



	<p>ii. Forest area involved</p> <p>iii. Legal Status/Sy. No.</p> <p>iv. Map</p>	<p>1551.60 ha</p> <p>Forest land required for submerged are of Tipaimukh HEP fall under Tuivai Riverine Reserve Forest (RRF), Tuiruang RRF and Inner Line Reserve Forest (ILRF). Map has been submitted (p-134/c). However, no legends have been indicated on the map and the area of forest land falling in Manipur and Mizoram has not been indicated separately. Boundary of the two States is also not clear.</p> <p>SOI toposheet enclosed at 134-135/c. DGPS map - not enclosed. 10 Km Radius Map – Not enclosed.</p>
5.	<p>(i) Vegetation</p> <p>(ii) No. of trees which will be affected</p> <p>(iii) Density</p>	<p>Mostly open and degraded forest with canopy density of 0.3 to 0.5.</p> <p>A total of 14,634 trees including 11,306 trees below 60 cm girth has been stated to be affected. It has further been stated that about 40.4 lakh of Bamboo culms are also falling in the bamboo area of 1063.4 ha of bamboo forest involved in the proposal. However, enumeration of trees between FRL &amp; FRL-2 and FRL-2 &amp; FRL-4 has not been indicated.</p> <p>0.3-0.5</p>
6.	Brief note on vulnerability of the forest area to erosion	Area is Not vulnerable to erosion.
7.	Approximate distance of proposed site for diversion from boundary of forest.	The proposed site for diversion is well within different RRF and ILRF.
8.	Whether forest land to be diverted form part of National Park, wildlife sanctuary, biosphere reserve, tiger reserve, elephant corridor, etc. (If so the details of the area and comments of the Chief Wildlife Warden to be annexed.	It does not form part of any National Park, Sanctuary or Biosphere reserve, Tiger reserve, Elephant corridor, etc.
9.	Whether any rare/endangered / unique species of flora and fauna found in the area. If so details thereof with NOC from competent authority, if required.	Not found in the area
10.	Whether any protected archaeological / heritage site / defence establishment or any other important monument is	No

	located in the area if so the details there of with NOC from the competent authority, if required.	
11.	Whether requirement of forest land is unavoidable and bare minimum.	Yes
12.	Whether any violation of the Act has been carried out.	No
13.	Compensatory Afforestation scheme	Compensatory afforestation has been proposed over degraded forest land in 17 patches with total area of 1551.6 ha, the smallest being 15.53 ha and the largest being 344.05 ha. A total of 1648.94ha of degraded forest land has stated to have been transferred and mutated, in favour of the user agency. The map showing the patches, has been submitted which is not on Survey of India toposheet. The cost of the afforestation scheme has been estimated to be 793.54 lakhs.
14.	Rehabilitation of Oustees a) No of families involved b) No. of Scheduled Caste/ Scheduled Tribe families c) Details of rehabilitation plan	Nil
15.	Employment likely to be generated	A total of 1840 persons are likely to be employed by the user agency and major contractors. This includes 310 persons in executive class.
16.	Cost Benefit Ratio	1:2.5
17.	Recommendation i. DFO ii. CF iii. Nodal Officer iv. State Government	All have recommended the proposal
18.	Division/District profile	
	Total Geographical area	3575 Sq km
	Total forest area of District Divisional forest area	1538 sq km
	Total area diverted since 1980	10 ha one case
	Total CA stipulated since 1980	Nil on forest land and 10 ha on non-forest land.
	Total CA achieved up to 31.12.2010	Nil on forest land and 10 ha on non-forest land.

#### Other remarks

5. The State Government has recommended the proposal without any specific condition.
6. Digital map (Differential GPS) showing Geo-referenced boundary in shape file of the forest land proposed for diversion duly authenticated by the competent authority in the State Government.
7. Documentary evidences in support of settlements of rights under the provisions of the Scheduled Tribe and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

## Site Inspection Report by Regional Office, Shillong

Site Inspection was carried out by Dr. Anil Kumar, Additional PCCF(C) Shillong.

### 1. Legal status of the forest land proposed for diversion:

Reserve Forest.

### 2. Item wise breakup of details of the forestland proposed for diversion

Sl No	Purpose	Area (Ha)		
		Forest	Non Forest	Total
1.	Submergence Area	1489	111	1600
2.	Dam including colony and approach	50	0	50
3.	Land for diversion of NH150(Mizoram portion)	12.6	1.8	14.4
	Total	1551.6	112.8	1664.4

### 3. Whether the proposal involves any construction of buildings (including residential) or not. If yes details thereof.

Yes. 50 ha of forest land is involved in construction of residential buildings.

### 4. Total cost of the project at present rates

Total cost of the project as per estimates of NHPC is Rs. 8138.79 crores.

### 5. Wildlife:

#### Whether forest area proposed for diversion is important from wildlife point of view or not

The comments of Chief Wildlife Warden on wildlife related issues not included in the proposal.

### 6. Vegetation

The vegetation is mostly open and degraded due to jhum cultivation. Canopy density varying from 0.3 to 0.5

### Effect of removal of trees on the general eco-system in the area

Because of Jhuming history in the area the effect of removal of trees on the general eco-system may not have adverse impact.

### Important species

The local names and botanical names of the trees affected is given in the enumeration list.

**Number of trees to be felled of girth below 60 CM - 11,306 trees**

**Number of trees to be felled of girth above 60 CM - 3,328 trees**

### 7. Background Note on the proposal

The Tipaimukh H.E. (Multipurpose) project with the installed capacity of 6x250 MW is located about 500 m D/S of the confluence of river Tuivai with Barak near Manipur and Mizoram border by constructing a rock fill dam and a reservoir mostly along

upstream of the river and the dam. The total land which will be submerged on the left bank i.e. Mizoram side is (FOREST LAND 1489.00 + Non-forest land 111.00)= 1600 ha. Dam including colony will require 50 ha of forest land and for diversion of NH-150, 12.60 ha forest land and 1.80 ha non-forest land will be affected.

Though the proposal of the project which falls under the State of Manipur has not been initiated as yet, however as per the information provided by NHPC, submergence area i.e 27550.00 ha will be affected on the right bank i.e. on Manipur where forest land is 21952.64 ha and non-forest land is 5597.36 ha . The dam and colony will require 759.46 ha of forest land and 260.44 non-forest land.

The Dam construction will start simultaneously from both the left bank and the right bank. The project also provides power sharing to Manipur(staggered Free power 5% for fir 5 years, 10% for the next 10 years and 15% for the next 20 years. For Mizoram 1% free power throughout the life of the project.

**8. Compensatory Afforestation:**

**Whether land for compensatory afforestation is suitable from plantation and management point of view or not**

Suitability certificate provided by Darlawn Forest Division, Mizoram

**Whether land for compensatory afforestation is free from encroachments/other encumbrances :** Yes.

**Whether land for compensatory afforestation is important from Religions/Archaeological point of view.:** No

**Map Details**

Not yet prepared by State Government

**Total financial outlay**

CS Scheme for only five years is submitted involving outlay of Rs.793.54 lakhs

**9. Whether proposals involves violation of Forest (Conservation)Act, 1980 or not. If Yes, a detailed report on violation including g action taken against the concerned officials.**

No violation reported.

**10. Whether proposal involves rehabilitation of displaced persons. If yes, whether rehabilitation plan has been prepared by the State Government or not.**

As per the user agency, there are 14 villages and 340 people, which will be affected by the project. This needs to be examined by the State Government.

**11. Reclamation Plan**

To be submitted by State Government.

**12. Details of catchment and command area under the project. Catchment area treatment plan to prevent siltation of reservoir.**

Yet to be provided by NHPC/Project proponent.

- 13. Cost benefit ratio**  
Submitted by user agency
- 14. Recommendation of the Principal Chief Conservator of Forest/State Government**  
PCCF has recommended the proposal.
- 15. Utility of the project**  
**Number of Scheduled Casts/Scheduled Tribes to be benefitted by the project**  
Nothing specific has been mentioned by project proponent.
- 16. (a) whether land being diverted has any socio-cultural/religious value. Whether any sacred grove or very old growth trees/forest exists in the area proposed for diversion.**  
**(b) Whether land under diversion forms part of any unique eco-system**  
For (a) and (b) this does not arise.
- 17. Situation w.r.t. any P.A.**  
As per DFO, Darlawn, Pualreng Wildlife Sanctuary is 9.6 km from Tipaimukh HEP. The State Government requires to take up the matter with NBW
- 18 Any other information relating to the project**
- (a) The GPS Coordinates of the Reservoir Submergence, Dam including Colony & approach and the Forest land for diversion of NH-150 is required to be provided by the NHPC.
  - (b) A detailed breakup of the infrastructure and Residential Buildings for construction in the 50 ha of Forest land.
  - (c) The number of Scheduled Casts and Scheduled Tribes family affected by this project as stated during the presentation is to be provided.
  - (d) The numbers of trees affected in the Submergence area, Dam and Colony and diversion of NH-150 is to be provided separately
  - (e) The C.A. scheme is to be revised for a period of 7 to 10 years as per the Ministry's circular
  - (f) The muck dumping site for the Dam, Colony and road construction along with GPS coordinates is to be provided by the User Agency.
  - (g) The applicability of the Forest Right 2006 is to be furnished by the Forest Department.
  - (h) The nearest distance of the Protected Areas from the Project site is to be shown in the Map.
  - (i) Diagrammatic cross section of the proposed road is required to be provided by NHPC.
  - (j) The C.A. Area of 1551.60 ha is to be shown in a map along with the GPS coordinates.
  - (k) The Proposals of 1551.60 ha forest land in Mizoram is in addition to this project which in Manipur requiring an area of 22777.50 ha of forest land and 7362.30 ha

of Non-forest land. The construction of the Dam will have to be simultaneously begin from both the right and left banks of Mizoram. However the proposal for the portion of the project which falls under Manipur is yet to be initiated by the NHPC. This multi-purpose HEP Project have to be implemented in totality in both the area of Manipur and Mizoram. Partial implementation of this project in Mizoram portion will not be viable and the Dam cannot be constructed till the proposal in Manipur is to be initiated and submitted to the Ministry for clearance.

This multi-purpose project is located in Mizoram and Manipur portion. In Mizoram portion there is no opposition from the local Tribal people in implementation of this project. However there is a serious opposition from the Tribal people residing in the affected proposed area of 30139.80 ha under Manipur, where representation from Women Development Association, Manipur and Social Advancement and Research Centre, Manipur has been sent to the Ministry, New Delhi. In reply to the NGOs representation the Ministry vide its letter No. 11-128/2012-FC dated 4<sup>th</sup> June, 2012 has requested the State Government to furnish necessary comments (Annexure-B)

- (l) The Ministry may examine this project in totality so that it give no scope for any individual or NGOs from Manipur to file a PIL in the High Court.
- (m) The Document provided during the presentation on 7.1.2013 by Forest Department(Annexure-C) shows that a area of 1648.94 ha has been transferred and mutated to the Forest Department. Whereas the certificate of the Divisional Forest Officer, Darlawn certified an area of 1551.60 ha, this difference of area may be examined by the Forest Department.

**19. Regional Chief Conservator of Forests shall give detailed comments on whether there are any alternatives routes/alignment for locating the project on the Non-forest land**

The NHPC in the Form A Part I Sl. No.4 has given the justification for locating the project in a Forest Area. Three alternatives sites were studied and the reasons for abandoned are as follows:

- (1) 1<sup>st</sup> site selected at Mainadhar for an earthen Dam and abandoned in 1964 due to unfavorable geological conditions.
- (2) 2<sup>nd</sup> site at Naraindhar found not attractive because of submergence of large area of cultivable land in Manipur and partial floor control in D/S.
- (3) 3<sup>rd</sup> site Bhuvandhar rejected due to soft friable and clayey foundation and submergence of large area of cultivable land and villages in Manipur.

During the site inspection it is seen that there are no other alternative sites for locating the project which is Mizoram portion on the Non-Forest land.

**20. Recommendations of Regional Chief Conservator of Forest along with detailed reasons .**

During the site inspection only the Dam axis along the river could be inspected. The NHPC officials and the Forest Department Officials, Govt. of Mizoram could not locate the area of submergence and the proposed area for road construction, the site inspection could not be taken up. (It may be mentioned here that the present D.F.O, Darlawn has not initiated this proposal but has joined the Division recently) As mentioned at Sl.No.18, this proposal is incomplete and requires additional

information to be provided by both the NHPC and Forest Department. Therefore it is not possible now to recommend this proposal to the Ministry.

The State Government vide letter 4<sup>th</sup> June, 2013 has submitted reply to the points raised at Sl. No.18 from (a) to (i). However the Regional Office vide their letter dated 14<sup>th</sup> June, 2013 has once again requested for GPS coordinates of submerged area, muck disposal plan and approval from NBWL.

The Manipur part of the Tipaimukh HEP has been discussed by FAC in its last meeting held on 11<sup>th</sup> & 12<sup>th</sup> July 2013. Manipur part involves major part of the Forest land (22,777.50 ha) proposed for diversion for the project. The FAC could not formally decide on the Mizoram part of the project as the same was not part of the agenda. The Manipur part of the project has not been recommended for diversion of forest land by the FAC. The Mizoram part of the project is now being submitted to the FAC for consideration.

In view of the above facts, proposal may be submitted for the consideration of the FAC in its meeting.

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