SITE INSPECTION REPORT OF RENUKA DAM PROJECT

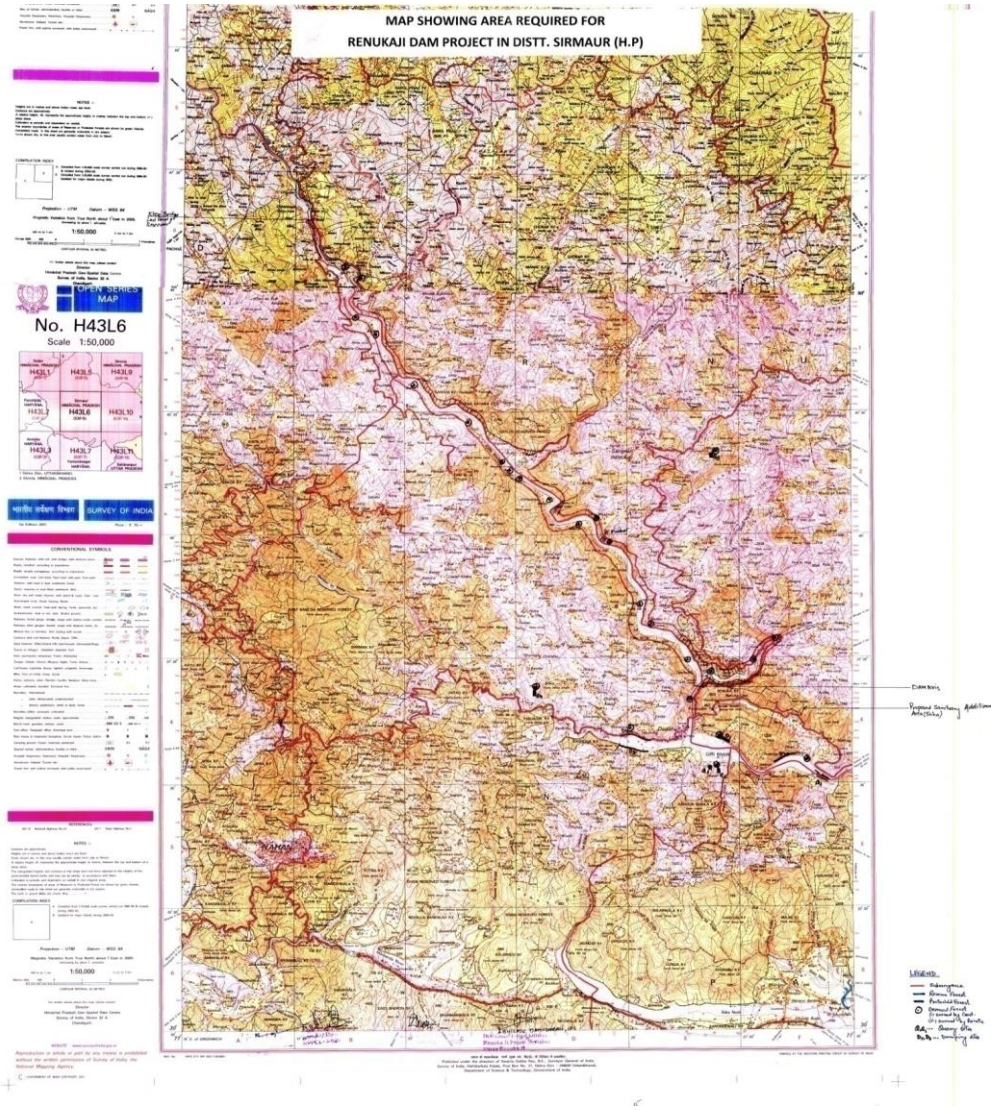
1.	Name of the Project/Proposal	**Renukaji Dam Project** It envisages a 148 meters high Rock fill Dam across river Giri, a tributary of river Yamuna, located about 1.50 km upstream of Giri Bridge at Dadahu in Himachal Pradesh. The scheme basically being a water supply scheme for NCT Delhi (upper Yamuna States) having a reservoir spread in about 24 km length and a powerhouse of 40 MW capacity as incidental hydel power generation. Besides, the scheme will act as flood control measure during monsoon period. **Note:** The proposal was submitted by the user agency (HP State owned Himachal Pradesh Power Corporation Ltd) for the forestland under government ownership and the site inspection was also carried out in August 2009 following which the proposal was considered by the FAC in June 2010 and the diversion of forestland was recommended by it. However, the MoEF did not accept the recommendation on account of involvement of dense forests. Proposal has been submitted again with details of trees to be actually removed and those to be retained besides working out the density of the forests involved. In the meantime, forestland under private ownership entered as '*jungle jhari* in revenue records is also included in the proposal. The present site inspection accordingly is carried out for the forestland under private ownership.	
	Date of Inspection	**April 9th, 2014**	
2.	Legal Status of the forestland proposed for diversion	1. Reserved Forest : 596.06ha 2. Protected Forrest : 49.94ha 3. Wild Life Sanctuary (RF) : 49ha 4. Govt.Deemed Forest : 80 ha 5. Private Deemed Forest (kism- jungle jhari) : 134 ha	**Total 909 ha.**
3.	Item-wise break-up details of forest land proposed for diversion	Details enclosed as **Annexure-I.**	
4.	Total cost of the project at present rates	Rs. 3403.78 crores for civil works + Rs. 83.59 crores for Electo-mechanical works + Rs.11.49 crores for Transmission works **Total Cost Rs.3,498.86 crores** (Price level March, 2009)	
5.	Whether proposal involves any construction of buildings (including residential) or not? If yes, details thereof	Yes, Residential Colony for staff for which detail is provided in **Annexure-II**. However, none of the residential buildings are located on forestland.	
6.	**Wildlife:** Whether forest area proposed for diversion is important from wildlife point of view or not	The proposal involves 49 ha area of Renukaji Wild Life Sanctuary. Permission from the Apex Court has been obtained vide order dated 17/11/2006; compliance status of supreme court orders as informed by the Project authorities is placed as **Annexure-III.** Provision has been made in EMP for Wildlife Management with financial allocation of Rs. 140 crore. The forestland in private ownership is not important from wildlife point of view.	
7.	**Vegetation:**		

	Total nos. of trees to be felled Effect of removal of trees on the general eco-system in the area. **Important Species:** No. of trees to be felled of girth below 60cm No. of trees to be felled of girth above 60cm	1,41,944 (including 74,042saplings) Enumeration list is attached as **Annexure-IV.** Most of these trees are coming in submergence area, which if not removed, will decay and generate Green House Gases including methane. Hence, removal is necessary. Loss of trees would be compensated by compensatory aforestation, Green belt development and Reservoir Rim Treatment besides funding implementation of CAT Plan. Impact of removal of tress will be marginal as the district is self sufficient in fuelwood and other forest produce. The district has over 49% of its area under tree cover with scrub 56 sq km (Ref: SFR 2009;FSI) 1,22,591 (including 74,042 saplings) 19,353 Enclosed as **Annexure-IVA**
8.	Background note on the proposal	Attached as per **Annexure-V**.
9.	**Compensatory Aforestation:** Whether land for CA is suitable from plantation and management point of view or not? Whether land for CA is free from encroachments/other encumbrances? Whether land for CA is important from religious/archaeological point of view? Land identified for CA is in how many patches are compact or not? Map with details Total financial outlay	 Yes. Photocopy of certificate of DFOs attached as **Annexure-VI**. Yes No Total nos. of patches: 164 No. Patches are compact. Attached as **Annexure-VII**. Rs. 2,109 lakh for 1,818 ha.
10.	Whether proposal involves violation of Forest (Conservation) Act, 1980. If yes, a detailed report or violation including action taken against the concerned officer.	No. Project Authority has not violated FCA.
11.	Whether proposal involves rehabilitation of displaced persons. If yes, whether rehabilitation plan has been prepared by State Govt. or not?	Yes, R&R Plan has been got approved by HP Govt. Standard R&R Plan placed at **Annexure-VIII**.
12.	**Reclamation Plan:** Details and financial allocation	Muck Management plan is placed at **Annexure-IX** with Financial allocation of Rs 960.98 lakh. Restoration reclamation plan is placed at **Annexure-X** with Financial allocation of Rs. 471.07 lakh.
13.	Details on catchment and command area under the project	The catchment of Giri river at the proposed dam site is 2175 Sq Km. A CAT Plan prepared and placed at **Annexure-XI**. Financial outlay Rs. 7500 lakh. The proposed project is to store the monsoon flow and release it during non-monsoon lean season in the river downstream of the dam, as such; it does not have a command area of its own.
14.	Cost Benefit Ratio	1:9
15.	Recommendations of the PCCF/State	Case is duly recommended by PCCF and the State Government.

	Government	
16.	Recommendations of Regional APCCF along with detail reasons	As Project is very important keeping in view the fact that it is mainly for supply of water to NCT Delhi, it is recommended.
17.	Regional APCCF shall give detailed comments on whether there are any alternative routes/alignments for locating the project on the non forest land.	The project is site specific to the extent that Dam has been proposed at the point, which is most suitable from technical point of view and as a consequence the area to be submerged has no alternatives.
18.	**Utility of the Project:** Number of scheduled caste/ tribes to be benefited by the project	NCR : Nos. of scheduled caste : 23.43 lakh. Nos. of Scheduled Tribes : Nil Source: SC communities and their population according to the 2001 Census of India in Delhi.
19.	Whether land being diverted has any socio-cultural/religious value. Whether any scared grove or very old growth trees/forests exist in the area proposed for diversion. Whether the land under diversion forms parts of any unique eco-system.	No No No
20.	Situation w.r.t any P.A.	49 ha of Renukaji Wild Life Sanctuary is involved. Permission from Apex Court has already been obtained.
21.	Any other information relating to the project.	1. Environment Clearance for the Project has been accorded by the MoEF vide letter No. J-12011/53/2008-IA.I(IA Division) dated 23.10.2009 (Copy placed at **Annexure-XII**). 2. Backward District. 3. No major industries in the area. 4. Geographical area of the District 2,825 sq km 5. Fishing opportunities in the reservoir. 6. Tourism attraction 7. Wild life attraction

HIMACHAL PRADESH

MAP SHOWING AREA REQUIREMENT FOR RENUKAJI DAM PROJECT



ANNEXURE-I

ITEM/COMPONENT-WISE REQUIREMENT OF FOREST LAND (in ha.)

Sr. No.	Name of Component	Govt. Forest Land Permanent Temp.	Private Deemed Forest Land kism jungle jhari Permanent Temp.	Total
A.	**Reservoir & RIM Protection measures**	572 -	134 -	706.0
B.	**Project Components**			
i)	**Rockfill Dam**	23.5 -	-	23.5
ii)	**Power House Complex** i)Power House ii)TRT iii)Switch yard	-	-	-
iii)	**Spillway** i)Chute ii)Adjoining slopes	 3.3 - 11.38 -		14.68
iv)	**Tunnels** **i**)Intake shaft ii)Diversion tunnels 3nos**.**	 - - - -	-	-
v)	**Intake Structures &drainage grouting galleries**	-	-	-
C.	**Roads Colonies**	4.74	-	4.74
D.	**Coffer Dam and Outfall of diversion tunnels**	16.48 -	-	16.48
E.	**Quarry sites**	- 42	-	42.0
F.	**Muck Dumping sites**	- 56	-	56.0
G.	**River bed job facility**	- 45.4	-	45.4
	TOTAL	**631 144**	**134 -**	
		775	**134**	**909**

ANNEXURE-II

Detail of Residential Buildings

Sr. No.	Type of Accommodation	Nos.
1.	Type-I	6
2.	Type-II	6
3.	Type-III	6
4.	Type-IV	4
5.	Type-V	1

ANNEXURE-III

Conditions imposed by Hon'ble Supreme Court and their compliance

1.Requisite approval under the FC Act for the use of forest land will be obtained.

Under consideration by MOEF.

2.The NPV at the present rate will be deposited by the project Authorities along with an undertaking to deposit additional NPV in the CAMPA as per the directions of this Hon'ble Court.

Undertaking by project authority has already been submitted along with FCA case.

3.The conditions on which the proposal has been recommended by the standing Committee for National Board for wildlife will be complied with

i) Submerged area of the project would be included in the sanctuary bringing the total area of the sanctuary to 1597.6 ha.

After obtaining Forest clearance, Submerged area of the project would be included in the sanctuary bringing the total area of the sanctuary to 1597.6 ha.

ii) The road that is presently bifurcating the sanctuary should be closed to traffic and an alternative road would be provided bypassing the sanctuary area. However , till the new road is constructed the existing road may be allowed to be used.

Matter has been taken up with State Public Works Department. Project proponent commits to pay for this road construction.

iii) The entire submergence area of the reservoir would be notified as a sanctuary with a view to provide protection to the migratory species and birds in the reservoir area

After Forest clearance and on completion of land acquisition, revenue papers for the entire submergence area would be submitted to HP Forest Deptt./GoHP for notifying the same as a Wildlife sanctuary.

iv) Compensatory Afforestation over twice the area notified as deemed forest diverted for the project to be carried out over the degraded forest on the mountain slopes along the River Giri downstream of the proposed Dam. This area is estimated at 939 ha. and therefore Compensatory Afforestation is required over 1878 ha.

CA will be carried out for 1818ha twice the area of forest land being diverted and incorporated in FCA proposal. The provision for CA is kept as amounting to Rs.21.09crores

v) 5% of the project cost should be deposited by the project Authorities for development and management of the sanctuary

Project proponent commits to deposit the cost immediately on receipt of <u>in-principle approval</u> under FCA

vi) The project Authorities should ensure adequate flow of water throughout the year in the Giri river which is the habitat of several varieties of fish for centuries. Appropriately designed fish ladder should be provided at Renuka Dam and Dadahu Barrage.

During lean season, 23 cumecs of water shall be released daily whereas during monsoon season 15% downstream discharge will be maintained. Fisheries Development and Management Plan is incorporated in EMP (chapter 11).

4. 5% of the revised project cost will be deposited in Compensatory Afforestation Fund by the user agency for undertaking conservation and protection works in the sanctuary. This condition has also been recommended by the standing committee of the National Board for Wildlife

Agreed as above

5. A comprehensive environment management plan for the conservation and the protection of the Renukaji wildlife Sanctuary will be prepared and implemented.

Plan for conservation and the protection of Renuka Wildlife Sanctuary has been prepared and incorporated in EMP (chapter 12)

6. No labour camps will be established in the forest area arrangement for fuel wood / Kerosene oil will be made and supplied free of coat to the labourers only in the project to meet their energy requirement

Project proponent assures that no labour camps would be set up in forest area. While awarding the contract for main works of project, such condition shall be imposed in the contract agreement

7. The project Authorities will enter the sanctuary area for the construction activity after obtaining prior permission from the concerned authorities of the forest Department.

On grant of approval under FCA, necessary permission will be obtained from HP Forest Deptt. before starting work in the sanctuary area.

ANNEXURE-IV

Enumeration of Trees coming under Renukaji Dam Project in 909 ha. of Forest Land
(Forest Land 695ha.Deemed Forest Land 80ha. and Private Forests Land kism Jungle Jhari 134ha.)

S.N	Enumeration of Trees	Classification of trees										Total
		Below V	V	IV	III	IIA	IIB	IA	IB	IC	ID	
1.	From River bed level to top of the Dam (i.e. from EL 630m to EL.778m)	100397	61724	15984	6123	1903	579	152	57	7	16	**186942**
2.	From River bed Level to Full Reservoir level-4m (FRL-4m) i.e. from River bed level to EL.762m (Those would be removed)	74042	48549	12150	4968	1540	489	140	46	6	14	**141944**
3.	Between FRL-4m to Top of the Dam (i.e. between EL.762m to EL.778m) (Those would not be removed)	26355	13175	3834	1155	363	90	12	11	1	2	**44998**

Abstract of enumeration of trees in Forest land(695ha), Deemed Forest land owned by Govt.(80ha) and Deemed Forest owned by Private(134ha shamlat& private forests), for the diversion of 909 ha Forest land for construction of Renukaji Dam Project

Trees/count in Numbers

1	2	3			4						5								
S.N.	Classification of Trees	Original Proposal of June, 2010 Stage -1			Revised Proposal of April, 2011 Stage-2						Proposal of November, 2011/ Proposal of January, 2013/March 2014 Stage-3 (Proposal Stage-2 + additional enumeration of trees on 134 ha of Shamlat & Private Forest lands)								
		Trees falling in the area between riverbed level and top of Dam level (778 mtr.)			Trees falling in the area between FRL-4 mtr level (762 mtr.) and top of the dam level (778 mtr) those will not removed			Trees falling in the area between riverbed level and FRL-4 mtr (762 mtr.) those will be removed			Trees falling in the area between riverbed level and top of Dam level (778 mtr.)			Trees falling in the area between FRL-4 mtr level (762 mtr.) and top of the dam level (778 mtr) those will not removed			Trees falling in the area between riverbed level and FRL-4 mtr (762 mtr.) those will be removed		
		on Forest land (a)	on Deemed Forest land (b)	Total (a+b)	on Forest land (a)	on Deemed Forest land (b)	Total (a+b)	on Forest land (a)	on Deemed Forest land (b)	Total (a+b)	on Forest & Deemed Forest land (a)	on Shamlat & private Forest land (b)	Total (a+b)	on Forest & Deemed Forest land (a)	on Shamlat & private Forest land (b)	Total (a+b)	on Forest & Deemed Forest land (a)	on Shamlat & private Forest land (b)	Total (a+b)
A.	***Trees & Poles***												-						
A1	***Trees***												-						
1	ID	8	0	8	1	0	1	7	0	7	8	8	16	1	1	2	7	7	14
2	IC	7	0	7	1	0	1	6	0	6	7	0	7	1	0	1	6	0	6
3	IB	51	2	53	9	2	11	42	0	42	53	4	57	11	0	11	42	4	46
4	IA	139	2	141	11	1	12	128	1	129	141	11	152	12	0	12	129	11	140
5	IIB	535	9	544	84	2	86	451	7	458	544	35	579	86	4	90	458	31	489
6	II A	1,746	55	1,801	317	22	339	1,429	33	1,462	1,801	102	1,903	339	24	363	1,462	78	1,540
7	III	5,548	261	5,809	1,003	80	1,083	4,545	181	4,726	5,809	314	6,123	1,083	72	1,155	4,726	242	4,968
Sub-Total (Trees)		8,034	329	8,363	1,426	107	1,533	6,608	222	6,830	8,363	474	8,837	1,533	101	1,634	6,830	373	7,203
A.2	***Poles***																		
8	IV	13,348	1,215	14,563	3,043	517	3,560	10,305	698	11,003	14,563	1,421	15,984	3,560	274	3,834	11,003	1,147	12,150
9	V	49,223	4,851	54,074	9,466	2,086	11,552	39,757	2,765	42,522	54,074	7,650	61,724	11,552	1,623	13,175	42,522	6,027	48,549
Sub-total Poles		62,571	6,066	68,637	12,509	2,603	15,112	50,062	3,463	53,525	68,637	9,071	77,708	15,112	1,897	17,009	53,525	7,174	60,699
8	***Saplings***													0					
10	Below V	80,834	15,026	95,860	15,473	9,986	25,459	65,361	5,040	70,401	95,860	4,537	1,00,397	25,459	896	26,355	70,401	3641	74,042
Total (Trees & Poles)		70,605	6,395	77,000	13,935	2,710	16,645	56,670	3,685	60,355	77,000	9,545	86,545	16,645	1,998	18,643	60,355	7,547	67,902
Grand Total (Trees, Poles & Saplings)		1,51,439	21,421	**1,72,860**	29,408	12,696	**42,104**	1,22,031	8,725	**1,30,756**	1,72,860	14,082	**1,86,942**	42,104	2,894	**44,998**	1,30,756	11,188	**1,41,944**

ANNEXURE-IVA

Species-wise/Classs-wise Enumeration list of Trees falling in submergence area under Forest Land (695ha.) from River bed Level EL.630 m to EL 762 m(FRL-4m) those would be removed

S.No	Species		Classification of trees										
	Botanical Name	Local Name	**Below V**	**V**	**IV**	**III**	**IIA**	**IIB**	**IA**	**IB**	**IC**	**ID**	**Total**
1	Kokat (miscellaneous species)	Kokat	61345	36464	7694	2683	756	237	93	30	6	7	109315
2	Eucalyptus	Eucalyptus	540	1082	1542	1348	531	158	22	1	0	0	5224
3	Acacia-Catechu	Khair	2541	1525	690	228	41	18	2	1	0	0	5046
4	Dalbergia Sissoo	Shisham	468	402	219	164	63	16	6	0	0	0	1338
5	Careya herbacca	Amrood	4	5	1	0	0	0	0	0	0	0	10
6	Mangifera Indica	Mango	0	3	8	5	1	0	0	0	0	0	17
7	Terminalia belerica	Bhehra	39	69	65	59	18	6	2	6	0	0	264
8	Cedrela Toona	Toon	47	33	10	20	7	1	1	0	0	0	119
9	Phyllanthus Emblica	Amla	48	111	35	6	1	0	0	0	0	0	201
10	Dendrocalmus strictus	Bamboo	306	10	0	0	0	0	0	0	0	0	316
11	Sapindus Mukurossi	Ritha	0	0	3	0	1	0	0	0	0	0	4
12	Albizzia lebbek	Siras	0	15	14	9	4	2	1	2	0	0	47
13	Populus ciliata	Pipal	0	3	4	1	0	0	0	0	0	0	8
14	Cassia Fistula	Amaltas	0	2	0	0	0	0	0	0	0	0	2
15	Eugenia jambolana	Jamun	0	1	1	0	0	0	0	0	0	0	2
16	Pinus Roxb	Chir	0	9	8	8	0	1	0	1	0	0	27
17	Terminalia Chebula	Harad	0	7	0	0	0	0	0	0	0	0	7
18	Punica Granatum	Anar	5	0	0	0	0	0	0	0	0	0	5
19	Grewia Oppositifolia	Behul	0	2	0	0	0	0	0	0	0	0	2
20	Crotalaria sericea	Sanan	11	2	0	0	0	0	0	0	0	0	13
21	Bombax malabaricum	Simbal	7	11	11	14	6	12	1	1	0	0	63
22	Populus	Popular	0	1	0	0	0	0	0	0	0	0	1
	Total		**65361**	**39757**	**10305**	**4545**	**1429**	**451**	**128**	**42**	**6**	**7**	**122031**

Species-wise/Class-wise Enumeration of Trees falling in Submergence area under Govt. Deemed Forest Land (80ha.) from River bed level EL.630 m to EL.762 m (FRL-4m) those would be removed.

S.No	Species		Classification of trees										
	Botanical Name	Local Name	**Below V**	**V**	**IV**	**III**	**IIA**	**IIB**	**IA**	**IB**	**IC**	**ID**	**Total**
1	Kokat (miscellaneous species)	Kokat	4454	2320	572	150	30	7	1	0	0	0	7534
2	Cedrela Toona	Toon	38	39	8	0	0	0	0	0	0	0	85
3	Acacia-Catechu	Khair	486	291	78	11	3	0	0	0	0	0	869
4	Dalbergia Sissoo	Shisham	54	76	37	18	0	0	0	0	0	0	185
5	Eucalyptus	Eucalyptus	0	6	0	2	0	0	0	0	0	0	8
6	Populus	Popular	2	25	0	0	0	0	0	0	0	0	27
7	Bombax malabaricum	Simbal	4	6	3	0	0	0	0	0	0	0	13
8	Careya herbacca	Amrood	2	1	0	0	0	0	0	0	0	0	3
9	Albizzia lebbek	Siras	0	1	0	0	0	0	0	0	0	0	1
Total			**5040**	**2765**	**698**	**181**	**33**	**7**	**1**	**0**	**0**	**0**	**8725**

Species-wise/Class-wise Enumeration of Trees falling in Submergence area under Private Deemed Forest Land (134 ha kism jungle jhari.) from River bed level EL.630 m to El .762 m (FRL-4m) i those would be removed.

Forest Division	Sr. No.	Name of Spp.	Classification of trees										
			Below Vth	Vth	IVth	III	IIA	IIB	IA	IB	IC	ID & Over	Total
Rajgrah	1	Kokat(Miscellonous Spp.	225	364	62	11	10	1	1	1	0	0	675
	2	Shisham(Dalbergia sissoo	15	17	3	0	3	2	0	1	0	1	42
	3	Khair (Aceacia catechu	0	6	0	0	0	0	0	0	0	0	6
	4	Toon (Cedrela toona	0	11	12	3	2	0	1	0	0	0	29
		Total (a)	240	398	77	14	15	3	2	2	0	1	752
Renuka	1	Kokat(Miscellonous Spp).	2923	4387	838	186	46	25	7	2	0	5	8419
	2	Shisham(Dalbergia sissoo)	102	168	50	8	3	1	1	0	0	0	333
	3	Khair (Aceacia catechu)	74	336	40	7	1	0	0	0	0	0	458
	4	Toon (Cedrela toona)	17	128	28	8	2	2	1	0	0	0	186
	5	Amla (Emblica officinalis)	0	6	0	0	0	0	0	0	0	0	6
	6	Chil (Pinus roxburghii)	0	1	0	0	0	0	0	0	0	0	1
	7	Siris (albizzia lebbek)	275	600	112	18	11	0	0	0	0	0	1016
	8	Pipal (Populus ciliata)	0	1	1	0	0	0	0	0	0	0	2
	9	Aam (Mangifera indica)	1	1	1	1	0	0	0	0	0	0	4
	10	Jaman (Syzygium cumini)	0	1	0	0	0	0	0	0	0	0	1
	11	Semal (Salmalia malabarica)	0	0	0	0	0	0	0	0	0	1	1
	12	Akhrot (Juglans regia)	1	0	0	0	0	0	0	0	0	0	1
	13	Bamboo (Denbrocalamus strictus	8	0	0	0	0	0	0	0	0	0	8
		Total (b)	3401	5635	1064	228	63	28	9	2	0	6	10436
		Sub Total (a+b)	**3641**	**6027**	**1147**	**242**	**78**	**31**	**11**	**4**	**0**	**7**	**11188**

ANNEXURE-V

Background note on Renuka Dam Project with focus on Forest clearance

1. State of Himachal Pradesh conceived a project known as "Renuka Dam Project" (hereinafter referred to as Project) in District Sirmour of Himachal Pradesh. The Project would primarily be a "Water supply Project" to cater to the need of water supply in the National Capital Region (NCR) of Delhi and upper Yamuna States. It is also proposed to utilize other incidental benefits such as 40 MW power generation there from. The said project when completed shall provide 0.45 billion cubic meters of additional water to NCR, by storing the monsoon water of River Giri and then regulating the same throughout the year. The project will ensure 0.37 million acre-feet of live storage in its reservoir and a firm water supply of 23 cumecs to NCR, Delhi i.e. about 437 mgd (million gallons daily) during the 9 months between September and June to Delhi. At present, the State of Delhi gets only about 845 mgd from various rivers and projects. The Delhi's future estimated water requirement as per revised norms of Central Public Health & Environment Organization (CPHEEO) is as:

Year	Estimated Requirement
2021	1380 mgd

   The Govt. of Delhi has been considering three projects for augmenting the water supply to the National Capital and Renuka Dam Project on the Yamuna River System is one of them. Others are Lakhwar-Vyasi Dam and Keshau Dam.

2. The Renuka Dam Project was conceived in the year 1985 and discussed in Northern Zonal Council Meeting the same year. Later, a memorandum of understanding (hereinafter referred as MoU) was signed between the States of Uttar Pradesh, Haryana, Rajasthan, Himachal Pradesh and Delhi regarding the allocation of surface flow of Yamuna on 12.05.94 providing for execution of separate agreements for each identified storage project within the framework of overall allocation made. Subsequently, pursuant to the said MoU, an agreement had been executed on 06.11.94 between the states of Uttar Pradesh, Haryana, Himachal Pradesh and NCT (National Capital Territory) of Delhi for construction of Renuka Dam Project.

3. Under the said Agreement, Himachal Pradesh is required to carry out field investigations and prepare a Detailed Project Report and also construct, operate and maintain the Project. National Capital Territory of Delhi shall bear full cost and provide necessary funds for construction of the Project to Himachal Pradesh in an agreed phased manner. The cost of the Project was estimated as Rs. 1224.64 crores at May 1997 price level, which has been revised to Rs. 3498.86 crores (price level March, 2009). However, subsequently the project has been declared as Project of National Importance and now it is to be funded directly by the Government of India through Ministry of Water Resources.

4. As envisaged, the State of Himachal Pradesh has carried out necessary field investigations and prepared a Detailed Project Report. The Project Appraisal (North) Directorate of Central Water Commission has also accorded the techno-economic clearance of the Project on dated 27.3.2000.

   The Project envisages construction of 148 meter high Rockfill dam at about 3.75 meters downstream of confluence of Jogar-Ka- Khala nallah with river Giri in District Sirmour. The powerhouse (2x20 MW) is proposed to be located at the toe of the dam. The Project is proposed to

be completed in six years from the date of start of construction works. The current use of the land required for the Project is shown in the following table:-

Sr. No.	Current land use	Total area needed (in ha.)	Area to be submerged including Reservoir & RIM Protection measures (in ha)	Area to remain Exposed (in ha.)
1	Forest Land			
i	Territorial forests	646	482.31	163.69
ii	Sanctuary land	49.00	21.7	27.3
2	Revenue land & other Govt. land	95	77.87	17.13
	Private Deemed Forest kism jungle jhari	134	134	0
3	Private land	1169	896.55	272.45
Grand Total		**2093**	1612.4	480.57

5. The case for obtaining approval for diversion of the initially identified 485 ha of forestland , including 49 ha from Renuka Wild Life Sanctuary, under Forest Conservation Act 1980 for the Project was submitted by the Govt. of Himachal Pradesh to the Ministry of Environment and Forests (hereinafter referred as MoEF) in the month of October, 1999. After attending to observations raised by MoEF rejected the proposal for diversion of forestland in view of the orders passed by the Hon'ble Supreme Court of India in CWP No. 337/95 as the case involved diversion of 49 ha of land from a Wild Life Sanctuary.

6. Thereafter the State of Himachal Pradesh filed an application No. 323 of 2004 before the Hon'ble Central Empowered Committee praying for its recommendation for diversion of 49 ha of forestland falling in Wild Life Sanctuary (Renukaji) Distt. Sirmour HP for the construction of the Project. The State also filed an application before the National Board for Wild Life (NBWL) on 23.02.2004 seeking its recommendation for the same. The Hon'ble Central Empowered Committee (CEC), in the hearing held on 08.07.2004 observed that without getting the report or comments of the National Board for Wild Life through its Standing Committee the CEC cannot recommend clearance to the Renuka Project. The case was considered by Steering Committee of NBWL in the meeting held on 6th April 2005. The same was communicated to the State of Himachal Pradesh on 02.05.2005. The recommendation was subject to fulfilment of certain conditions, which the state found difficult to comply with. Consequently, the State filed an application for review with CEC, who advised to approach the NBWL.

7. A request for review of conditions was made to NBWL, which acceded to the request and relaxed the conditions in its meeting held in June 06, 2006. The recommendations of NBWL were issued vide letter dated 07.07.06.

8. Based on the recommendation of NBWL, the CEC recommendation the case to the Apex Court, which vide order dated 17.11.2006 in CWP No. 202/95 accorded approval for diversion of land from Renukaji Wild Life Sanctuary.

9. Thereafter the FCA proposal was revived and submitted to GoI MoEF vide Secretary (Forests) GoHP letter No. FFE-B-F(2)-34/2009 dated 30.04.2009.

10. Conservator MoEF Northern Regional Office, Chandigarh conducted inspection of sites on dated 05/06 August, 2009 and reviewed the requirement of area in particular land for temporary use i.e. for dumping, quarrying, job facilities areas. He also observed that area for dumping can be reduced by proper planning of stacking as some excavated material would be re-used for the construction of Dam, quarrying area by increasing the mining depth and further advised to reduce riverbed area by 30% for allowing sufficient width for free river flow which was to be used for job facilities.

    Submission of revised proposal was also decided. As per direction during site inspection, area for temporary use was reviewed and it was reduced by 126 hectares. Revised proposal prepared by user agency and submitted to MoEF, GoI, New Delhi on dated 09.06.2010 through HP Govt.

11. On dated 17.06.2010, Presentation/meeting of Forest case was held with Forest Advisory Committee (FAC). FAC recommended the diversion of forestland.

12. MoEF, GoI vide his letter Dated 31.08.2010 to HP Govt. conveyed that, recommendations of FAC were not accepted due to the involvement of large number of trees in the proposal.

13. The revised detail of enumeration list of trees up to Full Reservoir Level (FRL) minus four meters (FRL-4m) i.e. up to EL 762m those will be removed during filling of reservoir (as per MoEF guidelines) submitted to Forest Deptt/HP Govt. bringing down the removal of trees and saplings. Earlier total trees up to the top of the dam i.e. up to EL 778m were counted.

14. On dated 01.04.2011 the detail of number of trees to be removed up to FRL-4 m and up to El. FRL submitted to MoEF, GoI through HP Govt. MoEF, GoI vide letter dated 09.06.2011 conveyed to HP Govt. to submit following additional information

    a) State Govt. should give complete and adequate evidence of compliance with the provisions of FRA 2006 for land proposed for diversion.

    b) State Govt. needs to furnish a comprehensive status report on enumeration of trees in the entire project area. This should include the Shamlat lands and Private forestlands.

15. The requisite information as desired above was then submitted to MoEF, GoI through HP Govt on dated 05.04.2012. MoEF conveyed to HP Govt vide its letter dated 01.05.2012 that FAC in its meeting held on 20.04.2012 desired from State Govt. to submit the order of the Hon'ble Supreme Court and the recommendations of the standing committee of NBWL on the proposal.

    The committee further desired that the Shamlat land and private forestlands appear to be classified as "jungle jhari" should form part of proposal for the permission of the Central Govt.under FCA, 1980 and a revised proposal should be submitted by the State Govt.

    Also the committee disagreed with the views presented by State Govt. about evidence towards compliance to Schedule Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 and felt that the settlement of rights under FRA, 2006 must be completed as per the provisions of the Act.

16. The revised proposal was then furnished and submitted to MoEF, GoI on dated 10.02.2014 through HP Govt. which is under consideration.

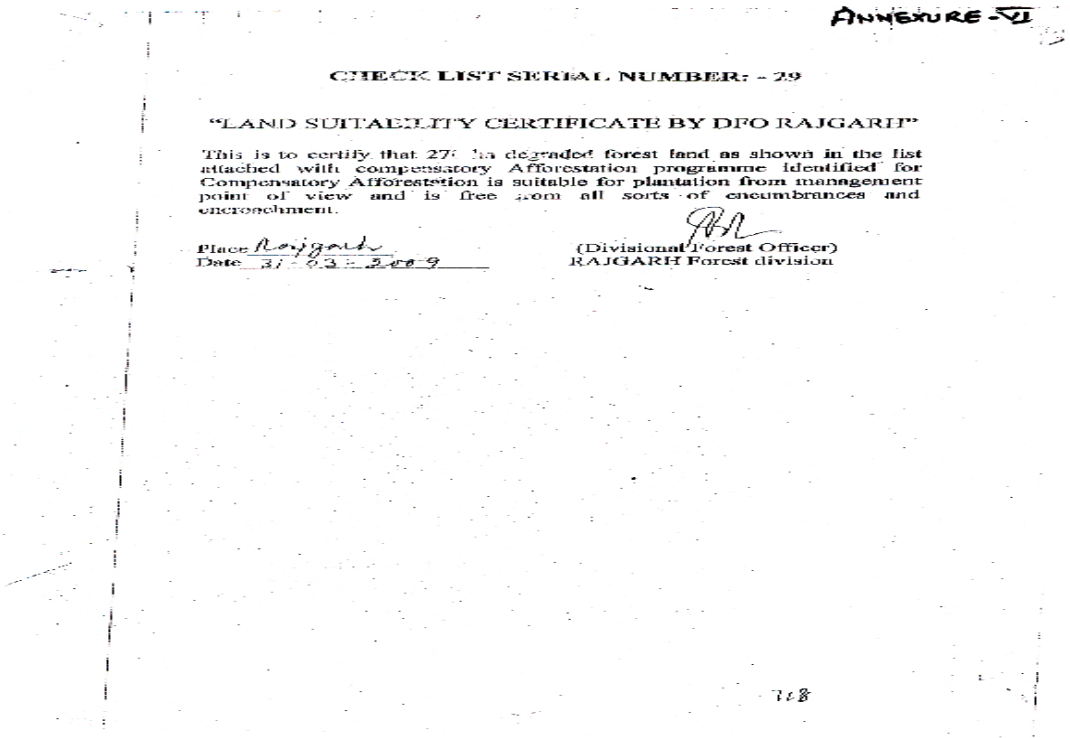
17. For the Environment clearance of the Project the case along with EIA & EMP (Environment Impact Assessment & Environment Management Plan) was submitted to MoEF in August 1999 and after removal of objections the same was resubmitted in September 2000. It was rejected on 15.01.2001 due to involvement of WLS area as per Apex Court order prohibiting area diversion from WLS. The Apex court has given its approval with certain conditions vide order dated 17.11.2006.

18. A fresh application for environment clearance was field and Terms of Reference (ToR) for conducting fresh EIA (Environment Impact Assessment) and preparing new EMP (Environment Management Plan) was got approved.

19. For making fresh EIA studies and for preparing new EMP, the ICFRE (Indian Council of Forestry Research & Education) Dehradun was appointed as consultant. ICFRE completed EIA study, prepared EMP including Disaster Management Plan with Dam Break Analysis, revised R&R Plan, and case presented to the Expert Appraisal Committee (EAC) in December 2008. Thereafter two meetings held with EAC during May, 2009 and July, 2009. Environment Clearance finally accorded by MoEF, GoI on dated 23.10.2009

ANNEXURE-VI

Certificate by DFOs regarding area identifying for Compensatory Afforestation is suitable for raising plantation



ANNEXURE-VI

CHECK LIST SERIAL NUMBER: - 29

"LAND SUITABILITY CERTIFICATE BY DFO RAJGARH"

This is to certify that 27[illegible] ha degraded forest land as shown in the list attached with compensatory Afforestation programme identified for Compensatory Afforestation is suitable for plantation from management point of view and is free from all sorts of encumbrances and encroachment.

Place Rajgarh
Date 31/03/2009

(Divisional Forest Officer)
RAJGARH Forest division

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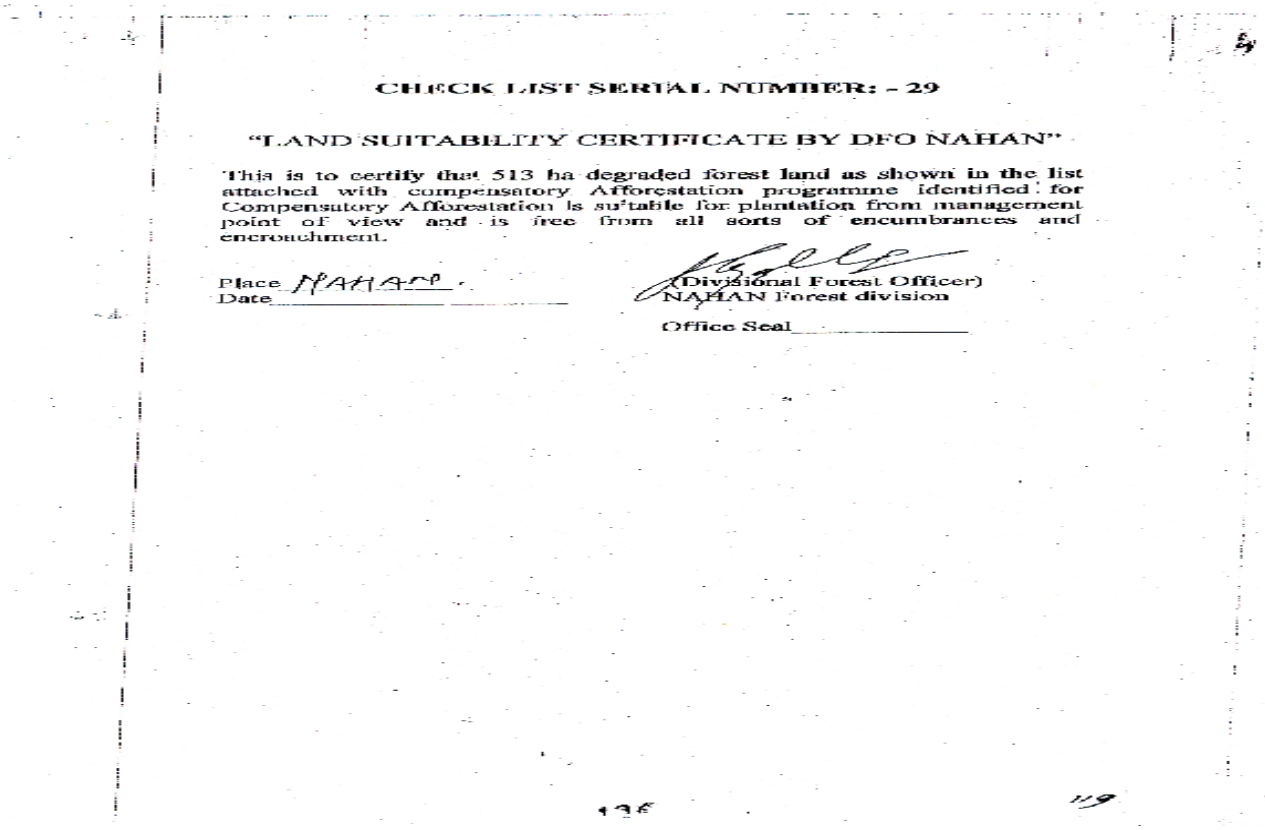

CHECK LIST SERIAL NUMBER: - 29

"LAND SUITABILITY CERTIFICATE BY DFO NAHAN"

This is to certify that 513 ha degraded forest land as shown in the list attached with compensatory Afforestation programme identified for Compensatory Afforestation is suitable for plantation from management point of view and is free from all sorts of encumbrances and encroachment.

Place NAHAN
Date

(Divisional Forest Officer)
NAHAN Forest division

Office Seal

196

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CHECK LIST SERIAL NUMBER:- 29.

"LAND SUITABILITY CERTIFICATE BY DFO RENUKAJI

This is to certify that 539 ha degraded forest land as shown in the list attached with compensatory Afforestation Programme identified for compensatory Afforestation is suitable for plantation from management point of view and is free from all sorts of encumbrances and encroachment.

Dated 13/10/2013

Divisional Forest Officer
Renukaji Forest Division
Office Seal : Shree Renuka Ji

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Certificate

It is certified that the regeneration area i.e. 189 ha. Area shown in the topo sheet map in respect of Paonta Forest Division in various forest is suitable for compensatory afforestation.

Range Forest Officer
Giri Nagar.

Range Officer
Paonta Sahib

Divisional Forest Officer
Paonta Forest Division
Paonta Sahib

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SUITABILITY CERTIFICATE

The areas identified for compensatory plantation is available in the field and suitable for compensatory plantation.

Divisional Forest Officer,
Forest Division, Solan, HP.

122

H.P. POWER CORPORATION LIMITED

HP
POWER CORPORATION LTD.

REHABILITATION AND RESETTLEMENT PLAN

Index

RELIEF & REHABILITATION PLAN

INTRODUCTION

Power is a critical for the socio-economic development, and efforts at accelerating the rate of economic growth in the new globalised economy. Development of hydro power is essential for the sustainable development of the country. Large untapped hydro potential exists in the Himalayas, which can make a substantial contribution to the total power generation in the country. The Government of Himachal Pradesh is committed to this onerous task and is doing its best to develop the total hydro power potential of the State, which is to the tune of 21,000MW.

Himachal Pradesh is a mountainous State, located in the North of the country. The State has a diverse topography-high mountain ranges interspersed with deep gorges and valleys to fertile Gangetic plains in its south East. The attitude ranges from 350 meters to 6975 meters above mean sea level. Himachal Pradesh is blessed with abundant water resources in its five major rivers i.e. Chenab, Ravi, Beas, Satluj and Yamuna, which emanate from the western Himalayas and flow through the State. These snow fed rivers and their tributaries carry copious discharge all the year round which can be exploited for power generation. All the rivers basins and its valleys are connected by roads, other communication network and strong base of other social infrastructure like health & education etc.

PROJECT AT A GLANCE:

[Description of the Concerned Project will be given here]

SALIENT FEATURES OF THE PROJECT

(The Salient features of the concerned project will be given here)

1. **Location**
2. **Hydrology**
3. **River diversion works**
4. **Main dam /Barrage**
5. **Reservoir/ Storage**
6. **Spillway**
7. **Penstock**
8. **Power House Complex**
9. **Transmission Lines**
10. **Power Generation**
11. **Cost –Estimate**
12. **Financial Aspects**

PART-1

INFORMATION OF PARTICULARS IN RESPECT OF R&R PLAN OF RENUKAJI DAM PROJECT

1. The following information/details of particulars in respect of Rehabilitation & Resettlement plan of the concerned project will be given here.

(a) The extent of land to be acquired for the project and the name (s) of the affected village(s);

(b) A village wise list of the affected persons, family-wise, and the extent and nature of land and immovable property owned or held in their procession in the affected area and the extend and nature of such land and immovable property which they are likely to loose or have lost, indicating the survey numbers thereof.

(c) A list of agricultural labourers in such area and the names of such persons whose livelihood depends on agriculture activities;

(d) A list of persons who have lost or likely to loose their employment or livelihood or who have been or likely to be alienated wholly or substantially from their main sources of trade, business, occupation or vocation consequent to the acquisition of land for the project or involuntary displacement due to any other cause;

(e) A list of non-agriculture labourers, including artisans;

(f) A list of landless affected family, including those without home stated land and below poverty line families;

(g) A list of honourable affected persons;

(h) A list of occupiers, if any;

(i) A list of public utilities and Govt. buildings which are affected or likely to be affected;

(j) Details of public and community properties, assets and infrastructure;

(k) A list of benefits and packages which are to be provided to the affected families;

(l) Details of the extent of land available in the resettlement area for resettling and for allotment of land to the affected families;

(m) Details of the amenities and infrastructure facilities which are to be provided for resettlement;

(n) The time schedule for shifting and resettling the displace persons in the resettlement area or areas; and

(o) Such other particulars as the Administrator for Rehabilitation and Resettlement may consider necessary.

PART-II

RESETTLEMENT AND REHABILITATION SCHEME FOR PROJECT AFFECTED FAMILIES OF RENUKAJI DAM PROJECT.

2.1 Whereas for the construction of Renukaji Dam Project besides the Government land, lot of private land is also required to be acquired from private persons. Due to acquisition of private land for the Project, a good number of families will be affected. The construction of the project will also involve under ground works, transportation of large quantities of material, submergence of number of villages due to construction of Dam more than usual activity in the area and therefore, all this is likely to have an impact on the lives of people living in the area. H.P. Power Corporation Limited would like to improve the life of people living in the area besides mitigating any hardships that may arise due to the construction of the project.

And whereas to protect the interests of the project affected people and landless family (and any other family affected during construction stage of the project),.A scheme for Resettlement and Rehabilitation of the persons affected on this account has been prepared incorporating adequate arrangements for their resettlement and rehabilitation.

. Now, therefore, the H.P. Power Corporation Limited hereby proposes the following scheme for Resettlement and Rehabilitation of the persons affected on account of acquisition/ of their Land Acquisition Act.1894 for the construction of Renukaji Dam Project in Sirmour District. This has been prepared by taking into consideration the R&R Policy notified by Govt. of HP vide notification No Rev(PD)F(5)-1/1999dated 27-4-06 National Rehabilitation and Resettlement Policy 2007 and National Hydro Policy 2008.

2.2 OBJECTIVES:

2.2.1 To compensate the families affected adversely by construction of the project.

2.2.2 To improve the quality of life of the people of the area through better infrastructure, sustainable income and better skills and generally contribute to and be a part of the development of the area and the people.

2.2.3 To create a good will for the organization and have a good long term relationship.

2.2.4 To ensure that rights of individual and society particularly those belonging to the weaker section of the society are adequately protected.

2.3 BASIC ISSUES AND NEED FOR R&R ACTION PLAN:

Where as efforts are made to minimize the land acquired and not displace too many families, some times it becomes unavoidable. When this happens it is important that the effected families get due care and attention.

Acquisition of land generally induces change in land use pattern and can disturb the economic base. The R&R Action Plan is therefore formulated with an objective to resettle the families rendered landless or affected families whose land/house/shop is acquired and to rehabilitate them in such a manner that they improve or at least regain their previous standard of living, earning capacity and production level. Besides, it is imperative that the transition gap is to be reduced to the minimum possible extent.

With proper resettlement and rehabilitation plan, an amicable relationship with PAFs can be maintained which is essential for efficient operation of the project. It is generally seen that the displacement during acquisition of land is involuntary and the PAFs have to face a new social setup. During such transition period, the rural economic environment is generally transformed into higher

cost of living and reduction in traditional sources of income. In general, PAFs face difficulty to cope with the new environmental set up.

Domestic changes in the land use patterns substantially alter the agro based rural economy and lifestyle of affected families.

2.4 RELIEF REHABILITATION STRATEGIES:

- Each Project Affected Family will be suitably and adequately compensated to ensure replacement of the assets lost or acquired.

- The local population of the Project Affected Area will be provide guidance and counselling education through scholarships, sponsorships guidance for better living conditions and better livelihood including training in the area of common occupations like Agriculture, Horticulture etc.

- General Development of the project area by building or improving infrastructure such as roads, footpaths, bridges, water supply, irrigation through public participation and community development works etc.

- Creating opportunities of employment for local people through self employment schemes or indirect employment in project activities.

- Maintaining a friendly contact with the public through regular meetings, Public Information Centre, printed material, PAF identity card, functions etc.

- Providing direct help to the people in extreme hardship.

PART-III

DEFINITIONS

3.1 This Scheme may be called the Resettlement and Rehabilitation Scheme of Himachal Pradesh Power Corporation Limited for the project affected families of Renukaji Dam Project (hereinafter called R&R Scheme for Project).

It shall extend to the whole of area affected or likely to be affected as a result of construction of Renukaji Dam Project within Renukaji Tehsil *Sirmour* District of Himachal. Panchayat will be taken as a unit and all Panchayats where either land is acquired or where underground works are undertaken will constitute in the project affected area.

The Commissioner for Resettlement & Rehabilitation appointed by the State Government for supervising the relief and welfare works of various Projects in Himachal Pradesh would also be the Commissioner for welfare of the affected population so that the welfare works are carried out under his directions and guidance.

The Deputy Commissioner, in whose jurisdiction the project affected Area falls, will be the Administrator for Welfare of the area so that the Relief and Welfare works are carried out and controlled under her supervision.

3.2 Definitions:

3.2.1 Family

'Family' means husband/wife of the person who is entered as owner/co-owner of the land in the revenue record, their children including step or adopted children, grand children and includes his/her parents and those brothers and sisters who are living jointly with him/her as per entries of Panchayat Parivar Register as on date of notification under Section-4 of the Land Acquisition Act, 1894.

Explanation:

Only the Panchayat Parivar Register Entry, as it stood on the date of Notification under Section-4 of the Land Acquisition Act, 1894, shall be taken into account for the purpose of separate family for rehabilitation benefits as well as for consideration of employment.

3.2.2 Project Affected Family (PAF)

(i) A family whose primary place of residence or other property or source of livelihood is adversely affected by the acquisition of land for a project or involuntary displacement for any other reason; or

(ii) Any tenure holder, tenant, lessee or owner of other property, who on account of acquisition of land (including plot in the *abadi* or other property) in the affected area or otherwise, has been involuntarily displaced from such land or other property; or -

(iii) Any agricultural or non-agricultural labourer, landless person (not having homestead land, agricultural land, or either homestead or agricultural land), rural artisan, small trader or self-employed person; who has been residing or engaged in any trade, business, occupation or vocation continuously for a period of not less than three years preceding the date of declaration of the affected area, and who has been deprived of earning his livelihood or alienated wholly or substantially from the main source of his trade, business, occupation or vocation because of the acquisition of land in the affected area or being involuntarily displaced for any other reason;

Explanation

The date of declaration will be taken as the date of notification under Section 17(4) or 4 of Land Acquisition Act, 1894. The period of residence of not less than three years will not be applicable in respect of PAFs who own land in the Project Affected Area. The period of residence of not less than three years as well as effects on source of livelihood would be determined by the Deputy Commissioner concerned**.**

3.2.3 "Main Project Affected Family"

Main Project Affected Family is a Project Affected Family whose land or house/ building is acquired for the project.

3.2.3 (a) Main Project Affected family Rendered Landless

The Main PAF rendered landless means that family whose whole agricultural land is acquired for the project or in whose case balance agriculture land left after acquisition is less than 5 bighas. For this purpose agriculture land held by project area by all such persons and their family members shall be taken into account. Person losing land on acquisition of building and land appurtenant there to shall not be treated as landless Project Affected Family. The landless PAF shall be duly certified by the Deputy Commissioner of concerned area.. To arrive at balance land, with a family, land hold by them outside the project affected area will also be considered. The definition of landless family will be as given by Govt, of H.P. this may therefore vary if the definition is changed by Govt. of H.P. The definition as applicable on the date of section 4 notification will be made applicable.

3.2.3 (b) Main Project Affected Family Rendered Houseless.

The Main Project Affected Family rendered houseless means the family whose dwelling house is acquired for the project, which shall be duly certified by the Deputy Commissioner.

3.2.3 (c) In addition to above two categories, there will be Main Project Affected Families who will be rendered landless as well as houseless as per definitions given above. Such cases shall be eligible for benefits of project-affected families rendered landless and project affected families rendered houseless, which shall be duly certified by the Deputy Commissioner.

3.2.4 Project Affected Area:

Project Affected Area means area as notified by the Project Authority or where land is acquired for construction of any component of the project, **submergence area**, infrastructure, township, offices, construction facilities, welfare facilities etc. land where under ground works are taken up. Unit for declaring Project Affected Area would be Panchayat.

3.2.5 Project Affected Zone:

Project Affected Zone means zone as notified by the project authority or project affected area plus the area surrounding this project affected area where impact of the project on the lives of people is considerable even if no direct project activity is taking place in these surrounding areas. Unit for declaring this would be Panchayat.

Explanation:

Project Affected Area will consist of only Panchayat where project work actually takes place (both on surface and under ground) **including submergence area due to reservoir of the Project**. Adjoining panchayat may also be affected due to high vehicular traffic; blasting or dust etc. These Panchayats can be included in the Project Effected Zone. The thumb rule would be area located ½ to 1 KM. beyond the project affected area.

3.2.6 "Agricultural Labourer" means a person primarily resident in the affected area for a period of not less than three years immediately before the declaration of the affected area who does not hold any land in the affected area but who earns his livelihood principally by manual labour on agricultural land therein immediately before such declaration and who has been deprived of his livelihood;

3.2.7 "Agricultural land" includes lands being used for the purpose of-

(i) agriculture or horticulture;

(ii) dairy farming, poultry farming, pisciculture, breeding of livestock or nursery growing medicinal herbs;

(iii) raising of crops, grass or garden produce; and

(iv) land used by an agriculturist for the grazing of cattle, but does not include land used for cutting of wood only;

3.2.8 "Appropriate Government" means The State Government.

3.2.9 "Project Authority"

Himachal Pradesh Power Corporation Limited.

3.2.10 "BPL family': The below poverty line (BPL) families shall be those as defined by the Planning Commission of India from time to time and included in a BPL list for the time being in force;

3.2.11 "Administrator for Rehabilitation and Resettlement" means an officer not below the rank of District Collector in a State appointed for the purpose of rehabilitation and resettlement of affected person; normally this will be the Deputy Commissioner of the district concerned where the project is located or where major portion of the project is located.

3.2.12 "Commissioner for Rehabilitation and Resettlement" means the Commissioner for Rehabilitation and Resettlement appointed by the State Government not below the rank of Commissioner or of equivalent rank of that Government;

3.2.13 "DDP block" means a block identified under the Desert Development Programme of the Government of India;

3.2.14 "Holding" means the total land held by a person as an occupant or tenant or as both;

3.2.15 "Khatedar" means a person whose name is included in the revenue records of the parcel of land under reference;

3.2.16 "Land acquisition" or *"acquisition of land"* means acquisition of land under the Land Acquisition Act, 1894 (1 of 1894), as amended from time to time, or any other law of the Union or a State for the time being in force;

3.2.17 "Marginal farmer" means a cultivator with an un-irrigated land holding up to one hectare or irrigated land holding up to half hectare;

3.2.18 "Non-agricultural labourer" means a person who is not an agricultural labourer but is primarily residing in the affected area for a period of not less than three years immediately before the declaration of the affected area and who does not hold any land under the affected area but who earns his livelihood principally by manual labour or as a rural artisan immediately before such declaration and who has been deprived of earning his livelihood principally by manual labour or as such artisan in the affected area;

3.2.19 "Notification" means a notification published in the Gazette of India or, as the case may be the Gazette of a State;

3.2.20 "Occupiers" mean members of the Scheduled Tribes in possession of forest land prior to the 13th day of December, 2005;

3.2.21 "Resettlement area" means any area so declared.

3.2.22 "Small farmer" means a cultivator with an un-irrigated land holding up to two hectares or with an irrigated land holding up to one hectare, but more than the holding of a marginal farmer.

PART-IV

SOCIAL IMPACT ASSESSMENT

4.1 A Social Impact Assessment Study will be carried out in the project affected area through an independent, professional agency in order to determine the impact that the project can have or the people, their live, the community and the society. This study will be done before the start of work on Main Project Components.

4.2 The study will cover impact on public and community properties (particularly common grazing grounds, forest right); available infrastructure like roads, water supply, irrigation schools, medical facilities, fairs and festivals power supply, places of worship, burial and cremation grounds, etc. access to adjoining villages across the water source being dammed or diverted, livelihood sources; reduction in land and other natural resources etc.

4.3 Public hearing will be done along with the public hearing for EIA or separately.
This R&R Plan will be appropriately modified if need is felt after the SIA report is obtained.

4.4 Base Line Survey:

A base line survey will be conducted in the project affected area which will *inter- alia* cover:

(i) Information about families living in the area, their occupation, income, education, housing available and dependence on common resources.

(ii). Available infrastructure and resources.

(iii). Land holdings.

(iv) Members of the family who are permanently residing engaged in any trade, business, occupation or vocation in the affected area;

(v) Families who are likely to lose, or have lost, their house, agricultural land, employment or are alienated wholly or substantially from the main source of their trade, business, occupation or vocation;

(vi) Agricultural labourers and non-agricultural labourers;

(vii) Families belonging to the Scheduled Caste or Scheduled Tribe categories;

(viii) Vulnerable persons such as the disabled, destitute, orphans, widows, unmarried girls, abandoned women, or persons above fifty years of age; who are not provided or cannot immediately be provided with alternative livelihood, and who are not otherwise covered as part of a family.

(ix) Families that are landless (not having homestead land, agricultural land, or either homestead or agricultural land) and below poverty line, but residing continuously for a period of not less than three years in the affected area preceding the date of declaration of the affected area; and

(x) Scheduled Tribes families who are or were having possession of forest lands in the affected area prior to the 13th day of December, 2005.

PART-V

SANCTION OF WELFARE GRANT OR FACILITIES AND GRANT TO THE PAF RENDERED LANDLESS OR HOUSELESS OR BOTH.

5. Resettlement Grant.

5.1 The PAF rendered landless on account of acquisition of land shall be eligible for landless grant in the following manner.

1. Family whose land before acquisition was more than 5 bighas and is left with one biswa or no agriculture land after acquisition, Rs. 2.50 lac lump sum.

2. Family whose land before acquisition was less than five bighas and is left with one biswa or no agriculture land after acquisition, Rs. 1.50 lac lump sum.

3. Family whose land holding is left with more than one biswa and less than 2-10-0 bighas of land after acquisition, Rs. 1.00 lac lump sum.

4. Family whose land holding is left with more than 2-10-0 and less than five bighas of land after acquisition, Rs. 75,000/- lump sum.

5. Family whose cattle shed is acquired in the project area, shall get one time financial assistance of Rs. 10,000/-. In no case the grant shall exceed Rs. 25,000/- per family.

5.2 Each PAF rendered landless as well as houseless (both) or houseless will be provided an independent house with a built up plinth area of 150 Sqm. Alternatively, PAF can also be offered a plot of size 250 Sqm. which allows construction of built up house of 150 Sqm. plinth area plus construction cost of the house @ Rs. 4000 per Sqm. (limited to 150 Sqm. plinth area).

A family which does not opt for house/plot but constructs a house at own cost with a plinth area of 150 Sqm or more shall be paid the construction cost of the house @ of Rs. 5000 per Sqm (upto a plinth area of 150 Sqm maximum). Options from such families will be asked at an appropriate time. In case any of such family constructs house of less than 150 Sqm. Plinth area on his own plot or plot offered by the Project then amount to be given will be worked out on pro-rata basis.

5.3 Displaced shopkeepers will be given shops in allotment in the market complex of the Project Township wherever the Project constructs such market places. In addition, they will be entitled to one time displacement grant of Rs. 20,000/-. The commercial premises/ shops allotted to such displaced shopkeepers shall be utilized by them or their successors in interest for bonafide use only. In case the project is unable to provide shops, displaced shopkeepers shall get financial assistance of Rs. 2,00,000/-

5.4 Infrastructure facilities in the Rehabilitation colony will include water supply, sewage, drainage, electricity, streets community centre, green area, park and approach path/roads at the project cost.

5.5 Transportation at the project cost will be provided for physical movement of all the PAFs, and displaced shopkeepers and their house hold goods/ shop goods, as soon as the houses/shop get constructed in the Rehabilitation colony or a sum of Rs. 20,000/- in lump sum shall be paid, for which option will be invited from the affected families/ shopkeepers.

5.6 Stamp duty and other fees payable for registration shall be borne by the Project Authority. Rehabilitation grant shall be provided by the Project Authorities and placed at the disposal of the Deputy Commissioner, for disbursement to the eligible PAF's.

5.7 Transitional/ Subsistence Allowance based on 25x12 months minimum wages to each Project Affected Family will be paid if the family has become houseless and has to shift house or become landless and has to shift livelihood to a different location or change livelihood or has been involuntarily displaced.

5.8 Whereas it is not possible to provide land in exchange of land acquired but in case some agricultural land is available for distribution, upto 5 bighas land will be given to each PAF by giving priority to landless. This land will be given only to such PAF's who are primarily dependent on agriculture and the livelihood is substantially affected by land acquisition. In no case will land to be given in excess of that acquired. Giving of agricultural land will not be a right and will be only a welfare measure to be given only if possible.

If it is not possible to give land, a financial assistance at the rate of Rs. 50,000/-per bigha of cultivable land acquired and Rs. 20000/- per bigha for uncultivable land acquired will be paid as an additional assistance to the project affected family for purchasing land. This assistance will only be given if the Project Affected Family is able to prove that this will be utilized to purchase land of a value more than the money paid to the Project Affected Family under this clause (Clause-5.8).

If waste land or degraded land is allotted under this clause, then a land development charge of Rs. 15,000/- per bigha will be paid. The PAF's who are allotted land or these who purchase agricultural land will also get Rs.10, 000/- cash for agricultural production.

Each PAF which is displaced and has Cattle will be given Rs.20,000/- for construction of cattle shed.

Each PAF who is a artisan, small trader or self employed person and has been displaced shall get a one time financial assistance of Rs.50,000/- for construction of working shed or shop.

The families who have to shift house due to the project will be provided temporary accommodation at project cost for 3 to 6 months depending on their need.

Loss of income from Forest or Govt. Land :

If PAF's have rights over minor forest produce like herbs, chilgoza etc and acquisition of such Govt/Forest land will deprive them of income/benefit which they were deriving from their right they may be suitably compensated by a lum-sum grant. If some portion of such land being acquired & not being submerged or used for construction and is to remain as such or as a buffer zone around the reservoir or around the project, the PAF's may be allowed to extract minor forest produce if it safe for them.

NOTE: All the above grants shall be in addition to the compensation paid under Land Acquisition Act, 1894.

6. Employment

One member of each Project Affected Family rendered landless will be provided employment by the Project Authority in the category of skilled/ semiskilled/ unskilled workmen subject to fulfilling the requisite criteria/qualification and as and when any fresh recruitment is done in these categories, it would be ensured that land oustees eligible for employment as mentioned above are given chance first and normal recruitment would be made only if none are eligible & willing from amongst them. However, persons who are allotted shops shall not be eligible for benefit of employment and vice versa.

The following criteria will be adhered to by the Deputy Commissioner concerned for providing of preference while sponsoring the names for employment to the Project Authority.

i. Affected families whose entire land has been acquired.

ii. Affected families who have become landless on account of acquisition of land by the project.

iii. Other affected families.

Within these categories preference will be given on the basis of quantum of land acquired. Those who lose more land will come first.

6.0(a) If there are some families who have lost their source of livelihood completely and do not have the capabilities or the financial strength to take on any other occupation and are not even provided alternate land, the project authorities may consider to provide direct employment to the members of such families as a special case on recommendation from the Deputy Commissioner and after due verification.

6.1 The main PAF who are eligible for direct employment but have not been provided employment will be given a special rehabilitation/employment grant equivalent to 1000 days of minimum wage for labour per family. (The employment here will mean regular employment in the organization building of the project). The PAF's will be given option to wait for direct employment.

6.2 Annuity Policy will be arranged for each vulnerable PAF [disabled, destitute, orphans, widows, unmarried girls (with no financial support), abandoned women, or poor persons above fifty years of age (who are unsupported)] who are not provided or cannot immediately be provided with alternative livelihood and who are not otherwise covered as part of a family which will provide a pension of Rs. 1000/-PM to the family starting from a date 5 years after the date of implementations of this plan and will continue for 10 years after that date. The Vulnerable PAF's will be those which are identified by the administrator under this plan.

6.3 Secondary Employment

The PAF's will be provided help to get employment other than direct employment in the project in the following manners:-

6.3.1 Merit scholarship scheme for the wards of Project Affected Families (PAFs) and other residents of project affected zone who may be pursuing vocational or professional course will be introduced by the Project Authorities as per scheme to be drafted by the Project Authority in consultation with Government of Himachal Pradesh. The project authorities will also consider getting some special seats in ITI's for the project affected families and other residents of the project affected zone. Some schemes to provide apprenticeship or on the job training to increase the employability of the residents of the project affected zone will also be started. Merit scholarship scheme for school going students of project affected zone will be started.

6.3.2 The Project Authorities will also consider award of petty contracts to the cooperatives of eligible families on preferential basis so that some may be engaged in such jobs. Further, the Project Authorities will advise their contractor to engage eligible persons from amongst effected families on a preferential basis wherever possible during construction stage. Other employment opportunities like hiring vehicles from PAF's will also be made available. Normally all contracts upto a value of Rs. 5 lakh will be given to PAF's and if PAF's are not available to families living in project affected zone. All vehicles hired by the project will be from PAF's and if not available from PAF's then from residents of Project Affected Zone. The new vehicles hired from PAF's may be hired for 3+1 years.

6.3.3 The Project Affected Families (such as rural artisans/small traders and self employed persons) will be assisted to start various suitable self-employment occupations, which include dairy farming, poultry, weaving, bakery, handicraft, cottage industries unit/shops and hiring of vehicle to the corporation. The Project Authority will provide a grant of Rs. 50,000/- per family towards seed capital. The grant will be given once only.

"Only those families who have not been provided with employment in the Project or have not been allotted any shop will be eligible for this grant"

Families residing in the project affected area other then PAF's can also be considered for this on merit and if they are needy.

<u>Explanation:</u>

The Deputy Commissioner, will certify the effect on source of livelihood in case of rural artisans, small traders and self employed persons for eligibility of the grant.

6.3.4 The PAF's and other fishermen having fishing rights in the river will also get fishing rights in the reservoir.

6.3.5 If any manpower is obtained by the project authorities through outsourcing at any time during construction or running of the project for services like house keeping, gardening, typing, maintenance, computer work, office help etc first opportunity will be given to PAF's as contractors and also as personnel hired by contractor for their jobs. If PAF's are not willing then other residents of project affected zone may be considered.

7 R&R Benefits for PAF's belonging to ST & SC.

7.1 In case the families loose access to forest due to the project a special plan will be formulated for development of alternate fuel, fodder and non timber forest produce.

7.2 Each PAF of ST followed by SC categories shall be given preference in allotment of land if any land is available for allotment to PAF's.

7.3 Each ST family will get an addition one time financial assistance of 500 days minimum wages for labour for loss of customary right's or usage of forest produce.

7.4 ST. PAF's will be resettled as far as possible in the same schedule area in a compound block so that they can retain their ethnic, linguistic and cultural identity.

7.5 The resettlement area prominently inhabited by ST's shall get 1000 Sqm. Land free of cost for community and religious gatherings.

7.6 The ST's families resettled out of the district will get 25% higher resettlement grant.

8. Other benefits:-

8.1 Each PAF will be provided 100 units of electricity per month for a period of 10 years from the date of commissioning of the project. If the consumption of the PAF is less than that then the difference will be compensated in cash.

8.2 Medical fund:

A medical fund will be created for the PAF's. This fund will be need for providing treatment to the member of PAF's in hardship due to illness or in extreme illness or accident cases. Medicines may also be provided to other residents in the area.

8.3 Free medical treatment will be provided to PAF's at the project medical Facility.

8.4 Medical camps will be organized in various places in the project affected zone from time to time.

8.5 In order to help the families living in the project affected zone and to improve their skills in their occupation Agriculture, Horticulture and animal husbandry training and awareness camps will be organized by the Project Authorities from time to time Training camps on other subjects like finance and accounts, how to run small business, alternatives for self employment etc. will also be organized from time to time.

8.6 If it is felt that the fuel supply of the local residents is effected due to construction of the project, a scheme will be formulated to provide alternative fuel or fuel saving devices to the families whose fuel supply is effected.

8.7 Each PAF will be given an identity card which will have names of all the members of PAF.

8.8 The project authorities will set up one or more Project Information Officer for providing information and guidance to the local people particularly the PAF's.

8.9 Project authorities will set up a cultural fund for providing grants for organizing local fairs, festivals and functions.

9 Infrastructure Development:

Construction of the project is a major development activity for the area. It will be ensured that the available infrastructure in the area improves with the project.

9.1 If any available infrastructure is damaged due to the project, it will be restored. This includes water supply, irrigation, roads, paths, schools, places of worship, community building etc.

9.2 The local people will be allowed use of the infrastructure created primarily for the project like roads, bridges, schools, etc.

9.3 A fund under the name LADF will be created for development of infrastructure in the project affected area. The project authorities will contribute 1.5% of the project cost towards the funds. This fund will be administered by a Local Area Development Committee in accordance with the orders of the appropriate Government. The 80% of the funds available in LADF will be divided amongst the Panchayats falling within the Project affected area on the basis of a formula giving equal weightage to 3 criteria i.e.

(i) Number of project affected families.
(ii) Area acquired.
(iii) Extent of underground works and disturbance in the area.

The remaining 20% funds may be used for common works or for works in the project affected zone or for completion of incomplete works.

9.4 The project authorities will also build infrastructure over and above LADF at their own which will benefit local population.

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ANNEXURE- IX

Copy of Muck Management Plan as per EMP

CHAPTER 5

MUCK MANAGEMENT PLAN

5.1 GENERAL

For construction of different components of "Renuka Dam Project" substantial excavation in over burden and rock for diversion tunnel, dam, spillway and power house etc. would be required. The excavation shall result in large quantity of excavated material i.e. muck which shall have to be evacuated, disposed and roller compacted, pari-passu with the excavation work, to such designated areas where the muck piles do not substantially interfere with either environment / ecology or the river flow regime and cause turbidity or unnecessary pounding of the tail water level impairing the water quality besides sacrificing the generation by reducing the net head of water. The disposal of muck has to be scientifically planned keeping in view the pecuniary aspects necessitating nearness to the generating component of work, which understandably reduce the travel time of dumpers, interference to surface flow and ground water aquifer, disposition of habitation are a few aspects borne in mind in evolving a muck disposal plan. The Hydro Power Project, 2006 of Himachal Pradesh government under Chapter-V para (XXIV) lays down that the company shall use such material for the project activities as may be found suitable for construction and the remaining material shall be allowed to be used by other development departments like PWD, I & PH etc. Even the private crusher owners etc. and private users shall also be allowed to use such material from the site free of cost. In the present case it is proposed of utilize about 71% of the excavated material on the project activities. The balance 29% shall have to be disposed off away from sites so as to make available the clear site for construction activities like concreting / pitching of rip raps and shell material etc. Since, there are no stone crusher in the nearby areas and the project activities of PWD and I & PH Deptt. are also not ongoing the balance muck has to be properly stacked and roller compacted and treated to mix and match with the surrounding environ with least change in landscape.

Based on the quantities of surface and underground excavation including 10% over break as contained in DPR a muck disposal plan, therefore, has been formulated to manage the disposal of muck and restore such areas for further degradation of the environment. During construction of the project huge quantities of excavation will be carried out from the underground and open air components and shall be roller compacted to provide stable slopes as per the details given in Table 5.1.

Table 5.1: Component-wise details of the muck generation and its utilization

S. No.	Description of Component	Qty. of muck generated (cum)	Qty. of muck to be utilized (cum)	Qty. of muck to be dumped (cum)	Dumping area	Remarks
1.	Diversion tunnel	3,85,600	88,935	2,96,665	Beari	23% quantity shall be utilized in tunnel lining and 77% shall be dumped.
2.	Tunnel intake and gate Staft	1,15,400	11,230	1,04,170	Beari	10% quantity shall be utilized in cement concrete

						work and balance 90% shall be dumped
3.	Main dam	29,18,450	13,72,800	15,45,650	Beari Trimali and d/s of Jataun Barrage	47% shall be utilized as rep-rap and balance 53% shall be dumped
4.	Spillway	42,22,000	41,36,200	85,800	Beari	98% shall be utilized as shell material and remaining 2% shall be dumped
5.	Intake Structure for Power House and Penstock	13,635	6,625	7,010	Beari	49% shall be utilized in cement concrete work and remaining 51% shall be dumped
6.	Power House, tail race and switch	2,45,800	18,319	2,27,481	Beari	9% shall be utilized in cement concrete and remaining 91% shall be dumped
	Total	**79,00,885**	**56,34,109**	**22,66,776**		

5.2 QUANTITY OF MUCK GENERATED AND ITS CONSUMPTIVE USE

It is evident from Table 5.1 that 79,00,885 cum of muck will be generated due to excavation, out of which 56,34,109 cum is proposed to be re-utilized as construction material for consumptive use in construction of coffer dams, main dam, power house spillway and other appurtenant structures in the form of filling material and aggregate material. The remaining 22,66,776 cum muck will be disposed of at three sites and roller compacted. The location of dumping sites is shown in Figure 5.1. One muck disposal sites is located at Beari on left of Jalal Khad, Second is located Trimali on the right bank of river Giri, and the third is located at d/s of Jataun barrage. At these sites, about 22, 66,776 cum muck will be disposed of by executing proper retaining structures and subsequently all the spoil tips (muck disposal areas), will be developed by taking up plantation through bio-technological methods to generate a thick forest canopy over them.

The selection of muck disposal sites was carried out considering the quantity of the muck, landscape, cost effectiveness, nearness to source of generation, absence of ground and surface water, relief and scope for afforestation works. The details of dumping site along with their total capacity and amount of muck to be disposed are enumerated in Table 5.2.

Table 5.2: Muck disposal site details

Sl. No.	Location of Dumping Site	Area in ha	Capacity in Cum	Material to be Dumped in Cum	Height of Dump (m)
1.	Trimali on Right bank of Giri river about 7 km. of dam axis	18.00	11,52,000	7,59,611	4.25
2.	Beari on left bank Jalal about 5 km downstream of dam axis	15.75	10,71,000	8,68127	5.50
3.	D/S Jataun barrage on left bank about 7 km downstream of dam axis	13.25	7,95,000	639038	4.85
	Total	**47.00**	**30,18,000**	**2266776**	

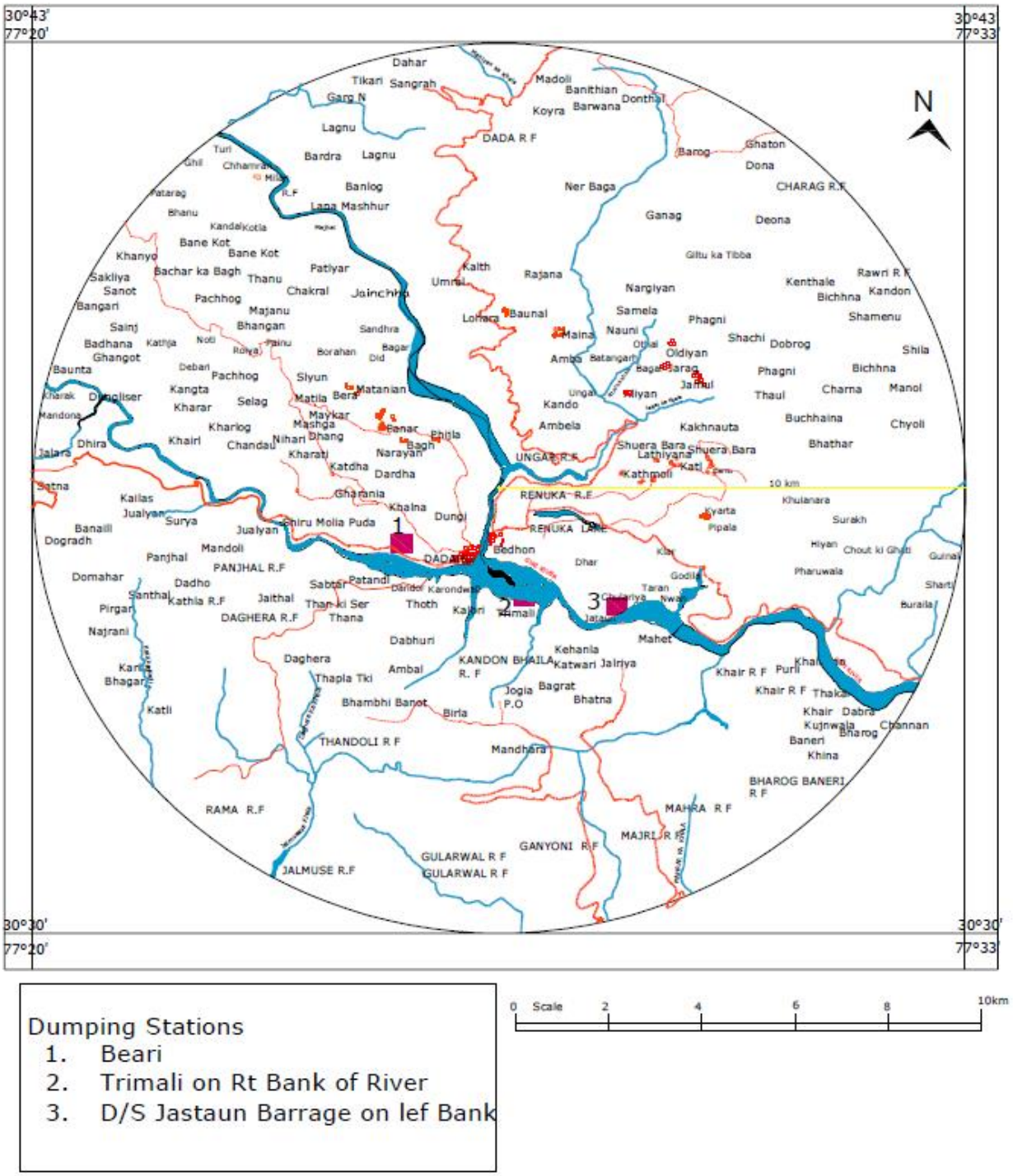


Figure 5.1: Location of Muck Dumping Sites at Beari, Trimali and Jataun Barrage

5.3 COMPONENT WISE DETAILS OF MUCK

The component wise details of the muck likely to be generated, utilized and dumped is being summarised as below:-

5.3.1 Diversion Tunnel, Portal etc.

Three Diversion Tunnel of length 1300 m, 1475 m and 1575 m respectively with finished diameter of 7.0 m dia are proposed to be constructed on the right bank. The total muck likely to be generated by surface and underground excavation is 3,85,600 cum out of this 88935 cum (23%) is proposed to be utilized by making aggregates for lining works of Diversion Tunnel and construction of Portals etc. Remaining 2,96,665 cum (67%) will be dumped at Beari muck disposal site at the left bank of Jalal Khad.

5.3.2 Tunnel Intake and Gate Shaft

From the excavation of Tunnel Intake and Gate Shaft approximately 1,15,400 cum muck will be generated, out of which 11230 cum (10%) is proposed to be utilized in concreting, leaving behind 1,04,170 cum (90%) muck for disposal in designated disposal yard at the left bank of Jalal khad at Beari.

5.3.3 Main Dam and Coffer dams

From the general stripping in river bed and abutment in over burden with no blasting and in rock with blasting and also in trench cutting for core approximately 29,18,450 cum muck is likely to be generated out of which 7,59,611 cum (26 %) 6,39,0389 cum (21.9 %) and 1,47,001 cum (5.1%) shall be dumped at Trimali, D/S Jataun barrage and Beari muck disposal sites respectively while the balance 13,72,800 cum (47 %) shall be utilized in concrete and riprap items of work.

5.3.4 Spillway

The flood water of Giri river, after the construction of dam, are proposed to be safely discharged downstream of the dam partly (7064 cumecs) through a chute spillway to be located on the left bank of the river and partly (1000 cumecs) through 2 number diversion tunnels proposed to be used as Spillway tunnels after completion of the dam. From the excavation of approach channel, conveyance channel and Ski- jump bucket a total quantity of 42,22,000 cum muck is likely to be generated out of when 41,36,200 cum (98 %) shall be utilized in shell zone and also in concreting works leaving behind 85,800 cum (2 %) to be dumped at designated disposal site at Beari.

5.3.5 Intake Structure for Power House and Penstocks

The excavation of these components shall create 13,635 cum quantity of muck out of which 6625 cum (49 %) shall be utilized in cement concrete works and the balance 7010 cum (51 %) shall be dumped at designated disposal site at Beari.

5.3.6 Power House Complex 1/C Tail Race and Switch Yard

In construction of power house, tail race, switch yard etc. about 2,45,800 cum muck would be generated by excavation in overburden and rock excavation. About 18,319 cum (9 %) is proposed to be utilized in cement concrete works and 2,27,481 cum muck will be dumped at designated disposal site at Beari.

5.4 IMPLEMENTATION OF ENGINEERING & BIOLOGICAL MEASURES

As already explained engineering measures like providing of GI wire crates and retaining walls and compaction of muck will provide stability to the profile of muck pile.

5.4.1 Engineering Measures

It has been observed that after excavation the disposal of muck creates problem as it is susceptible to scattering unless the muck disposal yards are supported with engineering measures such as retraining structures, crate walls and gabions. In the present case all the five muck disposal sites are proposed to be located near the river banks and therefore, needs proper handling to avoid spilling of muck into the river water while dumping and in the post dumping stages. The muck disposal sites have to be developed from the ground level by providing in 2 tiers stout boulder wire crates size 3 m x 2 m x 1.5 m of 8 SWG, Galvanised Iron wire of 10 cm x 10 cm mesh size. The walls for retainment of the muck piles have to be properly built so as to retain muck behind it by providing Random Rubble dry walls with 0.6 m top width and 1:4 slope. About 2.0 m berm has to be provided after every 4.0 m vertical height negotiated.

After placing of the boulder wire crate at the toe of muck disposal sites, along the flow and towards the hill side to protect the muck from spilling into the river, the muck shall be brought in dumpers and spread in layers behind the wire crate walls and then roller compacted till the level of top most tier is achieved. The retaining wall shall be laid with proper berm and the muck dumped behind it in layers and compacted by rollers. The process shall be repeated upto 0.6 m level below the desired height, which shall be laid with good soil for growing grass. At a regular vertical interval of 1.5 m and 3.0 m c/c masonry drains shall be provided to drain of the rainwater. The area will be properly fenced with barbed wire of six rows stretched over M. S. Angle 45 mm x 45 mm x 5 mm at a spacing of @ 3 m. c/c. It is proposed to develop all the three dumping sites into terraces and restored by laying of soil on top, digging of pits and planting of saplings.

5.4.2 Biological Measures

Biological measures, however, require special efforts as the muck disposed in disposal yards will in general be devoid of nutrients and soil contents to support vegetation. The selection of soil for spreading over such an area would require nutrient profiling of soil for different base elements. Suitable ad mixture of nutrients such as NPK would be done before placing the soil on the top surface of muck disposal areas to have administered growth of forest canopy.

In addition to this, isolation and screening of specialised strains of mycorhizal fungi, rhizobium, azotobacter and phosphate solubilizers (bio fertilizers inoculum) in accordance with the suitability of the spoil tips will be done at site based on following:-

- Inoculation of plants with specific biofertilizers and mycorrhizal strains.
- Periodical evaluation of rhizosphere development for physical, chemical and microbiological parameters.
- Monitoring of growth response in different plant species periodically and identification of corrective measures, if necessary.

Mass culture of plant specific biofertilizers and mycorrhizal fungi shall be needed. This can be procured from NEERI or similar agencies. Plantation of saplings will be carried out in pits in plain area of spoil tips, using identified blend and biofertilizer inoculum. The method for reclamation of such sites is given in Table 5.3.

Table 5.3: Suggested methods of reclamation with cost

Type of Vegetation	Pit size (m)	Top soil treatment	FYMC kg/pit	Bio Fertilizer	Cost per ha(Rs.)
Trees	0.5x0.5x0.5	25% of pit size	5	Rhizobium Azotobactor Mycorrhiza	60,000/-
Shrubs	0.3x0.3x0.3	25% of pit size	3	Rhizobium Azotobactor Mycorrhiza	60,000/-
Herbs	0.1x0.1x0.1	25% of pit size	1	Rhizobium Azotobactor Mycorrhiza	60,000/-

The pit will be refilled with the mixture 10-15 g of mycorrhizal inoculum near the root system is to be added. After this, plant saplings already inoculated with biofertilizers (Rhizobium and Azotobacter bacteria) would be planted and refilling will be done to cover the entire plant root system. The citrus peel to be arranged from juice factory in the region. Turfing (sodding) and suitable shrubs will be grown at slopes. About 5 cm of thick layer external soil will be spread on the slope area. Sod patches (40 cm x 20 cm) will be grown per square meter. Before sowing, the area will be properly amended with the manure @ of 2 kg/m^2. The plantation techniques for pits and along the slope are presented in Figure 5.5 and Figure 5.6.

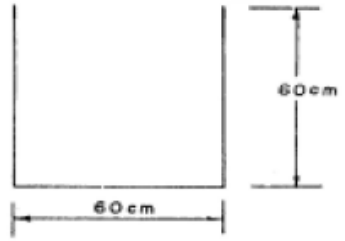
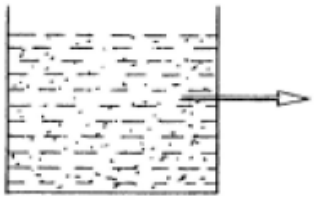
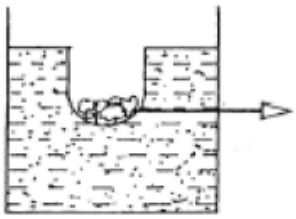
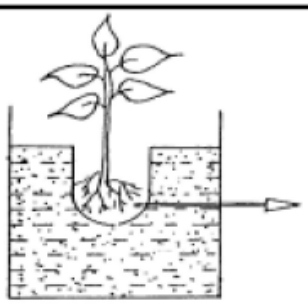
	1. Excavate in spoil dump pit of size 60 cm x 60 cm x 60 cm
	2. Mix 43.2 litres of soil, 10 kg of apple peel compost, 5 kg of farm yard manure and 2 kg of vermicompost with excavated spoil (Soil : Spoil – 1:4) 3. Refill the pit with mixture
	4. 10 - 15 g of Mycorrhizae in oculum near the root system
	5. Plantation of sapling inoculated with biofertilizers (Rhizobium + Azatobactor) and refilling

Figure 5.2: Schematic Diagram of Plantation on Spoil Tips (Plain Area)

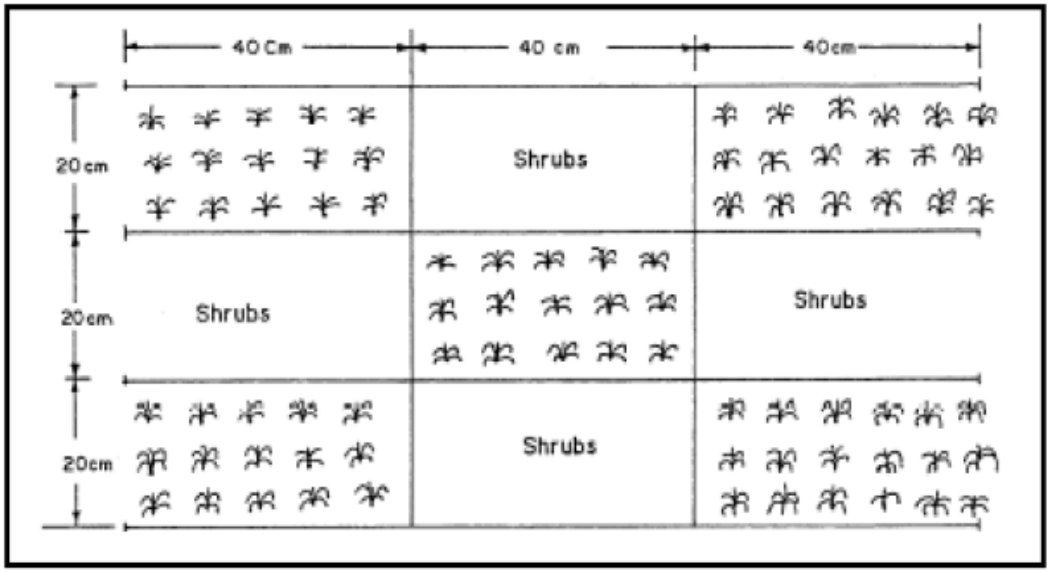


Figure 5.3: Schematic Diagram of Turfing on Slopes

5.5 SPECIES FOR PLANTATION

Afforestation with suitable plant species of high ecological and economic value and adaptable to local conditions will be undertaken at the rate of 2000 plants per hectare in accordance with canopy cover requirement. The major plant species which can be used in the area are given in Table 5.4.

Table 5.4 Name of the plant species

Trees (Non-leguminous)	Trees (Leguminous)
Mallotus philippensis *Adina cordifolia* *Mimosa himalayana* *Morus alba*	*Leucaena leucocephala* *Indigofera pulchella* *Erythrina suberosa* *Dalbergia sissoo* *Bauhinia retusa* *Albizia leebek* *Cassia siamea*
Shrubs	**Grasses**
Jatropha carcus *Ipmea cornea* *Vitex negundo* *Adhatoda vasica* *Rumex woodflrdia* *Fruitcosa hastatus*	*Pennisenum purpureum* *Saccharum spontaneum* *Agave sislana* *Crotalaria sericea* *Careya arborea* *Cenchrus setigerus*

5.6 COST ESTIMATE FOR MUCK DISPOSAL PLAN

The cost estimate for muck disposal plan indicating engineering, biological measures and maintenance is provided in Table 5.5.

Table 5.5: Cost estimate for Muck Disposal Plan

Sl. No.	Particulars	Quantity	Unit	Rate (Rs.)	Amount (Rs. In lacs)
A.	**Engineering Measures**				
1.	Supplying and placing in position GI wire crate 8 SWG, 10 cm x 10 cm. Mesh size at toe of muck piles in 2 tiers of crates (3 m x 1 m x 1 m) on water face at D/S Jalaun barrage, Trimali & Beari dumping site in 1200 m, 1300 m & 1020 m respectively ie in 3520 m Total Quantity 2x3x1x1x3520 = 21120.00 m^3	21120	m^3	1721	363.48
2.	Placing G.I. boulder crate in single tier along sides of dumps sites in 400 m +450 m + 490m = 1340 m Total Quantity = 3x1x1x1340	4020	m^3	1721	69.18
3.	Drainage training work	Job	L.S.		30.00
4.	R. R. masonry in retaining wall 4m high and front slope 1:4 with 0.6 m. top width in 4800 RM with sectional volume of 4.4 m^3 = 4800 x 4.4 = 21120 m^3	21120	m^3	1782	376.36
	Sub Total (A)				**839.02**
B.	**Biological Measures**				
1.	Plantation on plain area @ 60000/ha	44	Ha	60000	26.40
2.	Turfing on slopes 3 ha.	3	Ha	60000	1.80
3.	Barbed wire fencing on 45 mm x 45 mm x 5 mm, 2 m high M/s Angle iron posts	5000	RM	250	12.50
4.	Channeling fencing	2000	m^2	850	17.00
5.	Cost of 3 no. portable pumps with accessories	3	No.	250000	7.50
6.	Cot of sprinkler system of irrigation	44	Ha.	16000	7.04
7.	Cost of FYMC & bio-fertilizers	Job	ls	-	20.00
8.	Cost of biological inputs, soil testing and technology	Job	ls	-	20.00
9.	Watch and ward 4 No. @ Rs. 3000/years for 3 years	324	Months	3000	9.72
	Sub Total (B)				**121.96**
	Grand Total (A) + (B) =				**960.98**

Copy of Restoration reclamation Plan as per EMP

CHAPTER 6

RESTORATION PLAN FOR QUARRY SITES

6.1 GENERAL

For construction of main components of Renuka Dam Project viz. rock- fill dam, Coffer dams, Diversion tunnels, Chute Spillway, Intake structures, Penstock, Powerhouse and Tail race channel, huge quantities of pervious, impervious (Clay), filter material, riprap, coarse and fine aggregates for concrete shall be required. The quantities required for various uses and their potential quarry / mining sites are mentioned in Table 6.1.

Table 6.1: Quantity of various materials required for Renuka Dam Project

S. No.	Material	Quantity (lac m^3)	Quarry/Mining sites
1.	Pervious material	127.02	River bed 2 to 3 h km u/s & 1.5 to 3 km d/s of dam axis & spillway excavation
2	Impervious material	31.47	Trimali A, C, D and Khadri 'B'.
3.	Filter material	16.01	1.5 to 3 km u/s & d/s of dam axis in river Giri
4.	Riprap and rock-toe	11.09	Excavation from Chute Spillway
5.	Coarse aggregate for C.C	2.80	River bed & excavation material from tunnels
6.	Fine aggregate for C.C	1.40	River bed d/s Jataun Barrage
	Total	**189.79**	

Excavation of construction material entails land acquisition and management of quarry areas at a later date to maintain the environment in its natural state. Therefore, during the investigation it was realised that the quarry areas may be identified in the submergence zone and river plain as far as possible and also the material excavated from different components be utilised. In view of the above the river shoals along river Giri 1.5 to 3 u/s and d/s of dam axis and d/s Jatuan barrage were evaluated based on the parameters suiting to the requirement.

6.2 DETAILS OF QUARRY SITES

In construction of Renuka Dam Project 189.79 lac m^3 material is required. To meet this demand river bed /shoals in the upstream & downstream course of river Giri were investigated. It is also proposed that the excavated material derived from the underground and open –surface works will be utilised to a maximum and about 56.34 lac m^3 material will therefore, be used out of the total quantity of 79.00 lac m^3 excavated material. The location plan of different quarry / mining sites is depicted in Figure 6.1 and details of different kind of material and quarry areas are presented below.

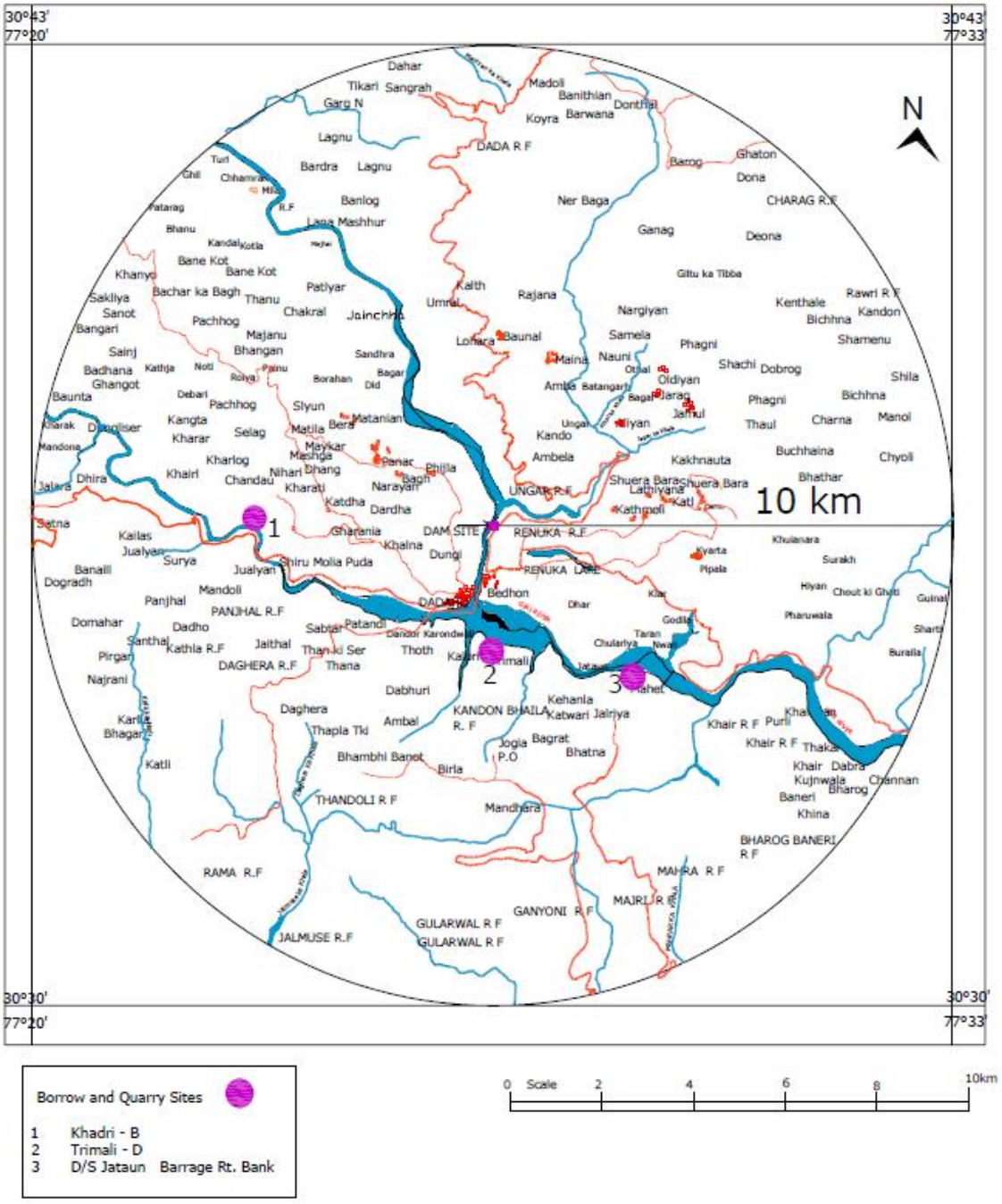


Figure 6.1: Index Plan of Borrow and Quarry Sites

6.2.1 Impervious Soil

The core material of main rock fill dam and upstream cofferdam, estimated to the tune of 31.47 lacs m^3 shall be arranged from Trimali (A), (C), (D) and Khadri (B) sites all being private agricultural lands in respect of which 17.84 ha, 17.52 ha, 91.6 ha and 7.68 ha of land area respectively shall be acquired. The former three sites at Trimali are on right bank of Jalal River and are approximately 4 km from the dam site and are approachable through Nahan-Dadahu road up to river Jalal. These sites shall be fully accessible by road after completion of the bridge on river Jalal near Dadahu. The fourth site at Khadri Village is about 9 km from Dadahu on left bank of river Jalal. Haul road shall be required from left bank to right bank of the river Jalal with temporary crossing across the river so as to facilitate carriage of material through Nahan- Dadahu road. The General view of the deposit can be seen in photographs depicted as Figures 6.2 - 6.5. The percentage of fines varies from 10 to 33 in area A, 23 to 51 in B, 9 to 29 in C and 13 to 48 in area D. Inasmuch as the percentage of fine from area B & D is better, these two shall be used as impervious material quarry while the other two shall be kept in reserve.

Figure 6.2: Impervious Quarry Site Trimali - A

Figure 6.3: Impervious Quarry Site Khadri – B

Figure 6.4: Impervious Quarry Site Trimali - C

Figure 6.5: Impervious Quarry Site Trimali - D

6.2.2 Pervious Material

The total quantity of pervious material required in constriction of main and coffer dams is 127.02 lacs m^3 out of which 40 lacs m^3 shall be made available from quantity excavated from Giri river bed / shoal deposit located 2 to3 km from dam axis in the Upstream side and 1.5 to 3 km on the downstream side. The river bed material of Jogar ka Khala and Jalal river may also be used after ascertaining its suitability.

6.2.3 Filter Material

The total requirement of 16.01 lac m^3 of filter material shall be accomplished from the RBM lying 1.5 to 3 km upstream and downstream of the dam axis after proper screening and washing of the collected material which has been found suitable for use by the Testing laboratory of HPSEB at Naulakha.

6.2.4 Rip-Rap Material

The total requirement of 11.09 lacs m^3 of rip-rap material shall be obtained from excavation of trench cutting for core in rock in abutment and form excavation for overburden in river bed. Thus in view of the fact that required quantity is obtainable from excavation incidental to main t dam core trench in abutment and bed, no separate quarry site is required for this purpose.

6.2.5 Coarse Aggregate

The total requirement of 2.80 lacs $m^3$of coarse aggregate shall be obtained form excavation of diversion tunnels, main dam overburden, tunnel intake and gate shaft, powerhouse excavation and also from the river Shoal u/s and d/s of dam. Thus for it, no separate quarry site is warranted under the project.

6.2.6 Fine Aggregate

The total requirement of approximately 1.0 lacs m^3 of fine aggregate shall be met out form river bed quarry situated on right bank downstream of Jataun Barrage. The distance of the proposed quarry site form project site form project site is about 8 km and is well connected through Dadahu Jataun Barrage road. The quarry lies at "Mauja" Mehat under Tehsil Paunta Sahib. The general view of the deposit can be seen in Figure 6.7.

6.3 ENVIRONMENTAL IMPACTS

Except the core material (clay) which shall be quarried form Trimali 'D' and Khadri 'B' sites, all other material for construction of main and coffer dams like shell material, filter material, rip-rap shall be obtained to a maximum, extent either from river bed 1.5 to 3 km upstream and downstream of dam or from under ground and open surface excavation of components viz. diversion tunnel, spillway, power house, Intake structure and tail race channel. Besides this the coarse aggregate for cement concrete shall also be obtained either from excavation involved in various components or form excavation of overburden in river bed. For fine aggregate i.e. sand to be utilized in making of cement concrete one sand quarry at "Mauja " Mehat located on Right bank of river Giri about 8 km downstream of Jataun barrage is proposed to be utilized.

The impacts of excavation of construction materials such as clay, rock and sand for construction of hydroelectric projects on environment depend on excavation process, local hydrological conditions, climate, rock types, size and type of operations and topography. Impacts also vary with stages of development at quarry sites e.g. development of working platforms has a less impact compared to the excavation of aggregates and sand. Physical changes in the soil, water and air associated with excavation activity affect the biological environment directly or indirectly. The major environmental impacts would be due to excavation and degradation of land around the quarry and on biota around it. Maximum excavated material from the proposed abutments of the dam shall be utilized. These abutment areas do not require any major restoration measures. However, keeping in view that due to blasting etc. the rock features along the joint surfaces may get weak or disturbed, so as to over come this some rock bolting and short crete measures along the exposed face of portals are proposed to be done. The u/s river shoal areas fall in the submergence area, as such no restoration measures are proposed for this river shoal. The river shoals below the dam site and below Jataun barrage which will be restored during the flood season as they fall within the river coarse. Due to extraction of clay from Trimali 'D' & Khadri 'B' clay quarry

sites some environmental degradation are likely to occur. To minimize this various restoration measures are proposed as follows:-

6.4 TREATMENT MEASURES FOR RESTORATION

The biological and engineering measures proposed to be implemented for restoration of Dam abutments and Byasi clay quarry are as follows:-

6.4.1 Biological Measures

Under the biological measures plantation over an area of 75.82 ha as per the suitability of the area will be conducted to bring the area under forest cover .In addition to plantation seeding of local plant species will also be done to enhance natural regeneration. The area proposed for biological measures i.e. plantation is inclusive of safety zone strip.

6.4.2 Barbed Wire Fencing

The area of quarry sites will be fenced to protect the plantation from grazing and to enhance natural regeneration.

6.4.3 Engineering Measures

For the reclamation of the quarry sites, the following engineering measures are proposed for restoration of quarry site.

6.4.3.1 Filling and Leveling

Required filling and leveling in the clay quarry area will be conducted. Drains will be constructed in the quarry area to flush out the unwanted water.

6.4.3.2 Side Slope Protection

The two impervious material quarry site viz Khadri-B & Trimali –D shall need slope protection in the from of masonry retainer walls on the hill and the other two side slopes. The side facing Jalal River shall also need protection so as to eliminate the affects of flood water during the functional period of the quarry, which shall be achieved by use of boulder wire crates.

6.5 COST ESTIMATE FOR RESTORATION OF BORROW AREAS

The details of the expenditure likely to be incurred for restoration of borrow areas by adopting biological and engineering measures as placed in Table 6.2.

Table 6.2: Cost estimate for restoration of borrow areas

S. No.	Item of Work	Qty.	Unit	Rate (Rs.)	Amount (Rs. Lac)
1.	Rock bolting in over excavated surface in abutment of dam spillway & powerhouse area.	7000	m	743	52.010
2.	Providing pre-fabricated Shot Crete	2500	bags	798	19.95
3.	Leveling and filling of area after use in clay quarries viz Khadri-B & Trimali- D (8.63 + 67.19) x 10000x1	7,60,000	cum	161	122.36
4.	Construction of drains	800	m	1100	8.80
5.	Boulder wire crates size 3x3x1 in 682 m + 1737 m length i. e. for 806 numbers	7254	cum	1721	124.84
6.	Dry stone masonry in retaining wall of 4m height in 445 + 2255 in length	11880	cum	925	109.89
7.	Barbed wire fencing.	75.82	ha	4900	3.72
8.	Afforestation in 8.63+67.19 = 75.82 ha. Including maintenance for 6 years.	75.82	ha	30360	23.02
9.	Watch and ward 3 No Chowkiders @ Rs 3000 per month for 6 years	216	month	3000	6.48
				Total	**471.07**

MUCK DUMPING AREA-WISE DETAIL

1 ha=11.86 bighas

Sr. No.	Name of Dumping Site	Forest Area (In bighas)	Deemed Forest Area (In bighas)	Private Land (In bighas)	Total
1.	Dandoor	207-2	-	-	207-2
2.	Beari	130-10	38-19		169-9
3.	Dhartaran/Bedon	125-1		102-16	227.17
4.	Dhartaran/ D/s of Giri HEP barrage	157-19	-	-	157-19
	TOTAL	**620-12**	**38-19**	**102-16**	**762-7 bigha (64.5 ha)**

COMPONENT WISE DETAILS OF MUCK GENERATION AND ITS UTILIZATION

Sr. No.	Description of Components	Qty.of muck generated (cum)	Qty.of muck to be utilized (cum)	Qty. Of the muck to be dumped (cum)	Area available for dumping
1.	**Diversion Tunnels**	3,85,600	88,935	2,96,665	**Area taken = 64.52ha** **Avg.height of dump =5m** **Area required =2946809/5 = 59ha**
2.	**Tunnel intake and gate shaft**	1,15,400	11,230	1,04,170	
3.	**Main Dam**	29,18,450	13,72,800	15,45,650	
4.	**Spillway**	42,22,000	41,36,200	85,800	
5.	**Intake structures for Power House & Penstock**	13,635	6625	7010	
6.	**Power House,Tail Race & Switchyard**	2,45,800	18,319	2,27,481	
7.	**Project roads**	2,02,795	-	2,02,795	
	TOTAL	**79,00,885**	**56,34,109**	**2266776** **Add swell factor 30%** **G.Total 29,46,809**	

QUANTITY OF VARIOUS MATERIALS REQUIRED FOR RENUKAJI DAM PROJECT

Sr.N	Material	Quantity (lakh cum)	Quarry/Mining Sites
1.	Pervious Material	127.02	River bed 2 to 3 km u/s and 1.5 to 3 km d/s of Dam axis and Spillway excavation
2.	Impervious material	31.47	Trimli and Khadri
3.	Filter Material	16.01	1.5 to 3 km u/s and d/s of Dam axis in River Giri
4.	Riprap and rock toe	11.09	Excavation from Chute Spillway
5.	Coarse aggregate for concrete	2.0	River bed and excavation material from tunnels
6.	Fine aggregate for concrete	1.0	River bed df/s of Jataun Barrage
	TOTAL	**188.58** **Add 25% swell factor =47.15** **G.Total =235.73** **say 236**	

QUANTITY OF CONSTRUCTION MATERIAL TO BE STACKED AT BUFFER STOCK in cum

Dumping Site near Bedon (left bank of River Giri d/s of the Dam) has been identified to stack the material as a buffer stock after proper leveling.

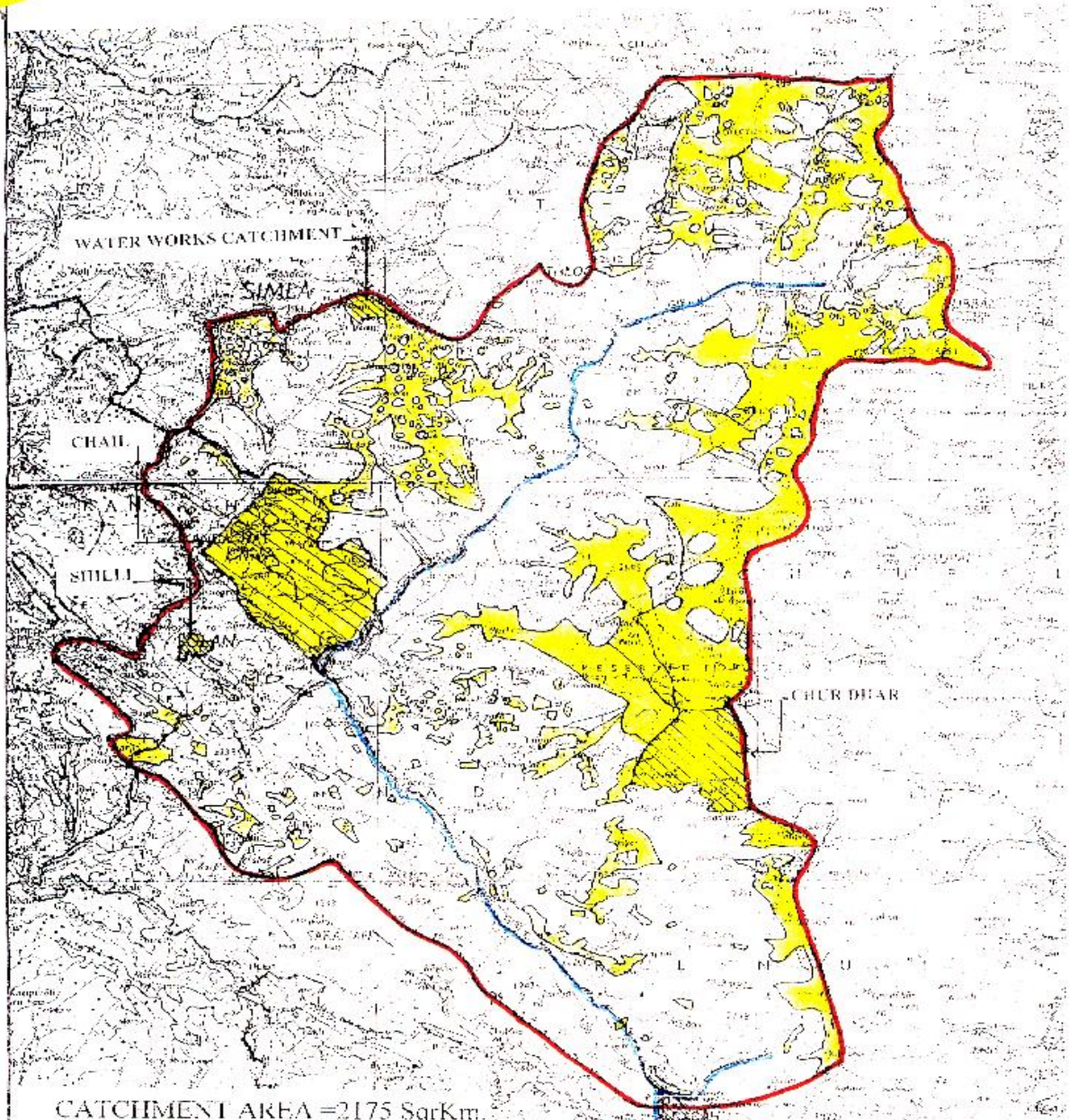
Capacity of Site is 20,36,307 cum

Sr.N	Type of Material	Total Requirement (cum)	Percentage of Materials to be stacked as buffer stock	Quantity of Material to be stacked out (cum)
1.	Pervious Material	1,27,02,000	10%	12,70,200
2.	Impervious Material	31,47,000	10%	3,14,700
3.	Filter Material	16,01,000	10%	1,60,100
				17,45,000

ANNEXURE-IV

MAP SHOWING THE FOREST COVER IN CATCHMENT AREA OF RENUKA DAM IN DISTRICT SIRMOUR (H.P)

SCALE :- 1:250000



CATCHMENT AREA =2175 SqrKm.

Forest =	326 SqrKm.
Agriculture =	435 SqrKm.
Pasture =	74 SqrKm.
Misc.=	1340 SqrKm.
Total =	2175 SqrKm.

REFERENCES :-

- Forest Area
- Sanctuary Area
- River & Nallah

Sr. Executive Engineer
Renuka Investigation Divisor
HPSEBL
2022

ANNEXURE-XII

Copy of Environment Clearance accorded by MoEF, GoI

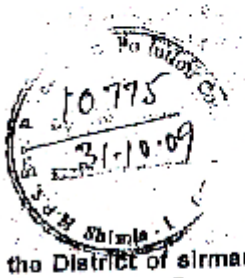
ANNEXURE-XII

J-12011/53/2008-IA.I
Government of India
Ministry of Environment & Forests
(IA Division)

Paryavaran Bhawan,
CGO Complex, Lodhi Road,
New Delhi – 110003

Dated: 23.10.2009

The General Manager
Renukaji Construction Circle, Dadahu
Himachal Pradesh Power Corporation Ltd
District- Sumour
Himachal Pradesh – 173 022



Sub: Renuka Dam Project (40 MW) in the District of sirmaur Himachal Pradesh by M/s. Himachal Pradesh Power Corporation Ltd.– Environmental Clearance – regarding.

Sir,

This has reference to your letter HPPCL/RCC/DB-2/08-1622-27 dated 11.9.2008 subsequent letters dated 19.11.2008, 26.11.2009, 17.4.2009, 7.7.2009 and 29.7.2009 on the above mentioned subject.

2. The committee noted that the capacity is 40 MW only and the project is submitted to Central Government for clearance as the area of Renuka Wildlife Sanctuary is involved. The proposed project is envisages construction of 148 m high Rock-fill dam across river Giri 1.5 km upstream of Dadahu Bridge and 0.35 km downstream of confluence of Jogar-ka-khala with Giri. This is storage scheme to harness monsoon discharge of river Giri for augmenting drinking water supply to NCR of Delhi and other Co-basin states with-in incidental power generation of 40 MW during peak flow. A surface powerhouse with 2 units (2 x 20 MW) is proposed on the right bank of river. The total land requirement is about 1477.78 ha. Out of which 901 ha. is forest land & 576.78 ha. is private land. Out of total land 1197.60 ha (761.60 ha. forest land + 436 ha private land) will be submerged. 40 ha. of Renuka Wildlife Sanctuary will be submerged. The Supreme Court has accorded approval on 17.11.2006 for diversion of forest land. Thirty two (32) villages consisting of 308 families are likely to be affected due to this project. Out of 32 villages, people from 24 villages will lose their land. The total project cost is about Rs.2687.33 Crores and will be completed in 6 years.

3. The above referred proposal was considered by the Expert Appraisal Committee for River Valley & Hydroelectric projects at its meeting held on 16.12.2008, 15.5.2009 and 29.7.2009.

4. The Ministry of Environment and Forests hereby accords environmental clearance as per the provisions of Environmental Impact Assessment Notification 2006 subject to strict compliance of the terms and conditions as follows:

Part A: Specific Conditions

(i) Catchment Area Treatment Plan as has been proposed should be completed in 5 years. The plan is given below:

Treatment Measures	Year I	Year II	Year III	Year IV	Year V	Total
(A) Biological Measures						
Afforestation (ha)	1931	1900	1900	1900	1900	9631
Pasture Development (ha)	320	200	200	200	200	1120
Horticulture (ha)	181	130	130	130	130	701
(B) Engineering Measures						
Vegetative Boulder spur (Nos)	240	240	240	240	240	1200
Wire crate Spur (Nos)	160	160	160	160	160	800
DRSM (Nos)	600	600	600	600	600	3000
Brush Wood Check dams(Nos)	880	880	880	880	880	4400
Bench terracing(ha)	150	150	150	150	150	750
Contour Staggered trenches(ha)	150	150	150	150	150	750
Catch drains(RM)	6550	6550	6550	6550	6550	32750

(ii) The R&R package approved by Government of Himachal Pradesh specially prepared for this project should be followed for project affected persons. Adequate publicity of the compensation package should be circulated in the affected villages.

(iii) The land compensation rates offered by the project authority as Rs.80,000/- per bigha (12.5 bigha in a hectare) for barren land; Rs. 1,60,000/- per bigha for un-irrigated cultivated & Rs. 2, 50,000/- per bigha for irrigated cultivated land should under no circumstances be reduced.

(iv) The commitment made during the public hearing should be fulfilled.

(v) During lean season 28 cumec water has to be released for maintaining the aquatic life in the downstream

(vi) All the equipment which are likely to generate high noise levels are to be fully mollified (noise reduction measures)

(vii) **Prior approval under Forest (Conservation) Act, 1980 for diversion of forest land should be taken. No physical work will be initiated without forest clearance for this project**

(viii) Consolidation and compilation of the muck should be carried-out in the muck dumping sites and the dumping sites should be above high flood level The proposed plan for generated muck of 79,00,885 m^3 in the project i.e. about 56,34,109m^3 is proposed to reutilize for the construction material & other filling purposes and remaining 22,66,776 m^3 of muck will be disposed of at 3 designated disposal areas (i.Beari–on left of Jalal Khad ii. Trimali– on the right bank of river Giri & iii. D/S of Jataun barrage) should be strictly implemented.

(ix) Afforestation programme on 1878 ha as proposed by using 14 plant species should be strictly taken-up. The proposed soil binding species @1100 plants/ha. should be taken-up and implemented.

(x) Green belt development as proposed around project areas, reservoir periphery and other components in an area of 81 ha. using about 54 different plant species should be implemented. The allocated amount of Rs. 121.40 lakhs for green belt development should strictly adhered for the purpose.

(xi) The proposed reservoir of the dam should be declared as protected area with provision for development and conservation of fish species.

(xii) The proposed fisheries development on the river Giri reservoir from dam site to Jateon barrage should be implemented within the timeframe. The proposed conservation of fishes, especially Mahseer management in river Giri should be taken-up strictly. A total budget of Rs. 500 lakhs is allocated for this purpose should not be diverted.

(xiii) The proposal for Wildlife Management and Biodiversity Conservation in Renuka Wildlife Sanctuary by following 3 theme plans viz. i) Zoo Management; ii). *In-situ* & *Ex-situ* conservation and iii). Community Development should be strictly taken-up and implemented in totality as mentioned in the EMP (Page No. 173-196).

(xiv) The Inter-state consensus on cost and benefit sharing should be arrived at before regulating water releases from the proposed dam.

(xv) The tree growth in the submergence 4 m below FRL should be removed before filling-up the reservoir.

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.

(vi) Financial provision should be made in the total budget of the project for implementation of the above suggested safeguard measures.

(vii) Six monthly monitoring reports should be submitted to the Ministry and its Regional Office, Chandigarh for review.

5. Officials from Regional Office, MOEF, Chandigarh 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.

6. The responsibility of implementation of environmental safeguards rests fully with the Himachal Pradesh Power Corporation Ltd & Government of Himachal Pradesh.

7. The total amount of Rs. 403.82 Crores kept in the budgetary provisions for implementation of environmental management plan should be strictly adhered and not to be diverted for any other purpose.

8. In case of change in the scope of the project, project would require a fresh appraisal.

9. The Ministry reserves the right to add additional safeguard measures subsequently if found necessary and to take action including revoking of the clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time- bound and satisfactory manner.

10. This clearance letter is valid for a period of 10 years from the date of issue of this letter for commencement of construction work.

11. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal Corporation, Urban local body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.

40

12. The proponent should advertise 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 letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at http://www.envfor.nic.in

13. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional office of MoEF, the respective Office of CPCB and the SPCB.

14. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997.

Yours faithfully,

(Dr. S. Bhowmik)
Additional Director &
Member Secretary of EAC

Copy to:

1. Secretary, Ministry of Power, Shram Shakti, Bhawan, Rafi Marg, New Delhi-1
2. The Secretary, Ministry of Water Resources, Shram Shakti Bhawan, Rafi Marg, NewDelhi-1
3. The Adviser (Power), Planning Commission, Yojna Bhawan, New Delhi-1
4. Principal Secretary (MPP & Power), Government of Himachal Pradesh, Shimla
5. The Secretary, Department of Environment, Government of Himachal Pradesh, Shimla.
6. The Chief Engineer, Project Appraisal Directorate, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
7. The Regional Office, Ministry of Environment & Forests, Chandigarh
8. Member Secretary, Himachal Pradesh State Pollution Control Board, Phase-III, Him Parivesh, New Shimla – 171 009
9. EI- Division, Ministry of Environment & Forests, New Delhi-110003.
10. Guard file.

(Dr. S. Bhowmik)
Additional Director &
Member Secretary of EAC