

I/355253/2024

No.  
H.P. Forest Department

Dated Rampur, the

From: CCF Rampur.

To: Nodal Officer –cum- APCCF (FCA)  
O/o Pr. CCF (HoFF) HP Shimla-1.

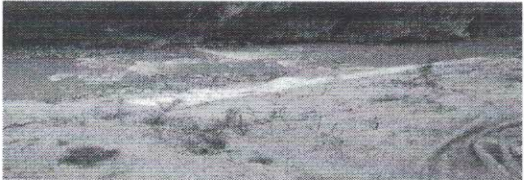

**Subject: Diversion of 0.4148 hectare of additional forest land in favour of Himachal Pradesh Power Corporation Pvt. Ltd for the construction of Integrated Kashang HEP Stage-II & III (130MW) for some modification in the Project component construction of Silt Flushing Tunnel (SFT) within the jurisdiction of Kinnaur Forest Division, Distt. Kinnaur, Himachal Pradesh. (Online Proposal No FP/HP/HYD/49387/2020)**

Memo:


Kindly refer to the Dy. Inspector General Forest (Central), Regional Office Chandigarh, Ministry of Environment Forest & Climate Change (MoEF & CC) letter No. FC/HPB/01/177/2022 dated 09.10.2024 on the subject cited above.

2. The point wise compliance of the stipulations imposed by GOI in the earlier approval granted for the main proposal vide letter No.F.No.9 HPC 366/09-CHA, dated 14th June, 2011 is furnished as under :-

1.	Legal status of the diverted forest land shall remain unchanged.	DCF Kinnaur has intimated that the project proponent undertake not to seek any change in legal status of the forest land.
2.	Compensatory afforestation will be raised and maintained by the State Forest department at the project cost.	Project proponent had deposited the entire amount of (CA Rs. 1.19,57,406/- and NPV Rs. 1, 58, 64,073/-) Total Rs. 2,78,21,479/- through DD No.630041 dated 11.03.2011 ( <b>Copy enclosed as Annexure-A</b> ) and further deposited into CAMPA account. As per stipulation of GoI the compensatory afforestation has been raised over 36 hac. of forest land in the areas namely UF Jangi, C-215 Lippa and UPF Asarang under Kinnaur Forest Division and also carried out subsequent maintenance of plantation. The abstract of CA scheme is ( <b>enclosed as Annexure-B</b> ).
3.	The user agency shall furnish an undertaking to pay the additional NPV, if so determined, as per the final decision of Hon'ble Supreme Court of India.	The undertaking is enclosed as <b>Annexure –C</b> .

<p>4.</p>	<p>The user agency shall implement all the conditions of the Muck Rehabilitation Plan under supervision of the State Forest Department at the project cost.</p>	<p>DCF Kinnaur has intimated that Project proponent is implementing all the conditions of the Muck Rehabilitation Plan under supervision of the State Forest Department at the project cost. The status of rehabilitation of dumping sites is as under :-</p> <table border="1" data-bbox="742 473 1444 987"> <thead> <tr> <th>S.N</th> <th>Site diverted for Dumping</th> <th>Location</th> <th>Status</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>DS-2&amp;3</td> <td>Power House site near NH - 05</td> <td>Utilized / reclaimed</td> <td>Reclaimed</td> </tr> <tr> <td>2</td> <td>DS-4</td> <td>Near Kasasng Khad on NH-05</td> <td>Unutilized,</td> <td>Handed back to Forest Department</td> </tr> <tr> <td>3</td> <td>DS-5,6&amp;7</td> <td>On intake road to Kashang</td> <td>Unutilized</td> <td>handed back to Forest Department</td> </tr> <tr> <td>4</td> <td>Ds-8</td> <td>On Old HT Road</td> <td>Utilized</td> <td>Reclaimed</td> </tr> </tbody> </table> <p>Project proponent has rehabilitated the 3 numbers of dumping sites in respect of IKHEP i.e Dumping site No-2,&amp; DS-3 at Power House site near NH-05 and Dumping site No. 8 on Old Hindustan Tibet(HT) Road . Project Proponent have also reclaimed these 3 Dumping sites with Proper, Geo-Jute Matting and plantation with approximately 3155 Numbers of various local species plants like, Chilgoza (1575 no), Chulli(787), Bhemi(158) Akhrot (157) &amp; Rubinia (478) .</p> <p style="text-align: center;">Reclamation Works completed</p>  <p style="text-align: center;">Reclamation Works completed at Power House Site DS-3</p> 	S.N	Site diverted for Dumping	Location	Status	Remarks	1	DS-2&3	Power House site near NH - 05	Utilized / reclaimed	Reclaimed	2	DS-4	Near Kasasng Khad on NH-05	Unutilized,	Handed back to Forest Department	3	DS-5,6&7	On intake road to Kashang	Unutilized	handed back to Forest Department	4	Ds-8	On Old HT Road	Utilized	Reclaimed
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		<p style="text-align: center;">Reclamation Works completed at DS-8</p> 
5.	<p>In addition to condition 4 above, following activities shall be undertaken by the user agency under supervision of the State Forest Department at the project cost.</p> <p>(i) The user agency should ensure that muck does not roll down the slopes. All such areas where muck has rolled down the slopes shall be rehabilitated at the cost of user agency and under the supervision of State Forest Department.</p> <p>(ii) Construction of check dams, retention/ toe walls to arrest sliding down the excavated material along the contour.</p> <p>(iii) The dumping area should be stabilized and reclaimed and plantation suitable species be carried out over dumping areas at the cost of the user agency under the supervision of State Forest Department. Retaining wall and terracing shall be carried out to hold the dumping material in place. Stabilization and reclamation of such dumping sites shall be completed before handing over the same to State Forest department in a time bound manner as per plan.</p>	<p>DCF Kinnaur has intimated that the project proponent is complying with this condition and also ensuring that no muck is rolled down the slopes. All such areas where muck is supposed to roll down is being rehabilitated at the project cost under the supervision of Forest Department. To prevent landslides, rolling of muck to adjoining land, all the necessary steps in the form of providing retaining walls, gabions &amp; other structures are being taken. As on date, 12971 nos of crate walls were constructed at various sites of IKHEP.</p> <p>DCF Kinnaur has intimated that prior to start of the dumping activities, check dam/ retention structure to arrest the sliding down of the excavated material in the shape of wire crates are being constructed along the contour of the area. This is a common practice in hilly trains for the dumping of muck which is being implemented by this office.</p> <p>DCF Kinnaur has intimated that to stabilize the dumping sites total 12,872 No.s of crate walls have been erected and additional protection walls before TOC, 50 numbers of additional Crate walls near Power House, 27 numbers near Intake and 5 additional crate walls have already been erected at various dumping sites by project proponent . After the completion of muck dumping at various designated dumping sites, reclamation /biological treatment by providing green net blanket has already been done at dumping site near Power House. New plantation around 4,500 No's have also been done at project cost. Prior to implementation biological treatment and to create a buffer-zone and to protect soil erosion approximately 369 No.s of new crates have also been erected.</p> <p>As explained in Stipulation Nos. 4 above, user agency has reclaimed 3 Nos of dumping sites out of total 7 Nos.</p>



		<p>of dumping sites and 4 Nos . of dumping sites were handed back as unutilized to Forest Department, detail is as under: -</p> <table border="1"> <thead> <tr> <th>S.N</th> <th>Site diverted for Dumping</th> <th>Location</th> <th>Status</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>DS-2&amp;3</td> <td>Power House site near NH -05</td> <td>Utilized / reclaimed</td> <td>Reclaimed</td> </tr> <tr> <td>2</td> <td>DS-4</td> <td>Near Kasasng Khad on NH-05</td> <td>Unutilized,</td> <td>Handed back to Forest Department</td> </tr> <tr> <td>3</td> <td>DS-5,6&amp;7</td> <td>On intake road to Kashang</td> <td>Unutilized</td> <td>handed back to Forest Department</td> </tr> <tr> <td>4</td> <td>Ds-8</td> <td>On Old HT Road</td> <td>Utilized</td> <td>Reclaimed</td> </tr> </tbody> </table> <p>copy of handing over of 4 Nos dumping sites back to forest department is enclosed as <b>(Annexure- D)</b>.</p>	S.N	Site diverted for Dumping	Location	Status	Remarks	1	DS-2&3	Power House site near NH -05	Utilized / reclaimed	Reclaimed	2	DS-4	Near Kasasng Khad on NH-05	Unutilized,	Handed back to Forest Department	3	DS-5,6&7	On intake road to Kashang	Unutilized	handed back to Forest Department	4	Ds-8	On Old HT Road	Utilized	Reclaimed
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6.	The state government shall implement the recommendations of the standing committee of NBWL on the EIA/EMP of the project area and its impact on Lippa and Asrang wildlife sanctuary.	DCF Kinnaur has intimated that for implementation of the recommendation of the standing committee of NBWL project proponent had deposited an amount of Rs. 9,41,92,000/- into CAMPA account and is being implemented (copy of amount deposited as <b>Annexure – E</b> )																									
7.	The user agency shall set up Ecological Monitoring Unit to monitor the impact of the project on flora and fauna of the area.	The HPPCL had already established a monitoring committee under the Chairmanship of Divisional Forest Officer Kinnaur, with members from HP State Pollution Control Board and Range Officers of concerned ranges. Project proponent had deposited Rs. 6,00,000/- on prorata basis for monitoring/watch and ward of the Forests area to safeguard of Antiporching/ Fire incident through patrolling and other expenses. (The copy of committee is enclosed as <b>Annexure-F</b> )																									
8	The user agency shall keep the effect of camping laborers on the flora and fauna during the construction phase of 48 months at minimum by providing alternate fuel for cooking and heating.	User agency has intimated that the construction activities of IKHEP Stage-I is completed and this condition was implemented by this office . To mitigate the biotic pressure over adjoining /nearby forests, project proponents had provided suitable alternate arrangement of fuel wood for all the labourers and staff. There is a provision of subsidized fuel to the laborers engaged in the construction activities and project proponent is providing free of cost LPG Cylinders to the labourers. Besides above a																									



		community kitchen/mess is being run by the project proponent . In case of IKHEP Stage II &III , the project proponent is providing the same facilities to the labourers.																				
9	The entire reservoir created due to submergence shall be declared reserve Forest under Indian Forest Act, 1927. However, regulated fishing shall be allowed.	Since the Integrated Kashang HEP is a run of the river (R-o-R) scheme and no reservoir will be created, only a diversion structure i.e. trench weir will be raised over the river bed. Thus no reservoir will be created neither any fishing activities will be carried out in the Kashang HEP. Even no fish is found in this stretch, as certified by the Directorate of cold water fisheries Bhim Tal.																				
10	Catchment Treatment Area Plan should be implemented at the project cost under the supervision of the State Government.	<p>DCF Kinnaur has intimated that CAT Plan in respect of Integrated Kashang HEP stage-I, II ,III &amp;IV has been approved amounting to Rs. 30.5060 crore. Whereas project proponent had deposited only Rs. 16.00 Crore. The detail as under :-</p> <table border="1"> <thead> <tr> <th>S.N.</th> <th>Stage wise outlay of CAT plan (in crore)</th> <th>Fund deposited (in crore)</th> <th>Balance fund to be deposited(in crore)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Stage-1 (9.223)</td> <td>9.223</td> <td>Nil</td> </tr> <tr> <td>2</td> <td>Stage-II &amp; III (8.716)</td> <td>6.777</td> <td>1.939</td> </tr> <tr> <td>3</td> <td>Stage-IV (12.567)</td> <td>-</td> <td>12.567 FC case yet to be initiated</td> </tr> <tr> <td><b>Total</b></td> <td><b>30.506</b></td> <td><b>16.00</b></td> <td><b>14.506</b></td> </tr> </tbody> </table> <p>The bifurcation of the amount of CAT plan on the basis of extent of land diverted are as under: -</p> <p>(i) Kashang Stage-1(Land Diverted 18.7242 ha.)= cost of CAT Plan Rs. 3.03 (as revised 9.223) crores</p> <p>(ii) Kashang Stage-II&amp; III( Land diverted 17.6857 ha.)= Cost of CAT Plan Rs 8.716 Crores</p> <p>(iii) Kashang Stage-IV (Land to be diverted 25.500ha.)=Cost of CAT Plan Rs. 12.567</p> <p>An amount of Rs. 12,72,73,280/- has been utilized for implementation of CAT Plan as on 31.03.2023 (Copy enclosed as <b>Annexure-G</b>). Apart from this the APO of CAT Plan has been approved for Rs. 70,75,000 for the FY 2023-24 out of which funds for Rs. 59,85,227/- stand utilized as on 31.12.2023. The balance funds allotted for the year 2023-24 will be utilized within the financial year.</p>	S.N.	Stage wise outlay of CAT plan (in crore)	Fund deposited (in crore)	Balance fund to be deposited(in crore)	1.	Stage-1 (9.223)	9.223	Nil	2	Stage-II & III (8.716)	6.777	1.939	3	Stage-IV (12.567)	-	12.567 FC case yet to be initiated	<b>Total</b>	<b>30.506</b>	<b>16.00</b>	<b>14.506</b>
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11	Green belt of adequate width shall be raised by the user	Integrated Kashang HEP is a run of the river ( R-o-R) scheme and no reservoir will be created, only a																				



I/355253/2024

	agency around the reservoir at the cost of project.	small diversion structure i.e. Drop Down Trench Weir will be constructed for diversion of water. As per the approved EMP ( <i>Chapter IV "Green Belt Development Plan" copy attached as (Annexure-H)</i> of Integrated Kashang HEP) green belt will be developed around the Trench Weir site, Power House site and around the residential area and office complex to be constructed and around the road side of the project when project is completed.
12	The user agency shall implement the outcome of the basin level study on the impact of HEPs on the flora and fauna of the as per the TOR submitted to MoEF.	Project proponent has intimated that HPPCL is committing to implement the outcome of the basin level study on the impacts of HEP's on the flora and fauna as per the ToR. The CEIA study of Satluj basin had been conducted by Directorate of Energy (DoE) GoHP, through ICFRI. The ICFRI had submitted the final report to MoEF&CC which is under consideration and final approval is awaited.
13	The user agency to consult other companies having experience in construction of roads in hilly areas such as BRO to avoid frequent road blockade due to land Slides, etc and shall provide breast walls and retaining walls wherever necessary.	The project proponent has intimated that HPPCL is sister concern of Himachal Pradesh State Electricity Board Ltd (HPSEBL) which is having sufficient experience in construction of roads and related civil works. HPPCL is also consulting the HPPWD and BRO as per requirement. Likewise in case of restoration work of damaged road of intermediate pressure shaft of IKHEP the same was being executed through PWD, although the expenditure of the same was borne by the Integrated Kashang HEP.
14	The forest land thus diverted shall be non-transferable. Whenever the forest land is not required, it shall be surrender to the State Forest Department under intimation to the Ministry.	The project proponent is agreed with this condition. The 4.2105 ha. of unutilized land ( which was not utilized for dumping of muck) had already been surrendered to this department with intimation to IG forest (FC Division), MoEF, GoI New Delhi. The project proponent is committed that on completion of the project activities all the temporary diverted forestland shall be returned to HP Forest Deptt after reclamation.
15	Other standard conditions as applicable to proposal relating to Hydro Electric Projects will be applicable in the case also.	DCF Kinnaur has intimated that all the other standard conditions as applicable to the proposal related to Hydro Electric projects are acceptable to project proponent.
16	Any other condition that the Conservator of Forest (Central), Regional Office, Chandigarh, may impose from time to time for protection and improvement of flora and fauna in the forest area shall also be applicable.	DCF Kinnaur has intimated that if any other condition shall be imposed by the Conservator of Forest (Central), Regional Office, Chandigarh for protection and improvement of flora and fauna in the forest area same shall be complied by the project proponent.



I/355253/2024

This is for your kind information and further recommending the case to higher ups for approval please.

Encl: As above.

Chief Conservator of Forests  
Rampur Bsr.



(A State Government Undertaking)

Annexure - 'A'

Integrated Kashang, HEP, Reckong Peo Distt. Kinnaur (HP).

Phone/Fax No.: 01786-223662/223992

HPPCL/TKHEP/E&amp;RR-IV/Vol-V/2010-11 - 11410-13

Dated 31-3-2011

To

Divisional Forest officer  
at Reckong Peo, District Kinnaur,  
Himachal Pradesh

**Sub -** Diversion of 17.6857 ha of forest land for the construction of 130 MW integrated Kashang -II&III HEP in Favor of M/S HPPCL under Kinnaur forest Division in Kinnaur district of HP.

**Ref:-** Your letter No. 9199 Himachal Pradesh Forest Department dated 29-03-2011

Sir,

Please refer to your letter on the above cited subject matter. In this context, as desired, vide above referred letter D.D. No 630041, dated 31-03-2011 amounting to rupees Rs 2,78,21,479/- (Two Crore Seventy Eight Lacs. Twenty one Thousand four Hundred and Seventy Nine only) in favour of HP State Forest Deptt.(CAMPA) Shimla on account of cost of Compensatory Afforestation (CA) scheme (i.e. Rs 1,19,57,406/-) and Net Present Value (NPV)(i.e. Rs. 1,58,64,079/-) is enclosed herewith for further action at your end.

D.A. D.D.No.630041

Received  
D. D. Kinnaur  
o/s of 2/3/11

General Manager  
Integrated Kashang HEP,  
HPPCL, Kinnaur Bhawan,  
Reckong - Peo.

CC:-

- Chief Environment Specialist, Uttam Bhawan, Dogra lodge Near 103 tunnels Shimla-5, for kind information please.
- DGM -II of this office for information please.
- AO/AFO of this office for information please.



I/355253/2024

भारतीय स्टेट बैंक  
State Bank of India  
भारतीय स्टेट बैंक  
Issuing Branch: REKONG PEO (HP)  
ब्रंच कोड: CODE No: 04335  
टेल नं. 01786-223938

भारतीय स्टेट बैंक  
State Bank of India  
भारतीय स्टेट बैंक

भारतीय स्टेट बैंक  
भारतीय स्टेट बैंक  
दिनांक: 16/03/2024  
Key: YUCJUS  
Sr. No: 263943

DEMAND DRAFT

मांगे जानेपर ON DEMAND PAY THE HP STATE FOREST DEPARTMENT (CAMP) \*\*\*\*\*  
\*\*\*\*\*THE HP STATE FOREST DEPARTMENT (CAMP)\*\*\*\*\* या उनके आदेश पर OR ORDER

दरद	TWO	SEVEN	EIGHT	TWO	ONE	FOUR	SEVEN	NINE
RUPEES	CRORES	LAKHS	LAKHS	TENS	TENS	HUNDS	TENS	UNITS

रु. 278211479 प. 00  
AMOUNT BELOW 27821480(278)

भारतीय स्टेट बैंक  
STATE BANK OF INDIA  
आवेदन ब्रंच / DRAWEE BRANCH: SHIMLA  
ब्रंच कोड: CODE No 00718  
ICR 000176630041 Key: YUCJUS Sr. No: 263943

भारतीय स्टेट बैंक  
भारतीय स्टेट बैंक  
क-10229  
AUTHORIZED SIGNATORY  
BRANCH MANAGER

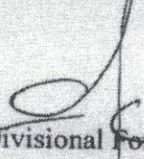
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**Abstract of Compensatory afforestation on degraded forest land over 36.00 hec area in lieu of diversion of 17.6857 hectare of forest land in favour of Himachal Pradesh Power Corporation Limited (HPSEB) for construction of 130MW Integrated Kashang Stage-II & III HEP in Moorang & Kalpa Range, Kinnaur Forest Division, District Kinnaur (H.P.)**

Sr. No.	Particulars	Total Area in hectare	Rate (in Rs.) per hec.	Amount in Rs.
1	2	3	4	5
1	New Plantation.	36.00	90870	3271320
2	1st year Maintenance	36.00	41900	1508400
3	2nd year Maintenance	36.00	36770	1323720
4	3rd year Maintenance	36.00	33530	1207080
5	4th year Maintenance	36.00	33230	1196280
6	5th Year Maintenance	36.00	32920	1185120
			<b>Total:-</b>	<b>9691920</b>
11	Contigencies(5% of Total Cost)			484596
			<b>Total:-</b>	<b>10176516</b>
12	Departmental Charges @ 17.5 %			1780890
			<b>G. Total:-</b>	<b>11957406</b>

  
 Divisional Forest Officer,  
 Kinnaur Forest Division,  
 at Rekong Peo, KNR.





Himachal Pradesh Power Corporation Limited

(A State Government Undertaking)

O/o The GM, Integrated Kashang HEP, HPPCL,  
Reckong Peo, Distt. Kinnaur-172107.

Phone No.: 01786-222001 Email Id: gmcivilikhep@gmail.com



I/355253/2024

### UNDERTAKING

I, Er. Umesh Kumar Naik Dy. General Manager (Civil) Stage II & III undertake to pay the additional NPV, if so determined, as per the final decision of Hon'ble Supreme Court of India, on behalf of Integrated Kashang HEP, HPPCL, at any time during and after the commissioning of Project.

Dy. General Manager (Civil),  
Kashang HEP, Stage-II&III  
HPPCL, Reckong- Peo (HP)



I/355253/2024

Himachal Pradesh Power Corporation  
 Integrated Kashang, HEP, Reckong- Peo Distt. Kinnaur (HP).  
 Phone/Fax No.: 01786-222001/223992  
 Email address : gmikhep@gmail.com  
 Regd.office : Himfed Building, HCS, New Shimla(HP)-171009  
 Website:www.hppcl.gov.in

Annexure - D

191

No. HPPCL/IKHEP/K-I (Vol-XVI)/2016-17/1157/1A/1160 Dated:- 25-03-2017

To  
 The Divisional Forest Officer,  
 Kinnaur at Reckong Peo,  
 District Kinnaur (H.P)

Sub:- Handing over the unutilized forests land diverted against Integrated Kashang HEP Stage-II & III thereof.

Sir,

In the subject cited matter, it is intimated that forest land measuring 17.6857 hect, was diverted to HPPCL vide MOEF, GOI office letter No. SHPC366/09-CHA dated 14-06-2011 for the construction of integrated Kashang HEP stage - II & III.

Since, the construction activities of IKHEP stage-I & III from village Pangri side are almost completed (except the Balancing Reservoir-III) and some of the land diverted against stage-II & III has also remain unutilized and hence declared surplus and the status-co of the land is maintained. The details of such land areas are as under,

S.N.	Purpose of land diverted	Khasra No.	Area (Ha)	Location
1.	Material stacking yard	685/629	2-65-03	Telangli
2.	Dumping Area near Kashang bridge, NH-22	483/1	0-49-36	Ragura
3.	Dumping Area on intake road to Pangri	629/587/44/1, 629/587/469/2, 629/587/469/3	0-39-05 0-22-26 0-15-35	Ragura
4.	Job facility at old HT road (near) Intermediate Pressure Shaft	629/507/469/1	0-30-00	Ragura

Keeping in view of the condition no. 14 of the final Forest Clearance accorded in respect of IKHEP stage-II & III the land which was not utilized/ required shall be surrendered to the State Forest Department with intimation to the Ministry of Environment and Forests.

*[Signature]*  
 Dy. General Manager (Civil)  
 Integrated Kashang HEP  
 HPPCL, Reckong Peo.

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In view of the above stated facts the aforesaid tabulated land is hereby surrendered / returned back to the State Forest Department, Distt. Kinnaur, H.P. Acceptance in this regard may please be intimated to this office at the earliest.

This is for your information and further necessary action please.

Yours faithfully,

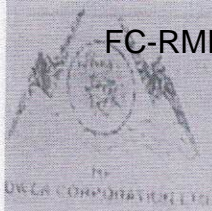
*21/05/2024*  
General Manager,  
Integrated Kashang HEP,  
HPPCL, Reckong-Peo.

Copy to:-

1. The Asstt. Inspector General of Forests (FC Division), MOEF, GOI, Indira Paryavaran Bhawan, Jorbagh Road, New Delhi-110003. for kind information please.
2. The Managing Director, HPPCL, Himfed Building, BCS, New Shimla, 171009 for information kind please.
3. The Director (Civil), HPPCL, Himfed Building, BCS, New Shimla, 171009 for kind information please.
4. The Chief Environment Specialist, HPPCL, Himfed Building, BCS, New Shimla, 171009 for kind information please.
5. The Dy. Commissioner, District- Kinnaur at Reckong Peo, for information please.
6. The Addl. Distt. Magistrate- Pooh, Tehsil- Pooh, Distt. - Kinnaur, for information please.
7. The Sub Divisional Magistrate, Kalpa at Reckong Peo, Distt. Kinnaur, for information please.
8. The Environmental Engineer, HP State Pollution Control Board at Rampur, Distt. Shimla for information please.
9. The Tehsildar-Kalpa, Tehsil- Kalpa, Distt. Kinnaur, Information and necessary action please
10. The Pradhan, Gram Panchayat- Telangi, PO. Telangi, Tehsil Kalpa, Distt.- Kinnaur for information please.
11. The Pradhan, Gram Panchayat- Pangi, PO Pangi, Tehsil Kalpa, Distt.- Kinnaur for information please.

*[Signature]*  
Dy. General Manager  
Integrated Kashang  
HPPCL, Reckong P





Himachal Pradesh Power Corporation Limited  
(A Government Undertaking)  
Integrated Kashang, HEP, Reckong- Poo Distt. Kinnaur (HP).  
Phone/Fax No. : 01786-222001/223092  
Email address : gmikhep@gmail.com  
Regd.office : Himfed Building, BCS, New Shimla(HP)-171000  
Website: www.hppcl.gov.in

Annexure - E

No. HPPCL/IKHEP/K-I (Vol-Xviii)/2017-18- 08-13

Dated:- 02-4-2018

To

The Divisional Forest Officer,  
Wild Life Division- Sarahan,  
PO Sarahan, Tehsil Rampur Bsr.,  
District Shimla, (H.P.)

Sub:-

Non-recovery of 2% of project cost on Conservation of Wildlife in the  
Integrated Kashang HEP (IKHEP) Stage-I, II & III, Distt. Kinnaur, (H.P).

Ref:

Your office letter No. 2304-08 dated 03-02-2018.

Sir,

This is reference to the above referred letter on the subject cited matter; vide which various project authorities have been requested to deposit 2% of the project cost with Wildlife Wing, HP for conservation of Wildlife and other related activities. The project cost of Integrated Kashang HEP has been depicted Rs. 966.21 Crore and 2% of the total project cost, computed as Rs. 19.3242 Crore. In this connection, it is intimated that the total project cost of IKHEP, Stage-I, II & III is as below:

Sr. No	Name of the Project	Total Project cost (Rs. in crore)	Cost of Local Area Development Committee/Fund (LADC/LADF) (Rs. in crore) 1.5% of total project cost	Amount considered as per Techno Economic Clearance (TEC) (Rs. in crore) i/c LADA	Actual Cost, which is required to be considered for subject cited recovery @ 2% (Rs. in crore)	Actual Chargeable/payable amount @ 2% (Rs. in Crore)	Amount charged by your office @ 2% of total project cost (Rs. in Crore)	Remarks
1.	IKHEP, Stage-I	470.9500	7.0600	478.0200	470.9500	9.4192	9.5604	Actual chargeable amount is Rs. 19.0386 instead of Rs. 19.3242
2.	IKHEP, Stage-II & III	480.9800	7.2147	488.1900	480.9800	9.6196	9.7638	
<b>Grand Total</b>		<b>951.9300</b>	<b>14.2747</b>	<b>966.2100</b>	<b>951.9300</b>	<b>19.0386</b>	<b>19.3242</b>	

Thus the actual amount payable against IKHEP, Stage-I, is Rs. 9.4192 Crore (Rs. 470.95 Crore @ 2%) instead of Rs. 9.5604 Crore. The above amount of Rs. 9.4192 Crore on account of Mitigation measures/ Conservation and management of wildlife against IKHEP.

Dy. General Manager (Civil)  
Integrated Kashang HEP,  
HPPCL, Reckong Poo.



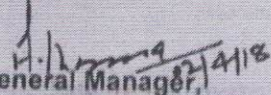
Stage-I has been released through UTR No. 086180504271403 dated 27-03-2018 in the adhoc CAMPA, IFSC No.- CORP0000371 and Saving Account No. SB01025210 in Corporation Bank, Lodhi Complex, Branch New Delhi. The copy of the same is enclosed herewith as Annex.- A. However, the copies of abstract of cost estimate of approved DPR of IKHEP, Stage-I, II & III is appended herewith as Annex. -B & C.

It is mentioned here that the main works of IKHEP, Stage-II & III could not be started due to the pending litigation in the Hon'ble NGT. However, the case for balance 2% payment payable against IKHEP, Stage-II & III amounting to Rs. 9.6196 Crore (i.e. 2% of Rs. 480.98 Crore) shall be deposited after getting the approval from the competent authority as and when the works of Stage-II & III will be taken up after getting FRA issues resolved from the local administration.

Kindly acknowledge the receipt of above payment of Rs. 9.4192 Crore, as a token of confirmation of the same from the payment receiving office.

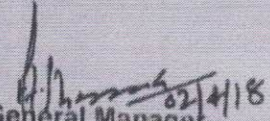
Yours sincerely,

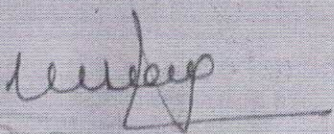
D/A: Annex.- A, B & C as above

  
General Manager,  
Integrated Kashang HEP,  
HPPCL, Reckong-Peo.

Copy forwarded for information to:-

1. The Pr. Chief Conservator of Forest (Wildlife)- GoHP, Mist Chamber Khalini-Shimla, (H.P.) 171002.
2. The Director (Civil), HPPCL, Himfed Building, BCS, New Shimla, (H.P.), 171009.
3. The Chief Conservator of Forest (Wildlife)- GoHP, Mist Chamber Khalini-Shimla, (H.P.) 171002.
4. The Chief Environment Specialist, HPPCL, Himfed Building, BCS, New Shimla, (H.P.), 171009.
5. The Manager (Finance), IKHEP, HPPCL, R/Peo.(H.P.).

  
General Manager,  
Integrated Kashang HEP,  
HPPCL, Reckong-Peo.

  
Dy. General Manager (Civil)  
Integrated Kashang HEP,  
HPPCL, Reckong Peo.



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I/355253/2024

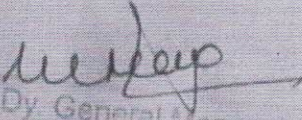
The following amendment is made in 3.2(i) and explanation 2 is added as under

- i. The purpose of compensatory afforestation (CA) is to compensate the loss of 'land' and loss of 'trees by trees'.
- ii. For compensatory afforestation the number of plants to be planted over compensatory afforestation land shall be at least 1000 plants per hectare of forest land diverted.
- iii. If the requisite number of plants to 1000/ha can not be planted on the non-forest land identified for taking up CA, then the balance number of the plants will be planted on degraded forest land as per the provisions of working plans. The State Government will intimate to the MOEF&CC the names of the R.F./P.F. in which the balance seedling will be planted. The User Agency will deposit the cost of planting these seedlings.
- iv. If the compensatory afforestation has to be done on degraded forest land (DFL) identified for CA for as provided in para 3.2 (vi), 3.2(vii) and 3.2(ix) then normally 1000 saplings will be planted per ha of the diverted land. In case 1000 saplings cannot be accommodated per ha in the DFL identified for CA, the balance seedlings will be planted in any RF/PF as per prescription of working plan. The State Govt. will intimate names of the RFs/PFs in which the balance seedlings will be planted. The user agency will deposit the cost of plantation of the same.
- v. The compensatory afforestation may also include several activities like soil & moisture conservation, regeneration cleaning, silvicultural activities in addition to plantation as prescribed in the working plan as applicable. Compensatory afforestation schemes under Assisted Natural Regeneration models as applicable to the identified non forest land (NFL) as well as degraded forest land (DFL) may be considered as per the site requirement.
- vi. State Government will formulate compensatory afforestation scheme including activities like soil & moisture conservation, regeneration cleaning, silvicultural activities and shall ensure maintenance of these plantations for a period of seven to ten years as per requirement.
- vii. The non forest land over which compensatory afforestation will be taken up shall be notified as RF/PF and shall remain under the administrative control of State Forest Department. If the DFL over which CA will be taken up is not a notified forest under IFA or State Forest Act the same shall be notified as RF/PF under this act.

In para 3.2 (ix) the following sub para is added after (f) for identification of Land bank for compensatory afforestation

- (g) The States and UTs shall create land bank for Compensatory Afforestation for speedy disposal of the FC proposals under FC Act 1980. The degraded forest land with crown density upto 40% under the administrative control of forest department may be identified using the Satellite imagery and in consultation with Forest Survey of India and will be made available for CA for Central Government projects and Central Public Sector Units (CPSU). The revenue lands/zudpi jungle/ Chhote/ Bade jhar ka jungle/ jungle-jhari land/civil - soyaun lands and all other such categories of land on which the provisions of Forest (Conservation) Act, 1980 are applicable and other

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Dy. General Manager (Civil)  
Integrated Kashang HEP  
HPPCL, Reckong Poo.

21

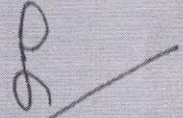


waste land and forest land may also be identified as land bank for the purpose of Compensatory Afforestation. Accordingly, it was decided that to expedite creation of land bank in a systematic manner a Committee under Chairmanship of the Principal Chief Conservator of Forests may be constituted with Chief Wildlife Warden and representatives of revenue department in the State as members of the Committee. The committee may identify the following areas as land bank on priority for inclusion in the land Bank in addition to the blank area and plantation blank referred in para 3.2 (ix)(c):

- (i) Degraded forest land with crown density upto 40% under the administrative control of forest department
- (ii) Areas falling in wildlife corridors to improve connectivity between habitats.
- (iii) Areas falling in and around the Protected Areas (PAs), eco-sensitive zone of PAs, forest areas under direct administrative control of the SFDs to ensure consolidation of such areas.
- (iv) Habitat of rare, threatened and endangered species of flora and fauna located in the areas not under direct administrative and management control of the SFD to ensure long term conservation of such habitats.
- (v) Areas falling in catchment areas of important rivers, water supply schemes, irrigation projects, hydro-electric projects etc.

(h) To monitor the progress of creation of land bank for compensatory afforestation, the Ministry will constitute committees under chairmanship of Head of each Regional Office of the Ministry. Among others, representatives of the National Tiger Conservation Authority (NTCA) and the FSI will also be included as member of these committees. These committees will review the progress in creation of land bank for compensatory afforestation in the States/UTs falling under jurisdiction of the Regional Offices and submit a quarterly report to the Ministry.

This issues with the approval of competent authority



(Nisheeth Saxena)

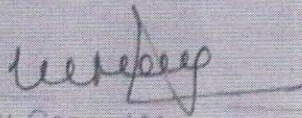
Assistant Inspector General of Forests (FC)

Copy to:

1. All PCCFs States/UTs
2. All Regional Office, MOEF&CC
3. Nodal Officers (FCA) O/o the PCCFs All States/UT
4. DIGF(FC)/Dir(ROHQ)/All AIGFs(FC), MOEF&CC New Delhi
5. PPS to Secretary, MOEF&CC New Delhi
6. PPS to DGF&SS, MOEF&CC New Delhi
7. PPS to IGF(FC)
8. Guard File

(Nisheeth Saxena)

Assistant Inspector General of Forests (FC)



Dy. General Manager (Civil)  
Integrated Kashang HEP,  
HPPCL, Reckong Peo.



HILLARY Bank Account - NEFT  
 Amount to be credited (in Rupee) ₹ 94,98,000/-  
 For the power of attorney, see  
 Date: 27.03.2018  
 All without liability  
 Please sign in a blue or black ink

\*000452\* 1922400524 002422\* 11  
 Real Time Gross Settlement (RTGS) /  
 National Electronic Funds Transfer (NEFT) Form  
 (Attach only for RTGS transactions)

Debit  Credit (V for approval)  Both  
**Beneficiary Details**

Name: CAMP  
 Account No: 221045210  
 Bank: State Bank of India  
 Branch: Forest Circle Rampur  
 IFSC Code: SBIN000330  
 Date: 27.03.2018  
 Remarks: old life insurance fund.

Name: CAMP  
 Address: Forest Circle Rampur  
 Account No: 5901025210  
 Bank Name & Branch: State Bank of India, Forest Circle Rampur  
 Amount to be credited (in Rupee): 94,98,000/-  
 Remarks: old life insurance fund.

Signature/Stamp by Bank Staff  
 Signature of Authorised Signatory  
 2nd Signatory  
 3rd Signatory

*Verlag*

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FD1810102327601

No	Tgl	Waktu	Detail	Opis	Luas	Kategori	Detail
001	27/03/2018	27/03/2018	REPE DI-CORP0000371-CAMPA- REKANG PEG. NOMB.180504275403 RTGS-DE-TUM/J/kecamatan dms pda	000010000432	9.41.92.000.00	D	1972912018032700080000
002	27/03/2018	27/03/2018	REPE DI-CORP0000371-CAMPA- REKANG PEG. NOMB.180504275403 RTGS-DE-TUM/J/kecamatan dms pda	000010000432	9.41.92.000.00	C	18122201803270003000078
003	27/03/2018	27/03/2018	REPE DI-CORP0000371-CAMPA- REKANG PEG. NOMB.180504275403 RTGS-DE-TUM/J/kecamatan dms pda	000010000432	10.520.00	D	1972912018032700080000000
004	27/03/2018	27/03/2018	REPE DI-CORP0000371-CAMPA- REKANG PEG. NOMB.180504275403 RTGS-DE-TUM/J/kecamatan dms pda	000010000432	48.728.00	D	1972912018032700080000000
005	27/03/2018	27/03/2018	REPE DI-CORP0000371-CAMPA- REKANG PEG. NOMB.180504275403 RTGS-DE-TUM/J/kecamatan dms pda	000010000432	2.865.597.00	D	1972912018032700080000000
006	27/03/2018	27/03/2018	REPE DI-CORP0000371-CAMPA- REKANG PEG. NOMB.180504275403 RTGS-DE-TUM/J/kecamatan dms pda	000010000432	76.426.00	D	1972912018032700080000000
007	27/03/2018	27/03/2018	REPE DI-CORP0000371-CAMPA- REKANG PEG. NOMB.180504275403 RTGS-DE-TUM/J/kecamatan dms pda	000010000432	9.41.92.000.00	D	1972912018032700080000000

Dy. G. B. Bhatnagar (CMT)  
 Kepala Keshang HEP  
 HEP/CL, Ramping Peol

*(Signature)*

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## HIMACHAL PRADESH FOREST DEPARTMENT

## KINNAUR FOREST DIVISION AT REKONG PEO.

Office Order No. 3/KAR/2011-12

Dated Rekong Peo, the 5/4/2011

Annexure - F

## OFFICE ORDER

\*\*\*\*\*

In pursuance to the instructions/ stipulations contained in MoEF (GoI) letter No. 9 HPC366/09-CHA (GoI) MoEF (FC Division) dt. 22 March 2011 according to condition no. 7, the Ecological Monitoring Unit to monitor the impact of project on Flora & Fauna within the jurisdiction of command area of Integrated Kashang HEP as well as Shongthong Karchham HEP being constructed by HP PCL is constituted as under:

- DFO Kinnaur (Chairman)
- Representative of HP State Pollution Control Board (Member)
- Sr. Manager/ Environment Engineer of concerned Project (Member)
- DFO (WL) Sarahan or his Representative (Member)
- ACF/ RO (H/Q) Kinnaur Forest Division (Member Secretary)

**Scope:**

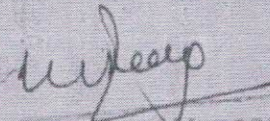
Monitoring and evaluating the impact of project activities on the flora and fauna at the command area of the concerned project.

The scope and responsibility of the ecological monitoring Unit in brief are given below:

**Role & Responsibilities of the Ecological Monitoring Unit**

• Half yearly monitoring of the following impacts on flora and fauna due to pre and construction stage activities and post construction stage of the Integrated Kashang HEP and Shogthong Karchham HEP:

1. Direct and indirect impact on forest flora and fauna its magnitude and suggestions to mitigate the same.
2. Environment impact on various soil, air, water regime, land use pattern, flora and fauna of the area.
3. Impact on productivity of agriculture and horticulture crops of the area.
4. Impact on Air, water and noise pollution and most importantly the soil erosion intensity.

  
Dy. General Manager (Civil)  
Integrated Kashang HEP,  
HPPCL, Rekong Peo.



5. Impact on forest cover and change in the composition of forest particularly Chilgoza and Deodar.
6. Impact due to muck dumping and suggest and enforce measures to ensure proper muck dumping on the specified site as per the proposal.

- To assess and quantify by the above stated impacts on the overall environment, flora and fauna of the project area and to suggest measure to mitigate these issues.

- To suggest and recommend to get study conducted through consultants/ experts on various burning issues as and when required.

#### Financial Aspects:

All expenditure on the monitoring and evaluation, hiring the consultants/ experts, monitoring, office expenses and miscellaneous expenditure shall be borne by the HPPCL and funds for this purpose will be exclusively kept in its financial projection.

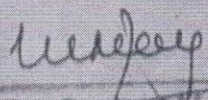
Divisional Forest Officer,  
Kinnaur Forest Division at  
Rekong Peo. 172107

Endst. No. 137-4 Dated Rekong Peo, the 5/4/2011

Copy forwarded to:

- i. The General Manager, Integrated Kashang HEP, HP PCL, Himfed Building Rekong Peo for information.
- ii. General Manager, Shongthong Karchham HEP, HP PCL, Himfed Building Rekong Peo for information.
- iii. Environment Engineer, HP State Pollution Control Board, Rampur Bsr. for information
- iv. The Conservator of Forests, Rampur Forest Circle at Rampur for information.
- v. The Conservator of Forests, Regional office, Bays No. 24-25, Sector 31A, Dakshin Marg, Chandigarh. 160030 for information.

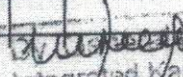
Divisional Forest Officer,  
Kinnaur Forest Division at  
Rekong Peo. 172107

  
Dy. General Manager (Civil)  
Integrated Kashang HEP  
HPPCL, Rekong Peo.



I/355253/2024

Name of CAT Plan		Integrated Kashang HEP						
Cost of CAT Plan		305060000						
Amount Deposited till date		140300000 ✓						
No.	Components/Activity	Name of Division	Total Provision			Year wise (In Rupees)	Expenditure up to 31-03-2023 (In Rupees)	Balance
			Kinnaur	Units	Phy			
1	Afforestation Measure							
a	Nursery Development					1890000		
b	Normal Plantation (Irrigated)					0		
	Normal Plantation ( Non-Irrigated)					6910390		
c	Enrichment (Irrigated)					0		
	Enrichment ( Non-Irrigated)					1889438		
d	Conservation and developmet of Chilgoza pine					0		
	<b>Sub Total of Afforestation</b>				<b>49556000</b>	<b>10689828</b>	<b>38866172</b>	
2	Soil and water conservation endeavors					72218150		
a	Landslides/Slip					7780000		
b	Nalla Treatment					3480000		
c	River Bank Stablization					2310000		
d	Avalaneghe control					2020000		
e	Vari Sarovar					0		
	<b>Sub Total Soil and water</b>				<b>65916000</b>	<b>87808150</b>	<b>-21892150</b>	
3	Prevent for Envirmental Service					0	32500000	
4	Research, Farming and capacity build up Publicity & Awareness, Documentation					10600000	2200000	
5	Infrastructure built up and Forest Protection					8877500		
a	Building Repair					10000000	700000	
b	Path					21440000	1500000	
c	Vehicle and operational Support					3523000	4511897	
d	Silt Monitoring					3600000	500000	
e	Forest Protection					0	0	
i	Boundary Pillar					3500000	0	
ii	Fuel Seving					12740000	700000	
iii	Sign and Board					1000000	0	
iv	Reward					500000	0	
	<b>Sub total infrastructure and forest proction</b>				<b>56303000</b>	<b>16789397</b>	<b>39513603</b>	
6	Wild life measures					10000000	1000000	
	Protected Area					0	0	
	Out side protected area					0	0	
1	Planing					2300000		
2.1	Implementation					11100000	2200000	
2.2	Help to resolve to man-animal conflict					0	0	
2.3	Wildlife habitar magement					0	0	
3	Tranning					1525000	500000	
4	Resarch and Monitoring					0	0	
5	Contigenecies					0	0	

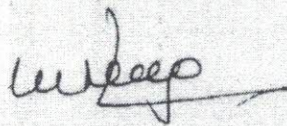
  
 Manager (Civil)  
 Integrated Kashang HEP  
 HPPCL, Rackong Peo.



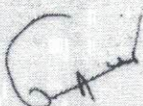
FC-RMP-G/5/2024-SALE- FC RMP-FOREST CIRCLE RAMPUR

I/355253/2024

7	Monitoring and evaluation			15200000		0	15200000
8	Specific work plan (Micro planing)			3050000		0	3050000
9	Contingencies			49310000		725000	48585000
	Total CAT Plan Activities			305060000		124212375	180847625
	G. Total:						
<p>Note: Rs. 3060905/- has been booked up to 31-03-2006 and after 01-04-2006 to 31-03-2023 expenditure made Rs. 124212375/- and hence total expenditure up 31-03-2023 Rs. 127273280/- Balance as on 01-04-2023 Rs. 1772886720/-</p>							



Dy. General Manager  
Integrated Kashang HEP,  
HPPCL, Reckong Peo.



Deputy Conservator of Forests,  
Kinnaur Forest Division at R/Peo H.P.





## CHAPTER - 4

## GREEN BELT DEVELOPMENT PLAN

## 4.1 INTRODUCTION

In order to mitigate and minimize the environmental impacts arising due to construction of project from air pollution, noise pollution, soil erosion etc. the Greenbelt development around the project sites can provide the best solution. The green canopy not only absorbs some of these pollutants but also improves the aesthetic environment. Therefore, a "Green Belt Development Plan" has been proposed around the project area in general and along the project components in particular by using the local flora.

## 4.2 DEVELOPMENT OF GREENBELT

The green belt is proposed to be developed within the project area along the network of approach roads, residential areas, office complex, trench weir sites, power house site and other working areas. The strategy worked out for development of green belt consists of following:

- Broad leaf trees growing above 10 m in height should be planted along the approach roads and colonies
- Plantation of trees should be undertaken in appropriate encircling rows.
- Generally local/indigenous fast growing trees shrubs should be planted.
- The trees should be protected by plantation of non palatable shrub species to avoid browsing by animals.
- Placement of Bamboo/Iron tree guards be provided to save the plants

The schematic arrangement of greenbelt plantation proposed along the roads and Office/Colony is presented in Figure 4.1. It is proposed that dense plantation in degraded forest land around the periphery of trench weir, power house and MAT will be taken up besides road side plantation along approach / haul roads. In areas wherever the private land falls along the periphery of the project area the plantation will be done by distributing saplings to villagers, if they are keen to take up plantation in their land.



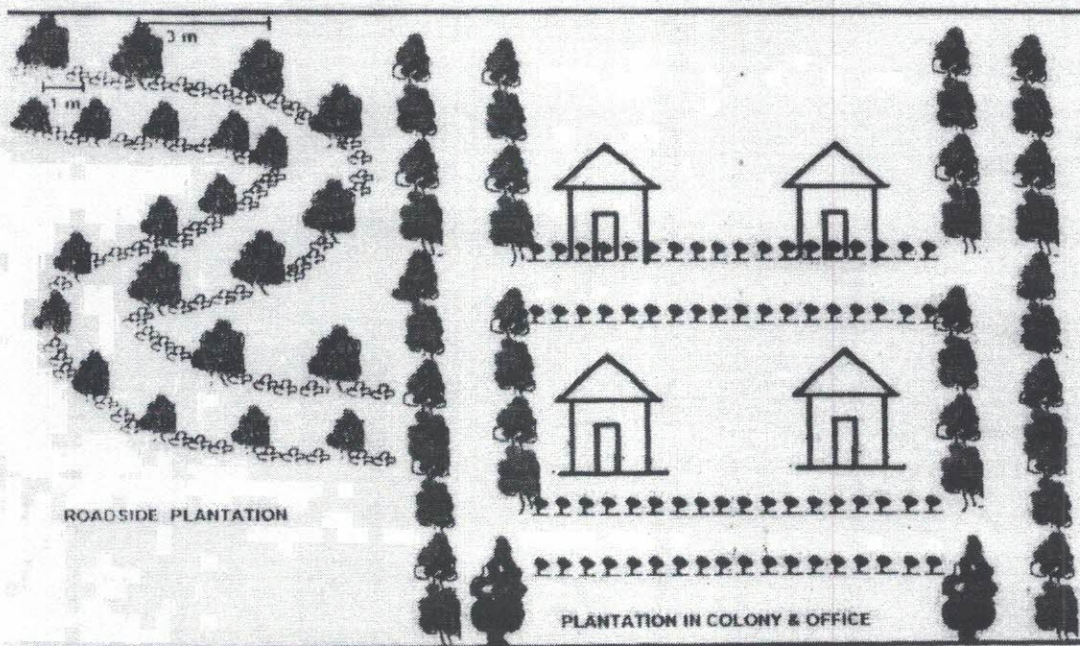


Figure 4.1: Schematic Arrangement of Greenbelt Plantation

#### 4.3 GUIDELINES AND TECHNIQUES FOR GREEN BELT DEVELOPMENT

Extensive survey in the project area was undertaken to observe the vegetation types and its density. The soil characteristics were also kept in mind. Based on this survey and environmental conditions suitable plants species have been proposed for green belt development plan. To meet the requirement of plants sapling for development of green belt, a nursery is a pre-requisite and calls for following considerations:

##### 4.3.1 Size of Nursery

The size of nursery depends upon the number and type of seedlings to be produced. To produce 1,80,000 plants a nursery of about 2.0 ha area would be required.

##### 4.3.2 Nursery Site Selection

A well-drained site near the areas where plantation is to be carried out is always preferred. Light shading site for the nursery is important for the protection of the young seedlings against sun, frost, hailstorms or heavy rains. Sites, which are prone to water logging, should not be selected and sites shall be selected in consultation with Forest Department preferably near the existing one. Modernization of existing nursery may also be explored. In the present case the modernization of forest nursery at Pangi (0.55 ha), Lippa (0.75 ha) and at Akpa (0.65 ha) is proposed to meet and the demand of 1,80,000 trees under the green belt development plan.





#### 4.3.3 Transportation

The nursery should be readily accessible all the year round in order to facilitate transportation of materials required in the nursery and dispatch of seedlings from the nursery.

#### 4.3.4 Fertilizer Application

The organic fertilizer produced through domestic organic waste coupled with vermin compost can be utilized for the nursery. Farmyard manure (FYM) can also be used but chemical fertilizer should be avoided. The compost/ vermin compost is proposed to be developed through solid waste management.

#### 4.3.5 Soil and Soil Fertility

The best site for raising the nursery is the area, which has got a thick layer of humus. The fertile and well-drained soil with sandy loam to loamy texture, pH varying from 5.5-7.5 should always be preferred for nursery sites.

#### 4.3.6 Water Supply and Drainage

The site should have perennial water supply. The drainage of soil has important bearing on the health of seedlings.

#### 4.3.7 Species to be Planted

A list of indigenous trees found suitable after identification of species for raising in the nursery and for development of green belt around the project area is given in Table 4.1.

**Table 4.1: Suggested Plant Species for Green Belt Development**

Botanical Name	Local Name
<i>Alnus nitida</i>	Kosh, Kunish, Nyun
<i>Betula utilis</i>	Bhojpatra, Pad
<i>Cedrus deodara</i>	Kelo, Diar, Kialmang
<i>Cupressus torulosa</i>	Devidiar
<i>Juniperus macropoda</i>	Guggal, Dhup, Shur
<i>Pinus gerardiana</i>	Neoza, Chilagoza, Ri
<i>Prunus armeniaca</i>	Chuli, Chul
<i>Juglans regia</i>	Akhrot
<i>Prunus cornuta</i>	Krun, Birdcherry
<i>Pinus wallichiana</i>	Kail
<i>Fraxinus xanthoxyloides</i>	Thum
<i>Populus ciliata</i>	Kramal
<i>Salix alba</i>	Shon

Beside, the above tree species, the shrub species identified for plantations are; *Cotoneaster bacillaris*, *Colutea nepalensis*, *Elaeagnus umbellata*, *Spiraea canescens* and *Rosa webbiana*.





#### 4.3.8 Precautions during Plantation

Some important precautions should be taken during the plantation, which are as under:

- Open grazing is practiced in general in the area; therefore, protection should be provided in advance.
- Polyculture should be practiced. Mixture by group should be preferred over intimate mixture.
- Species mentioned should be planted in sufficient numbers so as to increase their population size in the area.
- Multipurpose species should be planted in large numbers, so as to provide direct benefit to people living around.

#### 4.4 GREEN BELT DEVELOPMENT

In order to raise the green belt around project areas, trench weir sites and other components the total requirement of different species of plants will be about 1,80,000 saplings. Since the green belt is to be created over a period of five years the maintenance for a period of five years of nursery and plantation works will be required. The beating up of mortality may be done with the plant stocks proposed to be generated in the nursery over the complete duration of the plan.

##### 4.4.1 Road Side Plantation

Cost of the plantation has been calculated as per the existing schedule of rate, material cost (plants, FYM, tree guard, etc.) and the total area of treatment. One row each for tree, shrub and bio-fencing has been proposed with a spacing of 3 m x 3 m for trees and 2 m x 2 m for shrubs (to take care of the mortality in the next season). The pit size has been recommended as 45 x 45 x 45 cm for trees and 30 x 30 x 30 cm for shrubs. The cost of pit digging and filling is estimated at Rs. 10 per pit. Input of FYM @ 2 kg/pit has been suggested costing around Rs.5/pit. Cost of plantation including transport has been estimated at Rs. 10/plant making the total cost of planting one tree as Rs. 25. For the protection of trees from the cattle and other losses, thorny bushes guards are required. Along the approach roads of about 38.8 km length plantation will be done on both sides wherever feasible, as such plantation of about 65000 saplings will be done. Plantation along roads must take into account visibility aspects on curves so as to ensure safe driving.





#### 4.4.2 Green Belt Around Trench Weir Site / Power House

Plantation at the intake sites and powerhouse sites for about 6 ha has been proposed for control of erosion and siltation of the stream and aesthetic importance. The total cost for planting in 6 ha area @ Rs. 88,125 / ha including establishment charges works out to be Rs. 5.5 lacs.

#### 4.4.3 Green Belt Around Residential Area and Office Complex

Plantation around the office complexes is proposed to be done so that greenery is developed. Precaution should be exercised by not planting large size trees around buildings and other similar structures as during winter the sun rays are obstructed by them invariably and much wanted sunshine is impaired. Besides this, it is also proposed to develop green belt around the working areas for trapping the dust and noise. Plantation of avenue, ornamental and fruit trees is proposed in these areas along with the area around office complex. The ornamental, fruit plants will be procured from the local market while the avenue plants will be raised in the project nursery. For providing green belt around residential areas and office complex a provision of Rs. 119.23 lakh has already been made under head M-Plantation in the DPR and it is proposed to plant 1,15,000 trees under the sub head.

#### 4.5 COST ESTIMATE OF GREEN BELT DEVELOPMENT

Table 4.2 Summary of Cost for Green Belt Development

Sl. No.	Component	Cost (in Lacs)
1.	Modernization of 3 No. existing nursery @ Rs. 3.0 lac each	9.0
2.	Maintenance of nursery @ 0.40 lacs/each year for 5 years	6.0
3.	Cost of planting of saplings around trench weir site, power house and site for 6 ha @ Rs. 88125/ha	5.29
4.	Maintenance cost for 4 years - 2 chowkidars @ Rs. 3000/- per month	2.88
5.	Thorny brush wood protection guard for 65000 saplings along road side @ 7.20/No.	4.68
6.	Live hedge fencing in 38.8 km length of approach road on either side @ Rs. 10.89 / RM	8.45
7.	Cost of planting 65000 saplings along road side @ Rs. 25/- each	16.25
8.	Contingency	2.00
	<b>Total</b>	<b>54.55</b>

Say Rs. 55.00 lacs.

Chapter-4: Green Belt Development Plan



**MINUTES OF THE 1<sup>st</sup> MEETING OF THE EXPERT APPRAISAL COMMITTEE FOR RIVER VALLEY AND HYDROELECTRIC PROJECTS HELD ON 17<sup>th</sup> - 18<sup>th</sup> OCTOBER, 2023 FROM 10:30 AM - 05:30 PM BY HYBRID MODE (PHYSICAL- INDUS HALL, MoEF&CC AND ONLINE).**

The 1<sup>st</sup> meeting (hybrid mode) of the re-constituted EAC for River Valley & Hydroelectric Projects organized by the Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi, was held on 17<sup>th</sup> - 18<sup>th</sup> October, 2023, under the Chairmanship of Prof. G. J. Chakrapani. After initial introduction of all, the committee deliberated on the various issues and challenges for sustainable development of hydroelectric and river valley projects and expressed their absolute commitment, cooperation and team work for the EAC. The list of Members present in the meeting is shown in the Annexure.

**Agenda Item No. 1.1: Confirmation of Minutes of 51<sup>st</sup> EAC meeting**

The EAC confirmed the minutes of 51<sup>st</sup> EAC meeting held on 12<sup>th</sup> September, 2023.

**Agenda Item No. 1.2**

Vijayanagar Pump Storage Project (130 MW) in an area of 127.54 ha at Village Kurekuppa, Sub District Sandur, District Ballari, Karnataka by M/s JSW Energy PSP Two Limited - Environmental Clearance (EC) - reg.

[Proposal No. IA/KA/RIV/444768/2023; F. No. J-12011/05/2022-IA.I (R)]

1.2.1: The proposal is for grant of Environmental Clearance (EC) to the project for Vijayanagar Pump Storage Project (130 MW) in an area of 127.54 ha at Village Kurekuppa, Sub District Sandur, District Ballari, Karnataka by M/s JSW Energy PSP Two Limited.

1.2.2: The Project Proponent and the accredited Consultant M/s EQMS Global Pvt. Ltd., made a detailed presentation on the salient features of the project and informed that:

- i. The proposed Vijayanagar Pumped Storage Project is a self-identified, green field project by the JSW Renewable Energy (Vijayanagar) Ltd., a subsidiary of JSW Energy Limited, for captive use in JSW Steel Plant.
- ii. The project has been conceived as an off-stream closed loop pumped storage project of installed capacity 130 MW/845 MWH pumped storage component with twin cycle consisting of hydropower generation during morning and evening peaks by pumping twice during 24-hour period. The project shall be located in Vidya Nagar area of JSW Steel Plant, Taluka Sandur, District Bellary, Karnataka.
- iii. The project with an installed capacity of 130 MW by utilizing a design discharge of 108.01 cumecs with rated net head of 136.32 m for two daily cycles of peaking (4.0 hours in the morning and 6.50 hours in evening/night)



25	Expert required for study of impact on ecology, including fisheries, biodiversity of riverine ecosystem.	ICAR-DCFR a premier organization working in area of cold-water fisheries and ecology, resource assessment and aquaculture. Institute has completed number of impact assessment studies on HEPs including CIA & CC study of Sutlej basin and has enough expertise for study of impact on ecology, including fisheries, biodiversity of riverine ecosystem.  As Fish migration through different tags electronic/sensors is critical behaviour in determining the spawning ground, ICAR-CIFRI expertise may be consulted in this regard.
28	Impacts on fisheries due to fluctuations in Water Level, HEP components (hydraulic turbines, Spillways, penstock etc).	General recommendations on impacts on fisheries will be given based on the available data on the fluctuations in water level.

**The EAC during the present meeting deliberated on the modifications of modification of some additional TOR for conducting Cumulative Impact Assessment and Carrying Capacity Study (CIA & CCS) of Yamuna River Basin in Himachal Pradesh by Indian Council of Forestry Research and Education (ICFRE), finalised during 41<sup>st</sup> EAC meeting held on 15.02.2023.**

The EAC after detailed deliberations was of the view that the all additional points finalized by the earlier EAC is justified and well deliberated and essential for comprehensive assessment of carrying capacity and cumulative impacts of the anthropogenic proposed/ ongoing activities in the river basin. EAC member emphasised on Habitat Simulation or Micro-Habitat Modeling Methodologies for biological sustainability of aquatic ecosystem study and E-flow assessment on the basis of Velocity/Depth & cross section, Drone Based aerial survey in the CIA&CC of River basin. ICFRE needs to expand their resources to carry out said study in appropriate manner. The Committee members also desired to expedite the collection of Primary and Secondary base line data and regular perusing with concerned department. The EAC also suggested the Committee constituted by the Ministry to examine the other aspect of the study like increased expenditure on study through drone survey, fresh collection of baseline data for Uttarakhand etc. in consultation with ICFRE for timely completion of the study.

**Item No.- 1.10:**

**Cumulative Impact Assessment and Carrying Capacity Study (CIA & CCS) of Sutlej River Basin Study in Himachal Pradesh by Indian Council of Forestry Research and Education (ICFRE), Dehradun - Reconsideration of Study Report - reg.**

The Indian Council of Forestry Research and Education (ICFRE), Dehradun along with its partner institutions viz. Alternate Hydro Energy Center (AHEC/HRED), Indian Institute of Technology



(IIT), Roorkee; ICAR Directorate of Coldwater Fisheries (DCFR), Bhimtal and Salim Ali Centre for Ornithology and Natural History (SACON), Coimbatore, made a presentation before the EAC (River Valley and Hydroelectric Projects) on the draft report on "Cumulative Environmental Impact Assessment (CEIA) & Carrying Capacity Study (CCS) of hydroelectric projects in Sutlej river basin in Himachal Pradesh".

The ICFRE, Dehradun informed that:

- i. The CIA&CCS report for Sutlej River Basin for 38 HEPs (>10 MW), Himachal Pradesh part presented before EAC (RV&HEP) of MoEF&CC during its 91<sup>st</sup> meeting held on 08.02.2016.
- ii. During 91<sup>st</sup> EAC meeting it was suggested to include all HEPs including less than 10MW in CIA&CCS study; including Luhri project (775 MW) to be studied as Luhri stage I (210MW), stage II (170MW) & stage III (355MW).
- iii. Study Report including <10 MW HEPs submitted to MoEF&CC in November, 2018 & presented before EAC (RV&HEP) of MoEF&CC, New Delhi during its 21<sup>st</sup> meeting held on 28.01.2019.
- iv. The suggestions made by the EAC during its 21<sup>st</sup> meeting on the study report were compiled and incorporated in the corrected study report which was presented before EAC (RV&HEP) during its 29<sup>th</sup> meeting held on 05.12.2019.
- v. The recommendations of the study report were further corrected during the 30<sup>th</sup> EAC meeting held on 27.01.2020. Accordingly, the ICFRE, Dehradun has incorporated the corrections/ modifications in the final draft report on Cumulative Environmental Impact Assessment (CEIA) & Carrying Capacity Study (CCS) of Hydroelectric projects in Sutlej River Basin in Himachal Pradesh and submitted vide letter dated 10.06.2020 to MOEF&CC.
- vi. During examination of the report in the Ministry certain factual errors were observed and the same was communicated to ICFRE vide letter dated 26.10.2021.
- vii. The corrected final draft report on Cumulative Environmental Impact Assessment (CEIA) & Carrying Capacity Study (CCS) & Carrying Capacity Study (CCS) of Hydroelectric projects in Sutlej River Basin in Himachal Pradesh was submitted by the ICFRE vide letter dated 16.11.2021 to the MOEF&CC.
- viii. The corrected final draft report on Cumulative Environmental Impact Assessment (CEIA) & Carrying Capacity Study (CCS) of Hydroelectric projects in Sutlej River Basin in Himachal Pradesh was deliberated in 41<sup>st</sup> EAC meeting (15.02.2023). The EAC after detailed deliberations was of the view that the issues of Govt. of Himachal Pradesh related to report on Cumulative Environment Impact Assessment (CIA&CCS) Sutlej River Basin in Himachal Pradesh needs to be discussed by Government of Himachal Pradesh expeditiously with ICFRE, Dehradun on priority basis so that the same can be addressed before finalisation of the study report. The ICFRE may modified the report accordingly and submit for further deliberations by the EAC.
- ix. Accordingly, meeting of officials from DoE, GoHP, Shimla, SJVNL, NTPC, HPPCL held on 02.08.2023 at DHRE, IIT, Roorkee to discuss w.r.t recommendations of CIA & CCS of Sutlej River in Himachal Pradesh made in the 41<sup>st</sup> EAC meeting held on 15.02.2023 . During discussion with officials from Govt of Himachal Pradesh most of the issues were settled.



The EAC during the present meeting deliberated on recommendations of CIA & CCS of Sutlej River in Himachal Pradesh made in the minutes of the 41<sup>st</sup> EAC meeting (15.02.2023). During the meeting Govt of Himachal Pradesh officials were also present.

The EAC after detailed deliberation found that the corrected final draft report on "Cumulative Environmental Impact Assessment (CEIA) & Carrying Capacity Study (CCS) of Sutlej River Basin in Himachal Pradesh is in order and as per the TOR given by the Ministry. Accordingly, the EAC recommended the study report for acceptance by the Ministry.

**Item No.- 1.11: Cumulative Impact Assessment and Carrying Capacity Study (CIA & CCS) of Tirap Basin. Inclusion of Chinglum Hydroelectric Project in Subansiri Basin – Conducting study – Reg.**

The officials from Government of Arunachal Pradesh did not attend the meeting; hence EAC decided to defer the proposal.

**Item No.- 1.12**

**Proposal for conducting Cumulative Impact Assessment (CIA) & Carrying Capacity Study (CCS) of Ravi River Basin in Himachal Pradesh –Consideration of proposal – Reg.**

The Member Secretary, EAC (RV&HEP), MoEF&CC informed that:

- i. MOEF&CC vide letter dated 05.02.2015 written to Chief Secretary, Govt of Himachal Pradesh to hand over all records related to Carrying Capacity and CIA studies of River Basins in Himachal Pradesh.
- ii. Centre for Inter-disciplinary Studies of Mountain & Hill Environment (CISMHE), University of Delhi and WAPCOS were requested by MOEF&CC vide letter dated 03.02.2016 for preparing draft TORs and submit to this Ministry.
- iii. The CISMHE, University of Delhi submitted draft TOR for conducting CIA&CCS study of Ravi River Basin in Himachal Pradesh.
- iv. The Centre for Interdisciplinary Studies of Mountain & Hill Environment (CISMHE) University of Delhi, made a presentation before the 1<sup>st</sup> EAC (River Valley and Hydroelectric Projects) on the TOR proposal for conducting CIA&CC study of Ravi River Basin in Himachal Pradesh.
- v. The CISMHE, Delhi University during discussion informed that they have prepared draft TOR covering following aspects:
  - a) Characteristics of Ravi Basin
  - b) Scope of Work
  - c) Approach and Methodology
  - d) Outcome of the Study
  - e) Organizational Set up and Staffing
  - f) Scheduled Work Plan

The EAC during the present meeting deliberated on the TOR proposal for conducting CIA&CCS study of Ravi River Basin in Himachal Pradesh presented by CISMHE, Delhi University.