचायत-जामू वर्ष 2006-07

उमेन्द्र शिंह श्मोला प्रधान ग्राम पंचायत - जामू विकास खण्ड- उन्सीमठ स्माप्रयाग

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संख्याः...../..../....200

दिनांक. 28/ _______/2040 200

प्रमाणित स्टिया जाता है कि फाय- ट्यूंग जल विद्युत्त परियोजना देने जामीन क्षेत्री का सार्वजनिक विकास लाया कर व्यवस्था तथा क्रामण पर अनेक प्रकार के साम्रह्य कार्यक्रम का कार्योजन किया जाता करा है। दी कार्यक्रम का कार्योजन किया जाता करा है। दी कार्यक्रम कार्यक्रम के है। यह कर्या सन्तायजन है। दी व्यवस्था कार्यक्रम के है। यह कर्या सन्तायजन है। दी व्यवस्था पर रह परियोजना से क्रोर्य असर नहीं पर रह है।



प्रधान ग्राम पंचायत-स्पृत

वि० स्त्र0 ऊस्त्रीमंठ, जन्पद-श्रुप्रयाग (उत्तरास्त्रण्ड)

महामहीत राष्ट्रकार हारा पुरुख्ता

निवास:-

श्रीमती मधुदेवी सेमवाल (प्रधान)

ग्राम-कोरखी, पो०-ब्यूंग **जनपद-रुद्रप्रया**ग (उत्तराखण्ड)

मो0-9456813263

पत्रांक...920/14-29-05-10

1716/-401

दिनांक 29-05-10

प्रधास गाम पंचायत । ज्यान पंचायत ।



भारतीय जनता पार्टी

जिला-रुद्रप्रयाग (उत्तरांचल)

देव प्रकाश सेमवाल (जिलाध्यक्ष किसान मोर्चा)

भा.ज.पा. रुद्वप्रयाग

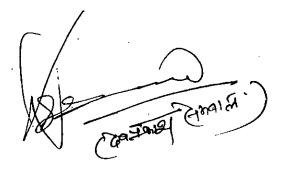
ग्राम-कोरखी, पो० ब्यूंग जनपद-रुद्रप्रयाग मो० ०९४५६८१३२६३

पत्रांक.....

_1016/ -4a

दिनांक 25-97

स्मारा है, कि कर्ता पारा कार्रेश मह स्माणित करिए देना कर समझरा है, कि कर्तुंग पारा जात विद्युत परिमोणना (मेर्के, समझरा होते कर (8) शे. मह' जनहरूत का कार्रिक कर (48) सम्पनी कार्रिक के केरोजागों के राजाणा, मेंगू में जानी की समस्या, रात्में भी व्यमह्या) पुलिमा रिमील, माने रिमील स्माहकम जिन्हां। नहीं जिनाम कार्रिका परिमी में महेल कर्तिक जी कर्ति के समस्या केरी का देही भी में महेल मिना कर्ति कर की में समस्या



वि० ७० अञीनट, जनवन्नद्रप्रयाम (उत्तरादाण्ड)

BOYLON ELLER COMPLETE

ाभती मन्जू देवी (प्रधान) ग्राम-वडासू, घो०-बडासू जनपद-रुद्रप्रयाज (उत्तराखण्ड) फो0--01364--262113

पत्रांग जाना जाना जाना महाप्रवन्धक तीनी हाइड्रो कमानी ट्यूँग (फाटा) विषय- ग्राम सभा खड़ास (स्तीली) की निम्न भागी के विषण में प्रार्थना एत सिंहा में

अहोदय, भाम सभा की जांगे इस प्रकार निवनित्रित हैं।

1- सर्व सहमाव द्वारा घट निर्णय लिया ज्ञाया है कि ज्ञाम सामिति लडास को प्रति परिवार के हिसान से 10 कारन हमये शादी का थुजलन केया

१ ग्रामील नेरोजगारीं की स्यामी रूप से तीकी हाइड्री कम्पनी के अन्हीं जोजगार दिया जांगा

3- ग्रामीन विकास कार्यी की प्राधानिकता दी जाय जी निका है.

। शाम न्हारत भे भैरतनाय जारत मान्देर मा सीन्दरीयमरण

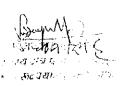
2- गाम दलोली में भैरतनाथ मान्दर का सैनिन्दरीयकरण

5- वारस्वती शिष्टु भाष्ट्र बडास्ट्र(खोली) के लिये कम रे! कम ६ कमरों न अवन निर्माण किया जाय

4- ग्राम सभा रनेनी बड़ास के प्रत्येक परिवार के प्रति वार्कित धन सम्पति का प्रतिनर्ष के हिसान से बोमा किया जाया

नोड- सर्न सहमति द्वारा यह लिया जाया है कि उपरोक्त यांको पर जनते द्वित हुए से अनल न किया यांचा तो समस्त आगीलो द्वाराका लन्द किया जायेगा।

ग्राग मधान तहास्



तार:

Tologram : PARYAVARAN, NEW DELHI

ट्ररमाष:

Telephone: & Fax 2436 2827

टेलेक्स :

Telex : W-66185 DOE IN

FAX: 4380678

भारत सरकार
पर्यावरण एवं वन मंत्रालय
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT & FORESTS
पर्यावरण भवन, सी. जी. ओ. कॉम्प्लेक्स
PARYAVARAN BHAVAN, C.G.O. COMPLEX
सोदी रोड, नई दिस्लो-110003
LODHI ROAD, NEW DELHI-110003

No.J-12011/64/2007-IA-I

18.02.2008

Shri T. C. Upreti Executive Director Lanco Hydro Energies Pvt. Ltd. Plot No.229, Phase-I Udyog Vihar Gurgaon-122016 Haryana.

Subject – Phata Byung HEP (76 MW)) in Uttaranchal of M/s - Lanco Hydro Energies Pvt. Ltd Environment Clearance regarding.

Sir.

This has reference to your letter No. LHEPL/WIHG/06/51 dated 16.8.2007, and subsequent letters dated, 29.11.2007, 26.12 2007 and 07th February 2008 on the above subject.

The above referred proposal was considered by the Expert Committee for River Valley & Hydroelectric projects at its meeting held on 16.01.2008. The Project is located in Rudraprayag district of Uttarakhand and proposes to harness water of Mandakini River, a major tributary of River Alakhanda to generate 76 MW of hydropower. A 26 meter high concrete gravity dam is proposed at Sitapur village and the power house is underground and located near Byung village. The project is a run of the river scheme serving as a 4 hr peaking station.

The total land requirement is 22.72 ha for the construction of the project. Out of which, about 17.77 ha of land is required for the project components like dam, head race tunnel, surge shaft, power house and switch yard & the balance 4.95 ha land is for the access roads. Out of 17.77 ha land, 16.37 ha, is Forest land/Government and 1.40 ha is private land. The total submergence is 4 ha. There is no displacement of any local population. Chief Wildlife Warden has certified that the project site lie entirely outside of Kedarnath wildlife sanctuary area.

ii. DRSM (ha) Bench terracing (ha) Wc/ Catch-water drains (Rmt)	2.50 4.50 130	1.50 3.00	1.50	2.00 1.00 10.50	
		65	35	20	250

- iii) Commitment made during public hearing should be fulfilled.
- iv) The Biodiversity Conservation & Management plan as proposed vide letter dated 7th February 2008 shall be implemented in totality. Raising medicinal plants should not be limited to nurseries only, They should be planted. The name of medicinal plants raised should be recorded and maintained.
- v) It must be ensured that the land identified for solid waste disposal is not common land in use by the local people for grazing or any other activity, or in an area which is close to a water source, or part of a river catchment. This site may be selected in consultation with the project affected community. Concrete retaining wall of adequate height and strength, considering the probable floods in the river will have to be constructed.
- vi) For conservation & development of migratory fishes a fish farm/hatchery shall be developed, as proposed in the letter dated 07th February 2008
- vii) All the equipments which are likely to generate high noise levels are to be fully mollified (noise reduction measures) as Kedarnath Musk deer sanctuary is
- viii) Clear felling of trees should be restricted 4 m below the FRL and a 50 m wide green belt should be created around the reservoir periphery
- ix) Conservation measures proposed for schedule I animals should be followed in totality.
- x) Environmental clearance is subject to obtaining clearance under Wildlife (Protection) Act. 1972 from the competent authority(if applicable)

Part-B: General Conditions

- (i) Adequate free fuel arrangement should be made for the labour force engaged in the construction work at project cost so that indiscriminate felling of trees is prevented.
- (ii) Fuel depot may be opened at the site to provide the fuel (kerosene/wood/LPG). Medical facilities as well as recreational facilities should also be provided to the labourers.

- State Pollution Control Board / Committee should display a copy of the clearance letter at the Regional Office, District Industries Center and Collector's office/ Tehsildar's office for 30 days.
- The project proponent should advertise within seven days at least in two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned informing that the project has been accorded environmental clearance and copies of clearance letters are available with the State Pollution Control Board / Committee and also at Website of the Ministry of Environment and Forests at http://www.envfor.nic.in

(Dr. S. Bhowmik) Additional Director

Copy to:

- The Secretary, Ministry of Power, Shram Shakti, Bhawan, Rafi Marg. 1. 2.
- The Adviser (Power), Planning Commission, Yojna Bhawan, New Delhi
- Principal Secretary (Irrigation & Power), Government of Uttarakhand 3 4.
- The Secretary, Department of Environment, Government of Utarakhand 5.
- The Chief Engineer, Project Appraisal Directorate, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066. 6.
- The Regional Office, Ministry of Environment & Forests, Lucknow 7 Member
- Secretary uttarakhand State Pollution Control Board. Paryavaran Bhavan, E-115, Nehru Nagar Colony, Hardwar Road. 8.
- El- Division, Ministry of Environment & Forests, New Delhi-110003. 9.

(Dr. S. Bhowmik) Additional Director

भारत सरकार. पर्यावरण एवं वन मन्त्रालय, क्षेत्रीय कार्यालय (मध्य क्षेत्र)

> पंचम तल, केन्द्रीय भवन. सैक्टर एच, अलीगज লঘনজ-226024 टेलीफैक्स--2324025 दिनांकः **३/९/**७ **४**

पत्र सं0 8बी / यू०सी०पी० / 01 / 59 / 2008 / एफ0सी० / 191

सेवा में.

प्रमुख सचिव (वन), उत्तराखण्ड शासन देहरादून ।

विषयः जनपद रूद्रप्रयाग के अन्तर्गत फांटा व्यूंग जल विद्युत परियोजना के निर्माण हेतु 16.37 हे0 वन मूमि का लैन्को हाईड्रो इन्जींज प्राइवेट लि0 को 30 वर्षों की लीज पर दिया जाना।

सन्दर्भः नोडल अधिकारी एवं मुख्य वन संरक्षक, उत्तराखण्ड का पत्रांक 3058/1जी-2188 (रूद्रप्रयाग), दिनॉक 30/04/2008 ।

महोदय,

कृपया उपरोक्त विषय पर नोडल अधिकारी एवं मुख्य वन संरक्षक, उत्तराखण्ड का पत्रांक 2667/1जी–2188 (रूद्रप्रयाग), दिनॉक 24/03/2008 का आशय ग्रहण करने का कष्ट करें, जिसके द्वारा राज्य सरकार ने विषयांकित प्रस्ताव पर वन संरक्षण के अधिनियम 1980 के तहत भारत सरकार की स्वीकृति मांगी है।

प्रश्नगत प्रकरण में इस कार्यालय के समसंख्यक पत्र दिनांक 24.04.08 के माध्यम से सैद्धान्तिक स्वीकृति जारी की गयी। नोडल अधिकारी के उपरोक्त सन्दर्भित पत्र द्वारा प्रेषित की गयी अनुपालन आख्या पर ध्यानपूर्वक विचार करने के उपरान्त मुझे यह सूचित करने का निर्देश हुआ है, कि केन्द्र सरकार जनपद रूद्रप्रयाग के अन्तर्गत फांटा व्यूंग जल विद्युत परियोजना के निर्माण हेतु 16.37 हे0 वन भूमि का लैन्को हाईड्रो इन्जीज प्राइवेट लि0 को 30 वर्षों की लीज पर दिया जाना एवं 793 वृक्षों के पातन की विधिवत् स्वीकृति निम्नलिखित शर्तों पर प्रदान करती है।

वन भूमि की वैधानिक स्थिति में कोई परिवर्तन नहीं होगा।

- प्रयोक्ता एजेन्सी के व्यय पर प्रभावित वन क्षेत्र के दुगने अवनत वन भूमि अर्थात 32.74 हे0 पर क्षतिपूरक वृक्षारोपण एवं रखरखाव किया जायेगा। यदि क्षतिपूरक वृक्षारोपण हेतु चिन्हित भूमि वन विभाग के स्वामित्व के बाहर की हैं तो इसे वन विभाग के पक्ष में हस्तान्तरण एवं नामान्तरण किया जायेगा। इसे बाद में आरक्षित वन घोषित किया जायेगा, तथा भारतीय वन अधिनियम की धारा 4 के अन्तर्गत जारी अधिसूचना की एक प्रति प्रस्तावित वन भूमि को याचक विभाग को हस्तान्तरित करने के छः माह के अन्दर इस कार्यालय को प्रेपित की जायेगी।
- प्रयोक्ता एजेन्सी के व्यय पर प्रस्तावित स्थल के आस पास रिक्त पड़े स्थानो पर यथोचित वृक्षारोपण एवं रखरखाव किया जायेगा।
- प्रयोक्ता एजेन्सी के व्यय पर वन विभाग द्वारा अनुमोदित कैंचमेन्ट एरिया ट्रीटमेंट प्लान (CAT Plan) का कियान्वयन किया जायेगा।
- भारत सरकार पत्र संख्या 5-2/2006-एफ0सी0 दिनांक 20.05.2006 के तहत दिये गये अनुदेशों के अनुसार शुद्ध वर्तमान मूल्य तथा दूसरी सभी निधिया प्रतिपूर्ति पौधारोपण निधि प्रबन्धन तथा योजना प्राधिकरण के तदर्थ निकाय के लेखा संख्या सी0ए0—1594, कार्पोरेशन बैंक(भारत सरकार का उपक्रम), ब्लाक-11 भूतल सी0जी0ओ0 काम्पलैक्स, फेज-1, लोधी रोड, नई दिल्ली-110003 में जमा कराया जाये।

यावक विभाग द्वारा जनपद कार्यबल की संस्तुतियों एवं भू-वैज्ञानिक के सुझावों का कड़ाई से अनुपालन किया जायेगा।

- परियोजना के निर्माण व रख-रखाव के दौरान आस-पास के क्षेत्र की वनस्पतियों एव जीव-जन्तुओं को किसी प्रकार की क्षति नहीं पहुँचायी
- प्रत्यावर्तित वन भूमि का उपयोग किसी भी अन्य प्रयोजन के लिए नहीं किया जायेगा।

न्यूनतम वृक्षों का पातन किया जायेगा।

भवदीय.

(सन्तोष कुमार) उप वन सरक्षक(के)

प्रतिलिपि सूचनार्थ एवं आवश्यक कार्यवाही हेतु :--

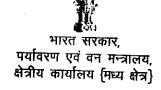
- निदेशक एफ.सी., पर्यावरण एवं वन मन्त्रालय, पर्यावरण भवन सी.जी.ओ. काम्पलेक्स, लोदी रोड, नयी दिल्ली-110003
- नोउल अधिकारी एवं मुख्य वन संरक्षक, भूमि सर्वेक्षण निदेशालय, इन्दिरा नगर, फारेस्ट कालोनी, देहरादून। 2.

प्रभागीय वनाधिकारी, रुद्रप्रयाग वन प्रभाग, रुद्रप्रयाग।

प्रबन्धक, फांटा व्यूंग, जल विद्युत परियोजना लैन्को हाईड्रो इन्जींज प्राइवेट लि0, ग्राम फाटा, रूद्रप्रयाग।

आदेश पत्रावली ।

(सन्तोष क्मार) उप वन संरक्षक(के)



पंचम तल, केन्द्रीय भवन, सैक्टर एच, अलीगंज, লব্দুনজ-226024 टेलीफैक्स-2324025 दिनांकः 26/09/2007

पत्र सं0 08बी / यू०सी०पी० / 06 / 248 / 2007 / एफ०सी० | 9 2 &

सेवा में,

प्रमुख सचिव (वन), उत्तराखण्ड शासन, देहरादून!

जनपद रुद्रप्रयाग में फाटा-व्यूंग जल विद्युत परियोजना के अर्न्तगत सीतापुर से नारायण कोटि तक ड्रिफर/एडिट तक मिन्न-मिन्न पहुँच मार्ग के निर्माण हेतु 4.921 हे0 वनभूमि का लैन्को हाइड्रो इन्जींज प्रा0 लि0 को 30 वर्षों की लीज पर दिया जाना।

सन्दर्भः नोडल अधिकरी एवं मुख्य वन संरक्षक का पत्रांक 668/1जी--2014 (रूद्रप्रयाग), दिनांक--27/08/2007

महोदय,

कृपया उपरोक्त विषय पर सन्दर्भित पत्र का आशय ग्रहण करने का कष्ट करें, जिसके द्वारा राज्य सरकार ने विषयांकित प्रस्ताव पर वन संरक्षण के अधिनियम 1980 की धारा (2) के तहत भारत सरकार की स्वीकृति मांगी है।

अतः राज्य सरकार के प्रस्ताव पर ध्यानपूर्वक विचार करने के उपरान्त मुझे यह सूचित करने का निर्देश हुआ है, कि केन्द्र सरकार जनपद रूद्रप्रयाग में फाटा-व्यंग जल विद्युत परियोजना के अर्न्तगत सीतापर से नारायण कोटि तक ड्रिफर/एडिट तक भिन्न-भिन्न पहुँच मार्ग के निर्माण हेतु 4.921 है0 वनभूमि का लैन्को हाइड्रो इर्न्जीज प्रा0 लि0 को 30 वर्षों की लीज पर दिये जाने एवं 1710 वृक्षों के पातन की विधिवत् स्वीकृति निम्नलिखित शर्तो पर प्रदान करती है।

वन भूमि की वैधानिक स्थिति में कोई परिवर्तन नही होगा। 1.

- याचक विभाग द्वारा वन विभाग के पक्ष में प्रभावित वन क्षेत्र के दुगने अवनत वन क्षेत्र अर्थात 9.842 हे0 पर क्षतिपूरक वृक्षारोपण हेतु आवश्यक
- वन विभाग द्वारा याचक विभाग के व्यय पर प्रस्तावित स्थल के आस-पास पड़े रिक्त स्थानों पर यथोचित् वृक्षारोपण किया जायेगा।

याचक विभाग द्वारा जनपद कार्यबल की संस्तुतियों एवं भू-वैज्ञानिक के सुझावों का कड़ाई से अनुपालन किया जायेगा।

परियोजना के निर्माण व रख-रखाव के दौरान आस-पास के क्षेत्र की वनस्पतियों एवं जीव-जन्तुओं को किसी प्रकार की क्षति नहीं पहुँचायी

प्रत्यावर्तित वन भूमि का उपयोग किसी भी अन्य प्रयोजन के लिए नहीं किया जायेगा।

भारत सरकार पत्र संख्या 5-2/2006-एफ0सी0 दिनांक 20.05.2006 के तहत दिये गये अनुदेशों के अनुसार एन0पी0यी0 तथा दूसरी सभी निधिया प्रतिपूर्ति पौघारोपण निधि प्रबन्धन तथा योजना प्राधिकरण के तदर्थ निकाय के लेखा संख्या सी0ए0—1594, कार्पोरेशन बैंक(भारत सरकार का उपक्रम), ब्लाक-11 भूतल सी0जी0ओ0 काम्पलैक्स, फेज-1, लोधी रोड, नई दिल्ली-110003 मे जमा कराया जाये।

प्रयोक्ता एजेसी से यह अन्डरटेकिंग भी जी जाए अगर एन०पी०वी० की दरों में बढ़ोत्तरी होती है तो अतिरिक्त / अन्तरीय राशि अदा करने के लिए प्रयोक्ता एजेंसी बाध्य होगी।

राज्य सरकार के प्रस्ताव में उल्लिखित उन 9 शर्तों को भी लगाया जा सकता है।

प्रतिलिपि निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित:-

निदेशक (एफसी), पर्यावरण एवं वन मंत्रालय, सी.जी.ओ. काम्पलेक्स, लोधी रोड़, नई दिल्ली -3।

नोडल अधिकारी एवं मुख्य वन संरक्षक, भूमि सर्वेक्षण निदेशालय, वन विभाग, इन्दिरा नगर, फारेस्ट कालोनी, उत्तराखण्ड, देहरादून।

प्रभागीय वनाधिकारी, रुद्रप्रयाग वन प्रभाग, रुद्रप्रयाग।

प्रबन्धक फाटा व्यूग जल विद्युत परियोजना, लैन्को प्रा0 लि0, रूद्रप्रयाग।

आदेश पत्रावली ।

किं0 बी0 सिंह) उप वन संरक्षक(के)

www.moefroclko.org

No. J-12011/50/2007-IA.I

L & T Uttaranchal Hydropower Ltd. No. 6. Gavni Village, next to Jalagam office Chandrapuri, District Rudraprayag Uttarakhand - 246425

तार:

Telegram : PARYAVARAN. NEW DELHI

दूरमापः

Telephone: & FAX 24362827

देलेन्सः

Telex : W-68185 DOE IN

FAX: 4360678

भारत सरकार पर्यावरण छवं वत मंत्रालय GOVERNMENT OF INDIA MINISTRY OF ENVIRONMENT & FORESTS पर्यादरण भवन, सी. जी. ओ. कॉम्पलेक्स PARYAVARAN BHAVAN, C.G.O, COMPLEX नोदो रोड, नई दिल्ली-110003 LODHI ROAD, NEW DELHI-110003

Dated- 24th August 2007

Singoli - Bhatwari HEP (99 MW) in Rudraprayag District, Uttarakhand -Environment clearance regarding.

Sir,

This has reference to your letter No.Nil dated 29.6.2007 and subsequent letter dated 29.6.2007 on the above mentioned subject.

- The above referred proposal was considered by the Expert Committee for River Valley & Hydroelectric projects at its meeting held on 19.07.2007. The proposal is for construction of a barrage of 22 m height from existing ground level across Mandakini river near village Kund in Rudraprayag district. The power house will be located near village Phalai. The Kedarnath musk deer sanctuary is about 9 km away from the barrage site. 112 families (land owners) will be affected. The total cost of the project is 678.54 crores.
- The Ministry of Environment and Forests hereby accords environmental 3. clearance as per the provisions of Environmental Impact Assessment Notification, 1994 & 2006, subject to strict compliance of the terms and conditions as follows:

Part A: Specific Conditions

Total of 3018.79 hectare degraded area has been earmarked for various soil conservation measuresin all the sub watersheds. Treatment Plan as has been proposed should be completed in four years. The plan is given below:

- -3-
- (vi) A Monitoring Committee for R & R should be constituted which must include representatives of project-affected persons from SC / ST category and a woman beneficiary.
- (vii) All the equipment which are likely to generate high noise levels are to be fully mollified (noise reduction measures).
- (viii) 10% of minimum water flow should be released down stream during lean season to maintain the aquatic life.
- (ix) Consolidation and compilation of the muck should be carried-out in the muck dump sites and the dump sites should be above high flood level.

Part-B: General Conditions

- (i) Adequate free fuel arrangement should be made for the labour force engaged in the construction work at project cost so that indiscriminate felling of trees is prevented.
- (ii) Fuel depot may be opened at the site to provide the fuel (kerosene/wood/LPG). Medical facilities as well as recreational facilities should also be provided to the labourers.
- (iii) All the labourers to be engaged for construction works should be thoroughly examined by health personnel and adequately treated before issuing them work permit.
- (iv) Restoration of construction area including dumping site of excavated materials should be ensured by leveling, filling up of burrow pits, landscaping etc. The area should be properly treated with suitable plantation.
- (v) Financial provision should be made in the total budget of the project for implementation of the above suggested safeguard measures.
- (vi) A Multidisciplinary committee should be constituted with representatives from various disciplines of forestry, ecology, wildlife, soil conservation, NGO etc. to oversee the effective implementation of the suggested safeguard measures.
- (vii) Six monthly monitoring reports should be submitted to the Ministry and its Regional Office, Luknow for review.
- 4. Officials from Regional Office MOEF, Lucknow who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents / data by the project proponents during their inspection.
- 5. The responsibility of implementation of environmental safeguards rests fully with the L & T Uttaranchal Hydropower Ltd. & Government of Uttarakhand.
- 6. In case of change in the scope of the project, project would require a fresh appraisal.



सैक्टर एच, अली लखनऊ-226 टेलीफैक्स-2324

दिनॉक : 16.01.20

पंचम तल, केन्द्रीय व

पत्र सं0 8बी/यूसी.पी/01/53/2008/एफ.सी. 川 5 🖏

सेवा में.

प्रमुख सचिव(वन), उत्तराखण्ड शासन, देहरादून।

विषय : जनपद रूद्रप्रयाग के अन्तर्गत सिंगोली-भटवाड़ी जल विद्युत परियोजना के निर्माण हेतु 34.341 हे0 वन भूमि का एल एण्ड टी उत्तरांचल हाइड्रो पावर प्राठ लिठ

सन्दर्भ : नाभिक अधिकारी, एवं मुख्य वन संरक्षक, उत्तराखण्ड के पत्रांक 1151 /1जी–2181 (रूद्रप्रयाग) दिनॉक 31.10.08

महोदय

उपरोक्त विषय पर नामिक अधिकरी एवं मुख्य वन संरक्षक, उत्तराखण्ड का पत्रांक 2420 / 1जी–2161 (रुद्र0), देहरादून, दिनॉक 28 / 02 / 2008 का आशय ग्र करने का कष्ट करें, जिसके द्वारा राज्य सरकार ने विषयांकित प्रस्ताव पर वन संरक्षण के अधिनियम, 1980 के तहत भारत सरकार की स्वीकृति मांगी थी।

प्रश्नगत प्रकरण में इस कार्यालय के समसंख्यक पत्र दिनांक 25.08.2008 के माध्यम से सैद्धान्तिक स्वीकृति प्रदान की गयी थी, जिसमे उल्लिखित शर्तों की अनुपालना नागि अधिकारी, उत्तराखण्ड के उपरोक्त सन्दर्भित पत्र द्वारा प्रेषित की गयी थी। राज्य सरकार के मुख्य सचिव ने पत्रांक संख्या 81/एक्स-2-2009-7(1)/09 दिनांक 13.01.20 प्रमुख सचिव राजस्व के पत्रांक संख्या V-06/XVIII(I)/2009 दिनांक 09.01.09 द्वारा क्षांतिपूरक वृक्षारोपण हेतु सिविल सोयम भूमि वन विभाग उत्तराखण्ड के प्रशानि नियन्त्रण में हस्तान्तरण करने एवं इसके लिए प्रत्यके जिले में 1000 से 1500 हे0 सिविल सोयम भूमि का लैण्ड बैंक बनाने की सुचना दी है. प्रमुख वन संरक्षक, उत्तराखण्ड अपने पत्रांक 1723/1जी—2544 दिनांक 14.012009 द्वारा एवं नाभिक पदाधिकारी वन विभाग उत्तराखण ने अपने पत्रांक 1722/1जी—2544 दिनांक 13.01.2009 द्व हस्तान्तररण की प्रक्रिया 3-4 माह मे पूरी करने की सूचना दी है। अतः उक्त अनुपालना आख्या पर ध्यानपूर्वक विचार करने के उपरान्त मुझे यह सूचित करना है, कि के सरकार जनपद रूद्रप्रयाग के अन्तर्गत सिंगोली-भटवाड़ी जल विद्युत परियोजना के निर्माण हेतु 34.341 हैं0 वन भूमि का एल एण्ड टी उत्तरांचल हाइड्रो पावर प्राo लिं0 : 30 वर्शों की लीज पर दिये जाने एवं 2158 वृक्षों के पातन की विधिवत् स्वीकृति निम्नलिखित शर्तों पर प्रदान करती है:—

वन भूमि की वैधानिक स्थिति में कोई परिवर्तन नही होगा।

प्रयोक्ता अभिकरण के व्यय पर प्रत्यावर्तित वनभूमि के लिए प्रस्तावित 68.682 हैo वन पंचायत पर क्षतिपूरक वृक्षारोपण मान्य नहीं हैं। प्रस्तावित वन पंचायत भूमि रथान पर वन संरक्षण मार्गदर्शी सिद्धान्तो के 3.2(1) अनुसार सिविल सोयम भूमि का प्रस्ताव समर्पित किया जाय एवं तद्नुसार क्षतिपूरक वनरोपण हेतु चयनित के वैज्ञानिक दृष्टि से प्रबन्धन हेतु इसे वन विभाग के प्रशानिक नियन्त्रण में छः के अन्तर्गत हस्तान्तरित किया जायेगा, जिस पर भारतीय वन अधिनियम, 1927 प्राविधान लागू रहेंगे। यदि निर्धारित अविध में इस भूमि का हस्तान्तरण वन विभाग को नहीं किया जायेगा तो यह विधिवत् स्वीकृति स्वतः समाप्त समझी जायेगी। प्रयोक्ता अभिकरण के व्यय पर वन विभाग क्षरा प्रस्तावित मार्ग के दोनो ओर पड़े रिक्त स्थानों पर यथोवित् वृक्षारापेण एवं रखरखाव किया जायेगा।

भारत सरकार पत्र संख्या 5-2/2006-एफ0सी0 दिनांक 20.05.2006 के तहत दिये गये अनुदेशों के अनुसार शुद्ध वर्तमान मूल्य तथा दूसरी सभी निधिया प्रतिपूर्ति पौधारोपण निधि प्रबन्धन तथा योजना प्राधिकरण के तदर्थ निकाय के लेखा संख्या सी०ए०-1594, कार्पोरेशन बैंक(भारत सरकार का उपक्रम), ब्लाक-11 भूतल सी0जी0ओ0 काम्पलैक्स, फेज--1, लोधी रोड, नई दिल्ली-110003 में जमा किया जायेगा।

प्रयोक्ता अभिकरण द्वारा जनपद कार्यबल की संस्तुतियों एवं भू-वैज्ञानिक के सुझावों का कड़ाई से अनुपालन किया जायेगा।

परियोजना के निर्माण व रख-रखाव के दौरान आस-पास के क्षेत्र की वनस्पतियाँ एंव जीव-जन्तुओं को किसी प्रकार की क्षति नहीं पहुँचायी जाएगी। प्रत्यावर्तित वन भूमि का उपयोग किसी भी अन्य प्रयोजन के लिए नहीं किया जायेगा।

प्रयोक्ता अभिकरण द्वारा स्थल पर कार्यरत मजदूरों /स्टाफ को रसोई गैस/किरोसिन तेल की आपूर्ति की जायेगी, जिससें निकटवर्ती वनों को क्षति न हों।

निर्माण कार्य के अन्तर्गत पातित होने वाले वृक्षों का पातन राज्य के वन विकास निगम द्वारा किया जाएगा और उसका निरक्षरण सम्बन्धित ग्रामों की रथानी प्रस्तावित वनभूमि के अतिरिक्त आस पास की वनभूमि से निर्माण में मिट्टी/पत्थर काटने एवं भरने का कार्य नहीं किया जाएगा।

प्रयोक्ता अभिकरण द्वारा आवश्यक न्यूनतम वृक्षो का पातन किया जायेगा। 11

प्रयोक्ता अभिकरण के व्यय पर वन विभाग द्वारा परियोजना क्षेत्र में कैचमेन्ट एरिया ट्रीटमेन्ट प्लान कियान्वित किया जायेगा।

भवदीय

(आजम जैदी ्र मुख्य वन संरक्षक(के

प्रतिलिपि सूबनार्थ एवं आवश्यक कार्यवाही हेतु :--

वन महानिरीक्षक(एफ0सी0), पर्यावरण एवं वन मंत्रालय, पर्यावरण भवन, सीठजीठओठ काम्प्लैक्स, लोधी रोड, न्यू दिल्ली—110003 मिक अधिकारी एवं मुख्य वन संरक्षक, भूमि संवैक्षण निदेशालय, वन विभाग, इन्दिस नगर फारेस्ट कालोनी, उत्तराखण्ड,देहरादून।

प्रभागीय वनाधिकारी, रुद्रप्रयाग वन प्रभाग, रुद्रप्रयाग।

प्रबन्धक एवं एल एण्ड टी उत्तरावंश हाइड्रो पावर प्राठ लि0 वन्द्रपुरी, रुद्रप्रयाग ।

आदेश पंत्रावली ।

🌱 (मुख्य वने संरक्षक(के