SIX MONTHLY PROGRESS REPORT ON ENVIRONMENTAL ASPECTS

PROGRESS FOR THE PERIOD: ENDING SEPTEMBER' 2023

1.	Name of the Project	Teesta-VI Hydro-Electric Project (500 MW)					
2.	Type of the Project	Hydro-Electric Project (Run-of-the-river scheme)					
3.	Clearance Letter(s) OM No. & Date a) Environment Clearance b) Forest Clearance	a) No. J-12011/55/2006-IA.I Dated 21.09.2006 and No. J-12011/55/2006-IA.I (R) Dated 14.08.2020					
		b) Letter Nos. Date Forest Land (ha)					
		F. No. 8- 23.05.2008 & 89.4266 140/2006-FC 12.03.2021					
		No. 5-WBB009 / 11.09.2007 0.6935 2007-BHU No. 3-SK B 062/ 27.10.2008 0.096 2008-SHI/2274- 75					
		Total Forest Land (ha) 90.2161					
4.	Locations a) District(s) b) State(s) c) Latitude d) Longitude	Gangtok and Namchi Sikkim 27°14'29.98" N (Barrage); 27°10'42" N (Power House) 88°28'35.39" E (Barrage); 88°30'40" E (Power House)					
5.	 Address for Correspondence Address of concerned Project Head (with pin code, telephone/fax nos.) b) Address of concerned HOD in Corporate Office (with pin code & telephone/fax no.) 	Chief Executive Officer Lanco Teesta Hydro Power Limited Teesta-VI HE Project Balutar, P. O. Singtam, East Sikkim- 737134 Phone: 03592 - 247221 (O) Executive Director Environment & Diversity Management Division NHPC Limited, NHPC Office Complex, Sector - 33, Faridabad, Haryana- 121 003 Phone: 0129-2254674					
6.	Details of environmental management plans	As per Annexure-I					
7.	Break-up of the Project area (land details) a) Submergence area Forest	36.00 ha forest land					
	Forest 36.00 na forest land						

0.448 ha non-forest land Non-forest Total: 36.448 ha b) Others 1. 54.2161 ha forest land including 21.9971 ha of underground forest land. 2. Private Land (about 34 ha) acquired by Sikkim Power Development Corporation (SPDC) and further leased to LTHPL for 35 years' lease period from Commercial Operate Date (COD) for Permanent Works, Muck Dumping, Road, Construction Facility, and 3. Private Land (about 11.3657 ha) taken on lease with periods short term 3.5/4/4.5/5/6/7 years directly by LTHPL. Teesta-VI HE Project is located in an area of low 8. Break-up of the Project affected population with enumeration of those population density. Population of about 400 to 500 belonging to 111 families has been affected losing houses/dwelling units only, agricultural land only, both dwelling due to acquisition of some portion of land. As units and agricultural land and landless mentioned in EIA Report of the Project the caste labourers/artisans. details of PAFs are as under: (a) SC/ST/Adivasis Number **Caste Category** (b) Others (a) Scheduled Tribes (STs) 41 (b) Scheduled Castes (SCs) 6 (c) Most Backward Classes (MBCs) 8 (d) Other Backward Classes (OBCs) 55 (e) Others 1 111 Total • Only part of their private land has come under acquisition, no family has become land less. No structure is involved in the land acquisition hence no Rehabilitation and resettlement plan has been proposed. No archaeological, cultural or resources on site, or within the area that will be adversely affected by the construction. 9. **Financial details** a) Project cost as originally planned and ₹ 5,748.04 crore at July 2018 PL including IDC & FC of ₹ 977.09 crore and the bid amount of ₹ 907 subsequent revised estimates and the years of price reference. crores (As per Investment Approval). b) Actual expenditure incurred on the ₹ 2949.22 crore approx. (as on 30.09.2023). This Project so far. amount pertains to expenditure incurred by

LTHPL (A wholly owned subsidiary of NHPC Ltd.) from the date of acquisition of erstwhile LTHPL

i.e. from 09.10.2019.

	c) Allocations made for the	₹ 3547.44 lakh (As per EMP & subsequent
	Environmental Management Plan (₹ Lakhs)	revision)
	d) Actual expenditure incurred on the Environmental Management so far.	₹ 3079.23 lakh (<i>Annexure-I for details</i>)
10.	Forest Land requirements	
	Status of approval for diversion of forest land for non-forestry use.	 i. MoEF&CC accorded diversion of 89.4266 ha of forest land (67.4295 ha surface land and 21.9971 ha underground land) on 23.05.2008. After acquisition of LTHPL by NHPC Ltd. w.e.f. 09.10.2019, the Forest Clearance was transferred in favour of LTHPL (A wholly owned subsidiary of NHPC Ltd.) vide MoEF&CC's letter dated 12.03.2021. ii. MoEF&CC, Eastern Regional Office, Bhubaneswar vide letter dated 11.09.2007 approved diversion of 0.6935 ha of forest land for link road and bridge at Tarkhola. Transfer of Forest Clearance for 0.6935 ha of Forest Land in favour of LTHPL (A wholly owned subsidiary of NHPC Ltd.) is under consideration of Integrated Regional Office, MoEF&CC, Kolkata. iii. MoEF&CC, RO, Shillong vide letter dated 27.10.2008 approved diversion of 0.096 ha of forest land for laying of water supply pipe line to the colony and other locations of Teesta-VI HE Project. Transfer of Forest Clearance for 0.096 ha of Forest Land in favour of LTHPL (A wholly owned subsidiary of NHPC Ltd.) is under consideration of Integrated Regional Office, MoEF&CC, Kolkata.
11.	Status of construction	
	a) Date of commencement (Actual and / or planned)	a) March 2007 by Lanco Energy Pvt. Ltd. and date of re-start: 08.03.2019 by Lanco Teesta Hydro Power Ltd. (A wholly owned subsidiary of NHPC Ltd.) i.e. date of Investment Approval by Govt. of India
	b) Date of completion (actual and / or planned)	b) Planned: August 2026
12.	Reasons for the delay, if the project is yet to be started	 Project was started by LTHPL in March 2007. However, the construction of the Project was stuck up since 2012 and subsequent to approval of Resolution Plan by Hon'ble National Company Law Tribunal (NCLT), NHPC

		 Ltd. has acquired the LTHPL as a going concern w.e.f. 09.10.2019. The pending construction works of Project is being carried out by Lanco Teesta Hydro Power Limited (A wholly owned subsidiary of NHPC Ltd.).
13.	Details of site visit a) By Monitoring Committee b) By Regional Office	 A monitoring committee was constituted by Additional Director (IA), MoEF, New Delhi vide letter dated 03.09.2009. Some meetings had been conducted. However, due to stuck up of the project further monitoring committee meetings could not be conducted. A new Multi-Disciplinary Monitoring Committee has been re-constituted vide MoEF&CC's letter No. F. No. J-12011/35/2006-IA.I (R) Pt1 dated 25.05.2022. The re-constituted Multi-Disciplinary Monitoring Committee visited the Project site on 27.02.2023 and first meeting of reconstituted Monitoring Committee was held at the Forest and Environment Department, Government of Sikkim, Gangtok on 04.03.2023.
14.	Brief Note on the Status of compliance of	Enclosed as Annexure-II
	the conditions stipulated by MOEF&CC	

DETAILS OF ENVIRONMENTAL MANAGEMENT PLANS OF TEESTA-VI HE PROJECT (500 MW)

Annexure-I

S. No.	Plans	Cost of EMP [#] (₹ lakhs)	Expenditure Incurred (₹ lakhs)	Utlization Received (₹ lakhs)			
1.	Public Health and Solid Waste Management Plan	179.00	0.00	0.00			
2.	Catchment Area Treatment Plan (Revised)	2410.18*	2410.18	1091.27			
3.	Compensatory Afforestation Plan	114.65	114.65	114.65			
4.	Biodiversity Conservation	119.12*	119.12	95.34			
5.	Fish Management Plan	170.00*	170.00	0.00			
6.	Soil Conservation & Forest Protection Plan	183.53*	183.53	0.00			
7.	Free Fuel Provision	98.85	0.00	0.00			
8.	Restoration plan for spoil tips	81.61	0.00	0.00			
9.	Restoration Plan for Quarry Sites	35.97	0.00	0.00			
10.	Landscape Plan	48.91	0.00	0.00			
11.	Green Belt around the Project Area	13.58	0.00	0.00			
12.	Environmental Monitoring Programme	13.25	2.96	2.96			
13.	Crop Compensation	78.79	78.79	78.79			
	Total	3547.44	3079.23	1383.01			
The	The cost does not include NPV (₹ 568 lakhs) & cost of land taken on lease.						

#As per Environment Management Plan Report approved by MoEF&CC and subsequent revision by State Government.

^{*}Funds have been deposited by LTHPL in Sikkim CAMPA; Forest & Environment Deptt., Govt. of Sikkim; and Directorate of Fisheries, Govt. of Sikkim

Brief Note on the Status of compliance of the conditions stipulated by MoEF & CC

S. No.	PART - A: Specific Conditions	Compliance Status
i.	Biodiversity conservation plan as proposed in the EMP should be implemented in toto in the identified locations.	 As per EMP, the allocated amount for Biodiversity Conservation Plan i.e. ₹ 169.12 lakh (including ₹ 50 lakh for Fish Management) was deposited with the nodal agency i.e. Forest & Environment Department, Govt. of Sikkim on 14.11.2009. As per EMP, the allocated amount for Soil Conservation and Forest Protection Plan i.e., ₹ 183.53 lakh was deposited to Forest & Environment Department, Govt. of Sikkim on 14.11.2009. State Forest Department vide letter dated 22.03.2021 submitted the Utilization Certificate of ₹ 95.34 lakh towards Biodiversity Conservation Plan till 31.03.2020 out of total fund of ₹ 119.12 lakh. A check post at Thalthaley Village (Pamphok Block) has been installed by the Forest Department to check trespassers. Demarcation and fencing of diverted forest land were done to avoid damage to nearby area not diverted for the purpose. However, the Soil Conservation & Forest Protection Plan has not yet incorporated in APO by State Forest Department.
ii.	For propagation of migratory fishes, a fish farm/hatchery shall be developed as proposed vide letter dated 18th August 2006. As breeding of Mahseer fish is difficult in captivity, procedure to be adopted for propagation of Mahseer in hatchery should be submitted within six months from the date of issue of this letter.	 Consultancy work for fish farm/ hatchery for propagation of migratory fish species was awarded to Directorate of Coldwater Fisheries Research (DCFR, Bhimtal (Formerly National Research Centre on Cold Water Fisheries (NRCCWF). Scientists from DCFR, Bhimtal visited the area and identified the site for development of Fish Farm. ₹ 50 lakh was deposited to State Forest Department for Fish Management under Biodiversity Management Plan. Project vide letter dated 11.01.2020 requested the State Forest Department for submission of status of Fish Management Plan. Director (Fisheries), Govt. of Sikkim vide letter dated 10.08.2021 submitted a fresh proposal for implementation of fish farm and hatchery and river ranching of indigenous species based on latest Sikkim Schedule of Rates, 2021 with revised budget

- estimate of about ₹ 170 lakh and raised a demand note for additional fund of about ₹ 120 lakh.
- For ascertaining the suitability of land for establishment of Fish Farm-cum-hatchery Unit, a joint inspection of officials of LTHPL and Fisheries Department, Govt. of Sikkim was carried out on 08.12.2021.
- An alternative site at Chittrey, Borong-Phamtam GPU, Near Ravangla, District Namchi for establishment of Fish Farm-cum-Hatchery Unit has been proposed by State Fisheries Department as the land (area 0.1460 ha) available at this site belongs to State Fisheries Department.
- Project vide letter dated 14.12.2021 requested State Fisheries Department for submission of revised proposal along with the revised demand note and mandate form.
- Additional Director (Fisheries) vide letter dated 20.12.2021 submitted the revised proposal for establishment of Fish Farm-cum-Hatchery Unit at Chittrey village, Namchi District with revised budget estimate of ₹ 1,69,99,987/- and raised Demand Note for additional fund of ₹ 1,19,99,987/-
- Balance amount of ₹ 120 lakh out of ₹ 170 lakh was deposited in the account of Directorate of Fisheries, Govt. of Sikkim on 30.03.2022.
- Work for construction of Fish Farm-cum-Hatchery Unit has been awarded by State Fisheries Department on 25.01.2023 and construction work is going on.
- iii. The Catchment Area Treatment
 Plan as has been proposed should
 be completed in four years. The
 plan is attached as Annexure III.
- Amount of ₹ 981.73 lakh towards CAT plan was deposited by LTHPL in Sikkim CAMPA.
- State Forest Department revised the cost of CAT plan on account of increase in wages rates and submitted revised cost of ₹ 1831.95 lakh vide letter dated 02.06.2012. Thus, difference of ₹ 850.22 lakh in CAT plan cost was required to be paid in Sikkim CAMPA.
- First instalment of ₹ 141.00 lakh was paid by LTHPL on 08.08.2012 in favour of PCCF-cum-Secretary, Deptt. of Forests through letter dated 11.08.2012. Balance payment of ₹ 709.22 lakh had not been deposited by erstwhile LTHPL due to stuck up of the project work.
- State Forest Department vide letter dated 22.03.2021 submitted the Utilization Certificate of fund utilized of ₹ 1091.27 lakh for different

		•	Management Plans out of ₹ 1122.73 lakh deposited by LTHPL, have been utilized in implementation of CAT Plan till 31.03.2020. Project vide letters dated 09.04.2020 and 11.06.2021 requested State Forest Department for submitting the demand note for balance payment of ₹ 709.22 lakh. However, APCCF-cum-Nodal Officer (FCA), Forest & Environment Department, Govt. of Sikkim raised the demand of ₹ 12,87,44,747/- on 11.03.2022 for deposition in Sikkim CAMPA as balance cost of revised CAT Plant. Balance revised amount of ₹ 12,87,44,747/- deposited by LTHPL (A wholly owned subsidiary of NHPC Limited) to State CAMPA through NEFT on 26.04.2022. As such, total amount of ₹ 2410.18 lakh deposited towards CAT plan of Teesta-VI out of which utilization of ₹ 1091.27 lakh has been submitted by Govt. of Sikkim.
iv.	Considering the landslide prone areas, the tunnelling should be done, with great care under close supervision.	•	For landslide prone area, tunnelling is being carried out with proper controlled blasting or by mechanical means and by providing adequate support system.
V.	A monitoring committee should be constituted which must include representatives of project affected persons from SC/ST Category and a women beneficiary.	•	The monitoring committee was constituted by Additional Director (IA), MoEF&CC, New Delhi vide letter dated 03.09.2009. Some meetings had been conducted. However, due to stuck up of the project further monitoring committee meetings could not be conducted. MoEF&CC vide letter dated 25.05.2022 reconstituted the Multidisciplinary Monitoring Committee. Project vide letter dated 28.09.2022 requested CCF (HQ), Forest & Environment Department, Govt. of Sikkim for taking necessary action for conductance of first meeting of re-constituted Multidisciplinary Monitoring Committee for Teesta-VI HE Project. The re-constituted Multi-Disciplinary Monitoring Committee visited the Project site on 27.02.2023 and first meeting of re-constituted Monitoring Committee was held at the Forest and Environment Department, Government of Sikkim, Gangtok on 04.03.2023.
vi.	All the assurances/ commitments given by the project authority in the public hearing must be honoured in	•	The same is being complied.
	letter and spirit.		

vii.	Forest Clearance should be obtained for acquiring 67.43 Hectare forest land & submitted.	 Forest Clearance (Stage-II) was accorded by MoEF&CC vide letter dated 23.05.2008 for 89.4266 ha forest land (67.4295 ha surface land and 21.9971 ha underground land). Lanco Teesta Hydro Power Limited (LTHPL) became a wholly owned subsidiary of NHPC Limited w.e.f. 09.10.2019. After that the change of name of User Agency from LTHPL (A wholly owned subsidiary of NHPC Limited) has been accepted by MoEF&CC, New Delhi vide letter dated 12.03.2021.
viii.	During the lean season 10% of available water (82.5 cumecs) should be released downstream of the dam for sustenance of aquatic life.	
ix.	Any other clearance from any other organization if required should be obtained.	All required clearances are obtained as per requirement.
	PART - B: General Conditions	
i.	Adequate free fuel arrangement should be made for the labour force engaged in the construction work at project cost so that indiscriminate felling of tress is prevented.	Presently, mess facility is being provided by the Contractor to the engaged manpower.
ii.	Fuel depot may be opened at the site to provide the fuel (kerosene/wood). Medical facilities as well as recreational facilities should also be provided to the labourers.	 Fuel (LPG & Kerosene) is being procured by the Contractors from the local market as and when required. Contractors' camps are being equipped with recreation facilities etc. Medical facilities are provided by the Contractors 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.	 Health screening and check-ups of labourers are carried out before engaging them in works. Medical facility is being provided to the labourers. Free vaccination of the labourers for COVID-19 carried out by LTHPL / Contractors.
iv.	Restoration of construction area including dumping site of excavated materials should be ensured by	Environment friendly measures are undertaken for dumping of Muck at designated dump yards.

levelling, filling up of burrow pits, landscaping etc. The area should be properly treated with suitable plantation.

- Dumping areas are being provided with adequate retaining structures such as crate walls, RRM walls, etc. as per requirement.
- After dumping the areas are being levelled.
- The nallahs and river sections as per site requirement are being provided with adequate protection measures such as crate wall and concrete plugs.
- All precautionary measures are being taken as per the statutory requirements with progress of works.

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

Pursuant to award of works to the contractors, mobilization and initial preparation of works along with execution at certain work fronts have been taken up by the contractors. Brief details are as under:

- Posters and slogans are being used extensively to spread awareness among the labourers about importance of safety.
- Safety instructions are given to labourers and staff regularly for each and every activity which includes tunnelling.
- Regular safety trainings and Tool box meetings are being organized for staffs.
- Accident investigations and Analysis are immediately communicated to the all concerned to ensure corrective and preventive action (CAPA).
- Periodic evaluation of the status of legal requirements is being carried out.
- Emergency response plan is being prepared for different emergencies. Training and mock drill will be conducted.
- Health, Safety & Environmental (HSE) Audit will be conducted on periodic basis.
- Standard Operating Procedures (SOPs) for all critical activities have been prepared.
- Hazard identification and risk assessment of all activities are being done and operational controls shall be designed accordingly.
- Proper illumination and ventilation system have been installed and being maintained for tunnelling works.
- National Safety Day (4th March) is celebrated to raise awareness and motivate workers on safety practice.
- Safety Officers have been nominated and posted for effective monitoring and implementation of Safety related issues.
- All labourers and staffs are provided with safety kits as per work requirement.

Multidisciplinary vi. committee The monitoring committee was constituted by should constituted be with Additional Director (IA), MoEF&CC vide letter dated representatives from various 03.09.2009. Some meetings had been conducted. disciplines of forestry, ecology, However, due to stuck up of the project further wildlife, soil conversation, NGO etc. monitoring committee meetings could not be oversee the effective conducted. implementation of the suggested MoEF&CC vide letter dated 25.05.2022 has resafeguard measures. constituted the Multidisciplinary Monitoring Committee. Project vide letter dated 28.09.2022 requested CCF (HQ), Forest & Environment Department, Govt. of Sikkim for taking necessary action for conductance of first meeting of re-constituted Multidisciplinary Monitoring Committee for Teesta-VI HE Project. The re-constituted Multi-Disciplinary Monitoring Committee visited the Project site on 27.02.2023 and first meeting of re-constituted Monitoring Committee was held at the Forest and Environment Department, Government of Sikkim, Gangtok on 04.03.2023. vii. Six monthly monitoring reports Six-monthly monitoring reports are periodically should be submitted to the Ministry submitted to Integrated Regional Offices of and its Regional Office, Shillong for MoEF&CC along with MoEF&CC, New Delhi. The review. latest progress report was submitted to Integrated Regional Offices of MoEF&CC vide letter dated 31.05.2023. 4. Officials from Regional Office The condition was complied by the erstwhile MOEF, Shillong/Kolkata who would LTHPL/LEPL. The same shall also be complied by be monitoring the implementation LTHPL (A wholly owned subsidiary of NHPC Ltd.). of environmental safeguard should be given full facilities documents / data by the project proponents during their inspection. 5. responsibility The Noted. LTHPL (A wholly owned subsidiary of NHPC implementation of environmental Ltd.) will bear the responsibility of implementation safeguard rests fully with the M/s of environmental safeguard. Lanco Energy Private Limited/Lanco Teesta Hydro Power Ltd.

Government of Sikkim.

Details of Catchment Area Treatment Plan

	Five Year Catchment Area T	reatmer	nt Actio	n Plan f	or Tees	ta-VI H	IE Proje	ct
S.	Items Of Works	Unit	1 st	2 nd	3 rd	4 th	5 th	Total
No.			Yr	Yr	Yr	Yr	Yr	
I	Forest Land							
Α	Biological Measures							
1	Aided Natural Regeneration	На	20	30	30			80
2	Aided Natural Regeneration	На	150	350	350	350		1200
3	Medicinal Plantation	На	50	50				100
4	Medicinal Plantation	На	50	50				100
5	Sowing and dribbing in land Slide areas	На				10	10	20
6	Artificial regeneration	На		300	400	400	400	1500
7	Silviculture Development	На		30	30	40		100
8	Bamboo (Pareng Plantation)	На		30	30	40		100
9	Barbed wire fencing	km	5	5				10
10	Maintenance of aided natural regeneration and other plantations	На	270	810	810	800	410	3100
11	Vegetative fencing with Jatropha in rows	km	15	10				25
В	ENGINEERING WORKS							
1	Jhora Training with sausage wall with drops	m ³	1000	700	300			2000
2	Dry Stone Wall	m^3	1200	600	200			2000
3	Catch Water Drains	m	1400	400	200			2000
4	Bally fencing	На	40	10				50
II	Agriculture Land							
Α	Biological Measures							
1	Fodder Development	На			200	400	400	1000
2	Agroforestry (200 plants per ha)	На			200	400	400	1000
3	Jatropha Plantation (Uncultivable lower area)	На	100					100
В	ENGINEERING WORKS							
1	Jhora Training with sausage wall with drops	m ³	1400	400	200			2000
2	Dry Stone Wall	m ³	1400	400	200			2000
3	Catch Water Drains	m	1400	400	200			2000
4	Bally fencing	На	40	10				50