



सत्यमेव जयते

File No: J-12011/40/2009-IA-I(R)  
Government of India  
Ministry of Environment, Forest and Climate Change  
IA Division  
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Date 19/06/2026



To,

Mr. Harsh Kumar  
M/s. THDC INDIA LIMITED  
Gangotri Bhawan, Pragatipuram, DEHRADUN, UTTARAKHAND, 249201  
enviro.rksh@thdc.co.in

**Subject: Kalai II Hydro Electric Project (Run-of-the-River) of (1200 MW) in an area of 869.3503 Ha located at Village Kamdi, Tehsil Hawaii Town, Anjaw District of Arunachal Pradesh by M/s THDC India Limited – Environmental Clearance (EC) – reg.**

Sir/Madam,

This is in reference to your online application No. IA/AR/RIV/557663/2025 submitted on 28/11/2025 to this Ministry for the grant of Environmental Clearance (EC) under the provisions of the EIA Notification, 2006, and its subsequent amendments. The application pertains to the Kalai II Hydro Electric Project (Run-of-the-River) of (1200 MW) in an area of 869.3503 Ha located at Village Kamdi, Tehsil Hawaii Town, Anjaw District of Arunachal Pradesh by M/s THDC India Limited.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC25A0501AR5849370N
(ii) File No.	J-12011/40/2009-IA-I(R)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	1(c) River Valley/Irrigation projects
(vi) Sector	River Valley and Hydroelectric Projects
(vii) Name of Project	Kalai II Hydro Electric Project
(viii) Name of Company/Organization	THDC INDIA LIMITED
(ix) Location of Project (District, State)	ANJAW, ARUNACHAL PRADESH
(x) Issuing Authority	MoEF&CC
(xi) Applicability of General Conditions as per	No

## EIA Notification, 2006

3. In view of the particulars given in the Para 2 above, the project proposal inter-alia including Form-1(Part A, B and C)/ EIA & EMP Reports were submitted to the MoEF&CC for an appraisal by the Expert Appraisal Committee (River Valley & Hydro-electric) under the provision of EIA notification 2006, as amended.

4. The above-mentioned proposal has been considered by the EAC in its 45<sup>th</sup> meeting held on 19.12.2025. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed from the PARIVESH portal by scanning the QR Code above.

5. The EAC after examining the information submitted and detailed deliberations **recommended** the proposal for grant of prior Environmental Clearance to Kalai II Hydro Electric Project (Run-of-the-River) of (1200 MW) in an area of 869.3503 Ha located at Village Kamdi, Tehsil Hawaii Town, Anjaw District of Arunachal Pradesh by M/s THDC India Limited, under the provisions of EIA Notification, 2006 and as amended with subject to compliance of applicable Standard EC conditions with the certain additional specific environmental safeguard conditions (Annexure - I).

6. The details of the project as per the information submitted by the Project proponent is given in Annexure – II.

7. The MoEF&CC has examined the proposal in accordance with the provisions contained in the Environment Impact Assessment (EIA) Notification, 2006, as amended and based on recommendation of EAC, the Ministry, hereby accords approval for grant of Environmental Clearance to the project for Kalai II Hydro Electric Project (Run-of-the-River) of (1200 MW) in an area of 869.3503 Ha located at Village Kamdi, Tehsil Hawaii Town, Anjaw District of Arunachal Pradesh by M/s THDC India Limited, under the provisions of EIA Notification, 2006, as amended subject to compliance of the Specific and Standard EC conditions as given in Annexure - I for environmental safeguards.

8. The Environmental Clearance to the aforementioned project is under provisions of EIA Notification, 2006, as amended. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.

9. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

10. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.

11. The Validity of EC is upto 13 years to the start of production operations by the project or activity. Validity of EC becomes perpetual subject to the start of production operations by the project or activity on or before the In case the project proponent fails to start the production operations within the EC validity

date, application for EC validity extension shall be submitted to the regulatory authority as per the provision contained in the Para 9.0 of EIA notification, 2006, as amended.

12. The Project Proponent is obligated to implement all commitments made in the Environmental Management Plan (EMP), which forms an integral part of this Environmental Clearance (EC).

13. General Instructions:

(a) The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/SEIAA website where it is displayed.

(b) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

(c) The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions.

(d) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.

(e) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

(f) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

(g) Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

(h) PP needs to comply the OM dated 24.07.2024 of MoEFCC, where it is stated that the plantation of saplings shall be carried out in the earmarked 33% greenbelt area as part of the tree plantation campaign "EK Ped Ma ke Naam" (एक पेड़ माँ के नाम (and the details of the same shall be uploaded in the MeriLife portal (<https://merilife.nic.in>)).

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

#### **Copy To**

N/A

**Annexure 1**

#### **Specific EC Conditions for (River Valley/irrigation Projects)**

##### **1. Miscellaneous:**

S. No	EC Conditions
1.1	After 5 years of the commissioning of the project, a study shall be undertaken regarding impact of the project on the environment. The study shall be undertaken by an independent agency.
1.2	PP should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground). A dedicated team to oversee environment management shall be setup which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis.
1.3	A dedicated team to oversee environmental management activities (at project site) shall be set up comprising Environment Manager having post graduate qualification in Environmental Sciences/ Environment Engineering along with other supporting staff. The Environment Manager shall report to Project Head directly.
1.4	PP shall procure construction material only from those Organizations having all valid legal/statutory clearances/permissions or necessary permission to be obtained for quarrying construction materials for the project as per the EIA Notification, 2006 and as amended thereof.

## 2. Socio-economic:

S. No	EC Conditions
2.1	Land acquired for the project shall be suitably compensated in accordance with the prevailing guidelines of the state government and provisions under Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013.
2.2	RO plant shall be installed in the nearby 5 villages and the maintenance shall be done by the project Authorities.
2.3	Solar panel be provided to the families living in rural areas within 10 km radius of project.
2.4	School up to 12 <sup>th</sup> Standard shall be established and managed to provide free quality education for children from project affected villages/Tribal villages. Adequate transportation facilities shall also be provided to students to ensure connectivity and ease of access.
2.5	Scholarship programme shall be initiated for the youths in the project affected villages.
2.6	50 bed multi-specialty hospital shall be established to cater the need of tribal population/locals. The tribal population within 10 km radius of the project shall be given free of cost medical facility.
2.7	<p>Skill development Centre shall be established within 10 km radius of the project and regular training programmes for development and promotion of traditional art/products of tribal/local population. The Skill Development Plan shall mandatorily include the following components:</p> <ul style="list-style-type: none"> <li>· Capacity building and skill enhancement programs aligned with local livelihood opportunities.</li> <li>· Establishment of linkages with Industrial Training Institutes (ITIs) and other recognized training centres for imparting technical skills.</li> <li>· Provision of free or subsidized access to healthcare facilities in project-supported hospitals and health centres.</li> </ul>

S. No	EC Conditions
	<ul style="list-style-type: none"> <li>· Support to educational institutions in the study area through free services, scholarships, infrastructure strengthening, and vocational guidance programs.</li> <li>· Special outreach initiatives for women, youth, and vulnerable groups within the SC/ST communities to ensure inclusive participation and benefits.</li> <li>· The Plan shall be implemented in a time-bound manner with clearly earmarked budgetary provisions, which shall not be diverted for any other purpose.</li> </ul>
2.8	The PP shall submit annual progress reports on the implementation of the Skill Development Plan and associated community welfare measures to the Regional Office of the Ministry.
2.9	Bio-Gas plant shall be installed in the Project affected area for Utilizing Cattle waste (Cow Dung) into renewable source of fuel.
2.10	Preference in employment opportunities and admission to ITI institutions shall be given to Project Affected Families (PAFs).
2.11	An institutional mechanism to be developed to ensure the preference of jobs to PAFs and SC/ST and also a policy for preferential treatment for award of sundry works to the PAFs and SC/ST and their dependents.
2.12	The compliance of above conditions shall be monitored by IRO, MoEF&CC and regularly site visit once in year. The compliance report of IRO shall be regularly submitted to MoEF&CC.

### 3. Disaster Management:

S. No	EC Conditions
3.1	Disposal of the excavated muck and its filling on the low-lying area with proper measures for the stabilization and greenery to minimize the impacts of the generated construction muck shall be taken up pari passu with construction work. A muck transportation plan shall be prepared and implemented. The movement of muck carrying vehicles shall be monitored through latest sensor-based technology to ensure the muck dumping at designated sites.
3.2	Stabilization of muck disposal sites using biological and engineering measures shall be taken up immediately to ensure that muck does not roll down the slopes and does not pollute the natural streams and water bodies in surrounding area. The plantation on muck disposal site with local species for restoration of ecology and environment of the project site area.
3.3	Necessary control measures such as water sprinkling arrangements, and construction of paved roads leading to muck disposal sites etc. shall be taken up on priority to arrest fugitive dust at all the construction sites.
3.4	Solid waste generated, especially plastic waste, etc. should not be disposed of as landfill material. It should be treated with scientific approach and recycled. Use of single-use plastics may be discouraged.
3.5	Landslide and other heavy rain related disasters shall be taken care of through appropriate preventive measures during construction and operation of project.

#### 4. Environmental Management And Biodiversity Conservation:

S. No	EC Conditions
4.1	Stage-I FC shall be obtained before grant of EC.
4.2	Wildlife Conservation plan duly approved by the CWLW shall be implemented in time bound manner.
4.3	Changes carried out in the project specifically technical aspects shall be discussed/informed with CEA and necessary clearance/noc shall be obtained.
4.4	Necessary clearance shall be obtained from Brahmaputra Board before commencement of construction of the project.
4.5	PP shall obtain separate EC for quarrying in the project area.
4.6	On-line monitoring system for the e-flow releases to be installed.
4.7	The plastic waste shall be disposed of by recycling and not by land filling.
4.8	Local indigenous varieties of plants to be grown and maintained till their full growth including gap filling.
4.9	Skill mapping be undertaken for the youths of the affected project area and based on the skill mapping, the trainings to the youths be incorporated for their appropriate engagements in the Project.
4.10	Land acquired for the project shall be suitably compensated with the prevailing guidelines and all commitments made during the Public Hearing shall be fulfilled.
4.11	The project-affected population should be resettled and rehabilitated as per the latest R & R Policy.
4.12	Six monthly compliance reports shall be submitted by the PP to Regional Office, MoEF& CC, Shillong without fail.
4.13	The outcome and recommendations of Lohit River Basin Study will have to be fully abided by the project proponent.
4.14	The Environmental Management Plan (EMP) shall be strictly adhered to as submitted in the EIA/EMP reports. The budgetary provisions for implementation of EMP, shall be fully utilized and not to be diverted to any other purpose. In case of revision of the project cost or due to price level change, the cost of EMP shall also be updated proportionately.
4.15	The contract clause limiting the No. of vehicles used during excavation and transportation shall followed scrupulously and the same shall informed to the ministry.
4.16	Ambient Air Quality Monitoring Stations for real time data to be installed at project site before commencement of the construction, shall be displayed at project site and its report to be submitted to IRO, MoEF&CC.

S. No	EC Conditions
4.17	No vehicle purchase shall be allowed from funds earmarked for implementation of Wildlife Conservation plan.
4.18	The Project Proponent shall explore the possibility to undertake tree transplantation, wherever feasible, in consultation with the State Forest Department. Survival of at least 80% of transplanted trees shall be ensured, with monitoring for a minimum period of five years.
4.19	Plantation of saplings (10,000 nos.) shall be carried out around the muck disposal area in consultation with Forest Department as a part of the tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal ( <a href="https://merilife.nic.in">https://merilife.nic.in</a> ). The survival of plants shall be reported in the 6 monthly compliance report.
4.20	PP shall prepare time bound reclamation and restoration plan for restoration of batching plant in consultation with the Forest Department and same shall be submitted to IRO, MoEF&CC and shall be fully implemented within five years of commissioning of the project.

**Standard EC Conditions for (River Valley/Irrigation projects)**

**1. Statutory Compliance**

S. No	EC Conditions
1.1	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
1.2	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
1.3	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (in case of the presence of Schedule-I species in the study area).
1.4	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
1.5	NOC shall be obtained from National Commission of Seismic Design Parameters (NCSDS) of CWC.
1.6	Necessary approval of CEA shall be obtained for those projects having the project cost more than Rs. 1,000 crores.

**2. Air Quality Monitoring And Preservation**

S. No	EC Conditions
2.1	Regular monitoring of various environmental parameters viz., Water Quality, Ambient Air Quality

S. No	EC Conditions
	and Noise levels as per the CPCB guidelines at designated locations shall be carried out on monthly basis and a detailed database of the same shall be prepared and recorded. This shall be used as a baseline data for post construction EIA / Monitoring purposes.
2.2	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed standards.
2.3	Necessary control measures such as water sprinkling arrangements, etc. bet taken up to arrest fugitive dust at all the construction sites.
2.4	Conjunctive use of surface water to be planned in the project to check water logging as well as to increase crops productivity. The field drains shall be connected with natural drainage system (if applicable).
2.5	Remodelling of existing natural drains (link drains) and connecting them with irrigated land through constructed field drains, collector drains, etc. are to be ensured on priority basis (if applicable).
2.6	Before impounding of the water, Cofferdams for both at the upstream and downstream are to be decommissioned as per EIA/EMP report so that once the project is commissioned; cofferdam should not create any adverse impact on water environment including the rock mass and muck used for the Cofferdam.
2.7	As the reservoir will be acting as balancing reservoir and there would be fluctuation of water level during peaking period, efforts be made to reduce impact on aquatic life including impacts during spawning period both at the upstream and downstream of the project.
2.8	Water depth sensors shall be installed at suitable locations to monitor e-flow. Hourly data to be collected and converted to discharge data. The Gauge and Discharge data in the form of Excel Sheet be submitted to the Regional Office, MoEF & CC and to the CWC on weekly basis.
2.9	Mixed irrigation shall be practised and necessary awareness be given to all the farmers and trained in the use of such systems. Proper crops selection shall be carried out for making irrigation facility more effective (if applicable).
2.10	On Farm Development (OFD) works like landscaping, land levelling, drainage facilities, field irrigation channels and farm roads, etc. should be taken up in phased manner prior to the start of irrigation in the entire command area. The Command Area Development Plan should be strictly implemented as proposed in the EIA/EMP report (if applicable).

### 3. Noise Monitoring And Prevention

S. No	EC Conditions
3.1	All the equipment likely to generate high noise shall be appropriately enclosed or inbuilt noise enclosures be provided so as to meet the ambient noise standards as notified under the Noise Pollution (Regulation and Control) Rules, 2000, as amended in 2010 under the Environment Protection Act (EPA), 1986.
3.2	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz.

S. No	EC Conditions
	75 dB(A) during day time and 70 dB(A) during night time.

#### 4. Catchment Area Treatment Plan

S. No	EC Conditions
4.1	Catchment Area Treatment (CAT) Plan as proposed in the EIA/EMP report shall be implemented in consultation with the State Forest Department and shall be implemented in synchronization with the construction of the project.

#### 5. Waste Management

S. No	EC Conditions
5.1	Muck disposal be carried out only in the approved and earmarked sites. The dumping sites shall be located sufficiently away from the HFL of the river. Efforts be made to reuse the muck for construction and other filling purposes and balanced be disposed of at the designated disposal sites. Once the muck disposal sites are inactive, proper treatment measures like both engineering and biological measures be carried out so that sites are stabilized quickly.
5.2	Solid waste management should be planned in details. Land filling of plastic waste shall be avoided and instead be used for various purposes as envisaged in the EIA/EMP reports. Efforts be made to avoid one time use of plastics.

#### 6. Green Belt And Wildlife Management

S. No	EC Conditions
6.1	Based on the recommendation of Cummulative Impact Assessment and Carrying capacity study of river basin or as per the ToR conditions or minimum 15% of the average flow of four consecutive leanest months, whichever value is higher, shall be released as environmental flow.
6.2	Detailed information on species composition particular to fish species from previous study/literature be inventoried and proper management plan shall be prepared for insitu conservation in the streams, tributaries of river and the main river itself for which adequate budget provision be made and followed strictly.
6.3	Wildlife Conservation Plan approved by the Chief Wildlife Warden shall be implemented in consultation with the local State Forest Department.
6.4	To enrich the habitat of the project site, plantation shall be raised as envisaged in the EIA/EMP report. Plantation to be developed along the periphery of the reservoir in multi-layers with local indigenous species in consultation with the local State Forest Department.
6.5	Compensatory afforestation programme shall be implemented as per the plan approved.
6.6	Fish ladder/pass as envisaged in the EIA/EMP report shall be provided for migration of fishes. Regular monitoring of this facility be carried out to ensure it effectiveness.

## 7. Public Hearing And Human Health Issues

S. No	EC Conditions
7.1	Resettlement & Rehabilitation plan be implemented in consultation with the State Govt. as approved by the State Govt.
7.2	Budget provisions made for the community and social development plan including community welfare schemes shall be implemented in toto.
7.3	Preventive measures viz. fuming and spraying of mosquito control shall be done in and around the labour colonies, affected villages, stagnated pools, etc. Provisions be made to not to create any stagnated pools to avoid creation of breeding grounds of the vector borne diseases.
7.4	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
7.5	Labour force to be engaged for construction works shall be examined thoroughly and adequately treated before issuing them work permit. Medical facilities shall be provided at the construction sites.

## 8. Risk Mitigation And Disaster Management

S. No	EC Conditions
8.1	Early Warning Telemetric system shall be installed in the upper catchment area of the project for advance intimation of flood forecast.
8.2	Drilling and blasting shall be done only either by licensed explosive agent or by the proponent after obtaining required approvals from Competent Authorities.
8.3	Emergency preparedness plan be made for any eventuality of the dam failure and shall be implemented as per the Disaster Management Plan.
8.4	Stabilization of muck disposal sites using biological and engineering measures shall be taken up to ensure that muck does not roll down the slopes and shall be disposed safely and that it does not pollute the natural streams and water bodies in surrounding area. The engineering measures for the muck disposal arrangements be evolved after carrying out required slope stability analysis.
8.5	Catchment area treatment plan shall be prepared and sufficient fund shall be provided for afforestation, rim plantation, pasture development, nursery development.

## 9. Corporate Environment Responsibility

S. No	EC Conditions
9.1	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30th September, 2020, as applicable, regarding Corporate Environment

S. No	EC Conditions
	Responsibility.
9.2	Skill mapping be undertaken for the youths of the affected project area and based on the skill mapping, necessary trainings to the youths be provided for their long time livelihood generation
9.3	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation/violation of the environmental / forest / wildlife norms/conditions and / or shareholders/ stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
9.4	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the project/organization.
9.5	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
9.6	Post EIA and SIA be prepared for the project through a third party and evaluation report be submitted to the Ministry after five years of commissioning of the project.
9.7	Multi Disciplinary Committee (MDC) be constituted with experts from Ecology, Forestry, Wildlife, Sociology, Soil Conservation, Fisheries, NGO, etc. to oversee implementation of various environmental safeguards proposed in EIA/EMP report during construction of the project. The monitoring report the Committee shall be uploaded in the website of the Company.
9.8	Formation of Water User Association/Co-operative be made involment of the whole community be ensured for discipline use of available water for irrigation purposes

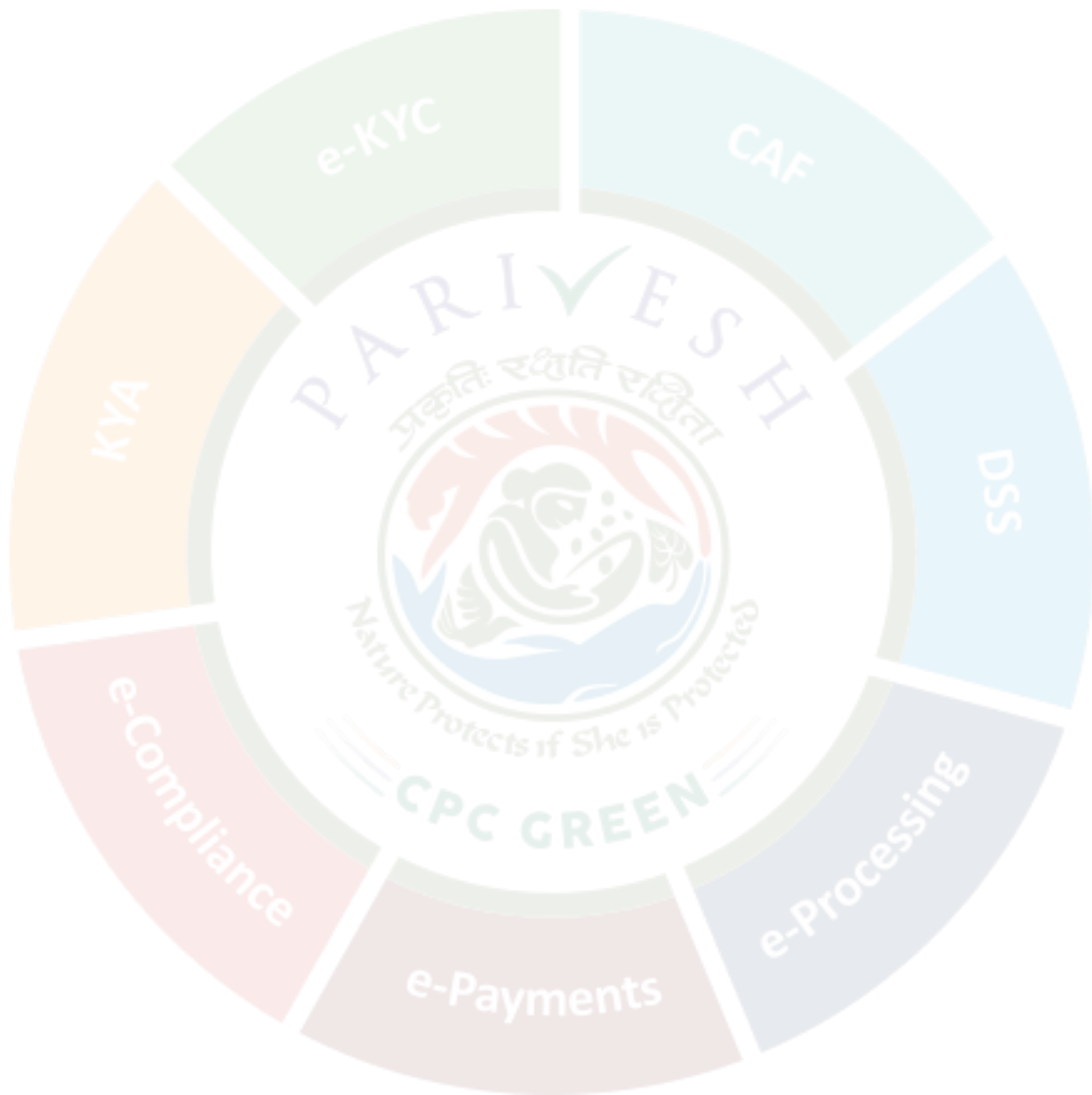
#### 10. Miscellaneous

S. No	EC Conditions
10.1	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
10.2	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
10.3	The project proponent shall upload the status of compliance of the stipulated environment clearance

S. No	EC Conditions
	conditions, including results of monitored data on their website and update the same on half-yearly basis.
10.4	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
10.5	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
10.6	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
10.7	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
10.8	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
10.9	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
10.10	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
10.11	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
10.12	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
10.13	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
10.14	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
10.15	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

**Additional EC Conditions**

The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/High Court and any other Court of Law relating to the subject matter.



**Kalai II Hydro Electric Project (Run-of-the-River) of (1200 MW) in an area of 869.3503 Ha located at Village Kamdi, Tehsil Hawaii Town, Anjaw District of Arunachal Pradesh by M/s THDC India Limited.**

**The details of the project: -**

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

- i. The Kalai-II H.E. Project envisages run of the river scheme with pondage on Lohit river, a left bank tributary of Brahmaputra river. The objective is to utilize flows of Lohit river over large head available for hydro power generation. The Lohit river, a tributary of Brahmaputra river, rises at an EL 6190 m above MSL from the snow clad peaks in Eastern Tibet and enters India through Kibithoo area of the district.
- ii. The Kalai-II HE Project envisages utilization of a gross head of about 125m for power generation with an installed capacity of 1200MW. The coordinates of Kalai-II HE Project are latitude 27° 54' 20" N and longitude 96° 48' 16" E. The catchment area intercepted up to the proposed dam site including Tibet region is estimated to be about 15,654 sq. km.
- iii. The full reservoir level kept as EL 904.80m. The project involves construction of a concrete gravity dam, upstream and downstream coffer dam, diversion tunnel, intake tunnel, pressure Shafts, underground Powerhouse complex, surge chamber and Tail Race Tunnel etc.
- iv. The Kalai-II HE project falls under category "A" listed for Environment Clearance by MoEF&CC. The TOR Clearance was accorded by MoEF&CC vide file no. File No: J-12011/40/2009-IA-I(R), dated 07.08.2024.
- v. **Land requirement:** The total land requirement of the Project is 869.3503 Ha. The proposal for diversion of 869.3503 Ha submitted on Parivesh portal on 19.01.2025. The proposal for diversion of 869.3503 Ha forest land recommended by GoAR to MoEF&CC after completion of due process. Proposal is under process on Parivesh portal.
- vi. **Demographic details in 10 km radius of project area:**

The entire Project falls under Anjaw District of Arunachal Pradesh. The population in Anjaw district is largely rural, with a significant tribal and backward community presence. The Mishmi and Meyor are the main tribes inhabited in Anjaw district.

A total nos. of 392 households covered under the study area with total population of 1934 with male population comprising 950 and female population comprising 984.

The male and female population in study area comprises about 49.12% and 50.88% respectively of the total population. The population comprising of children below the age of 6 years accounts for about 19.75% of the total population in the study area.

Schedule Tribes (ST) are the dominant caste group, accounting for 98.65% of the total population. The General Caste comprise of only 1.35% % of the total population. There are no Scheduled Caste household/ families in the Study Area villages.

It is observed that about 39.92% of the total population in the study area is literate, while about 60.08% are illiterate. The literacy rate among male and female population is 46.95% and 33.13% respectively.

It is observed that 40.12% of the total population is engaged in some form of economically productive activity or vocational activity, and have been designated as Total Working population. On the other hand, Non-workers or persons who are dependent on the population, which is engaged in economically productive work accounts for about 59.88% of the total population. Among the population that is working about 87.25% has been designated as Main workers while the remaining 12.75% has been designated as Marginal workers.

- vii. **Water requirement:** A design power output of 1,200 megawatts (MW) has been envisaged for the project, with a total design discharge of approximately 1128.06 m<sup>3</sup>/s, developed with seven turbine generator units.
- viii. **Project Cost:** The estimated project cost is Rs. 14,176.26 Cr Total capital cost earmarked towards environmental management plan is Rs. 67830.73 lakhs and the Recurring cost (operation and maintenance) will be about Rs. 61.16 lakhs per annum.
- ix. **Project Benefit:**  
The total number of persons inhabiting the area including the service population will be about 3000. The construction of the proposed project would invariably create a number of direct employment opportunities. However, indirect employment opportunities would also be generated which would provide great impetus to the economy of the local area. Various types of businesses are also likely to concentrate here and likely to benefit immensely, as demand for almost all types of goods and services will increase significantly. The business community as a whole would be benefited. The locals would also avail these opportunities arising from the project and increase their income levels. Other benefits of Project would include:

- Compensation for loss of land, houses and all other immovable properties to the PAFs as per the Land Acquisition Act.
  - Improvement in the quality of life: primary education, primary health care, women and child welfare, periodic medical camps.
  - Development strategy to bring about a positive socio-economic transformation of the PAFs, so as to improve the quality of their life.
  - Power from the project, shall bring overall improvement in quality of life and the economic growth of the local populace.
  - Construction and operation of this Project would lead to overall sustainable development in the project region by making a direct as well as indirect contribution to the populace.
- x. **Environmental Sensitive area:** There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Lohit River flows through the project site.
- xi. **MoU / any other clearance/ permission signed with State government:** Memorandum of Agreement (MOA) signed between Government of Arunachal Pradesh & THDC India Limited on 30.12.2023 for the development of Kalai-II HEP project.
- xii. **Resettlement and rehabilitation:** The land required for various project appurtenances is 869.3503 ha. A total 1521 PAFs have been identified in the 33 Project Affected Villages. Among them, 376 PAFs fall under the Full Submergence category, another 113 PAFs are classified as Highly Impacted, and remaining 1032 PAFs are categorized as Impacted. A provision of Rs. 190.68 crore has been kept towards implementation of Resettlement and Rehabilitation Plan.
- xiii. **Scheduled-I species:** In the study area Takin (*Budorcas taxicolor*) has been observed as Schedule-I species, which is Vulnerable A2cd in the IUCN Red List Category. A budget of Rs. 100 lakh has been proposed for implementation of Conservation Plan which includes Habitat Protection, Anti-Poaching and Law Enforcement, Community engagement, Monitoring & Research, Emergency Response Mechanism, Reducing man wildlife conflicts, Creation of drinking water facility, Training & Awareness, Forest Fires Protection measures, Procurement of Equipment etc.
- xiv. **Alternative Studies:**  
The alternative locations for the project have been compared for dam axes mainly for 02 nos. alternatives for the final configuration of the project. The main characteristics of the principal project features as established for this comparative analysis are indicated below:

- Alternative I : Dam at Site 1 (Downstream axis) with underground powerhouse
- Alternative II : Dam at Site 2 (Upstream axis) with underground powerhouse

In view of the lower overall estimated project development cost, with further detailed field investigation, optimization and DPR level design of Alternative-I has been finally done. Other considerations favoring Alternative-I explicitly not included in the cost comparison are:

- Alternative-I would have lower head losses because of shorter length of tailrace tunnel.
- Alternative-I would require a smaller sized surge chamber because of shorter length of TRT.
- Alternative-I would have a larger reservoir compare to Alternative-II, thus having a larger retention volume for sediment.
- Alternative-II has not been penalized for the delay in the on-line date that would result with the construction of the longer tailrace tunnels and the resulting loss in revenue. This would further favor the selection of Alternative-I.

xv. **Details of Solid waste/ Hazardous waste generation/ Muck and its management:**

During the construction phase, the total municipal solid waste generation is estimated to be around 1.35 tons per day (t/day). Out of this, approximately 0.53 t/day will comprise biodegradable or degradable waste, such as food residues and organic matter, while about 0.82 t/day will consist of non-degradable waste, including plastics, packaging material, and other inert components.

Hazardous waste inter alia include burnt mobile oil from vehicles and construction machinery and equipment, batteries and like items specified in column (3) of Schedule-I of Hazardous and other Wastes (Management & Transboundary Movement) Rules, 2016. These will be disposed of by auctioning them to the recycling vendors approved by the CPCB or Arunachal Pradesh State Pollution Control Board in consonance with Hazardous and other Wastes (Management & Transboundary Movement) Rules, 2016. The project proponent shall earmark a suitable site for storage of hazardous waste, prior to collection by an authorized vendor for handling the hazardous work.

Muck is likely to be generated due to various project related activities is 154.598 lakh m<sup>3</sup>. About 17.347 lakh m<sup>3</sup> of muck generated shall be utilized and about 137.251 lakh m<sup>3</sup> of muck shall be disposed off in 04 nos. Muck disposal sites of area 70.22 ha and capacity 139.029 lakh m<sup>3</sup>. Engineering & biological measures are proposed for management of muck generated at site.

- xvi. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 20.08.2025. The main issues raised during the public hearing are related to are as below:

S. No.	Name of Participant	Issues Raised	Response
1.	Shri Behenso Pul Chairman, Hydro Power Committee Kalai-II for Project Affected Families	There will be generation of dust and noise pollution due to operation of heavy machineries and blasting which in turn will cause river pollution. What mitigation measures are planned to control the pollution.	A detailed plan for control of dust and noise pollution has been prepared. Detailed Mitigation measures have been suggested in Section 4.6 of CEIA Report for control of air pollution due to Fuel Combustion in Equipment and Vehicles. Operation of DG sets, Fugitive Emissions from Various Sources, Emissions from Crushers, Dust emissions from Muck Disposal, etc. Detailed Mitigation measures have been suggested in Section 4.5 of CEIA Report for control of noise pollution due to operation of construction equipment, drilling, blasting and increased vehicular movement.
		The operations of heavy machineries will have effect on aquatic & wildlife and the nearby villages.	Detailed Mitigation measures have been suggested in Section 4.5 of CEIA Report for control of noise pollution due to operation of construction equipment, drilling, blasting and increased vehicular movement to minimize impacts on wildlife. The operations of heavy machineries leads to generation of effluents with oil & grease. An Oil & Grease separator unit has been proposed to treat the effluents from Workshops, parking areas, etc. to treat the effluent before disposal, so that there is no impact on

S. No.	Name of Participant	Issues Raised	Response
			Aquatic Ecology. The details are given in Section-4.2.
		Solid waste generated from the project camp must not be disposed into the river or water bodies. For its proper management, a concrete plan must be in place.	<p>A detailed Solid waste management plan covering following has been prepared:</p> <ul style="list-style-type: none"> <li>• Municipal Solid Waste</li> <li>• Hazardous Waste</li> <li>• E-Waste</li> <li>• Construction and Demolition Waste</li> </ul> <p>The details are given in Sections 4.7.1.8 to 4.7.1.11 of CEIA Report.</p>
		The draft EIA report prepared by WAPCOS Limited is based on old data. The data must be corrected.	<p>As a part of the CEIA Study, field studies for various aspects was conducted for three seasons as listed below:</p> <ul style="list-style-type: none"> <li>• Monsoon Season: August, September &amp; October 2024</li> <li>• Winter Season: December 2024</li> <li>• Pre-monsoon Season: March 2025</li> </ul> <p>Thus, CEIA Report has been prepared on new data, as per the ToR approved by MoEF&amp;CC.</p>
		The land rates must be enhanced.	This same shall be decided by State Govt. as per policy.
		The rates for construction of house under Indra Awas Yojana (IAY) as per draft EIA report will not be sufficient for construction of tribal house. In this regard, the revised rate submitted to	The rate shall be decided by State Govt as per RFCTLARR Act-2013 & Handbook for LA-Arunachal Pradesh-2022.

S. No.	Name of Participant	Issues Raised	Response
		the Govt. of Arunachal Pradesh must be considered.	
		The submerged villages must be migrated on community/group basis.	The location of Resettlement Sites shall be finalized by State Govt./ District Administration.
		The Local Area Development Fund (LADF) must be utilized by the Project Affected Families (PAFs)/Project Affected Villages (PAVs).	Utilization of Local Area Development Fund (LADF) shall be finalized by State Govt./ District Administration in consultation with PAFs.
		The center for recruitment of staff for various grades as envisaged in the draft EIA report must be done at Hawaii under the Deputy Commissioner, Anjaw district.	Recruitment center shall be opened at suitable location as per mutual consent of State Govt and THDCIL.
		The Skill Development Training Centre should be made functional at the earliest.	Matter under consideration. THDCIL has requested District Administration, Anjaw on 05.04.2025 and 20.09.2025 for allotment of Polytechnic Campus/Building to start Skill Development Training Centre at Hawaii at the earliest.
		A Nursing college must be established at Anjaw district. Further, up-gradation of the existing health care establishment at Swami Camp should be done.	The same shall be decided by the State Govt/ District Administration, within the provisions of R&R / LADP.
		The LADF fund should be enhanced to a total of 2% (1% from the State Government and 1% from M/s THDC India Limited).	It is a Policy matter & applicable as per Govt of India guidelines, Electricity Act/CEA Guideline.

S. No.	Name of Participant	Issues Raised	Response
		Study on soil erosion around nearby villages should be carried out with its mitigation plans.	The same has been addressed under the CAT plan for the project in the catchment area, covering nearby villages, has been planned. The plan gives detailed biological and engineering measures for soil and water conservation.
		A bridge should be constructed at Samdul village to ease the transportation.	It will be decided by State Govt/ District Administration in consultation with THDCIL as per R&R provision.
		There should be reservations in business for local contractors as per Arunachal Pradesh District Based Entrepreneurs Act, 2015.	It shall be dealt as per Article 6, clause 6.8 of the MoA between Govt of AP and THDCIL. <i>The Corporation shall give preference to the local contractors fulfilling the eligibility criteria in the award of the work except for the specialized jobs.</i>
		The migrant labours should not be allowed to cast their votes in any kind of election.	The same shall be decided by State government of Arunachal Pradesh.
		The project affected villagers should be given right for fishing in the project site.	The same shall be decided by State government of Arunachal Pradesh.
		The cultural and spiritual significant places must be preserved.	The cultural and spiritually significant places which are likely to be affected by the projects shall be preserved in consultation with State Govt./ District Administration as per the provisions of R&R / LADP.
		Hospital with 50 bedded capacities should be established at Hawaii.	The same shall be decided by the State Govt./ District Administration, within the

S. No.	Name of Participant	Issues Raised	Response
		A Drugs de-addiction center should be established at Hawaii.	provisions of R&R / LADP. The same shall be decided by the State Govt./ District Administration, within the provisions of R&R / LADP.
2.	<b>Shri Birenso Pul</b> Secretary, Hydro Power Committee Kalai-II for Project Affected Families	<p>The PAFs are not happy because the draft EIA report hasn't included the latest amended Social Impact Assessment (SIA).</p> <p>In the draft EIA report, the settlement and Horticulture &amp; Agriculture area is shown very less, whereas, large area of land is shown as forest area.</p> <p>During construction of the project, there will be generation of noise and water pollution which will cause difficulties to local people. The Control and mitigation measures supposed to be taken are indicative.</p>	<p>The latest amended Social Impact Assessment (SIA) being included in the CEIA Report.</p> <p>The ownership status of land to be acquired for the project is being finalized by the district administration.</p> <p>A detailed plan for control of dust and noise pollution has been prepared. Detailed Mitigation measures have been suggested in Section 4.6 of CEIA Report for control of air pollution due to Fuel Combustion in Equipment and Vehicles. Operation of DG sets, Fugitive Emissions from Various Sources, Emissions from Crushers, Dust emissions from Muck Disposal, etc. Detailed Mitigation measures have been suggested in Section 4.5 of CEIA Report for control of noise pollution due to operation of construction equipment, drilling, blasting and increased vehicular movement. Based on our past experience, the measures</p>

S. No.	Name of Participant	Issues Raised	Response
			suggested are comprehensive and adequate to mitigate the air and noise pollution from various sources during project construction phase.
		The land rate must be enhanced.	This is a state policy matter and shall be decided by the State Govt.
3.	<b>Shri. Bramgrow Pul</b> Vice-Chairman, Hydro Power Committee Kalai- Il for Project Affected Families	There should be reservation for local contractors.	It shall be dealt as per Article 6, clause 6.8 of the MoA (Dec. 2023) between Govt of AP and THDCIL <i>The Corporation shall give preference to the local contractors fulfilling the eligibility criteria in the award of the work except for the specialized jobs.</i>
		The THDC India Limited is proposing project for 1200 MW and their power selling plan is more than 1200 MW. Clarification on this must be given by the company.	The PPA has been signed with 3 States and Indian Railways, and final allocation of Power will be done by MOP, GOI.
		A medicinal plant available locally namely "Mishmi Teeta" is to be included in the EIA report.	Complied and covered in Section 3.4.6.5.
		Priority must be given for up-gradation of Hawai Hospital.	The same shall be decided by the State Govt./ District Administration, within the provisions of R&R / LADP.
4.	<b>Shri Omiso Pul, Kamdi village</b>	In the draft EIA report, the names of some flora and fauna are missing. Therefore, reference must be taken from the latest RET data book and necessary inclusion must be made.	As part of EIA Study, latest RET data book has been used for compilation and the findings of field studies too have been suitably incorporated.
		The company must	The CEIA Report has been

S. No.	Name of Participant	Issues Raised	Response
		consult and engage local people for inclusion of local names of flora and fauna along with pictures that will help in easy understanding of all the PAFs.	prepared in consultation with locals. Local names of flora and fauna to the extent possible have been included.
		There are many medicinal plants available in the area. So, what steps will be taken to preserve such medicinal plants.	Medical plants of various native species shall be planted during various plantation activities during the development of the project. A botanical garden for conservation of local plants including medicinal plants will also be developed. Community kitchens using LPG as fuel shall be run by the contractors to minimize impacts on trees including medicinal plants.
		Due to the upcoming project activities there will be increase in BOD and COD levels that will affect water bodies and aquatic life. What steps will be taken for its control and minimization?	Sewage from labour camps during construction phase and project colonies during operation phase, shall be treated in sewage treatment plants (STPs), prior to disposal. The details are given in Section - 4.2.1.1. A detailed monitoring programme has been formulated for implementation during construction and operation phases to ensure that STPs operate at design efficiency levels. The details are given In Section-6.3.
		What mitigation measures will be taken for preservation of migratory fishes?	A detailed plan for mitigation of impacts on migratory species has been formulated, which includes, release of Environmental

S. No.	Name of Participant	Issues Raised	Response
			Flows, stocking of reservoirs and development of hatcheries. The same is covered in Sections 4.12.2, 10.6 and 10.7.
		An awareness campaigns on mitigation plans must be held from village to village in affected area.	Awareness Programs on Environment Mitigation Plans shall be organized as a part of Environment Awareness Campaigns by THDCIL.
5.	<b>Shri Semsemlum Ngi</b> Chairman, Krosam Area Welfare Society	In other cases, the villages within 10 kms radius of dam site are shifted to a new area but, in this case it is not so. Therefore, what steps will be taken in this regard?	R&R shall be carried out by the Govt of Arunachal Pradesh /District Administration as per RFCTLARR Act-2013 & Hand book for LA-Arunachal Pradesh-2022 .
		There will be blasting and mining activity during construction phase. What safety measures will be taken in this regard?	A detailed plan for ensuring safety during various project operations has been suggested in Sections 10.2 to 10.5 as part of the CEIA Report.
		Operation of large crushers will result in air and noise pollution. What steps will be taken to control the pollution?	Crushers will be provided with cyclones to minimize air pollution. Details are given in Section- 4.6.1.4. Crushers will be located at a distant location from the local residents, so that they are not affected by the noise. Workers involved in operation of crushers shall be provided with personal protective equipment.
		Downstream villages will be affected by pollution caused by wastes. What steps will be taken by the company for management of wastes?	A detailed plan has been outlined in Section 4.2 and Sections 4.4 to 4.7 of Chapter-4 of CEIA Report to mitigate the impacts due to wastes generated from various sources during

<b>S. No.</b>	<b>Name of Participant</b>	<b>Issues Raised</b>	<b>Response</b>
			project construction phase. No impacts on downstream villages is expected due to wastes generated from various sources during project construction phase.
		Police out post must be established near the labour's camp to tackle law and order situation.	THDCIL will request District Administration for establishment of Police out post near Labour camp. However, it comes under the purview of District Administration to maintain the law and order.
		Local Area Development Fund(LADF) should be revised in the new SIA.	It is a Policy matter & applicable as per Govt of India guidelines, Electricity Act/CEA Guidelines
6.	<b>Shri Sosian Ngi, Krosam village</b>	The Ngi clan is not against development rather we welcome the project.	Welcomed the project.
		The grievances of the people of Krosam village must be addressed.	Grievances, if any due to the project shall be addressed during construction and operation phase. No specific grievance shared.
		The land rates must be satisfactory.	This is a state policy matter and shall be decided by the State Govt.
		The transportation charges for construction of new house for a family during resettlement must be enhanced.	The rate shall be decided by State Govt./ District administration as per RFCTLARR Act-2013 & Hand book for LA-Arunachal Pradesh-2022 .
		The concerns of the people of Krosam village must be included in the SIA.	SIA Report has already been prepared in consultation with the PAFs by the State Government.
7.	<b>Shri Roshman Tawsik</b>	No one from the two villages of Nukung and	EIA report is prepared by the Experts mandated by

S. No.	Name of Participant	Issues Raised	Response
	Representative of Nukung and Mla village.	Mla were included for preparation of draft EIA report.	National Accreditation Board for Education and Training (NABET). SIA Report has already been prepared in consultation with the PAFs by the State Government.
		Whole of Mla village will be affected and there is risk of submergence of this village. Therefore, Mla village must be included in the list of submergence village.	As per the SIA Report, Mla village has been categorized as a partly affected village. Any risk of submergence will be addressed in accordance with the provisions of the RFCTLARR Act, 2013 and the Handbook for Land Acquisition, Arunachal Pradesh, 2022.
		Cultural practice of natural indicators followed by indigenous tribes of the area must be discussed, studied and included in the EIA Report.	Ethnographic Profile of local Tribes is included in Section 3.5.2 of CEIA Report.
		Identification and preservation of cultural heritage and religious sites.	The cultural and spiritually significant places which are likely to be affected by the projects shall be preserved in consultation with State Govt./ District Administration as per the provisions of R&R / LADP.
		Many flora and fauna are not included in the draft EIA report.	A detailed flora and fauna study covering three seasons (pre-monsoon, monsoon and post-monsoon) has been conducted. No specific flora or fauna is missing in the CEIA Report which has been reported/suggested during the Public Hearing.

S. No.	Name of Participant	Issues Raised	Response
		<p>The rate of construction of house under IAY@Rs.2 lakhs, as mentioned in the draft EIA report must be enhanced.</p> <p>Memorandum submitted is enclosed as Annexure-B.</p>	<p>The rate shall be decided by State Govt/ District Administration as per RFCTLARR Act-2013 &amp; Hand book for LA-Arunachal Pradesh-2022.</p>
8.	<b>Shri Lasum Pul</b> Ex-ZPM and Senior Public leader.	<p>The villagers are in support of the such projects.</p> <p>The rate of land must be enhanced and satisfactory which should be included in EIA report.</p> <p>The compensation rate for construction of new house as shown in the EIA report must be increased and not acceptable at all as per the rate of Indira Awas Yojana (IAY)</p> <p>The loose soil will cause soil erosion. Hence, this aspect must be studied and included in the draft EIA report.</p>	<p>Welcomed the project.</p> <p>This is a state policy matter and shall be decided by the State Govt.</p> <p>The rate shall be decided by State Govt./ District administration as per RFCTLARR Act-2013 &amp; Hand book for LA-Arunachal Pradesh-2022.</p> <p>The same has been addressed under the CAT plan for the project wherein Watershed Management in the catchment area, covering nearby villages, has been planned. The plan gives detailed biological and engineering measures for soil and water conservation.</p>
9.	<b>Shri Bajai Pul</b> Executive Engineer, Rural Work Department.	<p>Projects like this are important in the national security point of view.</p> <p>Every project like this has their pros and cons. Almost 90% people present here are in support of the project. Remaining 10% has their concern and the project proponent</p>	<p>Welcomed the Project</p> <p>A detailed CEIA Report has been prepared as per the ToR Approved by MoEF&amp;CC and addresses impacts likely to accrue during project construction and operation phases.</p>

S. No.	Name of Participant	Issues Raised	Response
		must resolve their concerns.	Detailed measures have been suggested for their mitigation.
		My initial apprehensions about such projects have ceased after exposure trip to Tehri Dam, facilitated by THDC India Limited. Such projects will boost tourism of the area.	Welcomed the Project
10.	<b>Ms. Dasanglu Pul</b> Hon'ble Minister for Women & Child Development, Science & Technology and Cultural Affairs (Hon'ble MLA for Hayuliang ST Constituency).	Late Shri Kalikho Pul, Ex Chief Minister, had initiated this project way back in 2009. We must all be thankful to him to see this project at this stage in this present day.	Welcomed the Project
		Most of the speakers are positive about the project.	Welcomed the Project
		As per the MoU, 50% from Land Affected Villages be considered for employment as Staff as per eligibility.	For employment of Local tribal people, Article 6 of the MoA between Govt of AP and THDCIL (Dec. 2023) shall be complied.
		Revenue of 1% will be availed by the district.	It is a state matter and be dealt by Govt. of Arunachal Pradesh.
		Land rates were enhanced in 2022. The Government of Arunachal Pradesh is planning to further enhance this rate in the whole of the State.	This is a state policy matter and shall be decided by the State Govt.

xvii. Status of Litigation Pending against the proposal, if any. – No

xviii. The salient features of the project are as under: -

● **Project Details:**

Name of the Proposal	Proposal for seeking Environmental Clearance for Kalai-II (1200 MW) Hydroelectric Project located in District Anjaw of Arunachal Pradesh
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	by M/s THDC India Limited
Proposal No.	IA/AR/RIV/557663/2025 File No: J-12011/40/2009-IA-I(R)
Location (Including Coordinates)	Anjaw District, Arunachal Pradesh Lat: 27054' 20" Long 96048'16"
Company's Name	THDC India Limited
CIN no. of Company/ user agency	U45203UR1988GOI009822
Accredited Consultant and certificate no.	WAPCOS Limited, Gurugram NABET/EIA/24-27/RA 0360
Project location (Coordinates/ River/ Reservoir)	Anjaw District, Arunachal Pradesh Lat: 27054' 20" Long 96048'16"
Inter-state issue involved	No
Proposed on River/ Reservoir	Lohit River
Type of Hydro-electric project	Run of river scheme
Seismic zone	Zone V

- Category Details:**

Category of the project	1 (c)
Capacity/ Cultural command area (CCA)	1200 MW
Attracts the General Conditions (Yes/No)	No
Additional information (if any)	-

- ToR/ EC Details:**

ToR Proposal No.	ToR: IA/AR/RIV/466561/2024 ToR Amendment: IA/AR/RIV/539430/2025
EAC meeting date	ToR: 11 <sup>th</sup> EAC meeting held on 27.06.2024 ToR Amendment: 33 <sup>rd</sup> EAC meeting held on 17.06.2025
ToR Letter No.	J-12011/40/2009-IA-I(R)
ToR grant Date	ToR: 07.08.2024 ToR Amendment: 08.07.2025
Cost of project	14,176.26 Cr
Total area of Project	869.3503 ha
Height of Dam from River Bed (EL)	128.5 m
Details of submergence area	638.456 Ha
District to provide irrigation facility (if applicable)	Not applicable

Details of tunnels on upper level & lower level and length of canal (if applicable)	The total length of 05 nos. of 7.5 m dia HRTs is 534.7 m and for 8.5 m dia HRT is 63.3 m. Total length of 3 nos. TRT is 3939 m plus Length of 01 no. Auxiliary TRT is 333 m.
No. of affected Village	33
No. of Affected Families	1521
Project Benefits	<ul style="list-style-type: none"> <li>The Project will have an installation of 1200 MW. The design energy proposed to be generated from the HEP shall be 4852.95 MU.</li> <li>Infrastructure like roads, bridges, buildings etc. will be built at a large scale at the construction stage of the project which will benefit the local people also.</li> <li>The construction of various project roads will improve the accessibility to and around the project area. At the same time, project will establish health care units in the project area. With improvement in roads, in the project area, people will have easy access to the district hospital as well as project health care units. During project construction phase, the proponent will establish two health care with adequate number of medical staff including doctors, nurses, health workers and logistic support primarily to provide health support services to the workers and project staff. The health facility will also be made available to local people and visitors as well.</li> <li>The project will provide energy (with the implementation of rural electrification program) and will further enhance the facilities available at the centers. The electrification will provide an impetus to development in the area.</li> <li>The construction phase will last for about 78 months. The total number of persons inhabiting the area including the service population will be about 3000.</li> </ul>
R&R details	The land required for various project appurtenances is 869.3503 ha. A total 1521 PAFs have been identified in the 33 Project Affected Villages. Among them, 376 PAFs fall under the Full

	Submergence category, another 113 PAFs are classified as Highly Impacted, and remaining 1032 PAFs are categorized as Impacted. A provision of Rs. 190.68 crore has been kept towards implementation of Resettlement and Rehabilitation Plan.																				
Catchment area/ Command area	The Catchment Area of the proposed project is 15654 km <sup>2</sup>																				
Types of Waste and quantity of generation during construction/Operation	During the construction phase, the total municipal solid waste generation is estimated to be around 1.35 tons per day (t/day). Out of this, approximately 0.53 t/day will comprise biodegradable or degradable waste, such as food residues and organic matter, while about 0.82 t/day will consist of non-degradable waste, including plastics, packaging material, and other inert components. Sewage and effluent for batching plant, workshop, etc.																				
Material used for blasting and its composition as per DGMS standards.	Explosive is mainly required for open and underground rock excavation. The main explosive magazine & portable magazines are proposed near project site with appropriate safety & security arrangements. The explosive license for storage, handling and use shall be obtained in accordance with the statutory regulations and specifications.																				
E-Flows for the Project	The E-flows for the Project is tabulated as below:																				
	<table border="1"> <thead> <tr> <th>S. No.</th> <th>Season</th> <th>Percentage of Environmental Flows</th> <th>Average Environmental Flows (cumec)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Monsoon (June to September)</td> <td>20%</td> <td>163.48</td> </tr> <tr> <td>2.</td> <td>Lean Season (December to March)</td> <td>15%</td> <td>39.71</td> </tr> <tr> <td>3.</td> <td>Non Monsoon Non Lean Season (October and November)</td> <td>20%</td> <td>90.67</td> </tr> <tr> <td>4.</td> <td>Non Monsoon</td> <td>20%</td> <td>103.60</td> </tr> </tbody> </table>	S. No.	Season	Percentage of Environmental Flows	Average Environmental Flows (cumec)	1.	Monsoon (June to September)	20%	163.48	2.	Lean Season (December to March)	15%	39.71	3.	Non Monsoon Non Lean Season (October and November)	20%	90.67	4.	Non Monsoon	20%	103.60
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	Non Lean Season (April and May)			
Is Projects earlier studied in Cumulative Impact assessment & Carrying Capacity studies (CIA&CC) for River in which project located. If yes then E-flow with TOR/ Recommendation by EAC as per CIA&CC study of River Basin. If not the E-Flows maintain criteria for sustaining river ecosystem.	Yes. The CIA & CCS report of Lohit river basin, 2016 has covered Kalai-II HEP. The recommendations of Environmental Flows in the CIA & CCS Study of Lohit Basin for Kalai-II HEP is as below:			
	<b>S. No.</b>	<b>Season</b>	<b>Percentage of Environmental Flows</b>	
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Details on provision of fish pass	The height of dam from river bed level is 128.5 m and the fish passage is not feasible in high dams.			
Project benefit including employment details (no of employee)	The project construction is likely to last for a period of 78 months. The total number of persons inhabiting the area including the service population will be about 3000. The construction of the proposed project would invariably create a number of direct employment opportunities. However, indirect employment opportunities would also be generated which would provide great impetus to the			

	<p>economy of the local area. Various types of businesses are also likely to concentrate here and likely to benefit immensely, as demand for almost all types of goods and services will increase significantly. The business community as a whole would be benefited. The locals would also avail these opportunities arising from the project and increase their income levels. Other benefits of Project would include:</p> <ul style="list-style-type: none"> <li>• Compensation for loss of land, houses and all other immovable properties to the PAFs as per the Land Acquisition Act.</li> <li>• Improvement in the quality of life: primary education, primary health care, women and child welfare, periodic medical camps.</li> <li>• Development strategy to bring about a positive socio-economic transformation of the PAFs, so as to improve the quality of their life.</li> <li>• Power from the project, shall bring overall improvement in quality of life and the economic growth of the local populace.</li> <li>• Construction and operation of this Project would lead to overall sustainable development in the project region by making a direct as well as indirect contribution to the populace.</li> </ul>
<p>Area of Compensatory Afforestation (CA) with tentative no of plantation.</p>	<p>The total forest land to be acquired for the project is 869.3503 ha. The area proposed for Compensatory Afforestation is double the area of degraded forest land i.e.1738.70 ha located in Madhya Pradesh. An amount of Rs. 12170.90 lakh (@ Rs. 7.0 lakh/ha) has been earmarked for afforestation. The tentative no. of plantation proposed is approx. 17.40 lakhs.</p>
<p>Previous EC details</p>	<p>NA</p>
<p>EC Compliance Report by R.O, MOEF&amp;CC</p>	<p>NA</p>
<p>No. of trees/saplings proposed in view of 'Ek Ped Maa Ke Naam' campaign</p>	<p>-</p>

• **Electricity generation capacity:**

<p>Powerhouse Installed Capacity</p>	<p>1200 MW</p>
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Generation of Electricity Annually	4852.95 GWh
No. of Units	6*190 MW + 1*60 MW (07 units)

• **Muck Management Details:**

No. of proposed disposal area/ (type of Land - Forest/ Pvt land)	The total quantity of muck expected to be generated has been estimated to be of the order of 104.49 lac m <sup>3</sup> . A total of 04 muck dumping sites shall be used for muck disposal, with a total area of 70.22 ha and capacity of 139.029 lakh m <sup>3</sup> and said sites are located in Forest land.
Cross section of proposed muck area, Height of muck with slope.	Muck disposal site shall be developed from below the ground level by providing 10 m high plum concrete retaining wall with a wire crate (1.25mx1.25mx1.25m) placed at top and 5 m high plum concrete retaining on side.
Distance of muck disposal area (location), from muck generation sources (project area)/ River, HFL of proposed muck disposal area.	Distance of muck disposal area- near to the project component area like Dam, Adits, Powerhouse and are located at least 100 m away from the HFL.
Total Muck Disposal Area	70.22 ha
Estimate Muck to be generated	154.598 lakh m <sup>3</sup> (incl. swell factor)
Transportation	The generated muck will be transported in dumper trucks to prevent spillage, with all necessary precautions followed during handling and disposal. Appropriate pollution-control measures will be applied based on-site conditions, and all standard safety practices will be ensured at site.
Monitoring mechanism for Muck Disposal Transportation	Site team will monitor manually the muck disposal at the site. The provisions of Environmental Monitoring have been kept under proposed Environmental Monitoring Plan.

• **Land Area Breakup:**

Private land	Nil
Government land	Nil
Forest Land	869.3503 ha
Total Land	869.3503 ha
Submergence area/Reservoir area	638.456 ha

Additional information (if any)	-
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• **Presence of Environmentally Sensitive areas in the study area**

Forest Land/ Protected Area/ Environmental Sensitivity Zone	Yes/No	Details of Certificate/ letter/Remarks
Reserve Forest/Protected Forest Land	RF: 238.0763 Ha	Proposal for diversion of Forest Land is under process.
National Park	Nil	
Wildlife Sanctuary	Nil	
Archaeological sites monuments/historical temples etc	Nil	
Additional information (if any)	-	

• **Availability of Schedule-I species in study area:**

In the study area Takin (*Budorcas taxicolor*) has been observed as Schedule-I species, which is Vulnerable A2cd in the IUCN Red List Category. A budget of Rs. 100 lakh has been proposed for implementation of Conservation Plan which includes Habitat Protection, Anti-Poaching and Law Enforcement, Community engagement, Monitoring & Research, Emergency Response Mechanism, Reducing man wildlife conflicts, Creation of drinking water facility, Training & Awareness, Forest Fires Protection measures, Procurement of Equipment etc.

• **Public Hearing (PH) Details:**

Advertisement for PH with date	The Times of India, Echo of Arunachal, The Arunachal Front (local Mishmi dialect) dated 19.07.2025
Date of PH	20.08.2025
Venue	Tribal Cultural Centre, Hawaii, District Anjaw
Chaired by	Deputy Commissioner, Anjaw
Main issues raised during PH	<ul style="list-style-type: none"> <li>• Amount of Compensation to be given to PAFs</li> <li>• R&amp;R shall be carried out by the Govt of Arunachal Pradesh / District Administration as per RFCTLARR Act-2013 &amp; Hand book for LA-Arunachal Pradesh-2022.</li> </ul>

	<ul style="list-style-type: none"> <li>• Impacts due to Water Pollution</li> <li>• Adverse impacts on Fisheries</li> <li>• Adverse Impacts on Flora and Fauna</li> <li>• EIA report is based on old data</li> <li>• Mitigation measures for Air Pollution</li> <li>• Mitigation measures for Noise Pollution</li> </ul>
No. of people attended	314

• **Brief of base line Environment:**

Particulars	Details
Period of baseline data collection/Sampling period. (Air, noise, water, land) flora and fauna of the project area aquatic ecology, etc.	The baseline status of the environmental quality has been monitored with respect to air, water, soil and noise etc. in the study area. The monitoring was carried out for three seasons' viz. Pre-monsoon (March'2025), Monsoon (August-October'2024) and Winter season (December'2024).
Brief description on hydrology and water assessment as per the approved pre-DPR:	<p>The proposed Kalai-II Hydro Electric Project is a run of the river scheme on river Lohit.</p> <p>The water will be stored on a diurnal basis from MDDL to FRL for peaking power generation. During peaking power operations there will be a rated discharge of 1128.06 cumec from the tail race tunnels.</p> <p>The water availability 10 day flow series (cumec) data at Kalai-II HEP using Hayuliang data has been worked out for period from 1985-86 to 2003-04 with an average annual yield of 28022 MCM. Design flood (PMF) estimated at project site is 24268 m<sup>3</sup>/sec.</p> <p>The Gross and Live Storage of the Kalai-II reservoir are 318.88 M cum and 29.76 M cum with FRL at El 904.80 m and MDDL at El 900.00 m respectively.</p>

• **Court case details: NIL**

- **Status of other statutory clearances**

<b>Particulars</b>	<b>Letter no. and date</b>
Status of Stage- I FC	The proposal for diversion of the said 869.3503 Ha. forest land was submitted on Parivesh portal on 20.01.2025. The proposal for diversion of 869.3503 Ha forest land has been recommended by GoAR to MoEF&CC after completion of due process. Proposal is under process for Stage-1 approval. FC Proposal No.: FP/AR/HYD/IRRIG/519205/2025
Approval of Central Water Commission	The TEC for the project was issued to M/s Kalai Power Private Limited by CEA on 27.03.2015. Subsequently, the project was indicated to THDCIL by MoP. The TEC was transferred to THDCIL on 23.02.2024, on the same terms and conditions as per earlier TEC approval.
Approval of Central Electricity Authority	The TEC for the project was issued to M/s Kalai Power Private Limited by CEA on 27.03.2015. Subsequently, the project was indicated to THDCIL by MoP. The TEC was transferred to THDCIL on 23.02.2024, on the same terms and conditions as per earlier TEC approval.
Additional detail (If any)	-
Is FRA (2006) done for FC-I	Yes. FRA letter issued by Deputy Commissioner, Anjaw vide letter no. ANJ/LM/52/2011-14(Pt) dated 22.02.2024.

- **Details of the EMP**

Environmental Management Plan (EMP) is a plan that seeks to achieve a required and state and describes how activities that have or could have an adverse impact on the environment, will be mitigated, controlled, and monitored. Environmental impacts arising due to development activities are the key aspects on EIA study. An equally essential element of this process is to develop measures to eliminate, offset, or reduce adverse impacts to acceptable levels and enhance the beneficial ones during implementation and operation of the projects. The integration of the project planning has been done by clearly defining the environment requirements within an EMP. The summary of budget earmarked for various mitigation measures are tabulated as below:

<b>Activities</b>	<b>Budget (Rs. lakh)</b>
Environmental Management Plan	1148.28

Mitigation measures	30232.53
Measures outlined in Additional studies	36257.70
Environmental Monitoring Programme during construction phase	192.22
<b>Total</b>	<b>67830.73</b>

