

=======

Himachal Pradesh Power Corporation Limited

(A State Govt. Undertaking)

Corporate Identity Number (CIN) :- U40101HP2006SGC030591 Sawra Kuddu HEP (111MW), HPPCL, Hatkoti, Tehsil Jubbal, Distt. Shimla H.P.-171206

No: HPPCL/GM-SKHEP/Env/2019-20-7/5-18 Dated -Dated :- 3-6-19

> Dr. S.C. Katiyar, Scientist 'E'. Govt. of India, Ministry of Environment Forest & Climate Change, Regional Office, 25, Subhash road, Dehradun-248001.

Subject: -Submission of Six Monthly EnvironmentSafeguards Compliance status report for the reporting period 01-10-2018 to 31-03-2019.

Sir,

Enclosed please find herewith Six Monthly Environment Safeguards Compliance status report for the reporting period ending 01-10-2018 to 31-03-2019 in respect of Sawra Kuddu HEP(111MW).

This is for your information please.

Yours faithfully,

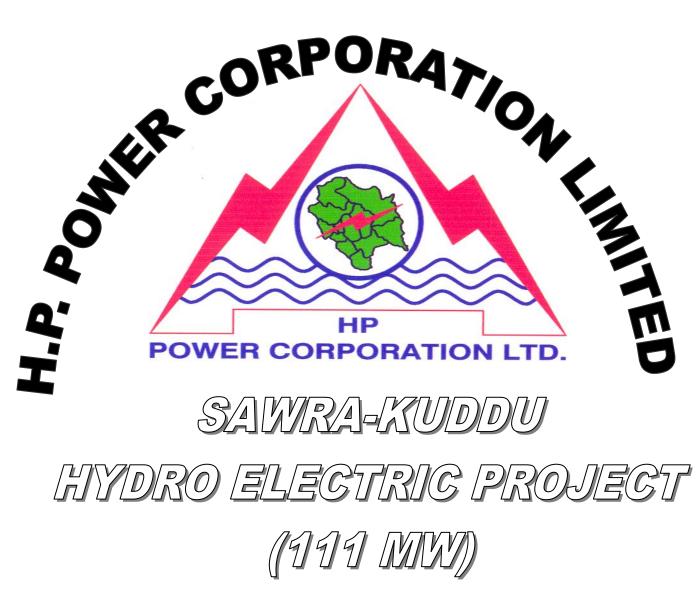
DA: As Above.

General Manager, 3/5/19 Sawra Kuddu HEP. HPPCL, Hatkoti.

Copy to the following along with enclosure for information please: -

- 1. The Chief Environment Specialist, Himfed Bhawan, HPPCL, Near BCS, New Shimla-9.
- 2. The Dy. General Manager (HRT), Sawra Kuddu HEP, HPPCL, Hatkoti.
- 3. The Sr. Manager(IT), HPPCL, Himfed Bhawan, HPPCL, Near BCS, New Shimla-9 for uploading of report on HPPCL website w.r.t. Chief Environment Specialist office letter No. HPPCL/ESMU-2/IKHEP/Vol-V/2016-1327-32 Dated 22-03-2016. DA: CD containing Soft Copy of Report.

_____ Telephone No.- 01781-239167, 01781-238143, Fax No. 01781-239208 Email Address:- agm.hrt@gail.com, progress.skhep@gmail.com Website Address:-www.hppcl.gov.in



Compliance Status Report of Environment Safeguards

Six monthly Environment Compliance

Reporting Period: w.e.f. 01-10-2018 to 31-03-2019

Submission: -June, 2019.

ADB	Asian Development Bank				
AV	Asian Development Bank Academic Year				
Bigha	Unit for measuring land (One Bigha = about 752sqmtr)				
Biswa	Unit for measuring land (One Bigma – about 732sqmtr)				
CA	Compensatory Afforestation				
CA					
	Compensatory Afforestation Management and Planning Agency				
CAT	Catchment Area Treatment				
CBO	Community Based Organization				
CES	Chief Environment Specialist				
CMO	Chief Medical Officer				
CSR	Corporate Social Responsibility				
DC	Deputy Commissioner				
DFO	Divisional Forest Officer				
DGM	Deputy General Manager				
distt.	District				
DPR	Detailed Project Report				
ECR	Environment Compliance Report				
EIA	Environment Impact Assessment				
EMP	Environment Management Plan				
FRL	Full Reservoir Level				
GoHP	Government of Himachal Pradesh				
GoI	Government of India				
HCC	Hindustan Construction Company (Ltd)				
HDPE	High-Density Poly-Ethylene				
HEP	Hydro-Electric Project				
HFL	Highest Flood Level				
HoP	Head of Project				
HP	Himachal Pradesh				
HPCEDIP	Himachal Pradesh Clean Energy Development Investment Programme				
HPFD	Himachal Pradesh Forest Department				
HPPCL	Himachal Pradesh Power Corporation Limited				
HPPWD	Himachal Pradesh Public Works Department				
HPSEB	HimachalPradeshState Electricity Board				
HPSFDC	Himachal Pradesh State Forest Development Corporation				
ITI	Industrial Training Institute				
LADA	Local Area Development Agency				
LADC	Local Area Development Committee				
LADF	Local Area Development Fund				
LWSS	Lift Water Supply Scheme				
М	Meter				
MM	Mahila Mandal(Women's Group)				
MoEF	Ministry of Environment & Forests				
Msl	Mean Sea Level				
MW	Megawatt				
NPV	Net Present Value				
NRRP	National Rehabilitation and Resettlement Plan				
РАА	Project Affected Area				
PAF	Project Affected Family				
Panchayat	Lower most tier (at cluster of village level) of governance in India				
Parivar	Family				
PAZ	Project Affected Zone				
PCC	Project Construction Circle				
PIO	Public Information Office				

List of abbreviations and colloquial terms used

РНС	Primary Health Centre
R&R	Resettlement and Rehabilitation
RoR	Run-of-the-River
Rs.	Indian Rupees/INR
SC	Scheduled Caste
SDM	Sub Divisional Magistrate
SE	Superintending Engineer
SPCB	State Pollution Control Board
Sqkms	Square Kilometer
SqMtr	Square Meter
ST	Scheduled Tribe
XEN	Executive Engineer

Note:- Issues already settled have been shown underlined and retained in the report for the reference of reader. Also the points on which there has not been any status change have been shown as underlined.

INDEX

S.N.	CONTENT	PAGE
А	Environment safeguards implementation report	5-7
В	Environment Clearance	8-14
С	Fulfilment of Commitments of Public Hearing	15-25
	Annexures	
Ι	Annexure-1	26-28
II	Annexure- 2	29-32
III	Annexure- 3	33-36
IV	Annexure- 4	37
v	Annexure- 5	38-40
VI	Annexure- 5(A)	41-42
VII	Annexure- 5(B)	43
VIII	Annexure-6	44-46
IX	Annexure-7	47
X	Annexure-8	48
XI	Annexure- 9	49
XII	Annexure- 10	50-53
XIII	Annexure- 11	54-57
XIV	Annexure- 12	58-59
XV	Anexure-12(i)-A	60-70
XVI	Annexure-12(i)-B	71-74
XVII	Annexure-12(ii)	75
XVIII	Annexure-12(iii)	76

А	. Environment Safeguards implementation rep (111MW) for the period w.e.f. 01-10-2018 to	
S. No.	Environment Safeguards Conditions	Action Taken/Reply
1.	Component wise Construction Status of the project and Commissioning Schedule.	Attached as annexure-1(a,b&c).
2.	Physical and financial progress of CAT Works during the reporting period.	Till Now a sum of 6.62 Crore has been deposited with the forest department.Balance funds shall be deposited as and when demanded by forest department.As per information supplied by DFO plantation of 42932 no trees have been shown covering the area of 39.03 ha under CAT plan works.
		Upto date financial progress is Rs. 4,85,27,607/- only. The Physical/Financial progress for the quarter ending Dec'18 & March.'19 has been received showing financial progress of Rs.2.23 & Rs.38.39 Lacs respectively (Attached as Annexure-2 & 3).
3.	Physical and financial progress on implementation of resettlement and rehabilitation Measures.	Attached as annexure-4.
4.	Upto date information on the project in 13 point data sheet (A copy may be downloaded from the website <u>http://nrodmoef.gov.in</u>).	Attached as annexure-5.
5.	Latest monitoring reports in respect of ambient air quality, noise level, ground water quality, biological/ chemical oxygen demand (BOD/COD) and coliform count of surface water, etc., carried out by HPSPCB.	Attached as annexure-6.
6.	Comprehensive physical and financial progress about disbursement of medical facilities to the workers.	Package wise detail of physical and financial progress about disbursement of medical facilities to the workers is attached as annexure-7 .
		Pharmacist with medical aid has been deployed in labour camps by HPPCL and the contracting agencies for regular check-up of the workmen as well as project staff. First aid kits are also provided at all the work

		sites. Ambulances have been provided at every work site for emergency evacuation of the workers, if any. Local Govt. Health centre has been strengthened to provide medical facility to project construction workers. The doctors and local representatives suggested that the laboratory shall be opened at the Primary Health Centre(PHC) at Sawra. These equipments were procured from PMFMC account amounting to Rs.3.0 lacs. The procurement of these lab equipments has been done and put to use for general public at primary health centre SaraswatiNagar.
7.	Upto date detail about the quantum of crate work/ wire crate works/ breast wall etc. at different dumping sites.	In total 1025.50 running meters of retaining walls have been constructed (4927 Cubic meter) to prevent landslides till date (i.e. 31-03-2019). This is a continuous process and wherever need is felt retaining structures are erected to keep the slopes stable.
8.	Information on the dumping sites which have been fully utilized and now stopped for further dumping. In such cases the rehabilitation work should be completed and the sites should be returned to the Forest Department. Action taken so far in this regard may be intimated.	The excavated muck from excavations is being dumped in designated dumping sites duly compacted and protected by providing stone wire crate walls/retaining walls to prevent its slippage into natural drainage system. Muck has been allowed to be lifted for utilization by other Govt./ Non- Government agencies and there are chances that in near future whole of the muck would get recycled and sites restored to their original shape.
9.	Upto date figures for allocation of funds for different Environment Management Plan along with utilization of funds.	Upto date expenditure detail has been attached as Annexure-8 .
10.	Upto date physical and financial progress on afforestation including location area covered by plantation and number of plants planted till date.	Compensatory afforestation over an area of (108.00 + 1.3884+ 0.6944) i.e. 110.08 Ha. Compensatory afforestation over 108.0 Ha. area of land was done till year 2007-08. Additional area of 2.088 ha was brought under CA during quarter ending 31-03-2014. Till date utilization of Rs.22,46,400/- has been shown by HP forest department. Upto date Rs. 72.87 lacs have been deposited with HP forest department on this account.
11.	Physical and financial progress on fisheries development.	1 st instalment of Rs. 31.0 lacs have been released to HP fisheries Department for providing alternate water supply to Dhamwari Trout Farm. Rs. 7.344 Lacs has

		been utilized upto the year 2009-10 as per the utilization certificate given by Fishery Department. As per the information provided by the department the funds are further allocated to other agency for executing the work. Progress is awaited. As and when more funds would be demanded by Fishery Department, same would be provided.
12.	The information on number of labours engaged by different contractors, quantity of free fuel supplied and expenditure incurred in the following Performa for the period w.e.f. 01-10-2018 to 31-03-2019.	The information is annexed as annexure-9 .
13.	The information on number of labourers medically got checked by different contractors, expenditure incurred on medicines and other medical facilities in the following Performa for the period w.e.f. 01-10-2018 to 31-03-2019.	The information is annexed as annexure-7 .
14.	Detail of social welfare measures and other schemes being run for the locals and project affected people.	The information is annexed as annexure-4 .
15.	Newspaper cutting of the advertisement about environment clearance given in the newspapers.	Insertion in the Newspapers was made as desired.(Annexure-10)
16.	Measures being taken to release at least 15% of water downstream during lean season period.	-

B. Environment clearance

Environmental Clearance for Sawra-Kuddu (111 MW) HEP was accorded vide Additional Director GoI, MoEF letter No. J-12011/13/2006-IA-I dated 17th May, 2007 (**Annexure 11**).

S. Stipu No	Stipulations							Com	pliance Status		0	
	Part A-Specific Conditions							l				
						lan as			Now a sum of 66.2 i		s been	deposited
	been proposed should be completed in three					with the forest department.						
years	years.					Balance funds shall be deposited as and when						
							r	dem	anded by forest depa	rtment.		
Treatm Measur		Y-I	Y-II	Y-III	Y-IV	Y-V	Total					
								The	physical/financial	progress	for th	e quarter
(i) Bi Social	ologie		eatment	60	60	(0 H	300	endi	ng Oct.'18 & Marc	h.'19 has	been	received
forestry	,	60 Ha	60 На	60 Ha	60 Ha	60 Ha	Ha	shov	ving financial progre	ess of Rs.	2.23 8	2 Rs38 39
Fuel		91	91	91	91	91 Ha	455		respectively. Upto			
wood fodder grass	and	На	На	На	На		На		,27,607/- only.		iciai p	1091055 15
NTFP		50	50	50	50	50 Ha	250	The	aummonized detail a	f the phy	ai a a 1	financial
NL		Ha	На	На	На		Ha		summarized detail c			
Nurser Devlop		2 No.					2 No.		ress from the above	e progress	rece	ived from
ent	ciii	110.					110.	HPF	D, is as below: -			
Pasture		60	60	60	60	60 Ha	300			Phy.		Fin.
Develo	pm	Ha	На	На	На		На			Progress	U	Progress
ent (ii)Er	gine	ering T	[[reatmen	nt.				Sr.	Component	during	Uints	
Wire	9	40	40	40	40	40	200	No.		reporting	S	(Rs.)
crates										Qtr.		
Vegeta	tive	80	80	80	80	80	400	Mai	intenance of afforestati	on		
Spurs Contou	r	20	20	20	20	20 Ha	100		4 th year maint. of		На	
Trench		Ha	Ha	Ha	Ha	2011a	Ha	1	afforestation	23	114	40215
Bench	-	25	25	25	25	25 Ha	125		5 th year maint. of			
Terraci	ng	Ha	Ha	Ha	Ha	100	Ha	2	afforestation	100	На	180000
Catch water		100 Ha	100 Ha	100 Ha	10 0	100 Ha	500 Ha					
drains		11a	11a		Ha	114	11a	3	5 th year maint. of	85	На	153000
R-wall	&	97	97	97	97	97 Ha	485		Timber Plantation			
Check		На	На	На	На		На	4	5 th year maint. of	16	Ha	28800
dams					l		I		Fodder plantation			
								5	4 th year maint. Of	5	На	8500
									Pasture development		114	5500
									5 th year maint. Of	20	TT	24000
								6		20	На	34000
									Pasture development			
								7	Soil and water	84	На	3084000
									conservation			
								8	Energy saving	1	На	400000
									measures			
								Tot	al expenditure during t	he		
									orting period upto 31.0		40,63	3,515/-
The	lan	d h	olding	of	proje	ct affe	ected	753	No Main MPAF i.e.	1418 Leg	al Tit	le Holders
			•			quired			been identified.			
•					•	any pe			er the standard R&R	policy per	nle w	ith left out
						more more			of less than 5 bigha			
						s identi			less. 31 nos. of p			
					-							
						ated as			ition had submitted th			
affect	affected person for compensation package						каде	verified from the revenue department and grants				

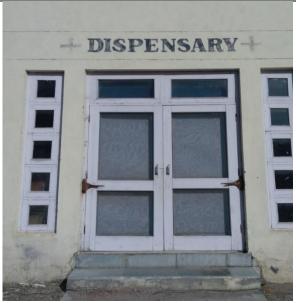
Compliance status of conditions of Environment Clearance is given in the following: -

Sawra Kuddu HEP: Six Monthly Environment Compliance Report (w.e.f. 01-10-2018 to 31-03-2019)

iii)	applicable in such cases will be undertaken by PVPCL (now HPPCL). A Monitoring Committee for RR should be constituted which must include representative of project affected person from SC/ST category and a women	disbursed to persons found eligible. Subsequently advertisements were issued in newspapers and also letters written to local panchayats to intimate people regarding the policy provisions. The payments to the tune of 45.23 lacs to 189 Nos. MPAF has been released so far. Some new applications have been received which are being processed for verification from revenue department. R&R Plan has been finalised. In the present setup the committee administering the LADF is authorized by GoHP to monitor the progress. It is also competent to look into grievance of the PAFs.
iv)	beneficiary. The Commitment made during the public hearing should be fulfilled	Being fulfilled. Status given separately in this report under the title 'fulfilment of commitments of public hearing' under this Report.
V)	The Biodiversity conservation and management plan as proposed in the EMP shall be followed in Toto.	Mentioned in Environment Clearance but not proposed in EMP. Description of study of flora and fauna is available in EMP. There is no significant wildlife in the area. For aquatic fauna provision of fish ladder has been made in the Barrage. As per policy of the State Govt. 15% discharge of lean season will be ensured in the river at any given time. Since majority of structures are underground hence flora is not getting affected. Hence Biodiversity Plan is not prepared. In any case inspection for poaching of wildlife species is being carried out.
vi)	All the equipments which are likely to generate high noise levels are to be fully mollified (Noise reduction measures).	Being implemented by ensuring proper maintenance of machinery/by creating barriers/enclosures around the stationary machinery/equipment. All moving machineries and equipment are provided with silencers to avoid high noise levels. DG sets with noise suppressing jacketing installed. Timing of crushing plants curtailed as per the requests of local inhabitants.
	BG sets with noise suppress	sing jacketing & installed in Sheds

Sawra Kuddu HEP: Six Monthly Environment Compliance Report (w.e.f. 01-10-2018 to 31-03-2019)

vii)	Consolidation and compilation of the muck should be carried out in the muck dump sites and the dump sites should be above high flood level.	The Muck Management Plan as part of the EMP is being implemented and all the muck sites are more than 6 m high above the HFL. The dumped muck is being levelled & compacted simultaneously engineering structures provided for retaining the same. Once the construction activities are completed, the muck dumping areas will be treated with plantation. Muck is also being utilized by other Government/Non-Government agencies and there are chances that in near future whole of the muck would get re-cycled and sites restored to their original shape.
2	Part-B- General Condition	
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.	LPG is being provided in labour camps by the contractors and subcontractors of HPPCL to prevent tree felling for the purpose of fuel-wood. Wood is not being used as fuel for cooking food. Community/common kitchens are being run by contractors where food is cooked for staff and workers. So far, (up-to 31-03-2019) 1,72,434.00Kgs. of LPG, 1,59,604 liters of diesel has been provided to community kitchen / mess at all locations by the contractor. No incident of tree felling for the purpose of fuel wood has been observed.
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 labourers.	 As stated above LPG is being provided in labour camps by the contractors. Pharmacist with medical aids has been put in place in labour camps by all four contracting agencies; First aid kits are provided at all the work sites. During this reporting period 274 Nos. of workers have been checked and medicines have been disbursed by the contracting agencies to the workers. Two Nos. of ambulances have also been deployed at site. Total expenditure on this account during this reporting period comes out to be Rs.1,19,126/-only. HPPCL dispensary at Power house site has been made functional and a pharmacist deployed to check labourer and local public.



HPPCL Dispensary at Power House site, Snail
Ambulances have been provided at every work site for emergency evacuation of workers if any.

- Local government health centre has been strengthened to provide medical facility to project construction workers.
- Satellite TV dishes have been provided.



Ambulance and dispensary Facilities at work site

iii)	All the labourers to be engaged for the construction works should be thoroughly examined by Health personnel and adequately treated before issuing them work permit.	All the Main contractors are directed to follow up instructions regarding Health personnel and adequately treated before issuing them work permit. Periodic medical checks are being done. No occupational diseases have been noticed. The workers working at crushers and batching plants (who are more exposed to dust and cement) are being observed periodically for any occupational diseases. During this reporting period 274 Nos. of workers have been checked and medicines have been disbursed by the contracting agencies to the workers. Two Nos. of ambulances have also been deployed at site. Total expenditure on this account during this reporting period comes out to be Rs.1,19,126/-only.
iv)	Restoration of construction area including dumping site of excavated materials should be ensured by levelling, filling up of burrow pits, landscaping etc. The area should be properly treated with suitable plantation.	Muck in the dumping sites is being levelled & compacted simultaneously with its disposal. Afforestation over the dump sites would be done once the muck dumping is completed. Muck has been allowed to be lifted for utilization by other Government/Non-Government agencies and there are chances that in near future whole of the muck would get re-cycled and sites restored to their original shape.
v)	Financial provision should be made in the total budget of the project for implementation of above suggested safeguard measures.	A provision of Rs 19.36 Crore has been kept for implementation of the EMP which includes the cost of implementation of these safeguards. The costs are in-built and additional costs are being taken in the revised cost estimate of the DPR. However, it is assured by the management that adequate funds for implementation of EMP shall be made available. So far (31-03-2019), Rs. 219.9 million have been spent against Rs. 193.583 million i.e. the total cost of implementation of EMP.
vi)	A multidisciplinary committee should be constituted in consultation with the Ministry with ecologists, environmental scientists, Conservationists and experienced administrators etc. to oversee the effective implementation of the suggested safeguard measures.	The committee has already been constituted to oversee the effective implementation of suggested safeguards measures. However, in addition to this the Project Implementation Committee constituted at project level is also looking after the various Environmental aspects.
vii)	Six monthly monitoring reports should be submitted to the Ministry and its Regional Office Dehradun for review.	Report is being submitted on regular basis.

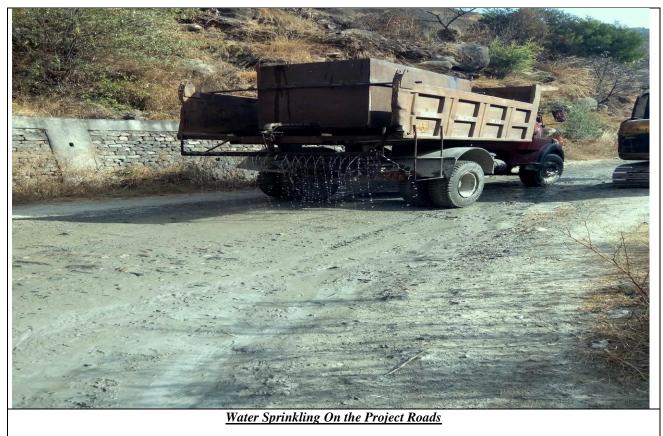
3	Official from Regional office MOEF Chandigarh who would be monitoring the implementation of environmental safeguards should be given full co- operation, facilities and documents/data by the project proponents during their inspection.	HPPCL commits to provide full cooperation and data supply, as and when demanded. Officials of state pollution control board pay regular visits to the project and their suggestions/directions are complied with. All the information sought by regional office is being provided in time bound manner.
4	The responsibility of implementation of environment safeguards rests fully with the PVPCL & Govt. HP.	Agreed and being complied with.
5	In case of change in the scope of the project, project would require a fresh appraisal.	There is no change in scope as per the EIA notification'2006 vide clause 7(ii) as there is no change in project parameters. This situation is also cleared by the MoEFCC vide their affidavit in National Green Tribunal dated 28 th October, 2015.
6	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 provision of the Environment (protection) Act, 1986 to ensure affective implementation of the suggested safeguard measures in a time bound and satisfactory manner.	Safeguard measures as suggested are being implemented & additional safeguards measures if any suggested subsequently will also be implemented.
7	This clearance letter is valid for a period of five years from the date of issue of this letter for commencement of construction work.	In terms of date, the letter is valid up to for 16.05.2012 for commencement of works. Construction work has already begun with in stipulated date and the MoEFCC has been intimated in this regard.
8	A Copy of the clearance letter will be marked concerned Panchayat/local NGO's, if any, from who any suggestion/representation has been received while processing the proposal.	Copy of the clearance letter has been sent to concern Panchayats vide letter No. PVPCL/SE/SKCC-DB-SK C.A.T/2007-1301-13 dated 20-07-2007.
9	State Pollution Control Board/ Committee should display a copy of the clearance letter at the Regional Office, District Industry centre and Collectors office/Tehsildar's office for thirty days.	The clearance letter was displayed as stated in this condition.
10	The project 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 the clearance letters are available with the state Pollution Control Board/ Committee and may also be seen at the Web site of the Ministry of Environment and Forest at http://www.envfor.nic.in	Insertion in the Newspapers was made as desired.

Extension of Validity of Environment Clearance for Sawra-Kuddu (111 MW) HEP was accorded vide Director GoI, MoEF&CC letter No. J-12011/13/2006-IA-I dated 14th Dec., 2017 up to period of 3 years. (Annexure 12).

Compliance status of conditions of Extension of Environment Clearance is as follows:

Sr. No	Stipulations	Compliance status
(i)	H.P State Forest Department will provide utilization certificate for funds provided under CAT plan and Compensatory Afforestation Programme.	Attached as Annexure-12(i)-A for Utilization Certificate of CAT plan & Annexure-12(i)-B for Utilisation Certificate of Compensatory Afforestation Programme.
(ii)	Component -wise details on funds allocated towards EMP with cost revised to current price level to be submitted.	Attached as Annexure-12-(ii)
(iii)	Details on total muck generated from the project and total muck utilized and also total land area of muck dumping sites to be submitted.	Attached as Annexure-12-(iii)

Some photographic record of Environment Measures.





C. Fulfilment of commitments made in Public Hearing – I & II

S.	Issues raised	Commitment at the time of	Compliance Status
No.		consultation/hearing	
А	First public hearing	at Hatkoti on dated 15.06.2	2006
1	Water sources in the project area should be inventoried by the project authorities in consultation with the IPH and concerned Gram Panchayats.	inventories the water sources in the project area and damage due	Inventory of water sources and house structures along with photographs in the presence of representatives of IPH Department, concerned Pardhan and Project proponent has been done till November,2017. In total there are 30 no. of water sources. As the excavation of Head Race Tunnel (HRT) was completed in the month of September,2017 so the practice of monitoring of water resources in the project area was discontinued. No instance of drying up of any water resource received/noticed so far.
2	Provision of beautification of Hatkoti temple should be made:	This work can be covered under the LADA funds earmarked by the project proponent.	 The work of Development/ Maintenance work at Hatkoti Mandir has been awarded amounting to Rs. 16.53 lacs on dated 05-03-2010. Additional funds were allocated and work has been completed at the cost of Rs 28.91 lacs. Rs 10.00 lac deposited with HPPWD Jubbal for widening, metalling

3	LADA should comprise local people and nomination of local people should not be on political consideration.	There is a Provision for nomination of local people in The LADA Committee headed by the Deputy Commissioner.	Temple from March, 2009. amounting to lacs received Jubbal. Work I • Total released for co tank on hill supply to to surrounding completed. The body has Shimla in wh included. Wor Sabha are only	Sawra—Roh The utiliza Rs 5.00 lac of from Execu- has been com Rs. 24 lac onstruction of for regulati- emple Com- area. Wor s been nomi ich local rep- ks recomme y covered und	cs have been f water storage ing the water plex and for k has been nated by D.C. resentative are nded by Gram ler LADF.
4	Provision should be kept for construction of crematoria.	-	construction of	of 06 No. cr f 14,79,491/-	ted. Work of ematoria at an - is completed ohru.
5	Employment should be provided to the local people.	Since, Pabbar Valley Power Corporation is a subsidiary of HPSEB, employment by it for the project shall be largely from		od about 70	yed during the 0% Himachalis
		the HPSEB. However, the major	Month	Himachali	Non- Himachali
		private contractors shall be bound by the provisions of	Oct18	379	161
		minimum 70% employment as	Nov18	426	196
		prescribed by the State Government.	Dec-18	426	188
			Jan -19	424	184
			Feb19	411	183
			March19	401	165
			Total	2467	1077
			have beer PAF&PAA 894.64 Lacs • 41 Nos. F PAA have	n awarded so far amo s. Persons from	ounting to Rs. n MPAF/PAF/ nployment on
6	Copies of EIA should also be provided to the local Panchayats in project area.	of these documents would	The same hav affected Panch		buted in all the
7	Plantation along the roads should be done.	Plantation along the project roads will be provided by the Project proponent. As far as the other roads are concerned, this may be considered under LADA funds.			of 11.50 km, as been carried

Sawra Kuddu HEP: Six Monthly Environment Compliance Report (w.e.f. 01-10-2018 to 31-03-2019)

8	The construction debris and muck produced should be properly managed in the designated dumping sites.	The EIA/EMP has been prepared and total generation of the debris has been duly estimated including the quantities to be reused for construction purpose. The debris shall be properly checked by constructing adequate retaining structures ensuring that the water quality/flow or land is not affected due to disposal of debris.	The generated muck from the project sites is being dumped in the designated dumping sites, well protected by providing wire crates & retaining structures. For the purpose five numbers dumping sites have been identified and the muck is being dumped at these sites besides at Sawra College ground. Muck has been allowed to be lifted for utilization by other Government/Non- Government agencies and there are chances that in near future whole of the muck would get re-cycled and sites restored to their original shape.
9	Social intrusion is apprehended due to migratory labour.	Provision of separate labour camps would be provided during construction phase.	Separate labour camps have been constructed near the work sites for migratory labour. Minimum distance of any camp is one Km from nearest habitation.
10	Migratory labour should be provided proper health and educational facilities for their children;	Local infrastructure in terms of health & education may be used and provision of its strengthening shall be made through LADA funds.	 PHC Sawra strengthened with the installation of X-Ray Machine purchased by CMO, Shimla for the amounting Rs 5.00 lac released by HPPCL. The meeting of PMFMC was held on 04-06-2014. The doctors and local representatives suggested that the laboratory shall be opened at the Primary Health Centre (PHC) at Sawra. The procurement and installation of these equipments involves 3.0 lacs from PMFMC account. The committee approved the demand and procurement of equipments has been done and put to use for general public at primary health centre Sawra. Medical camps are also being organized in the area with the R&R training-cum-awareness camps. Infrastructure of CBSE affiliated School (DAV school) at Sawra strengthened by giving one-time financial assistance of Rs 10.00 lac to facilitate assured admission and concessional education to ward of Project affected families, PAA & HPPCL staff. 5 rooms have also been provided in HPPCL colony at Chauri (Snail) to run the Primary section of CBSE pattern (branch of DAV Public School). 2200 Sqm Land has been identified for school Building at Snail.

11	Resettlement & Rehabilitation Plan is not indicated in the report.	No family is getting displaced. However, people affected to some extent shall be compensated as may be determined by the competent authority.	Standard R&R plan has been prepared on dated 19th January'2009 and being implemented. Project specific Resettlement Plan (RP) has already been finalized and the payment of due diligence is under process.
12	Noise pollution from project activities should be controlled.	Regular monitoring shall be done during the construction & operation phase of project. Moreover, most operation would underground hence noise at ground level would be minimum.	Being implemented by ensuring proper maintenance of machinery/by creating barriers/enclosures around the stationary machinery/equipment. All moving machineries and equipment are provided with silencers to avoid high noise levels. DG sets with noise suppressing jacketing installed. Timing of crushing plants curtailed as per the requests of local inhabitants. Two crushers and one batching plant have been dismantled due to which the noise as well as air pollution got reduced. The remaining crushers are far away from the populated area.
13	Project activities shall not hamper the smooth flow of traffic on the existing roads.	Major components of the project would on the left bank of river Pabbar where traffic flow is much less than that on the right bank. However, traffic due to Project shall be regulated such that it does not cause public inconvenience.	No such inconvenience noticed, so far. However, if it takes place, regulations of project vehicles and traffic shall be done.
14	Suggestionsfromotherdepartmentsofgovernmentshouldalsobe taken.	invited for the public hearing	Report sent to other departments, no comments received till date.
15	Proponent should organize visit of the people from the project areas to another project which has been operational for some time.	Proponent readily agreed to the suggestion.	The project authorities organized visit of local people to Sanjay Jal Vidyut Pariyojana (Sanjay HEP) and Nathpa- Jhakri HPS to have interactions with local people of those affected Projects.
16	Construction circle should be immediately shifted to Hatkoti.	This would be done whenever infrastructure developed/available.	One construction circle has been shifted during April'2009 to Hatkoti & other to Snail (Power House Complex) during May'2009. Now all the offices of project are at Hatkoti and Snail.
17	Natural calamity and land subsidence may occur due to tunnelling;	Project proponent clarified that most work would be underground and hence there would be minimum disturbance	Some complaints have been received from local residents regarding development of cracks in their houses. Committee appointed for assessing the

		at surface. It was apprised that the underground tunnel cavity in fact would attenuate the lateral as well as vertical operations the vent of earth quads thus reducing the damages to the buildings due to the Project would be compensated by the Project proponent. Baseline inventories of houses/other buildings would be prepared to determine the potential damages. In addition, the existing areas prone to land subsidence would need to be strengthened/protected for the safety of project components.	damages by Deputy Commissioner has submitted the report to Sub-Divisional Magistrate, Rohru. Compensation as intimated by administration shall be paid.		
18	Horticulture may be affected due to project.	There is no established evidence that project would affect the horticultural produce except for those areas which are acquired for the project for which compensation as determined by the competent authority would be provided.	Complaints of reduction in horticulture production have been received. Requests have been sent to horticulture and agriculture department for formation of committee to look into complaints. D.C. Shimla has been requested to constitute a committee to determine the loss of production of loss of horticulture and agriculture. The issue was discussed in the meeting with DC, where it was found that in the last 3 years, production of apple in the area has increased and any such adverse effect seems not to have occurred. Hence matter was decided to be disposed/ closed.		
19		project design in view of the	No commitment made; hence, fulfilment not required.		
		nail on dated 15.06.2006; JDDU NEAR SNAIL VILI	ACF		
1	Compensation to the project affected people should be adequate & Prompt besides alternative occupation for the land losers.	Compensation to the project affected people shall be	CAGE: Compensation as decided by the competent authorities being disbursed. As per compensation paid so far, following rates have been applied: - S.No. Class of land Rate (Rs/bigha) 1 Agriculture 6,17,392.00 (Irrigated) 2 Agriculture 3,82,768.00 (Unirrigated) 3 Barren		

2	Project road should be extended to the Chauri village.	This could be covered under the LADA funds as per priorities to be fixed by the committee to be constituted.	Till the period ending (31.12.2014) approx. 300 numbers of people have filed reference appeal/petition for enhancement of the rates. Court rulings shall be binding on the HPPCL. 1) Total no. of land looser:-753 No. 2) Total land compensation amounting to Rs 4578.34 Lacs for the land of 44-87-07 ha paid (up to 31-03-2019). Road shall be extended to Chauri Village.
		DNSULTATION held on 12.03.200	
1	Progress of LADC (Local Area Development Committee)	All the Pradhans of project affected Panchayats have been nominated as member of LADC as per the demand of Panchayat Pardhan in the first meeting. First instalment of Rs. 1.92 Crore has been deposited with chairman. LADC Shimla. Further distribution of this amount to the project affected Panchayats will be done by DC Shimla-cum- Chairman LADC. Project will	· · ·
		request the DC Shimla to hold the meeting at the earliest. Explanatory Note (added in the proceeding): LADC fund is raised as per HP Hydro Power Project 2006, from the HPPs @ 1.5% of the project cost which is placed at the disposal of the Local Area Development Committee (LADC) headed by the Deputy Commissioner of the district (Administrator of the District) having representatives (Panchayat Pradhan Head of the local unit of governance) of the Project Affected Panchayats).	2 Saraswatinagar 35.05 3 Mandal 34.97 4 Ranvi 37.90 5 Kuddu 20.77 6 Thana 41.16 7 Jhalta 41.28 8 Seema 0.50 Total
2	Rehabilitation of affected people and RR Plan	R & R (Rehabilitation & Resettlement) Plan was prepared as per the policy of government in force at the time and provisions as per guidelines of the ADB are incorporated, which will be re- submitted to the State Government for approval at the earliest.	

			wards of MPAF/PAF/PAA
			 wards of MFAF/FAF/FAA sponsored in different I.T.I,s of H.P. Till date an Amount of Rs. 38,75,830/- has been released on account of fees and scholarships. 2) Employment given so far:- a) MPAF, PAF& PAA:-267No. c) Bonafide H.P:- 705 No. d) Outsourced (MPAF): - 41No. 3) Amount released so far Rs.9,50,000/- to 10 Nos. Community based organizations. 4) Regarding self-employment & safeguards measures are being taken by HPPCL.
3	Downstream flow of water from barrage should be 15% where as it has been mentioned as 10% in EIA/EMP report. Why?	The claim was refuted as false and misleading as the downstream discharge from the barrage to be maintained by the project is 15% as per HP Hydro Power Policy and also finds mention in the EIA EMP (paragraph 4.2.1.A and Table-4.2) document.	Now the Barrage structure has reached its final stage where the installation of E- Flow valve is underway for monitoring the release of downstream flow. The provision of fish ladder has been included in the design of the diversion barrage structures. The discharge shall be monitored/ maintained during the operation phase of the project & arrangement for passing of such minimum discharge has been put in place.
			Fish pass has been constructed. In addition to this an environment flow pipe of dia. 600 has also been embedded in the structure. Discharge shall be regulated as per norms during operation stage.
4	Downstream fisherman from Hatkoti to Snail, only one license fisherman has been mentioned in EIA report. Whereas, as per his knowledge there are more 50 fisherman license holder exists in the affected area. Why?	License holder Fisherman prior to notification under Section IV of Land Acquisition Act, will be allowed fishing in the submergence area. Strengthening of the hatchery at Dhamwari (up stream of this project) is already provided for in the EIA EMP document. Deputy Commissioner Shimla has been requested to hold inquiry regarding the alleged licenses issued after the EIA EMP was prepared or after the section 4 notification. Explanatory Note (added in the proceeding): The section 4 of Land Acquisition Act pertains to the notice of intent of the government to acquire land and this presents the notice of project construction.	 As Explained and Matter being monitored regularly. Fishing rights shall be transferred in the impoundment to be created due to the project. The inquiry is in progress. As soon as, any progress is noticed, the same will be incorporated in the next safeguards report due. First instalment of Rs. 3.10 million has been released to HP Fisheries Department vide Sub-Divisional officer (C), Rohru letter No. RHU/RDR/2009-1835 dated 03-09-2009 for development of fisheries. Utilization of Rs.31.349 Lacs only (up to the year 2018-19) has been intimated by the Fisheries Department. The funds have been allocated to the execution agency by the Director-cum-Warden of Fisheries.

5	No blasting in the	It is assured that blast will not be	As explained the compliance being done.
	middle of night.	taken in the midnight particularly	Blasting is being done in delayed &
		after 22:00 hours and before 06:00 hours at least till an appropriate	staggered manner. The delay detonator divides total charge to be fired in a round
		depth is achieved where the	into a number of segmental charges.
		impact on the surface is	Very safe and effective blast pattern has
		negligible.	been designed which will take care of
			blasting related problems.
6	Gram Panchayat Mandal, Ranwi, Thana	Since the project activity is to remain confined to underground	As explained all necessary safety measures are being followed as per the
	are most effect	and the blasting done with	requirement & geological condition.
	Panchayats there are	delayed and staggered method, it	Retaining structures have been
	slide prone area as per	is not likely to initiate a surface	constructed at vulnerable points such as
	HP Geological report. Why this fact has not	landslide. Moreover, all the necessary safety measures will be	road cut surfaces and so far till now no instance of land slide has occurred.
	been mentioned in the	taken during the construction of	instance of fand side has occurred.
	EIA report. What	the project, keeping in view	
	effective measures are	geology of area.	
	being taken to tide over this situation?		
7	Dumping should be	Dumping sites for the excavated	Dumping of muck is being done in the
	done in waste land not	muck has already been identified,	already identified and approved sites.
	in irrigated land, why it	which largely is located on barren	
	is so.	land but smaller land holdings situate in between or adjacent to	
		muck dumping sites have been	
		included for safety. Some	
		agricultural patches were	
8	Imigation of laft	inevitable.	UDDCI will continue to fulfil the
ð	Irrigation of left out land in Bharot Chak,	Damaged kuhl (irrigation channel) has been restored by the Project.	HPPCL will continue to fulfil the commitment it has given in this regard.
	Management should	In future also irrigation facilities	Since last restoration no further damage
	reply whether the	to the remaining land shall be	has been noticed.
	irrigation is provided	made available, if damaged due to	
	to left out land what is alternative.	project construction.	

9	According to policy of Govt. of HP 70% complied with and moreover work employment should be given to local people. yet. The components currently					
	Give detail how much people employed from	being executed required skilled workers which are not available	Month	Himachali	Non- Himachali	
	7 No. Panchayat of trans Pabbar area.	locally. Besides, local people do	Oct18	379	161	
	trans Pabbar area.	not want to work on underground components for various reasons	Nov-18	426	196	
		including risk to life. A list of local people employed in project	Dec-18	426	188	
		would be made available at the	Jan -19	424	184	
		project office and also to the SDM	Feb19	411	183	
		Rohru.	March19	401	165	
			Total	2467	1077 total of 264	
			awarded to Pa contract value In the project been hired by and additional been hired b local people.	of Rs 894.64 t 09 No. of HPPCL from lly 37 No. of	vehicles have n local people vehicles have	
10	Since start of this project. How many times the grievances of Public have been listened.	There was public hearing on dated 15.06.2006. The R & R plan office has been opened to hear the problem of public and to bridge the gap between Public and Project Management. The name, contact details etc. are being notified by the Project Management.	Hatkoti to be the PAF/ PA	etter commu A public and	een opened at nication with redressed of officers of	
11	Under LADC Sawra Kuddu Panchayat is being offered Rs. 40 lacs on which ground, where tunnel is passing only Rs. 8-9 lacs are being offered to those Panchayats?	All the Panchayat Pradhans have been nominated as Member of LADC and funds are and will be allocated by the LADC in consultation with the nominated member of Project Affected Panchayats.	by the HPPCI disputes. Rece distribution m and PAZ and various works	to address t ently the GoH nethod with r within PAA s vide Depart MPP-F(10)-2 Thus, there sh	atio for PAA A as also for ment of MPP 24/2011 dated	
12	The fund issued against CAT plan is being spent in Rohru area.	First instalment of Rs. 50.00 lac of CAT (Catchment Area Treatment) Plan deposited by HPPCL is with Compensatory Afforestation Management and Planning Authority (CAMPA) of Govt. of India. The requirement of the fund has been sent by the Forest	In view of hearing (at consultation) issue is require	the time no further a	of second	

Sawra Kuddu HEP: Six Monthly Environment Compliance Report (w.e.f. 01-10-2018 to 31-03-2019)

		Department to release the payment for implementation of CAT Plan. The CAT plan as the name implies is meant for the catchment and not only the project affected area. Normally the area draining is taken for treatment under CAT Plan. However, in this case, the same has been extended down to TRT (Tail Race Tunnel) outlet to give benefit to the project affected areas as well.	
13	The X-Ray machine should be given to PHC. Sawra Kuddu instead of construction of Ghat. The Mobile Health Van hired by HPPCL should be kept at the disposal of doctor of PHC (Primary Health Center).	Matter will be reviewed, before initiating any action in consultation with project affected Panchayats.	A sum of Rs 5.00 lac deposited with CMO Shimla for purchase & installation of X-ray plant in PHC Sawra and X-ray plant has been installed at PHC Sawra. The meeting of PMFMC was held on 04-06-2014. The doctors and locals representatives suggested that the laboratory shall be opened at the Primary Health Center (PHC) at Sawra. The procurement and installation of these equipments involves 3.0 lacs from PMFMC account. The committee approved the demand and procurement of equipments has been done and put to use for general public at primary health centre Sawra.
14	will be started and	R & R Plan was prepared as per the policy of the government and has now been revised to align with the guidelines of the ADB, which will be re-submitted to the state government for approval.	The R & R plan prepared and approved by State Govt. vide letter No. Rev (PC) A (10)-7/2008 dated Shimla-2, the 19 th January, 2009 and the same is being implemented. Project specific Resettlement Plan (RP) has already been finalized and the payment of due diligence is under process. In all, only one (01) person became houseless. Full & final compensation of Rs. 22,62,460/- against the land and structure has already been paid. Houseless grant amounting to Rs. 6,68,750/- Lacs has been released on dated 03-08-2015.
15	Height of barrages has been shown as 9.20 meters instead of 13.50 meters as shown in the web site. Why so contradiction?	The height of barrage has been reduced to minimize submergence (including private cultivated land) and it is now 9.2 meters above riverbed level with a total height of about 13 meters	The height of Barrage varies at different sections depending upon the river bed profile, however FRL remains unchanged.

16	The total Panchayat in EIA and EMP report are 12, why it is now 8 Panchayat.	Change in the scope of the project reduced the number of affected Panchayats as reflected in the EIA EMP.	These are as per actual.
17	No land looser is in the LADC committee	Constitution of LADC is as per the HP Hydro Power Policy 2006 and it is constituted by the Deputy Commissioner concerned. In this exercise the Project Proponent has no say. However, all Panchayat Pradhans of project affected Panchayats are the member of LADC in case of Sawra Kuddu HEP.	The committee for LADC Constituted by DC Shimla and due representation has been given to Pardhans of affected Panchayats. However, there is no provision to give representation to each land loser in the LADC.
18	What is the policy for land looser who has left only 2.5 Bigha and what programme for them, the land should be given in addition to compensation, so that horticulture can be boosted.	It is partly addressed at 8 (iv) above and people left with less than 5 Bighas of land would be declared landless provision for which is covered under R&R plan	As per R & R plan, the losers of land are being given Rs. 75,000/- to 2,50,000/- as resettlement grant in addition to land compensation depending upon the quantum of land left after acquisition of land. As per the standard R&R policy people with left out land of less than 5 bigha (0.38 Hec.) are treated as land less. 31 nos. of people coming under this definition had submitted the affidavits which were got verified from the revenue department and grants disbursed to persons found eligible. Subsequently advertisements were issued in newspapers and also letters written to local panchayats to intimate people regarding the policy provisions. The
			payments to the tune of 45.23 lacs to 189 Nos. MPAF has been released so far. Some new applications have been received which are being processed for verification from revenue department.

COMPONENT WISE CONSTRUCTION STATUS OF THE PROJECT

Name of component :-

Head Race Tunnel

S. No.	Name of sub	Total	Executed	Status of sub	Remarks
5. 140.	component	Length	Length	component on %age	Activity of the second s
	component	(m)	(m)	basis up to 31-03-2019.	
1	Face-0	173.95	()		Completion schedule- Sept.,2019
1	Excavation	1/5.95	173.95	100%	
	Overt Lining		173.95	84%	
	Invert Lining		140.9	84%	
2	Face-1	2191.789	140.9	0470	
2	Excavation	2191.789	2191.789	100%	
	Overt Lining		1945.589	89%	
	Invert Lining		1661.889	76%	
3	face-2	2191.789	1001.005	7070	
5	Excavation	2151.705	2191.789	100%	
	Overt Lining		2009.389	92%	
	Invert Lining		798.289	36%	
4	Face-3	905.62	, 50.205		
	Excavation	505.01	905.62	100%	
	Overt Lining		870.223	96%	
	Invert Lining		869.623	96%	
5	Face-4	905.62	0051025		
-	Excavation		905.62	100%	
	Overt Lining		900.677	99%	
	Invert Lining		884	98%	
6	Face-5	2182			
	Excavation		2182	100%	
	Overt Lining		2177	100%	
	Invert Lining		2182	100%	
7	Face-6	1936.178			
	Excavation		1936.178	100%	
	Overt Lining		1934	100%	
	Invert Lining		1921.18	99%	
8	Face-7	877.79]
	Excavation		877.79	100%]
	Overt Lining		872.8	99%	
	Invert Lining		860.8	98%	
Α	Total Length	11365			
	Excavation		11364.74	100.00%	
	Overt Lining		10856.58	95.53%	
	Invert Lining		9324.681	82%	
В	Balance Length				
	Excavation		0	0.00%	
	Overt Lining		508	4.47%	
	Invert Lining		2040	17.95%	

<u>Annexure-1(B)</u>

COMPONENT WISE CONSTRUCTION STATUS OF THE PROJECT

Name of component :-

Diversion Barrage, Intake & Desanding chamber(DBID)

S. No.	Name of sub component	Estimated (Cu	•	Executed Qua 31-03-2 (Cum	019	Balance ((Cu	-	%age ex	ecuted	Completion Schedule
		Excavation	Concrete	Excavation	Concrete	Excavation	Concrete	Excavation	Concrete	
1	Barrage	199634	123652	199634	123648	0	4	100	100.00	
2	Power Intake	19452	16554	19452	16554	0	0	100	100.00	
					Qty. excee	ded due to ac	ditional wo	ork.		
3	Desanding Arragement	331750	74593	331750	74545	0	48	100	99.94	
4	Misc. Works	0	16515	0	10814	0	5701	0	65.48	Likely date of completion is
		6028		0		6028		0		June,2019 except
4.1	U/S Floor Pannel	6026	0	5122	0	904	0	0		some balance misc. works.
		0	5513	0	3253	0	2260	0	59.01	works.
4.2	Maintaining River profile upstream of barrage	68000	0	30479	0	37521	0	0	0.00	
	Total	630890	236827	586437	228814	44453	8013	92.95	96.62	
5	HM Works	100)%	96%	 	49	 %	96	%	

Annexure-1(C)

COMPONENT WISE CONSTRUCTION STATUS OF THE PROJECT

Name of component :-

Power House complex

S. No.	Name of sub component	Status of sub component on %age basis up to 31-03-2019	Remarks
1	Surge Shaft		Only minor fininshing works of
	Excavation	100%	power house are balance.
	Lining	100%	
2	Pressure Shaft		
	Excavation	100%	
	Backfill	100%	
3	Power House Cavern		
a)	Control Block-1 & service bays		
	Excavation	100%	
	Concrete	100%	
b)	Unit bays & Control block-II		
	Excavation	100%	
	Concrete	100%	
4	Transformer Hall i/c Bus Ducts		
	Excavation	100%	
	Concrete	100%	
5	TRT		
	Excavation	100%	
	Lining	100%	
6	САТ		
	Excavation	100%	
	Concrete	100%	
7	Pot Head Yard		
	Excavation	100%	
	Concrete	100%	

No. H. P. Forest Department.

Dated Rohru, the

From: D. F. O. Rohru.

To: C. C. F. Shimla.

Subject:-

Quarterly progress report of Sawra Kudu HEP CAT Plan for the quarter ending 30-9-2018.

Memo:

The quarterly progress report of Sawra Kudu HEP CAT Plan for the quarter ending 30-9-2018 is enclosed herewith for favour of information and further necessary action please.

Encl:- As above G.M. GM. & A/F&A C&M /R&R Endst. No. 3/0/0/3 Dated Rohru, the

Divisional Forest Officer, Rohru Forest Division, Rohru.

Copy along with copy of quarterly progress report of Sawra Kudu HEP CAT Plan for the quarter ending 30-9-2018 is forwarded to General Manager, Sawra Kudu HEP, HPPCL, Hatkoti for information please. Encl:- As above

> Divisional Forest Officer, Rohru Forest Division, Rohru.

17991 Alompper Kim Sicher- Env/2018-3420 OF 22/10/18 By of Whore is provarched to Darn think) SKHED, HODREL, Hatledi Jozinf. Ein a place

Sr. Manager (C&M), Olo Ganeral Manager, Sawra-Kuddu HEP, HPPCL, Hakel

Circle	of Name Divisio		Name of Block	f Name of beat	Name of Area	Particular of work		irget	Alloted		hieved upto Quarter		ieved during Juarter		ressive vement	Remarks
							Phy.		Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	
	3	4	5	6	7 8	9		10								
Shimla	Rohr	I Saraswati	Kudu	Kudu	UPF-Kudu	-		5	11 9000	12				16	17	
		Nagar				maintt.		5	9000	0	0	0	0	0	0	
		Tikkar	Tikkar	Phrog	UPF- Ghansidhar	IVth year maintt.		6	10800	0	0	6	10800	6	10800	
					Sub-Total			11	19800	0						2
	Par-	Bashla	Arhal	Arhal	32 b arhal	vth year maintt.		5	9000	0	0	6 5	10 800 9000	6 5	10800 9000	
-		Bashla	Khadrala	Kewali	C. No. 29 a	vth year maintt.		10	18000	0	0	10	18000	10	18000	
		Khashadhar	Todsa	Banoti		vth year maintt.		5	9000	0	0	0	0	0	0	
		Khashadhar	Todsa	Todsa	UPF-	vth year		5	9000	0	0	0	0	0	0	
		Khashadhar	Khashadha r	Diswani	UPF-	maintt. vth year		10	18000	0	0	0	0	0	0	
		Khashadhar	Khashadha	Dali	C. No. 78 a			10	18000	0	0	0	0	0	0	
		Rohru	Gawas	Gawas	Bhwani	maintt. vth year		5	9000	0	0	5	9000	5	9000	
		Rohru	Summerko	Summerko	UPF-	naintt. vth year		5	9000	0	0	0	0	0	0	2
		Saraswati Nagar	Mandal	Mandal	UF- v	naintt. /th year		5	9000	0	0	0	0	0	0	
		Tikkar	Tikkar	Tikkar	UPF-Nirgi v	naintt. th year	1. 	5	9000	0	0	5	9000	5	9000	
		Tikkar	Tikkar		UPF- v	naintt. th year		5	9000	0	0	5	9000	5		
					Fieldbag n Sub-Total	naintt.		70	10(000					5	9000	
		1			Maintt. Affo	restation		70 81	126000	0	0	30	54000	30	54000	
1		Jubbal		Kharapath		th year		5	145800 9000	0	0	36	64800	36	64800	
1				ar		naintt.			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0	0	5	9000	5	9000	

Jubbal	Juubal	Kharapat ar	h UF-Ori	Vth year maintt.		5 9000	0	0	5	9000	5	0000
Jubbal	Juubal		h UF-Jachli						5	3000	С	9000
Jubbal		ar		Vth year maintt.	0	5 9000	0	0	5	9000	5	9000
	Juubal	Badhal	UF-Badha	Vth year maintt.	5	9000	0	0	5	9000	5	
Jubbal	Juubal	Shili	3b Giri	Vth year	5	9000	0	0				9000
Jubbal	Juubal	Sanabha	UF-	maintt. Vth year	10				5	9000	5	9000
Jubbal	Juubal	Sanabha	Sanabha Giri 4a	maintt.			0	0	10	18000	10	18000
Jubbal	Sheel			Vth year maintt.	5	9000	0	0	5	9000	5	9000
		Shallan	C. No. 11 Kulgaon	Vth year maintt.	10	18000	0	0	10	18000	10	18000
Jubbal	Sheel	Sheel	UF-Kayana	Vth year	5	9000	0	0	5	9000		
Jubbal	Sheel	Mandhol	C. No. 18	maintt. Vth year	5	9000	0				5	9000
Tikkar	Tikkar	Kidwan	Sari UF-Khali	maintt. Vth year	5			0	5	9000	5	9000
Rohru	summerko	Machati	<i></i>	maintt.		9000	0	0	5	9000	5	9000
Saraswati				Vth year maintt.	10	18000	0	0	10	18000	10	18000
Nagar	Mandal	Kawalta		Vth year maintt.	5	9000	0	0	5	9000	5	9000
			Sub-Total		80	144000	0				5	2000
		Total Ma	intt. Timber	plantation	80	144000		0	80	144000	80	144000
Bashla	Khadrala	Khadrala	C. No. 28b	Vth year	10	18000	0	0	80	144000	80	144000
Jubbal	Juubal		UF-	maintt Vth year	3	5400	0				0	0
			Mahina 1 Sub-Total	naintt	13			0	3	5400	3	5400
2			aintt fodder	plantation		23400	0	0	3	5400	3	5400
Saraswati Nagar	Kudu	Pandranoo		V year	13	23400 8500	0	0	3	5400	3	5400
			sub-Total	naintt	5				0	0	0	0
Rohru	Gawas			th year	10	8500	0	0	0	0	0	0
	Gawas		Gawas n	naintt.		17000	0	0	0	0	0	0
Rohru				th year naintt.	10	17000	0	0	0	0	0	0
Rohru		1	Thach									
•					20	34000						
Rohru Fotal maintt.	pasture Dev	elopment	Thach		20 25	34000 42500	0	0	0	0	0	0

Fodder Plantation

Pasture velopment

oil and wat	er conserv	ation														
oil and wate onservation	er		Khashadha	ar Chirgaon	a Jakhnoti	Jakhnoti Nalla	C/o Crate wire check dams		6 240000	0 0		0	0	0	0	0
			Khashadha	r Chirgaon	Jakhnoti	Sunda Nalla	C/o Crate wire check dams	1	2 480000) 0		0	0	0 ()
			Khashadhar	Chirgaon	Chirgaon	Andhra khad near GHS Andhra	C/o Crate	1 1	2 480000	0	(0	0 C	C	
			Rohru	Gawas	Lowerkoti	and Kastruba Ghandi Ashram Malwari	C/o check	12	190000							
			Rohru	Gawas	Lowerkoti	Nalla Sidhrothi	dams C/o check	12		0	0	(0	0	
(Khashadhar	Chirgaon	Jakhnoti	Nalla Baldwada Nalla	dams C/o Crate wire check	15		0	0	0	0	0	0	
			Khashadhar	Chirgaon		Kanga slip near Diudi	wire check	15	600000	.0	0	0	0	0	0	
rgy Saving				Sub-Total Arhal			dams	84	3084000	0	0	0				
sures		анда — *3, экс					C/o Crematoria at Mehandli	1	400000	0	0	0	0	0.0	0	
	and performance of the second s		G. Tota	1			Sub-Total	1	400000 3839700	0	0	0	0	0	0	
				Note:- The	<i>x</i> .				3639/00	0	0	119	214200	119	214200	

Note:- The expenditure of Rs. 214200/- incurred but not booked

1. Contraction of the second

Divisional Forest Officer, Rohru Forest Division, Rorhu

8118 No. H.P. Forest Department.

From: D. F. O. Rohru.

To: C. C. F. Shimla.

Subject:-

Quarterly progress report of Sawra Kudu HEP CAT Plan for the quarter ending 31-12-2018.

Memo:

T?

The quarterly progress report of Sawra Kudu HEP CAT Plan for the quarter ending 31-12-2018 is enclosed herewith for favour of information and further necessary action please.

Dated Rohru, the 8-119 2-01-19

Encl:- As above

Divisional Forest Officer, Rohru Forest Division

Rohru. A

Endst. No. 8119

2-01-19 Dated Rohru, the

Copy along with copy of quarterly progress report of Sawra Kudu HEP CAT Plan for the quarter ending 31-12-2018 is forwarded to General Manager, Sawra Kudu HEP, HPPCL, Hatkoti for information pleased Encl:- As above

Seen file

Divisional Forest Offic Rohru Forest Division, Rohru.

	Name of Component	Name of Circle	Name of Division	Name of Range	Name of Block	Name of beat		Particular of work	Target		rter ending 3 Target ach pre. Q	ieved upto		hieved during quarter		ressive vement	Remarks
						andria, en la sala Sala sala sala Sala sala sala sala			Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	
		2		5	6	7	8	9	10	11	12	. 13	. 1	14 15	16	17	1
	2 Afforestation	3 Shimla	Rohru	Saraswati Nagar	Kudu	Kudu	UPF-Kudu	and the second second second	5	9000	0	0		0 0	0	0	
K				Tikkar	Tikkar	Phrog	UPF- Ghansidhar	IVth year maintt.	6	10800	6	10800		6 9615	12		
							Sub-Total		11	19800	6	10800	Carlos Ca	6 9615	12	20415	;
				Bashla	Arhal	Arhal	32 b arhal	vth year maintt.	. 5	9000	5	9000	and the reason for the second	0 0	5	9000	
1				Bashla	Khadrala	Kewali	C. No. 29 a		10	18000	10	18000		0 0	N.		
ſ				Khashadhar	Todsa .	Banoti	UPF- Dhumera	vth year maintt.	5	9000	0	0		0 0	· ·		Construction of the second
				Khashadhar	Todsa	Todsa	UPF- Amboi	vth year maintt.	5	9000		0		0 0			
				Khashadhar	Khashadha r		UPF- Lakadhar	vth year maintt.	10					0 0			N
				Khashadhar	Khashadha r		C. No. 78 a Dali	maintt.	10			A. S. San A.	alati i a	0 0		ALC: SULL	
				Rohru	Gawas	Gawas	Bhwani Thach	vth year maintt.	5	9000				0 0			
				Rohru	t	Summerko t	UPF- Dunsa	vth year maintt.	5	9000				0 0			
				Saraswati Nagar	Mandal	Mandal	UF- Jharashli	vth year maintt.	5	9000				0 0		ti na sheadh	
			al la sta	Tikkar	Tikkar	Tikkar	UPF-Nirgi	maintt.	5	9000				0 0		Sector Sector	a Netterson
		A		Tikkar	Tikkar	Sharontha	UPF- Fieldbag	vth year maintt.	5	9000 126000				0 0	10000		1
		1				Treta	Sub-Total	fforestation	70 81	126000		64800	and the second se	6 9615	All the second second second second second second	and the second se	and the second second second second
7	Timber	-		Jubbal	Juubal		UF-Deem	Vth year maintt.	5	9000				0 0			a second s

Page 34 of 76

			·	• • • • •	Kharapath	UF-Ori N	/th year	5	9000	5	9000	0	0	5	9000
•	to a series of the series of t		Jubbal		ar	n	naintt.	5	9000	5	9000	0	0	5	9000
			Jubbal	Juubal	ar	· r	/th year		9000	5	9000	0	0	5	9000
			Jubbal	Juubal	Badhal		Vth year naintt.	5	1. m. 17. 17. 17. 1	in a la	and marked the	0	0	5	9000
			Jubbal	Juubal	Shili	3b Giri	Vth year maintt.	5	9000	. 5	9000			10	18000
			Jubbal	Juubal	Sanabha	UF-	Vth year	10	18000	10	18000	0	0	and the	
			Contraction of the second	Juden	Sanabha		maintt. Vth year	5	9000	5	9000	0	0	5	9000
			Jubbal	Juubal			maintt.	10	18000	10	18000	0	0	10	18000
	5		Jubbal	Sheel	Shallan	Kulgaon	Vth year maintt.	10		5	9000	0	0	5	9000
			Jubbal	Sheel	Sheel	UF-Kayana	Vth year maintt.	5	9000			0	0	2	9000
			Jubbal	Sheel	Mandhol	C. No. 18	Vth year	5	9000	5	9000	Ů			9000
				Tikkar	Kidwan	UF-Khali	maintt. Vth year	5	9000	5	9000	0	0	5	
			Tikkar	summerko			maintt. Vth year	10	18000	10	18000	0	0	10	18000
			Rohru	The second	· Contraction		maintt.	5	9000	5	9000	0	.0	5	9000
	2		Saraswati	Mandal	Kawalta	C. No. 2 Jakhi	Vth year maintt.			80	144000	0	0	80	144000
			Nagar	a plan	- Ser - same	Sub-Total		80 80	144000 144000	80	144000	0	0	80	144000
			R 11	Khadrala	Total M Khadrala		Vth year	10	18000	0	0	0	0	0	U
Fodder Plantation		in a finanti	Bashla			Bajashal UF-	maintt Vth year	3	5400	3	5400	0	0	3	5400
Flantation	2.4		Jubbal	Juubal	Shilli	Mahina	maintt	13	23400	3	5400	0	0	3	5400
	11. A. S.	ista resta d	and the second state			Sub-Total			23400	3	5400	0	0	3	5400
	-		a a la glavar d'an	in a contra contra d	Tota	o DPF Sainj	er plantation	- 13	8500	0	0	0	0	0	0
Pasture			Saraswati Nagar	Kudu	Pandranc	the second second	maintt	5	8500	0	0	0	0	0	0
Development			1 14/54			Sub-Tota 82 b	Vth year	10	17000	0	0	0	0	0	0
	and the second	-	Rohru	Gawas	Gawas	Gawas	maintt.	10	17000	0	0	0	0	0	0
		i an	Rohru	Gawas	Gawas	UF-54 Shalgi	Vth year maintt.	10	17000						1
	e e	Colling of	The second		-	Thach Sub-Tota	1	20	34000	0	0	0	0	0	0
			and the second second		11 12 12 12		<u> </u>	25	42500	· · · 0	0	0	State of the second		223815
			Total mai	intt. pasture	Developme	nt C. Total all s	cheme maintt.	199	355700	119	214200	6	9615	125	223015

6	Soil and water conservation				And the States							~			
• 5) ¹	Soil and water conservation	Khashadhar	Chirgaon	Jakhnoti	Jakhnoti Nalla	C/o Crate wire check dams		240000	0	0	0	. 0	0	0	
		Khashadhar	Chirgaon	Jakhnoti	Sunda Nalla	C/o Crate wire check dams	12	480000	0	0	0	0	0	0	
		Khashadhar	Chirgaon	Chirgaon	Andhra khad near GHS Andhra and Kastruba Ghandi Ashram	C/o Crate wire check dams	12	480000	0	0		.0	0	0	
		Rohru	Gawas	Lowerkoti	Malwari Nalla	C/o check dams	12	480000	0	0	0	. 0	0	0	
		Rohru	Gawas	Lowerkoti	Sidhrothi Nalla	C/o check dams	12	204000	0	0	0	0	0	0	
		Khashadhar	Chirgaon	Jakhnoti	Baldwada Nalla	C/o Crate wire check dams	15	600000	0	0	0	0	. 0	0	*
		Khashadhar	Chirgaon	Diudi		C/o Crate wire check dams	15	600000	0	0	0	0	0	0	
Sec	and the second	and the state of the terms of the	Sub-Total	20.00	in an an an an an		84	3084000	0	0	0	0	0	0	
7	Energy Saving Measures	Bashla	Arhal	Sharog	Mehandli	C/o Crematoria at Mehandli	1	400000	0	0	0	0	0	0	
						Sub-Total	1	400000	0	0	0	0	0	0	
		G. Tot	al			and the second	All Contractor	3839700	119	214200	6	9615	125	223815	

Note:- The expenditure of Rs. 160918/- incurred but not booked

Divisional Forest Officer, Rohru Forest Division, Rohu K

Physical & Financial Progress of Resettlement and Rehabilitation measures

1 <u>LADF:-</u>

In LADF, the total contribution amounting to Rs. 8,37,79,500/- has already been released for the construction Phase.

- 2 <u>ITI Training:-</u> Total 107 students have been sponsored till date (out of which 5 dropped) and Rs. 38,75,830/- released on account of fee & scholarship to ITI students upto 31-03-2019
- 3 <u>Training & Awareness camps:-</u>
 - i) School competition:- Total 24Nos. School Competitions were organized and expense of Rs.2,49,286/- incurred upto 31-03-2019.
 - ii) Awareness camps:- Total 31 Nos. of awareness camps were organized upto31-03-2019 and expense of Rs. 13,34,788/-only.
 - iii) CBO Camps: 56 Nos. of Camps were organized upto the end of reporting period with expenditure of Rs.1,04,587/- only.

4 Other benefits of the R&R schemes:-

- i) **Scholarship:-** Till 31.03.2019 scholarship to 295 No. students has been released amounting to Rs. 26,19,600/- only. During this reporting period Half Yearly Scholarship amounting to Rs.2,29,200/- has been released to 39 candidates selected for the Session 2018-19.
- ii) **Sports tournament:-** 12 Nos Sports tournaments organized up to 31-03-2019, the expenditure incurred Rs.3,62,549/-.
- iii) CBO Scheme:- 9,50,000/- released to selected 10 No. of CBOs upto 31-03-2019.
- iv) R&R Grant:- Total Rs.2,70,01,972/- R&R Grant was given to 1209 No. of MPAF's.
- v) **Medical Fund Scheme:-** upto the end of this reporting period Rs.26,90,067/- was released on account of disbursement of medicine, purchase of medical equipments and reimbursement of medical bills (Medical Assistance) to MPAF under this scheme.

Annexure-5

Ministry of Environment, Forest and Climate Change North Central Regional Office Dehradun DATA SHEET

1.	Project Type:	Hydro Electric Project
2.	Name of the Project:	Sawra Kuddu Hydro Electric Project(111 MW) V.P.O. Hatkoti, Tehsil Jubbal, Distt. Shimla(HP)-171206.
3.	Clearance letter (s)/ O.M No.& dates:	Forest Clearance 1. F.No.8-42/2005/2005-FC dated 02-06-2006. 2. F.No.8-42/2005/2005-FC dated 20-01-2010. 3. F.No.8-42/2005/2005-FC dated 10-01-2013. Environment Clearance 1. 1. J-2011/13/2006-IA.I Dated 17-05-2007.2. Dated 14-12-20
4.	Location: a) District (s) b) State (s) c) Latitudes/longitudes	Shimla Himachal Pradesh Longitude 77.45.00 to 77.49.00 East Latitude 31.07.54 to 31.03.30 North
5.	Address for correspondence: a) Address of Concerned Project Chief Engineer (with Pin Code/ Tel No./Telex/FaxNo./ E.Mail address)	General Manager, Sawra Kuddu Hydro Electric Project(111 MW) V.P.O. Hatkoti, Tehsil Jubbal, Distt. Shimla(HP)-171206. Phone No. 01781-239205. Fax No. 01781-239208. Email ID- progress.skhep@gmail.com
6.	Salient features: a) of the project	As Per <u>Annexure-5(A)</u> Attached.
	b) of the environmental management plans	 Construction of Sewage Treatment Plant Solid Waste collection and disposal system Sewage Disposal for labour Camp Cost of substitution of fuel wood for work force Muck Management and Rehabilitation of Disposal Sites Mining Area Rehabilitation including maintenance for 7 years Compensatory afforestation including maintenance for 7 years Health Delivery System Control of Air Pollution Environmental Measures in Project's transport line Noise Control Measures Sustenance and Development of Fisheries including O&M Greenbelt Development Management of dust from transport activities Road side Plantation Cost of implementing CAT plan i/e maintenance for 7 years. NPV paid to ameliorate environment Impact mitigation on cultural sites Cost of Environment Monitoring Programme O&M cost

7.	Breakup of the project area	Fores	st Land	54.1425 Ha	
		Pvt. I	Land	Aggri. Land- 29.2073 Ha Pasture & Other-15.3969 Ha Bani Land-0.2056 Ha Total- 44.8098 Ha	
		Total	l	98.9523 Ha	
8.	Breakup of project affected population		Project affected t affected fami	d families-753 Nos. lies - 58 Nos.	
9.	Financial details: a) Project cost as originally planned and subsequent revised estimates and the year of price reference.	Revise		48.00Crore.(2003 Price Level) 65.10 Crore(2013 Price Level) EMP :-	
	b) Allocations made for environmental management plans	S. No.		Item	Cost (Million)
	with item wise and year wise break	1	Construction	of Sewage Treatment Plant	2.4
	up.	2	Solid Waste System	collection and disposal	2.34
		3	U 1	oosal for labour Camp	1.5
		4	Cost of subst force	titution of fuel wood for work	1.58
		5	Muck Manag Disposal Site	gement and Rehabilitation of es	33.74
		6	Mining Area maintenance	Rehabilitation including for 7 years	4.03
		7	Compensator maintenance	ry afforestation including for 7 years	4.265
		8	Health Deliv	5 5	1.2
		9	Control of A		1.5
		10	transport line		1
		11	Noise Contro		0.2
		12	including O8		13
		13	Greenbelt De	- -	1.3
		14	activities	t of dust from transport	2
		15	Road side Pl		2
		16	maintenance	ementing CAT plan i/e for 7 years	73.108
		17		ameliorate environment	36.715
		18 19		ation on cultural sites ronment Monitoring	0.3 7.182
			Programme	ronment Monitoring	
		20	O&M cost		4.223
			Total		193.583
	c) Benefit cost ratio/Internal Rate of Return and the year of assessment.	As Per	r annexure-5	5(B) Attached.	

	d) Whether (c) includes the cost of	Yes
	environmental management as	
	shown in b) above.	
	e) Actual expenditure incurred on the	Rs.1391332.38Lacs.
	project so far.	
	f) Actual expenditure incurred on the	Rs.2117.89Lacs.
	environmental management plans so	
	far :	
10.	Forest land requirement :	54.2514 hectare
11.	The status of clear felling in non-	Not applicable
	forest areas	
12.	Status of construction :	
	a) Date of commencement	10-10-2007(Actual)
	(actual and/or planned)	
	b) Date of completion (actual and/or	September-2019 (Planned)
	planned)	
13.	Reasons for the delay if the project is	Not applicable, project has already been commenced.
	yet to start:	
14.	Dates of site visits	
	a. Date of previous site visit:	16 & 17 Dec.,2016.
	b. Date of present site visit:	Yet not Visited.

SALIENT FEATURES

LOCATION:

State	:		Himachal Pradesh
District		:	Shimla
River		:	Pabbar
Dam site		:	Hatkoti Village
Power house site		:	Snail Village

PK Weir

RESERVOIR:

Maximum reservoir level (MRL)	:	1422.80m
Fullreservoir level (FRL)	:	1417.95m
Minimum draw down Level (MDD)	:	1413 .70m
Gross Storage	:	113Ham
Live storage	:	53Ha-m
Dead storage	:	60Ha –m

Diversion Barrage

Туре	:	Barrage
Max. Height	:	19.50 m
Top Elevation	:	1424.00m

SPILLWAY

PK weir

Туре	:	Gated &PK Weir
Design Flood :6880cumecs		
Crest Elevation	:	1404.50m
Energy Dissipater Gate	:	Stilling Basin +stepped spillway
		5Nos (8.20mx6.30m each)

Water Way Width	:	162.9m(52.50m under sluices+110.4m)
		PK weir.

:

POWER INTAKE STRUCTURE

Design Discharge:	:	66.87 Cumecs
Туре	:	Side intake
Crest Elevation	:	1410.70 m
Over all crest length	:	46.90m
Gate sill level	:	1406.50m

110.40m

DESANDING ARRANGEMENT

i) Feeder system	:		Three (Box Type) feede conduits 3x3m each .		
(I) Main Chambers:-					
Туре		:	Modified hopper		
Nos		:	Three		
Size of each chamber		:	94X17.60) x11.60 (depth above hopper Level)		
Limiting Particle Size		:	0.25 mm		
(iii) Flushing System		:	Three 1.30 dia .each flushing pipes laid		
			in reverse slope		
HRT					
Length	:		11365 m		
Size	:		Dia.5m,D-Shaped		
SURGE SAFT					
Dia.(Finished)	:		14.00m		
Depth -	:		76.640m		
Orifice Dia-	:		2.10m		
POWER HOUSE					
Installed Capacity	:		111 MW		
Unit Size & number	:		37 MW, 3 units		
Type of Machine	:		Francis (Vertical Axis)		
Gross Head	:		205.36m		
Net Head	:		184.50m		
Main Access Tunnel	:		Dia-7.50m,D-Shaped, 239.00m Long		
Machine Hall	:		58m x 14m x 39.20m		
Erection/transport Bay	:		18m x 14m x 20.00m, Underground		
Control Bay	:		14m x 14m x 20m, Underground		
Pot Head Yard	:		45m x 25m		
Cable Tunnel	:		Dia. 5.50m, D-Shaped, 277m Long		
Pressure shaft	:		Main Dia. 4.00m, 304.732m Long		
			Branch dia. 3.00m, 16.025m Long		
			Branch Dia. 2.30m, 93.238m long		

Tail Race Tunnel

Transformer hall caver :

73m x 14m x 22.5m

Dia. 5.00m, D-Shaped, 384m Long

TAIL RACE SURGE TANK

Dia.	:	7m
Туре	:	Restricted Orifice Type
Dia. of Orifice	:	2.70m

:

Annexure-5 (B)

Brochit analysis (to be enclosed)

The extendation of the economic analysis are based on net present value (NPV). The principal is to consider that the value of money charge with time due to the interest rate. This means, instance at 10% interest with 100 INR today as the same value as 110 INR. When using instance and expenditure during a certain period are re-calculated to discounted to a certain income and expenditure during are added up and the balance become the NPV. The state considered profitable if the NPV is positive at the given interest rate.

4

Internal rate of nation (IRR) is the interest rate that gives a NPV equal to zero. Benefit/cost (RC) is defined as NPV of total income divided with NPV of total costs.

Cost of energy is defined as the required average price per Kwh. Where the net present value endances the net present value of income at a given discount rate (BR).

The following criteria have been used in the economic calculation

A wall discount rate of 9% is excluded.

i) A price level of December, 1995 and no extra cost for interest for interest during

Ho cost value of the plant or major equipment has been considered in the calculation.

Calculation of basis condition :-

The cost of energy used are for base power summer and winter 1.25 INR/Kwh and for proceeder summer and winter 2.58 INR/Kwh. The total project cost are calculated 557.19 (mrss (excluding Transmission cost) in the price level of December, 1995. A total capacity of 1965, W will require capital investment of Rs.0.39 lacs/Kw. The annual cost of operation to be internance are calculated to be Ra.557 lacs

		DISCOUNT	<u> </u>
	7%	9%	11%
PNVminimum total cost +	290.64	+120.67	21.86
NPV Cost of energy INR/Kuth	0.96	1.20	1.47

The internal rate of return is calculated to 12.2% and the benefit /cost rate to be 1.37.

Role of energy for base power is 1.25 and for peak power 2.5 INR/Kwh. yields a positive NPV are on discount rate up to 12.2 % equal to the internal rate of return - The calculation so the cost for energy to be 1.20 INR/Kwh and benefit (cost rate of 1.37 at 9% discount rates.

The cost of energy in this case means that using an average rate of energy of 1.20 INK/Kwh balances the total cost during the operating life of the project using a discount rate

Page 43 of 76

Supphil

Annexure-6 H.P. STATE POLLUTION CONTROL BOARD **REGIONAL LABORATORY, SHIMLA** Him Parivesh, Phase-III, Below BCS, New Shimla-9 NO/PCB/RL Shimla/ River Monitoring / 2019- 9649-50 6.5.19 Dated To The Environmental Engineer, Regional Office, H.P State Pollution Control Board Shimla - H.P- 171009. Sub: Analysis results of EMP water samples received offline in Regional Laboratory Shimla for the month of Dec.-2018 & Feb.-2019. Sir. Please find enclosed herewith analysis Report No. 315-319 & 412-415 of Sawra Kuddu HEP for the month of December-2018 & February-2019 respectively of the water samples collected by your good office under EMP. You are requested to raise the Bills of the respective samples to the concern as per the rates fixed by the State Board please. Submitted for your kind information and necessary action please. Thanking You, ours faithfully. Encl:- As above arma) D Sr. Scientific Officer In-charge Regional Laboratory Shimla Copy to: The Member Secretary, H.P State Pollution Control Board, Shimla-9 for kind information please Encl:- As Above (Sanjeev/Sharma) Sr.Scientific Officer

4		ANALY	SIS REP	ORT	OF E	MP W	VATE	RSAN	IPLES	OF S	AWF	A KUI	DDU H	IEP	FOR	THE	MO	NTH	OF t	SEC	EMB	ER	-20	JIB
R e p o r t N o	Name of location	Date of sampl-ing	Time	рН	Cond. µS	COD mg/l	BOD mg/l	NO3-N mg/l	NH3-N mg/l	TKN mg/l	TDS mg/l	Total Hardness mg/l	F" mg/l	B mg/l	Cl [°] mg/l	SO4- mg/l	T. Alkalin ity mg/l	PO4 mg/l	Ca ^{**} mg/I	Mg			FS	urbi dity NTU
315	River Pabbar 500 mtrs U/s Barrage Sawra Kuddu	28-12-18	12:50 PM	7.13	107.2	4.0	0.6	0.14	ND	0.28	64.0	55.0	0.25	0.09	5.50	23.72	52.0	0.0	16.	03	3.65	3.2	47.0	1.4
316	River Pabbar At Diversion structure	28-12-19	12:45 PM	7.68	103.2	7.2	0.8	0.13	ND	0.56	68.0	56.0	ND	0.08	5.50	21.4	1 40.	0 0.	03 1	7.23	3.16	1.0	54.0	1.5
	River Pabbar D/s Barrage Sawra Kuddu	28-12-20	12:35 PM	7.79	112.3	9.6	1.2	0.06	0.28	0.84	61.0		ND	-	6 4.0			8.0 0	.08	15.63	3.16	1.5	50.0	0 1.2
318	River PabbarU/s Power House Swara Kuddu	28-12-21	9.30 AM	7.87	118.1	9.2	1.6	0.12	0.28	1.12		61.0	0.2		15 5.	50 26	.03 5	4.0).72	21.64	1.70	0.7	7 51	1.0 1.
319	River PabbarD/s Power House TRT of Swara Kuddu	28-12-22	10:40 AM	7.91	116.8	12.8	1.7	0.08	0.56	1.40	63.	0 65.0	0.5	53 0	.11 5	.00 24	4.95	48.0	0.17	22.04	2.4	3 2	.0 4	9.0

Plant

H.P. STATE POLLUTION CONTROL BOARD, REGIONAL LABORATORY, SHIMLA

H.P. STATE POLLUTION CONTROL BOARD, REGIONAL LABORATORY, SHIMLA ANALYSIS REPORT OF EMP WATER SAMPLES OF SAWRA KUDDU HEP FOR THE MONTH OF FEBRUARY 2019

R e p o r t N	e of location	Date of sampl-ing	Time	рН	Cond. µS	COD mg/l	BOD mg/l	NO3-N mg/l	NH3-N mg/l	TKN mg/l		TFS mg/l	Total Hardness mg/l	F ⁻ mg/l	B mg/l	Cľ mg/l	SO4- mg/l	T. Alkalin ity mg/l	PO₄ ⁻ mg/l	Ca ^{∔+} mg/l	Mg ⁺⁺ mg/l	TSS	Tur dit NT
412 Kudd	CL,Sawra u HEP Distt. a 500 m U/s ge	26.02.19	12:50 PM	7.32	142.7	8.0	0.4	0.62	0.28	0.56	98.7	97.0	122.0	0.60	0.18	9.00	36.19	44.0	0.08	22.44	16.03	28.8	3
413 Kudd	CL,Sawra u HEP At sion structure	26.02.19	12:45 PM	7.63	131.0	7.2	0.3	0.59	0.28	0.56	79.2	74.0	106.0	ND	0.11	5.00	25.26	36.0	0.02	18.43	9.72	19.8	
414 Kudd Powe	CL,Sawra lu HEP U/s r House TRT vara Kuddu	27.02.19	9:30 AM	7.54	136.5	9.2	0.9	0.81	ND	0.56	71.5	72.0	110.0	ND	0.12	6.00	26.95	50.0	0.03	21.64	13.61	25.1	6
415 Kudd Powe	CL,Sawra lu HEP D/s er House TRT vara Kuddu	27.02.19	10:40 AM	7.69	127.7	11.2	1.3	0.85	0.28	0.56	67.7	75.0	118.0	0.29	0.15	6.50	21.41	40.0	0.03	18.44	29.64	33.3	

alant

den -

ALC: NUMBER

There a

Signate.

.....

98/11

1.

Section

<u>Annexure-7</u>

Detail of No. of Labourers medically checked up by different Contractors, expenditure incurred on medicines and other medical facilities provided during the reporting period.

S. No.	Year/ period	No. of Labourers medically checked up by M/s HCC Ltd. (Package-HRT)	Expenditure incurred on providing medicine (in Rs.)	No. of Labourers medically checked up by M/s Patel Engg. Ltd. (Package-DBID)	Expenditure incurred on providing medicine (in Rs.)	No. of Labourers medically checked up by M/s Patel Engg. Ltd. (Package-P/House)	Expenditure incurred on providing medicine (in Rs.)	Total No. of Workers Checked	Total Expenditure incurred on providing medicines (in Rs.)	Remarks
1	Oct-18	40	11,788.00	3	2268.00	0	0	43	14,056.00	
2	Nov-18	40	11,788.00	3	2268.00	0	0	43	14,056.00	
3					3027.00			49	16,289.00	
3	Dec-18	45	13,262.00	4	3027.00	0	0	49	10,289.00	
4	Jan-19	45	10,359.00	3	2268.00	0	0	48	12,627.00	
5	Feb-19	45	10,359.00	3	2,268.00	0	0	48	12,627.00	
6	Mar-19	49	11,282.00	4	3,027.00	0	0	53	14,309.00	
	Total	264	68,838.00	10	7,563.00	0	0	284	76,401.00	

	Allocation of funds for different works of Environment Manageme	nt Plan along v	vith utilization o	<u>f funds</u>
S. No.	Description of Items	Allocation of funds (In Lacs)	Utilization of funds Upto March.2019 (In lacs)	Remarks
1	Construction of Sewage Treatment Plant	24.00	58.60	
2	Solid Waste collection and disposal system	23.40	48.02	
3	Sewage Disposal for labour Camp	15.00	61.39	
4	Cost of substitution of fuel wood for work force	15.80	155.93	
5	Muck Management and Rehabilitation of Disposal Sites	337.40	381.61	
6	Mining Area Rehabilitation including maintenance for 7 years	40.30	1.15	
7	Compensatory afforestation including maintenance for 7 years	42.65	73.00	
8	Health Delivery System	12.00	73.32	
9	Control of Air Pollution	15.00	23.62	
10	Environmental Measures in Project's transport line	10.00	9.78	
11	Noise Control Measures	2.00	5.62	
12	Sustenance and Development of Fisheries including O&M	130.00	31.00	
13	Greenbelt Development	13.00	6.06	
14	Management of dust from transport activities	20.00	88.40	
15	Road side Plantation	20.00	12.56	
16	Cost of implementing CAT plan i/e maintenance for 7 years.	731.08	662.00	
17	NPV paid to ameliorate environment	367.15	374.42	
18	impact mitigation on cultural sites	3.00	28.91	
19	Cost of Environment Monitoring Programme	71.82	99.94	
20	O&M cost	42.23	4.23	
	Total	1935.83	2199.56	

Annexure-9

Detail of No. of Labour engaged by the different Contractors, quantity of free fuel supplied and expenditure incurred during the reporting period

ſ	Vaard	No. of Labour engaged contract wise				Quantum of fuel supplied or subsidy provided							Financial Expenditure incurred (in Rs.)		
3. No.	S. Year/ No. period H		DBID		H Diesel For Burner (Ltrs.)	RT LPG (Cylinder)	Diesel For Burner (Ltrs.)	BID LPG (Cylinder)	Diesel For Burner	House LPG (Cylinder)	HRT	DBID	Power House	Total	Remarks
1	Oct-18	340	35	0	609	30	219	9	0	0	93981	25094	0	119075	
2	Nov-18	337	35	0	632	27	219	9	0	0	90994	25094	0	116088	
3	Dec-18	329	35	0	691	29	220	10	0	0	94676	26429	0	121105	
4	Jan-19	329	35	0	640	32	200	8	0	0	94208	24766	0	118974	
5	Feb-19	329	35	0	657	30	200	8	0	0	88810	24766	0	113576	
6	Mar-19	301	35	0	690	31	135	7	0	0	94865	19069	0	113934	
									Grand Total		557534	145218	0	702752	

PABBAR VALLEY POWER CORPORATION LIMITED No PVPCL/SE/SKCC-DB-SK C.A.T./2007- 1661-62 Dated: 19-7-07 To

The Public Relation Officer, HPSEB, Shimla-4.

Subject:-

Publication of Advertisement.

Please find enclosed horewith the advertisement (Environment Clearance) to be published in the daily newspaper in English (The Tribune Chandigarh edition) & in Hindi (Amar Ujala Chandigarh edition) in one insertion in respect of Sawra-Kuddu HEP on or before 21-07-2007

The bill in duplicate for advertisement charges along with tear sheet of the said advertisement may be sent to this office for payment please.

Thanking You

Yours faithfully,

Superintending Engineer, Sawra-Kuddu Construction Circle, PVPCL Rohru 171207.

CC

: refer

The Managing Director, PVPCL, Khalini- Shimla-2 for information please.

(Environment

SAWRA KUDDU HYDRO ELECTRIC PROJECT (3x37 MW) ENVIRONMENTALCLEARANCE

The Sawra Kuddu Hydro Electric Project (3x37MW) being executed by Pabbar Valley Power Corporation Limited (a company promoted by HPSEB) has been accorded Environmental clearance by the Ministry of Environment and Forest (GOI) as per the provisions of "Environmental Impact Assessment Notification", 1994 & 2006 on dated 17th May, 2007.

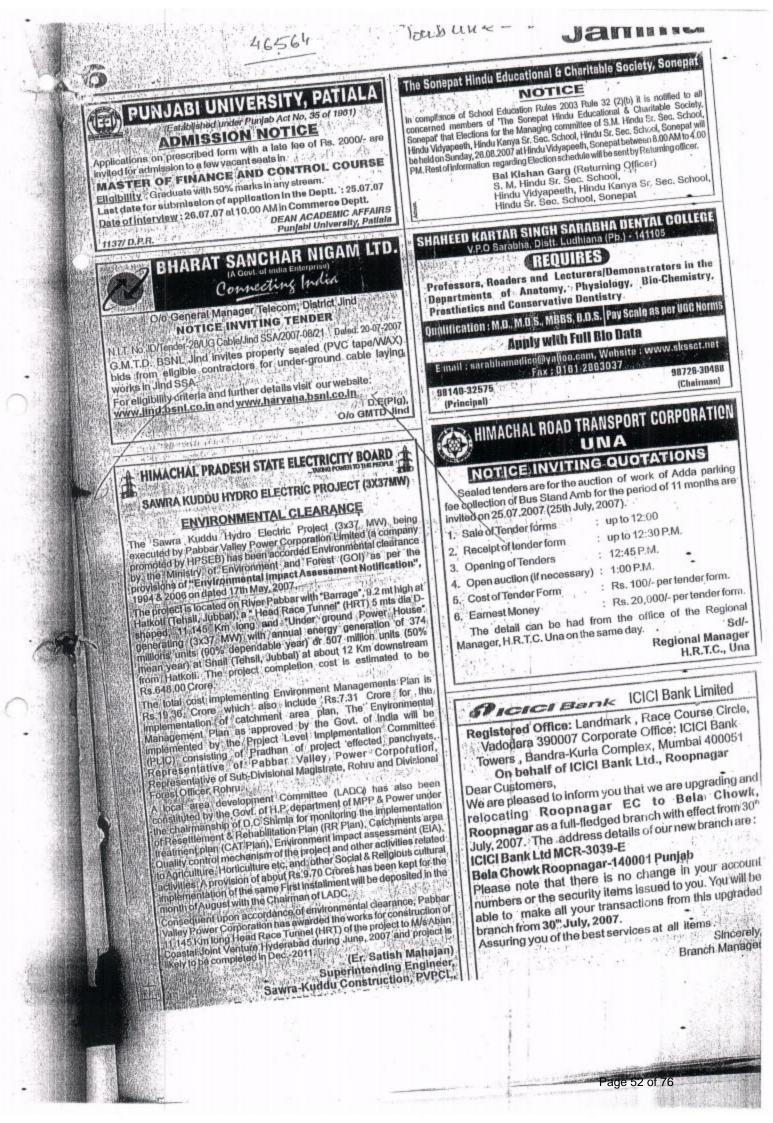
The project is located on River Pabbar with "Barrage", 9.2 mt high at Hatkoti (Tehsil, Jubbal), a "Head Race Tunnel" (HRT) 5mts dia D-shaped, 11.145 Km long and "Under ground Power House" generating (3x37 MW) with annual energy generation of 374 millions units (90% dependable year) or 507 million units (50% mean year) at Snail (Tehsil, Jubbal) at about 12Km, downstream from Hatkoti. The project completion cost is estimated to be Rs. 648.00 Crorp.

The total cost implementing Environment Managements Plan is Rs. 19.36 Crore which also include Rs. 7.31 Crore for the implementation of catchment area plan. The Environmental Management Plan as approved by the Govt. of India will be implemented by the Project level Implementation Committee (PLIC) consisting of Pradhan of project effected panchyats, Representative of Pabbar Valley Power Corporation, Representative of Sub-Divisional Magistrate, Rohru and Divisional Forest Officer, Rohrues A local area development Committee has also been constituted by the Govt of H.P

department of MPP & Power under-the chairmanship of D.C Shimla for monitoring the implementation of Resettlement & Rehabilitation Plan (RR plan), Catchments area treatment plan (CAT plan), Environment impact assessment (EIA), Quality control mechanism of the project and other activities related to Agriculture, Horticulture etc, and other Social & Religious cultural activities . A provision of about Rs 9.70 Crores has been kept for the implementation of the same First installment will be deposited in the month of August with the Chairman of LADC.

Consequent upon accordance of environmental clearance, Pabbar Valley Power Corporation has awarded the works for construction of 11.145km long Head Race Tunnel (HRT) of the project to M/s Aban Coastal Joint Venture Hyderabad during June ;2007and project is likely to be completed in Dec-2011 .

144 MIR (Er. Satish .Mahajan) Superintending Engineer, Sawra-Kuddu Construction PVPCL Rohru.-171207 (Shimla) Tel; 01781240067



पूर्व प्रत	त्र कार्यकारी अभियंता, वि वेक के भुगतान पर प्राप्त कि	ह्युत मण्डल संख्या-२, प केया जा सकता है। नियि	हाहित्यात्र पुने: आमंत्रित हैं। निर्धारित इ निविदा पुने: आमंत्रित हैं। निर्धारित [डीगड़ के कार्यालय में कार्य के राम्मुख । आएगी और उसी विधि को उन । उपस्थिति में खोली आएगी, यो उस	जुलाई तक नामाकन मरा था समाग के अगस्त नाम मार्गाकन पत्रों की जांच होगी और एक अगस्त नाम बापसी की अंतिम तारीख होगी। 8 अगस्त शाग को ही चुनावी परिणाम आ जाएंगे। अमृतसर में 65, पटियाला में 50, लुधियाना में 75 और जालंधर में 60 वाडों में चुनावू/हीना है।
H H	मय 'उपस्थित रहना' चाहते	81		चुनाव हाना हा
a	्र निविदा कार्य का	नाम अनुमानित लागत	(113) (114)	🚯 हिमाचल प्रदेश राज्य बिजली बोर्ड 👔
P. LITTLE	1 12/07/47 aur. U. 2	ी.सी. पलसौरा, गृ.टी., प	वंडीगढ़ में 50 केलीए डीजल जन्मेरिंग 11400/- दो माह	पहुंचा रहा है ऊर्जी की जन-जन तक मतग-कडड जल विद्युत परियोजना (3×37 में.वा.)
大学は	BU H ten af (mm. 4	वंकारी 'अभियंता, विद्युत 'चंडीगढ में किसी भी उ	मण्डल संख्या-2. चंडीगढ़ (पदनाम प्रथिसूचित येंक में डिपॉजिट एट-कॉल	पराविरणीय करनीया देखी या देखी "वर्षावरणीय प्रभाव निर्धारण अधिस्थना", 1994 एवं 2006 के प्रावधानों के अनुसार "वर्षावरणीय प्रभाव निर्धारण आधिस्थना है?
	े रसीद के रूप में अपि 2. सशर्त निविदा/अग्रिम 3. निविदा जारी करवाने	प्रेम राशि सलग्न करना ह राशि रहित निविदा बिन के लिए अग्निम राशि ब	तथा। 1 कोई कारण बताएं रद्द कर दी आएगी। त प्रमाण पेश करना होगा।	(हि.प्र.रा.बि.चो. द्वारा प्रोत्साहित कंपना) द्वारा निर्णावत को जा ७० जन्म उ.२२ विद्युत परियोजना (३×३७ मे.वा.) को पर्यावरणीय क्लीयरेंस १७ मई, २००७ को प्रदान की विद्युत परियोजना (३×३० मे.वा.)
	4. ाडा.एन.आइ.टा. फा सेक्टर, गडी, लंडीग में को प्राती के धरीलापी अन्यत्रमायसं प्रतान हो।	्रं से निस्थते अभ्येष समुख्य २३ साम् ८ जन्मजन्मत्वन रक्षे गर्भाषदा खालान्य	तिरिक्त डोलक्स भवन, पहला माजल,) के कार्यालय, के क्रिसी भी कार्य प्रियत रेखी ज्या सको किर्याय कर के क्रिस भी निर्ताय से पर्व विद्युत्त्व स्वतिकारी प्रव ते भी अध्यया सभी निविद्य को रद्द करने	भित्र भारतीय जनी हेटेकोटी (सेरसील जुब्बली में 9.2 मांट) कव वर्ष कर कि
12	बंद कर दी जाएगी अधोदग्तासरी बिन	ि कोई कारण बताएँ किर	गी भी अथवा सभी निविदा को रद्द करने	(90% दिपंडएयल वय) या 507 मिलवेग शुरुद्ध (557 मे.व.) के साथ पब्बर उत्पन्न करने के साथ ''भूमिगत पावर हाउस'' जनरेटिंग (3×37 मे.व.) के साथ पब्बर
1.14	THE TRUNKING COMPANY THE	171 THERE & 1	1997년 - 1997년 2017년 1월 2017년 1	11 जमी पर फिशन है। परियोजना समापन की अनुमानित लागत ह-646.00 करायु
and the second	7. निविदा खोलने क	ो तिथि को अवकाश घा। ते एवं खोली जाएगी ।	षेत होने की सुरत में, निविदा अगले कार	ि अर्थ - No office some we कामी जाता के लिए 7.31 करीब 0. का Child "
	Constant of the second		कार्यकारी अभियंता	अधिमानिक है। आपने सरकार दारा अनमोदित पर्यायरणीय प्रबंधन प्लान का कार्यान्वन
影响	Name Ver Stinis and Hangers		विद्युत मण्डल संख्या 2, चंडीग	साम्मालत हो गाँध सर्वम क्रमेटी (PLIC) द्वारा किया आएगा। इस कमेटी परिश्रोजना स्वरीय कार्यान्त्रयम कमेटी (PLIC) द्वारा किया आएगा। इस कमेटी परिश्रोजना प्रभावित पंषायतों के प्रधान, पब्बर वैली पावर कार्यारेशन के प्रतिनिधि, उप
	· man provider (9.7.1.	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	परियोजना प्रभावित पंषायता के प्रधान, पब्बर वला पापर कार्यर माम्सि मण्डलीय मजिस्ट्रेट, रोहडू और मण्डलीय यन अधिकारी, रोहर्ड् के प्रतिथिधि सम्मिलि
	-0	रे गानवा-१	80-7002/00	
	नालाम	1 सूचना	38/2007-08	पुनव्यंवस्थापन एवं पुनर्वास प्लान (PR PLAN), कैचमेंट्स एरिया ट्रीटमेंट प्लान (CA
	11.40 + and + 4	ann whith	वसों/वाहनों/मोटर पार्ट्स/टायर/द्यूब्स	पुनव्यवस्थापने एवं पुनवास स्तान (नस्तर्यक्रम), जस वयालिटी केंट्रोल तंत्र औ PLAN), पर्यावरण प्रभाव निर्धारण (EIA), परियोजना का वयालिटी केंट्रोल तंत्र औ कृषि, बागवानी आदि से संयंधित अन्य गतिविधियों तथा अन्य सामाजिक एवं धार्मिव
84 J.	केन्द्री प्रयावन तेल र	वाली द्रम, एल्यमीनिय	म आर आयरन स्क्रेप आदि तथा दादा	
1. 1 1	1910-21/60203-3	370/ स्वराज मानदा/3	भावशर मिस्तुबिसा/डासाएस टायाटा प	•
	न्यू अप्रचलित पार्ट्स	तथा यातानुकृत्ति बस्	ों के पार्ट्स और मेटाडोर के पार्ट्स तग क्कर आदि की खुली नीलामी हरिया	"
	पट्टाल-चालत विदश	।/भारताय कारणाप, इ ।णा रोडवेच इंजीनियाँ	रंग कार्पोरेशन के डिप्/सरकारी सेंट्र	े जिस्ते के जात के जीत प्रयोगमधीय सलावास पर वियसि कारत हुए, जन्मर जरत क
	वर्कशॉप के परिसर	में आयोजित की जाएंग	îl I	्राज्यस्थित के अधियोज्या की 11 145 कि भी, लम्बी हैंड (संटर्गल) (HKT) का गिर्माणकर
	कः सं. डिपू क	ा नाम	নিখি	- कायारशन न पारवाजन का His Aban Coastal Joint Venture Hyderabad को सौंपा है व जून, 2007 के दौरान M/S Aban Coastal Joint Venture Hyderabad को सौंपा है व परियोजना का कार्य दिसम्बर-2011 में पूरा होने की संभावना है।
	and the state of the second	West dix 1	31.07.2007 को प्रात: 11.00 बजे	(આપ, સવાશ નહાગ
	and the second se	बल्यू, चंडीगढ़	31.07.2007 को अंग. 3.00 बजे.	अशीक्षक अभियं सावरा-कुइड्रू कंसट्वशन, पीवीपीसीए
	3. ि विवाड़ी		1.08,2007	रोहड़-171207 (शिमल
	4. रिगरसा	Maria Part	2,08,2007	CHD-106426
1 14482	The second	TE ALL ALL ALL ALL ALL ALL ALL ALL ALL AL	3,08,2007	
Ser.	The second se	and the second se	6,08,2007	MILITARY ENG
	6 दिल्ली		7,08,2007	S
	- WAR MAN		the second se	
	I And and and the set of the set	Here and the	8,08,2007	Garrison Engineer Shimla Hills Kasauli on behalf of President of In ed/unenlisted Contractors working with other Govt Departments me

तार :

Telegram : PARYAVARAN, NEW DELHI

दरगाय : Telephone : & Fax 2436 2827 देलेग्स : Telex : W-68186 DOE IN FAX : 4360878

> भारत सरमार पर्यावरण एवं गण मंत्रालय GOVERNMENT OF INDIA MINISTRY OF ENVIRONMENT & PORESTS पर्यावरण भवग, ती. जी. जो. कॉल्प्लेन्स मंत्रि भवग, ती. जी. जो. कॉल्प्लेन्स FARYAVARAN BHAVAN, C.G.O. COMFLEX लोवी रोड, नई विल्पी-110003 LODHI ROAD, NEW DELHI-110003

> > Dated : 17th May, 2007

No. J-12011/13/2006-IA.I

Shri. A. K. Awasthi Managing Director, M/s Pabbaer Valley Power Corporation Ltd. Khalini Shimla – 171 002 Himachal Pradesh

Sub: Sawra-Kuddu Hydroelectric Power Project -111 MW (3 x 37 MW) in Himachal Pradesh – Environmental Clearance regarding.

Sir,

,)

This has reference to your letters No.PVPC-MD-SK-Environment/2006-1362 dated 5.10.2006 and 15.3.2007 on the above subject.

The above referred proposal was considered by the Expert Committee for River Valley & Hydroelectric projects at its meeting held on 21-22 February, 2007 and reconsidered on 21-22 March, 2007. the proposal envisages construction of a 9 m high diversion barrage from river bed level across river Pabbar for generating 111 MW hydropower. The power house will be underground. located in Rohru/Jubbal Tehsil of District Shimla of Himachal Pradesh. The project is located about 30 kms upstream of Hatkoti at Tehsil Jubbal of District Shimla to generate 111 MVV hydropower and is a run of the river project. The total land requirement for the project is about 97.62 ha out of which 53.21 ha is a forest land. A total of 24 families are likely to be affected. The height of the barrage is 9 mts which will submerge 50 ha. The total estimated cost is about Rs.648 Crores and the project is to be completed in 52 months.

2. The Ministry of Environment and Forests hereby accords environmental clearance as per the provisions of Environmental Impact Assessment Notification, 1994 & 2006 subject to strict compliance of the terms and conditions as follows:

Part A: Specific Conditions

i) Catchment Area Treatment Plan as has been proposed should be completed in three years. The plan is given below: Page 54 of 76

Treatment Measures	Year-I	Year-II	Year-III	Year-IV	Year-V	Total
(I) Biological Treatment		· · ·		1		
Social Forestry	60 ha	60 ha	60 ha	60 ha	60 ha	300 ha
Fuel wood and fodder grass	91 ha	91 ha	91 ha	91 ha	91 ha	455 ha
NTFP	50 ha	50 ha	50 ha	50 ha	50 ha	250 ha
Nursery development	2 No.	-	-		-	2 No
Pasture Development	60 ha	60 ha	60 ha	60 ha	60 ha	300 ha
(II) Engineering Treatm	ent		4			
Wire crates	40	40	40	40	40	200 No
Vegetative spurs	80	80	80	80	80.	400 No
Contour trenching	20 ha	20 ha	20 ha	20 ha	20 ha	.100 ha
Bench terracing	25 ha	25 ha	25 ha	25 ha	25 ha	125 ha
Catch-water drains	100 ha	100 ha	100 ha	100 ha	100 ha	500 ha
R/W & Check dams	97 ha	97 ha	97 ha	97 ha	97 ha	485 ha

ii) The land holding of project affected persons whose land is being acquired to be submitted to this Ministry. If any person/family whose acquired land is more than 70% of the total land holding is identified, such family/person shall be treated as fully affected person for compensation package applicable in such cases will be undertaken by PVPCL.

- A Monitoring Committee for R & R should be constituted which must include representatives of project-affected persons from SC / ST category and a woman beneficiary.
- iv) The commitment made during the public hearing should be fulfilled.

v) The Biodiversity Conservation & Management plan as proposed in the EMP shall be followed in toto.

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

viii) Consolidation and compilation of the muck should be carried-out in the muck dump sites and the dump sites should be above high flood level

Part-B: General Conditions

- 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. Page 55 of 76

11/13

-2-

- (iv) Restoration of construction area including dumping site of excavated materials should be ensured by leveling, filling up of burrow pits, landscaping etc. The area should be properly treated with suitable plantation.
- (v) Financial provision should be made in the total budget of the project for implementation of the above suggested safeguard measures.
- (vi) A Multidisciplinary committee should be constituted in consultation with the Ministry, with ecologists, environmental scientists, conservationists and experienced administrators etc to oversee the effective implementation of the suggested safeguard measures.
- (vii) Six monthly monitoring reports should be submitted to the Ministry and its Regional Office, Chandigarh for review.

3. 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.

4. The responsibility of implementation of environmental safeguards rests fully with the PVVC, Ltd & Government of Himachal Pradesh.

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

6. 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.

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

8 A copy of the clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom any suggestion/ representation has been received while processing the proposal.

9 State Pollution Control Board / Committee should display a copy of the clearance letter at the Regional Office, District Industries Center and Collector's office/ Tehsildar's office for 30 days.

10. The project 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 letters 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

(Dr. S. Bhowmik) Additional Director

12/13

48

Copy to:

- 1. The Secretary, Ministry of Power, Shram Shakti, Bhawan, Rafi Marg, New Delhi-
- 2. The Adviser (Power), Planning Commission, Yojna Bhawan, New Deihi 110001.
- 3. The Secretary, Department of Environment, Government of Himachal Pradesh
- 4. The Chief Engineer, Project Appraisal Directorate, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
- 5. The Regional Office, Ministry of Environment & Forests, Chandigarh
- 6. Member Secretary State Pollution Control Board , Government of Himachal Pradesh,
- 7. El- Division, Ministry of Environment & Forests, New Delhi-110003. 8. Guard file.

(Dr. S. Bhowmik) Additional Director

No. J-12011/13/2006-IA-I Government of India Ministry of Environment, Forest & Climate Change (IA.I Division)

Indira Paryavaran Bhawan 3rd Floor, Vayu Wing Jor Bagh Road New Delhi-110 003

Dated: 14th December, 2017

To The General Manager

M/s. Pabbar Valley Power Corporation Ltd Hatkoti, Tehsil Jubbal District Shimla Himachal Pradesh – 171 206

Sub: Sawra-Kuddu HEP (111 MW) in Shimla District of Himachal Pradesh by M/s. Pabbar Valley Power Corporation Ltd - Extension of validity of Environmental Clearance - regarding.

Sir,

This has reference to your letter No. HPPCL/GM/SKHEP/Env./2017-3275-77 dated 25.9.2017 on the above subject. The Environmental Clearance (EC) for this project was accorded on 17.5.2017 for a period of 5 years as per the provisions of EIA Notifications, 1994 and 2006. Your request for extension of validity of EC for further 5 years has been examined in the Ministry as well as by EAC in its meeting held on 24.10.2017.

2. It was informed that the maximum validity of EC for River Valley Projects is for 10 years and as per EIA Notification, 2006, a provision of extension of validity of EC for further period of 3 years beyond 10 years is available for River valley Projects.

3. The EAC duly considered the relevant documents submitted by you and have recommended for extension of validity of EC for a period of 3 years. Accordingly, the Ministry hereby accords extension of the validity of the EC for 3 years i.e. from 16.5.2017 to 16.5.2020 to Sawra-Kuddu HEP (111 MW) in Shimla District of Himachal Pradesh by M/s. Pabbar valley Power Corporation Ltd to commission the project with the following conditions:

- i. HP State Forest Department will provide utilization certificate for funds provided under CAT plan and Compensatory Afforestation Programme.
- ii. Component-wise details on funds allocated towards EMP with cost revised to current price level to be submitted.
- iii. Details on total muck generated from the project and total muck utilized and also total land area of muck dumping sites to be submitted.

3×

4. All the terms and conditions of the Environmental Clearance stipulated in Letter No. J-12011/13/2006-IA.I dated 17.5.2007 remain unchanged.

5. This issues with the approval of the Competent Authority.

Yours faithfully,

Jerken

(**Dr. S. Kerketta**) Director

Copy to:

- 1. Secretary, Ministry of Power, Shram Shakti, Bhawan, Rafi Marg, New Delhi-1.
- 2. The Secretary, Ministry of Water Resources, RD & GR, Shram Shakti Bhawan, Rafi Marg, New Delhi -3.
- 3. The Special Secretary (Power), Department of Power, Govt. of Himachal Pradesh, Shimla.
- 4. The Secretary, Department of Environment, Government of Himachal Pradesh, Forest Secretariat, Shimla.
- 5. The Chief Engineer, Project Appraisal Directorate, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
- 6. The Addl. PCCF(Central), Regional Office, Ministry of Environment, Forest & Climate Change, Bays No.24-25, Sector– 31-A Dakshin Marg, Chandigarh–162 022.
- 7. The Member Secretary, Himachal Pradesh Pollution Control Board, Phase-III, Him Parivesh, New Shimala -171009.
- 8. Guard File.

(Dr. S. Kerketta)

Dr. S. Kerketta) Director

Compliance to Condition No.(i) of Extension of Validity of Environment Clearance of Sawra Kuddu HEP

Utilization Certificate in "FORM GFR 19-A" for the funds provided under CAT Plan as received from Himachal Pradesh State Forest is as under: -

Sr.No.	Period of Utilization	Amount of Utilization	Letter No.	Dated	Annexure
	Certificate in "FORM GFR 19-A"	Certificate in "FORM GFR 19- A"			
1	2009-10	Rs.3,53,500/-	4677	28/09/2018	Annexure-UC-1
2	2010-11	Rs.23,28,500/-	4677	28/09/2018	Annexure-UC-2
3	2011-12	Rs.59,83,553/-	4677	28/09/2018	Annexure-UC-3
4	2012-13	Rs.52,00,000/-	4677	28/09/2018	Annexure-UC-4
5	2014-15	Rs.99,80,000/-	4677	28/09/2018	Annexure-UC-5
6	2015-16	Rs.43,00,553/-	4677	28/09/2018	Annexure-UC-6
7	2016-17	Rs.38,19,100	4677	28/09/2018	Annexure-UC-7
8	2017-18	Rs.18,31,822/-	4677	28/09/2018	Annexure-UC-8
	Total	Rs.4,29,87,908/-			

No. 4677 **HP** Forest Department

Dated Rohru, the 28191078

From: -

Divisional Forest Officer Rohru, Forest Division Rohru.

To: -

Dy. General Manager (HRT), Sawra-Kuddu HEP (111 MW), HPPCL, Hatkoti.

Utilization Certificate of the funds provided under **Compensatory Afforestation.**

Memo: -

۶.

Sub: -

Please refer to your letter No. HPPCL/SKHEP/DGM(HRT)/Env/E-8/2018-19-246-47 dated 24/7/2018 on the subject cited above.

As requested the utilization of certificates of following schemes are enclosed herewith as under: -

Sr. No.	Name of Scheme	Detail of Utilization
1	Sawra Kuddu CAT Plan	Annexure-A1 to Annexure- A9
		(2009-10 to 2017-18)
2	Compensatory Afforestration (for 108	Annexure-B
	hac.)	
3	Compensatory Afforestration (for	Annexure-C
	0.6942 hac.)	
4	Compensatory Afforestration (for	Annexure-D
	0.3472 hac.)	

As far as utilization certificate regarding NPV is concerned, that cannot be provided from this office since the funds under this scheme is not allotted proposal wise. This is for favour of information and necessary action please.

Encl: - As above

e 61 of 76 Divisional Fores Rohru Forest Division Rohru

"FORM GFR 19-A" (See Rule 212 (1) tilization certificate

S. No.	Letter No. and Date	Amount (Rs)	Certificate Certified that out of Rs. $6, 49, 000/5$ Grants-in aid sanctioned during the year 2009-10 in favour of 2.60 Robiu
1	C.F. SWIMLY, Endst No-A-U-6- (APO)CAT/ 8337-38 &f 23-1-2010.	6,49,000	under this Ministry/Department letter No. given in the margin and Rs on account of unspent balance of the previous year a sum of Rs. 3, \leq 3, \leq 00 has been utilized for the purpose of $\leq AT \ Plan \ W0$ for which it was sanctioned and that the balance of Rs. 2, $2\leq$, \leq 00 remaining un-utilized at the end of the year has been surrendered to Government (vide No.) dated will be adjusted towards the grants in- aid payable during the next year $2 - 0 0 - 1 $

sanctioned have been duly fulfilled/are being fulfilled and that I have exercised that following 1. Certified that I have satisfied myself that the checks to see that the money was actually utilized for the purpose for which it was sanctioned.

Kinds of checks exercised Find checking by Ros and Bos 1. 2. 3. Division 4. htp Forest Division, Rohru 5. t Officer elvisional Fo

16

Signature -Bohry Porest Division Rohn Designation

Date

" FORM GFR 19-A" (See Rule 212 (1)

	S. No.	Letter No. and Date
	5.110.	Letter No. and Date Amount Certificate 82,43,350
	1	Amount Certified that out of Rs. of (Rs) Grants-in aid sanctions to the second
		CF Cluber In and sanctioned during the year
		Enderthis Ministry/Denartment Logo
		COLUMN A IT I I I I I I I I I I I I I I I I I
		A-D x h No. given in the manifold
		APOKAT/ No. given in the margin and Rs. 2.95, 50 account of unspent
		Rs. 23 22 Chevious year a sum of
		for the formation of the second secon
	2.	Endertain 1 5 5 76,10,600 for the purpose of CAT Plan Wolczs.
	1.20	APO/3754-004id 2757-25
		1 Style Derftyl
*4	dealer .	27-7-2010 6,48 850 No.) detail
~	As.	(-7-20)0 $(6,48,850$ No.) dated dated
in li		Will be adjusted to
Times		2 m And ald Davable during franks in-
6.1	37	
1	and the second	Chapt Mar Lig-In
11		Data
		Date 126-4-2011
		Amount thanks I
		Amount transber
		to D.F. o. shimly (-) 16,100
		Net Do.
		82,43,350
10		1.9550
1	0	
1	. Certified	that I have satisfied myself that the conditions on which the grants-in-aid was have been duly fulfilled/are being fulfilled and that I have exercised that 6 h
S	anctioned h	have satisfied myself that the conditions on which the grants-in-aid was have been duly fulfilled/are being fulfilled and that I have exercised that following that the money was actually utilized for the purpose for which it was sometime
cl	hecks to see	e that the monow
		e that the money was actually utilized for the purpose for which it was sanctioned.
K	und of the	CKS evene 1
	P.1.0	che
74	Hel	a Cheelaina L. D.
2	×	y Dy KOS mel o
		d Cheelcing by R.O.'s and B.O.'s
2	6	
	1	AL al a
1	1 0	Alterna
4.	a sha a sha	사람이 같이 많은 것이 같이 있는 것이 같이 같이 많이

Divisional Rohru Forest Division, Rohru

Signature Wivisional Forost Officer Rohry Porespolivision Bohn Designation_

Date

Committee unsen-

fallowing itamo.

Annexure-UC-3

GFR 19 – A (See Rule 212 (1)) Form of Utilization Certificate

S.No.	Letter No. Date	and	Amount (Rs.)	Certified that out of Hs. 62,10,350 of Grants-in-
	Wilization Certificate 2011-12	,		ald sanctioned during the years 2010 D in favour of DFO. Kongu under this Ministry/ Department
	2011-12			letter No. given in the margin and Rs.
		Total		balance of the previous year, a sum of Rs: <u>\$9,83,553</u> has been
				- CAT Plan Worlds, for
				which it was sanctioned and that the balance of Rs $2_12_6, 797 = 00$
•				remaining un utilized at the end of the year has been <u>surrendered</u> to
				Government (vide No. dated)
				will be adjusted towards the grants-in-aid payable during the next year
		5.	June	-2012-13

1. Certified that I have satisfied myself that the conditions on which the grants-in-aid was sanctioned have been duly fulfilled/are being fulfilled and that I have exercised that following checks to see that the money was actually utilized for the purpose for which it was sanctioned.

Kinds of checks exercised.

- 1. FROD
- 2. Deputy Ranger's
- 4. Forget Guard's

Division Rohru Forest Division, Rohru

Signature	1°	
Designation		/
Date		

103

"FORM GFR 19-A" (See Rule 212 (1) Form of utilization certificate

S. No.	Letter No. and Date	Amount (Rs)	
1	Nodal Officer-cum-HP State CAMPA-CF (CAT) Plan Shimla letter No. CAMPA-2010-APO- Approval 2012-13 dated 28-6-2012	52,00,000/-	Certified that out of Rs.52,00,000/- of sanctioned during the year 2012-13 under this Ministry/Department letter No. given in the margin for execution of works under Sawra Kudu HEP CAT Plan and a sum of Rs. 52,00,000/- have been utilized for the purpose for which it was sanctioned and that the balance of nil remained un-utilized at the end of the year.
		52,00,000/-	

1. Certified that I have satisfied myself that the conditions on which the grants-in-aid was sanctioned have been duly fulfilled/are being fulfilled and that I have exercised that following checks to see that the money was actually utilized for the purpose for which it was sanctioned.

Kinds of checks exercised:- Field checking by RO, BOs and Forest Guards.

Heen

Divisional Ferest Office Rohru Forest Division, Rohru 17

Signature

Divisional Forest Officer, Rohru Forest Division, Rohry

Designation

Date

" FORM GFR 19-A" (See Rule 212 (1) Form of utilization certificate

S.		Amount (Rs)	
No	Sanctioned Letter No. and Date		
1	Addl Pr. CCF (CAT Plan) HP Shimla letter No. CAMPA.06/2010/Shimla dated 9-7-2013 & dated 1-1-2014.	Rs. 95,09,100/-	of sancti Ministry and a su for the in Plan no an amou
	Total	95,09,100	

Certified that out of Rs.95,09,100/of sanctioned during the year 2013-14 under this Ministry/Department letter No. given in the margin and a sum of Rs.95,09,100/- utilized during 2013-14 for the implementation of Sawra Kudu HEP CAT Plan no balance remained un-utilized out of which an amount of at the end of the year

Kinds of checks exercised:- Field checking by RO, BOs and Forest Guards.

Signature R Designation

Stester

Date 08 04 14

Division Rohru Forest Division, Rohru

1.18 26 2		(See	M GFR 19-A" Rule 212 (1) lization certificate
S. No.	Letter No. and Date Chairperson, Executive Committee-State CAMPA- cum-Pr. CCF (HoFF) HP letter No. Ft. CAMPA, 0/06-2010/Shimla dated 9- 9-2014.	Amount (Rs) 9980000	Certified that out of Rs.99,80,000 /- of sanctioned during the year 2014-15 under this Ministry/Department letter No, given in the margin for execution of works under Construction of A P Dun and a sum of Rs. 99,80,000 - have been utilized for the purpose for which it was sanctioned and that the balance of nil remained un-utilized at the end of the year.
		9980000	

Kinds of checks exercised:- Field checking by RO, BOs and Forest Guards.

Divisional Forest Offic Rohry Forest Division Signature Designation

Date

Divisional For Afficer Rohru Forest Division, Rohru

" FORM GFR 19-A" (See Rule 212 (1) Form of utilization certificate

S. No.	Letter No. and Date	Amount
1	Letter No. and Date Chairperson, Executive Committee-State CAMPA- cum-Pr. CCF (HoFF) HP letter No. Ft. CAMPA, 0/06-2010 /Shimla/Vol-IV dated 17-7-2015& 19-7- 2015.	(Rs) 43,45,600/

Certified that out of Rs.43,45,600/of sanctioned during the year 2015-16 under this Ministry/Department letter No. given in the margin for execution of works under Sawra Kudu HEP CAT Plan and a sum of Rs. 43,00,533/- have been utilized for the purpose for which it was sanctioned and the balance of Rs.45,067/- remained un-utilized at the end of the year.

Kinds of checks exercised:- Field checking by RO, BOs and Forest Guards.

		Mingher h. M.
Designation	Signature	stru Forest Division
	Designation	0

AlleguiDate

Divisional Forest Off Rohru Forest Division, Rohru

" FORM GFR 19-A" (See Rule 212 (1) Form of utilization certificate

S. No.	Letter No. and Date	Amount (Rs)
1	Chairperson, Executive Committee-State CAMPA- cum-Pr. CCF (HoFF) HP letter No. Ft. CAMPA, 0/06-2010 /Shimla/Vol-VI dated 31-3-2017.	38,19,100/-
		38,19,100

Certified that out of Rs. 38.19.100 /of sanctioned during the year 2016-17 under this Ministry/Department letter No. given in the margin for execution of works under Sawra Kudu CAT Plan and a sum of Rs. 38.19.100/- have been utilized for the purpose for which it was sanctioned and no balance remained un-utilized at the end of the year.

Kinds of checks exercised:- Field checking by RO, BOs and Forest Guards.

Divisionar Putter Officer Signature Rohru Forest Division, Rohri Designation Date-Altest

Divisio ohru Forest Division, Rohru

Annexure-UC-9 "FORM GFR 19-A" S. No. (See Rule 212 (1) Form of utilization certificate Letter No. and Date 1 Chairperson, Executive Committee-State CAMPA-(Rs)1831822 cum-Pr. CCF (HoFF) HP Certified that out of Rs. 18, 31, 822/letter No. Ft. CAMPA, of sanctioned during the year 2017-18 under this 0/06-2010 /Shimla/Vol-VII Ministry/Department letter No. given in the margin dated 29-3-2018. for execution of works under Sawra Kudu CAT Plan and a sum of Rs. 18,31,822/- have been utilized for the purpose for which it was sanctioned and no balance remained un-utilized at the end of the year. 1831822 Divisional Porest Off Sohru Forest Division Borns Signature a 0 Heepe Divisional A Rohm Forest Division, Rohm

No. 4677 **HP** Forest Department

Dated Rohru, the 28191078

From: -

Divisional Forest Officer Rohru, Forest Division Rohru.

To: -

Dy. General Manager (HRT), Sawra-Kuddu HEP (111 MW), HPPCL, Hatkoti.

Utilization Certificate of the funds provided under **Compensatory Afforestation.**

Memo: -

۶.,

Sub: -

Please refer to your letter No. HPPCL/SKHEP/DGM(HRT)/Env/E-8/2018-19-246-47 dated 24/7/2018 on the subject cited above.

As requested the utilization of certificates of following schemes are enclosed herewith as under: -

Sr. No.	Name of Scheme	Detail of Utilization
1	Sawra Kuddu CAT Plan	Annexure-A1 to Annexure- A9
		(2009-10 to 2017-18)
2	Compensatory Afforestration (for 108	Annexure-B
	hac.)	5
3	Compensatory Afforestration (for	Annexure-C
	0.6942 hac.)	
4	Compensatory Afforestration (for	Annexure-D
	0.3472 hac.)	

As far as utilization certificate regarding NPV is concerned, that cannot be provided from this office since the funds under this scheme is not allotted proposal wise. This is for favour of information and necessary action please.

Encl: - As above

of 76 Divisional Fores Rohru Forest Division Rohru

" FORM GFR 19-A"

(See Rule 212 (1)

Form of utilization Certificate

Sr	Letter No and	Amount	
No	Date	(RS)	
1.	Divisional Forest officer Rohru letter No . 1870 -73 /R Dated 14-08-2007 & Revised letter No . 3170 -73 /R Date 6- 02-2008 Budget allotment for the year 2007-08	22,4,7900/-	Certified that the amount of RS. 22,47,900/- Provided during the year 2007-08 under letter No . given in the margin for execution of 108 ha plantation planted Under Compensatory Afforestation Sawra kuddu Hydle project. the amount RS . 22,47, 900 /- has been utilized for the purpose for which it was sanction ed.

cls Division Fore Rohri Forest Division, Rohru Range Forest Officer Signature aswait Nagar Forest Range

"FORM GFR 19-A"

Annexure-C

(See Rule 212 (1)

Form of utilization certificate

S. No.	Name of Scheme	Amount (Rs)
1	Compensatory Afforestation in lieu of diversion of 0.6942 ha of forest land for construction approach road to explosive magazine in respect of Sawra Kudu HEP	97783
		97783

Certified that the amount of Rs. 97,783/- have been utilized for raising compensatory afforestation in lieu of diversion of 0.6942 ha of forest land for construction of approach road to explosive magazine w. e. f. 2013-14 to 2017-18.

"FORM GFR 19-A"

Annexure-D

(See Rule 212 (1)

Form of utilization certificate

S. No.	Name of Scheme	Amount (Rs)	
1	Compensatory Afforestation in lieu of diversion of 0.3472 ha of forest land for construction of additional adit in respect of Sawra Kudu HEP	49315	Certified that the amount of Rs. 49,315/- have been utilize for raising compensatory afforestation in lieu of diversion of 0.347 ha of forest land for construction of additional adit in respect of Sawra Kudu w. e. f. 2013-14 to 2017-18.
		49315	

Signature Divisior ivision, Rohru

S. No.	Description of Items	Allocation of funds (In Lacs)	Cost revised to current price leve (In lacs) (up to March 2019)
1	Construction of Sewage Treatment Plant	24.00	58.6
2	Solid Waste collection and disposal system	23.40	48.02
3	Sewage Disposal for labour Camp	15.00	61.39
4	Cost of substitution of fuel wood for work force	15.80	155.93
5	Muck Management and Rehabilitation of Disposal Sites	337.40	718.9
6	Mining Area Rehabilitation including maintenance for 7 years	40.30	34.7
7	Compensatory afforestation including maintenance for 7 years	42.65	73.00
8	Health Delivery System	12.00	73.32
9	Control of Air Pollution	15.00	23.62
10	Environmental Measures in Project's transport line	10.00	9.78
11	Noise Control Measures	2.00	5.62
12	Sustenance and Development of Fisheries including O&M	130.00	130.00
13	Greenbelt Development	13.00	13.00
14	Management of dust from transport activities	20.00	88.40
15	Road side Plantation	20.00	20.00
16	Cost of implementing CAT plan i/e maintenance for 7 years.	731.08	662.00
17	NPV paid to ameliorate environment	367.15	374.42
18	Impact mitigation on cultural sites	3.00	28.91
19	Cost of Environment Monitoring Programme	71.82	718.7
20	O&M cost	42.23	375.63
	Total	1935.83	36 73 . 94

Compliance to Condition No.3 of Extension of Validity of Environment Clearance of Sawra Kuddu HEP upto Sept.2018 .

Sr. No.	Name of dumping sites	Area (Sqm.)	Capacity (Cum.)
1	Bharot	25451	183247.20
2	Katinda-1	5878	31153.40
3	Katinda-2	18569	120141.40
4	Katinda-3	15654	104099.10
5	Rajkot	11003	72839.86
6	Mungra Nadal	29990	171842.70
7	Hiuna	2884	42445.00
8	Anti	1422	42837.00
9	College Ground	20000	250000.00
Total		1,30,851	10,18,605.66

Detail of total muck generated from various components of Sawra Kuddu HEP(111MW), HPPCL

S.No	Components	Muck Generated(Cum.)
		6,54,371.12
1	Diversion Barrage Intake Desanding	
		5,97,200.1
2	Head Race Tunnel	
		2,62,725.43
3	Power House	
	Total	15,14,296.65

Total Muck utilised up to Sept.,2018 : 7,70,380.06Cum