

499449/2021/FC

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From : jiju J.S. <jiju.jairaj@gov.in> Thu, Jul 29, 2021 02:54 PM
Subject : Fwd: [WARNING: ATTACHMENT UNSCANNED][WARNING: UNSCANNABLE EXTRACTION FAILED]Fwd: [WARNING: ATTACHMENT UNSCANNED][WARNING: UNSCANNABLE EXTRACTION FAILED]Fwd: [WARNING: ATTACHMENT UNSCANNED][WARNING: UNSCANNABLE EXTRACTION FAILED]Forest Clearance for Etalin HEP (3097 MW) 4 attachments
To : SURJEET KUMAR <surjeet.88@gov.in>

Please put up

Jiju J. S.
Technical Officer
Forest Conservation Division
Ministry of Environment, Forest and Climate Change
New Delhi.
mob: 9458124382

From: "Sandeep Sharma" <sandeep.sharma76@gov.in>
To: "jiju J.S." <jiju.jairaj@gov.in>
Sent: Tuesday, July 27, 2021 3:49:28 PM
Subject: [WARNING: ATTACHMENT UNSCANNED][WARNING: UNSCANNABLE EXTRACTION FAILED]Fwd: [WARNING: ATTACHMENT UNSCANNED][WARNING: UNSCANNABLE EXTRACTION FAILED]Fwd: [WARNING: ATTACHMENT UNSCANNED][WARNING: UNSCANNABLE EXTRACTION FAILED]Forest Clearance for Etalin HEP (3097 MW)

From: "Anjan Kumar Mohanty" <igfmef.akm@gov.in>
To: "Sandeep Sharma" <sandeep.sharma76@gov.in>
Sent: Tuesday, July 27, 2021 11:23:55 AM
Subject: [WARNING: ATTACHMENT UNSCANNED][WARNING: UNSCANNABLE EXTRACTION FAILED]Fwd: [WARNING: ATTACHMENT UNSCANNED][WARNING: UNSCANNABLE EXTRACTION FAILED]Forest Clearance for Etalin HEP (3097 MW)


From: ccfnodalar@gmail.com
To: pamarana220022@gmail.com, "igf akm" <igf.akm@gmail.com>, "ss moef" <ss.moef@gmail.com>, "Anjan Kumar Mohanty" <igfmef.akm@gov.in>
Sent: Monday, July 26, 2021 1:21:12 PM
Subject: [WARNING: ATTACHMENT UNSCANNED][WARNING: UNSCANNABLE EXTRACTION FAILED]Forest Clearance for Etalin HEP (3097 MW)

Sir,

Kindly find herewith the attached documents & revised KML file on the above subject which was sent through email & by Speed Post on 31st August' 2020 for your kind information & necessary action.


Yours faithfully,

PA to Nodal Officer (FCA)
PCCF & NO (FCA) Environment Forest & climate Change, Itanagar

 **Etalin HEP 1.pdf**
124 KB

499449/2020 Ha of Forest Area.kmz
KML file of 15.58 Ha. area reduced by FAC Sub Committee, Which Include 1.04 Ha. of Non Forest Land and 14.54 Ha. of Forest Area.kmz
58 KB

 **Etalin.pdf**
2 MB

 **KML file of revised forest area 1151.12 Ha. (1165.66-14.54 Ha).kmz**
2 MB

From : Sandeep Sharma <sandeep.sharma76@gov.in> Tue, Jul 27, 2021 03:50 PM
Subject : [WARNING: ATTACHMENT UNSCANNED][WARNING: UNSCANNABLE EXTRACTION FAILED]Fwd: 📎 4 attachments
[WARNING: ATTACHMENT UNSCANNED][WARNING: UNSCANNABLE EXTRACTION FAILED]Fwd:
[WARNING: ATTACHMENT UNSCANNED][WARNING: UNSCANNABLE EXTRACTION
FAILED]Forest Clearance for Etalin HEP (3097 MW)
To : jiju J.S. <jiju.jairaj@gov.in>

From: "Anjan Kumar Mohanty" <igfmef.akm@gov.in>
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From: ccfnodalar@gmail.com
To: pamarana220022@gmail.com, "igf akm" <igf.akm@gmail.com>, "ss moef" <ss.moef@gmail.com>, "Anjan Kumar Mohanty" <igfmef.akm@gov.in>
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BY SPEED POST

GOVERNMENT OF ARUNACHAL PRADESH
DEPARTMENT OF ENVIRONMENT & FORESTS
ITANAGAR.

File No.FOR. 279/Cons/2010/Vol-II/2,206-08

Dated, Itanagar 31st August'2020

✓ To

Shri Sandeep Sharma
Assistant Inspector General of Forests,
Forest Conservation Division,
Govt. of India, Ministry of Environment, Forests & Climate Change,
Indira Paryavaran Bhawan,
Aliganj, Jorbagh Road,
New Delhi-110003.

Sub:- Diversion of 1165.66 ha (including 91.331 ha underground area) of forest land for construction of Etalin Hydro Electric Project (EHEP) (3097 MW) in Dibang Valley District of Arunachal Pradesh by M/s Etalin Hydro Electric Power Company Limited-regarding.

Ref:- Your letter No. 8-20/2014-FC dated 8th August'2020.

Sir,

With reference to above letter on the subject, this is to furnish the following for your information and necessary action:-

1) The revised Cost Benefit Analysis as per the latest Guidelines of MoEF&CC had been sent to RO, Shillong vide this office letter No. FOR. 279/Cons/2010/Vol-I/1618-21 dtd. 29/05/2020 (copy enclosed- **Annexure-I**) as asked vide their letter No. 8-20/2014-FC/55-56 dtd. 24/04/2020 (copy enclosed-**Annexure-II**) & letter dtd. 14/05/2020 (copy enclosed **Annexure-III**) in compliance of FAC's observation dtd. 23/04/2020. On scrutiny of Cost Benefit Analysis, the RO, Shillong has observed some shortcomings vide their letter dtd. 15/07/2020, reply of which has been sent vide this office letter dtd. 18/08/2020 (copy enclosed at **Annexure-IV**).

2) The details of revised forest area of 1151.12 ha proposed now for diversion after surrender of an area of 14.54 ha is as follows:-

Sl. No.	Classification of forests	Area in ha.
1	Moderately Dense Forests	336.45
2	Open Forests	491.92
3	Very Dense Forests	237.28
4	River Body	49.97
5	Underground HRT area (Notional)	35.50
Total		1151.12

In this connection, it is pointed out here that out of reduced area of 15.58 ha as recommended by the FAC Sub- Committee, 1.04 ha is Non-Forest land. Hence, actual area required to be reduced now is 14.54 ha. The KML file of revised forest area of 1151.12 ha and 15.58 ha are enclosed at *Annexure -V & VI*.

3. The State Govt. will allow felling of trees from the reservoir area for essential infrastructure works and rest of the trees in reservoir will be retained. However, the User Agency is to be asked to pay the cost of project affected trees in the reservoir area, which are required to be retained & utilized, otherwise will result into loss of revenue inviting audit objection.

4. The comments of the State Govt. regarding large No. of representation as received, has already been sent to MoEF& CC, New Delhi vide this office letter No. FOR 279/Cons/2020/Vol-I/1884 dtd. 03/08 2020 (copy enlcoed at *Annexure-VII*).

In view of above, you are requested to convey the approval for diversion of forest land for above project as earliest as possible.

Encl: As above

Yours faithfully


(R.K.Singh)
Principal CCF (A&V) & Nodal Officer(FCA)

Copy to:-

1. The Chief Engineer (Monitoring), Department of Hydro Power Development, Itanagar for information and necessary action.
2. M/s Etalin Hydroelectric Power Company Ltd., Jindal Centre, 5th floor, Tower-B Plot No. 2, Sector-32, Gurgoan-122001, Haryana for information.


(R.K.Singh)
PCCF (A&V) & Nodal Officer (FCA)

(420)

**GOVERNMENT OF ARUNACHAL PRADESH
DEPARTMENT OF ENVIRONMENT & FORESTS
ITANAGAR**

No.FOR.279/CONS/2010 Vol-I/1618-21

Dated, 29th May'2020

To

The Deputy Inspector General of Forests (C)
North Eastern Regional Office
Law- U- Sib Lumbatngen,
Near MTC Workshop Shillong-793021

[Handwritten signature]
15/6/20
ROI

Sub: Diversion of 1165.66 ha (including 91.331 ha underground area) of forest land for construction of Etalin Hydro Electric Project (3097 MW) in Dibang Valley District of Arunachal Pradesh by M/s Etalin Hydro Electric Power Company Limited.

Ref: Your letter No.8-20/2014-FC/55-56 dated 24th April,2020

Sir,

With reference to your letter No. cited above, this is to submit herewith the following documents:

1. Detail report alongwith photographs after re-verification of CA area by the DFO, Anini Social Forestry Division identified for CA plantation in respect of above project.
2. The updated Cost Benefit (CB) Analysis for Etalin Hydro Electric project, as provided by the User Agency.

Encl: As stated above

Diary No

149

Date

15-6-20

GOVT. OF INDIA

Ministry of Environment, Forests & Climate Change
Regional Office, Itanagar

Yours faithfully,

[Handwritten signature]
(R.K Singh)

PCCF (A & V) & NO (FCA)

Copy to: -

1. The Deputy Inspector General of Forests, Forest Conservation Division, Govt. of India, Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhawan, Aliganj-Jorbagh Road, New Delhi-110003 for information.
2. The Chief Conservator Forests, EAC/WAC for information and necessary action.

(R.K Singh)

PCCF (A & V) & NO (FCA)

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COST - BENEFIT ANALYSIS

18-05-2020

Name of the Project: **Etalin Hydro Electric Project (3097 MW)**

Source Guidelines : **Handbook of Forest published in 2019**

Table A: Cases under which a cost-benefit analysis for forest diversion are required

Sr. No	Nature of proposal	Applicable/ not applicable	Remarks	Applicability in Etalin
1	All categories of proposals involving forest land upto 20 hectares in plains and upto 5 hectare in hills.	Not applicable	These proposals may be considered on a case-to-case basis and value judgment.	Not applicable
2	Proposal for defence installation purposes and oil prospecting (prospecting only).	Not applicable	In view of national Priority accorded to these sectors, the proposals would be critically assessed to help ascertain that the utmost minimum forest land is diverted for non-forest use.	Not applicable
3	Habitation, establishment of industrial units, tourist lodges complex and other building construction.	Not applicable	These activities being detrimental to protection and conservation of forest, as a matter of policy, such proposals would be rarely entertained.	Not applicable
4	All other proposals involving forest land more than 20 hectares in plains and more than 5 hectares in hills including roads, transmission lines, minor, medium and major irrigation projects, hydro projects, mining activity, railway lines, location specific installations like micro-wave stations, auto repeater centers, TV towers etc.	Applicable	These are cases where a cost-benefit analysis is necessary to determine when diverting the forest land to non-forest use in the overall public interest.	Applicable and therefore Cost Benefit Analysis is carried out as per Table B and C of latest Forest Guidelines

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(4/12)

COST - BENEFIT ANALYSIS

Name of the Project: Etalin Hydro Electric Project (3097 MW)
Source Guidelines : Handbook of Forest published in 2019

18-05-2020

Table B: Estimation of cost of forest diversion

S. No.	Parameters	Remarks	Applicability in Etalin	Amount (in Rs. Crores)
1	Ecosystem services losses due to proposed forest diversion.	Economic value of loss of eco-system services due to diversion of forests shall be the net present value (NPV) of the forest land being diverted as prescribed by the Central Government (MoEF&CC). Note: In case of National Parks the NPV shall be ten (10) times the normal NPV and in case of Wildlife Sanctuary the NPV shall be five (5)	Cost of NPV as given in EMP (Refer Page 12.4 of EMP)	103.71
2	Loss of animal husbandry productivity, including loss of fodder.	To be quantified and expressed in monetary terms or 10% of NPV applicable whichever is maximum	1. Amount as per 7.7.1 (A) of WII Report = Rs 1 Crores. 2. 10% of NPV : Rs. 10.37	10.371
3	Cost of human resettlement.	To be quantified and expressed in monetary terms as per approved R&R plan	Cost notified in R&R package for Rehabilitation & Resettlement as well as providing Infrastructure in Re-Settlement area (Refer Page 27 of R&R Plan) includes; a) Rehabilitation grant of Rs. 91.58 Crores b) Infrastructure in Re-settlement area Rs.	106.58
4	Loss of public facilities and administrative infrastructure (Roads, building, schools, dispensaries, electric lines, railways, etc.) on forest land, which would require forest land if these facilities were diverted due to the project.	To be quantified and expressed in monetary terms on actual cost basis at the time of diversion.	After detailed property Survey by District administration, the Loss of Structure like school, Range forest office, PWD office estimated as 2.52 Crores, while shifting of electrical transmission line and water supply are estimated as 1.92 and	5.74
5	Possession value of forest land diverted	30% of environmental costs (NPV) due to loss of forests or circle rate of adjoining area in the district should be added as a cost component as	30% of NPV	31.11
6	Cost of suffering to oustees.	The social cost of rehabilitation of oustees (in addition to the cost likely to be incurred in providing residence, occupation and social services as per R&R plan) be worked out as 1.5 times of what oustees should have earned in two years had he not been shifted.	As mentioned above in SL 03, the total number of project affected families is 284, out of which 176 are likely to be re-settled as per R&R Plan and the cost of Rehabilitation & Resettlement has been considered in Sr. No 03	-
7	Habitat Fragmentation Cost.	While the relationship between fragmentation and forest goods and services is complex, for the sake of simplicity the cost due to	50% of NPV	51.855

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8	Compensatory Afforestation and soil & moisture conservation cost.	The actual cost of compensatory afforestation and soil & moisture conservation and its maintenance in future at present discounted value.	1. Total Land considered for CA in Tawang forestry division = 490 Ha with total amount Rs.14.07 Crores. (Details as Annexure-A) 2. Total Land considered for CA in Anini forestry division = 1841.40 Ha	63.85
9	Loss of value of timber, fuel wood and minor forest produce on an annual basis, including loss of man-hours per annum of people who derived livelihood & wages from the harvest of these commodities	Loss of value of timber as per species wise and diameter class wise abstract of the trees to be felled.	Based upon the Terrestrial Ecological survey, 280677 trees are likely to be affected along with some NTFP especially Bamboo and	23.49
10	Other Losses as predicted in EMP, WII, CAT Plan etc.	1. Cost for Wild Life Conservation Plan as proposed by WII Dehradun (Refer Cost estimates by WII at page 214 of report) 2. Cost of CAT Plan (Refer CAT Plan approval letter by GoAP and page 45 of approved CAT plan) 3. Cost of EMP (Refer Page 15.1 of the report) which includes (Detail calculation As Annexure-D); including a) Cost of Biodiversity Conservation and Management Plan b) Fishery conservation and management plan, c) solid waste management plan, d) public health delivery system, e) Energy conservation measures, f) Muck disposal plan, g) Landscaping and Restoration Plan of Quarry & Working Areas.	1. WII Cost : Rs. 10.98 Crores. 2. CAT Plan Cost : Rs. 42.51 Crores. 3. Cost of EMP: Rs. 186.86 Crores (Excluding NPV, R&R, Compensatory Afforestation including NPV & Royalty and CAT cost as those are considered separately here in Table B)	240.35
11	Cost of the project as per approved DPR		Cost as per Approved DPR is Rs. 25296.95 Crores (Annexure E Attached) . However it also includes the NPV therefore net cost shall be Approved cost - NPV = 25296.95 - 103.71 =	25193.24
Total Losses				25830.30

A. K. K.

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18-05-2020

COST - BENEFIT ANALYSIS
 Name of the Project: Etalin Hydro Electric Project (3097 MW)
 Source Guidelines : Handbook of Forest published in 2019
 Table C: Existing guidelines for estimating benefits of forest-diversion in CBA

S. No.	Parameters	Remarks	Applicability in Etalin	Amount (in Rs. Crores)
1	Increase in productivity attribute to the specific project.	To be quantified & expressed in monetary terms avoiding double counting.	1. Free Power @ 12% to State Govt. (from Commercial Operation Date (COD) equivalent to 1540.27 MU per year. (As per Annexure-F). 2. Free Power @ 1% of the deliverable energy @ 128.36 MU per year, of the project earmarked for Local Area Development Fund earned at providing regular stream of revenue for income generation & welfare schemes, creation of additional infrastructure for the PAFs. (As per Annexure-F). 3. Energy corresponding to 100 units of electricity to be provided free of cost every month to every project affected family for a period of ten years from the date of commissioning which is equivalent to Rs. 1.47 Crores. (Refer 8.14.5 at Page 13 of R&R Plan). 4. Power injection in grid 111366.99 MU per year for 35 years @ LT of 4.32 Rs./unit (Annexure -F) 5. estimated life of 35 years as per regulatory commission regulations. 6. LEVELISED UNIT RATE OF ELECTRICITY AFTER DISCOUNTING :- Rs. 4.32/Unit (Annexure-E)	194076.04
2	Benefits to economy due to the specific project.	As per the Detailed project report	Such benefits of intangible nature cannot be quantified. It is estimated that project shall employ 3000 labours along with 800 technical persons, during construction phase of 7.5 years of the project. The total population directly and indirectly benefited would be 11000 persons (Refer Table 4.1 of EMP). During operation phase, it is estimated that 300 persons would be employed (Refer 8.2.3 of EMP). Apart from this, and as per R&R plan, project will be directly benefiting a project affected population of 284 families of local tribes comprising of 1197 individuals in terms of increased healthcare, employment opportunities, better Infrastructure, water supply, electricity supply, sanitation education and skill development leading to much better living standards than presently. However As per approved R&R Plan Total R&R package (Refer Page 27 of R&R Plan) includes: a) Rehabilitation grant of Rs. 91.58 Crores b) Infrastructure in Re-settlement area Rs. 15.00 Crores. c) Economic Development Package which includes providing healthcare facilities, Scholarships, Marriage Support, telecommunication, education and skill development etc. : package cost Rs. 64.31 Crores. d) Special Grant for PAF's Rs. 95 Lakhs. e) Monitoring and Evaluation: Rs. 2 Crores	67.26
3	No. of population benefited due to specific project			

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415

4	Economic benefits due to of direct and indirect employment due to the project.	As per the Detailed project report.	It is estimated that project shall have Direct Employment of 3000 persons, including 800 technical persons, during construction and 300 persons during operation (Refer 4.2 of Chapter 4 of EMP). Therefore as an estimate presented as Annexure G, the economic benefits due to direct Employment due to the Project are estimated as 1098 Crores for project life of 35 years. Since the employed persons shall mostly depend upon Local Markets and Shops to meet their daily requirements, Indirect Benefit shall be huge but can not be quantified at this stage.	1098
5	Economic benefits due to Compensatory afforestation.	Benefits from such Compensatory Afforestation accruing over next 50 years monetized and discounted to the present value should be included as benefits of Compensatory Afforestation. *For benefits of CA the guideline of the Ministry for NPV estimation may be consulted		
			Total Benefits	195241.30

Therefore Cost Benefit Ratio of Etalin HEP as per Forest Guidelines

7.56

