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No.8-85/2011-FC/849

Dated 31/05/2013

To

The Additional Director General of Forests,  
Government of India,  
Ministry of Environment & Forests (FC Division),  
Paryavaran Bhawan, CGO Complex, Lodhi Road,  
New Delhi-110510.

Proposal for diversion of 5056.50 ha of forests land in favour of M/s NHPC for Construction of Dibang Multipurpose Project(3000 M) on Dibang River in Lower Dibang Valley & Dibang Valley District of Arunachal Pradesh-reg.

Ref: Ministry's letter No.8-85/2011-FC/3507-09 Dtd.12/04/2013.


With reference to the subject and letter cited above, I am to inform you that site inspection was carried out by the Regional Office on 16<sup>th</sup> & 17<sup>th</sup> February, 2013. The site visit was incomplete as the Forest Department could not show the location of the sample plot enumeration of the proposed forest area. The Forest Department could not locate the G.P.S Co-ordinate of the Compensatory Afforestation site and proposed area for diversion in the filed. The State Government was requested to submit the required information vide this office letter No.8-5/2011-FC/3410 Dated 26/02/2013 letter No.8-85/2011-FC/3532-33 Dated 19/03/2013 and letter No. 8-85/2011-FC/117-20 Dated 05/04/2013. A second site inspection was carried out from 25<sup>th</sup> to 28<sup>th</sup> April, 2013. The Chief Conservator of Forest ( Central) has submitted the detailed report on his site visit along with the photographs taken at the various location and sites of the proposed area and the proposed compensatory afforestation site.

From the report of the Chief Conservator of Forest (Central) the Forest Department on date of his second site inspection have not made ready the sample plot of the enumerated trees in the ~~area~~ proposed area. It may be mentioned that with the coming monsoon season and the heavy rains it will not be possible for this office to visit the site again for the sample checking of the enumerated trees.

I agree with the site inspection report submitted by the Chief Conservator of Forest (Central). The Ministry may informed the State Government to take necessary action on the several observations made by the Regional Office and to submit a report to the Ministry at the earliest.

Enclosure: As stated above.

Yours faithfully,

  
(Dr. Anil Kumar) S  
Additional Principal Chief Conservator of Forests (C)

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Dir (BKS)  
AP  
Mou. Dir. P. C. U. 10/06/13  
(GAC) Sub: 29.02/13  
1654/1006/13  
576  
1054/1167/13  
10/11/13  
549-85/BKS/R  
11/6/13  
Lor. com  
11.6.13  
Dr. CBS

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Site inspection reports by Regional Office, MoEF, Shillong

**Background note on the proposal:**

The matter related to the observations of the Site inspection of Forest Diversion 5056.50 ha of forest land for construction of Dibang Multipurpose Project (3000 MW) on Dibang River was communicated to the Ministry vide letter No. 8-85/2011-FC/1430 Dated 1/08/2012 (copy enclosed as Annexure A). The State Government was requested by this Office letter No. 8-85/2011-FC/2996-99 Dated 13/12/12 (copy enclosed as Annexure B) to provide the necessary information. A site inspection was fixed on 28/1/2013 but due to non-availability of the Forest Officer Government of Arunachal Pradesh this was postponed for which the Principal Secretary Environment & Forests Department was informed vide this office letter No. 8-85/2011-FC/3460-01 Dated 21/01/13.

The 1<sup>st</sup> Site Inspection was carried out on the 16<sup>th</sup> & 17<sup>th</sup> February 2013 by Shri B.S.Kharmawphlang CCF(C) and Shri Thoudam James Singh R.A of the Regional Office along with the officers and staff of the Forest Department Roing Forest Division viz Shri M.Riba Divisional Forest Officer and the N.H.P.C officials viz Shri. Raj Mal, Chief Engineer, Shri Santosh Kumar Environmental Officer. A visit was carried out on the right bank of the river Dibang on all proposed forest area for diversion and the dam axis. The next day the compensatory afforestation site at Bismaknagar having an area of 500 ha was visited. The details of the number of trees to be affected could not be shown in sample plot, proposed forest area for diversion could not be identified properly on the ground, the site of the compensatory afforestation also could not be located in the ground though it is depicted in the map duly authenticated by the Divisional Forest Officer. The site inspection was incomplete and the observation made on these two days were sent to the Principal Secretary cum PCCF, Government of Arunachal Pradesh vide letter dtd 25<sup>th</sup> Feb, 2013 a copy was also marked to Additional Director General of Forest (FC) Division copy enclosed as Annexure-C.

State Government was again requested to submit the required information for conducting the site inspection vide this office letter No.8-5/2011-FC/3410 Dated 26/02/2013 letter No.8-85/2011-FC/3532-33 Dated 19/03/2013 and letter No. 8-85/2011-FC/117-20 Dated 05/04/2013 (copies enclosed as Annexure D).

The 2<sup>nd</sup> Site inspection was carried out on 25/04/2013 to 28/04/2013, the Divisional Forest Officer, Roing Forest Division informed that the sample enumeration of the trees to be affected by the project could not be carried out as on the date of the site inspection. The proposed Compensatory Afforestation site located at Namsai and Dibang Forest Division was inspected. The site located under Anini Forest Division was not inspected as the matter was subjudice in the High Court (Copy of the Court Order Enclosed) as Annexure E.

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

*The legal status of the proposed diversion of forest land 5056.50 ha for construction of 3000MW Multiple Purpose Project H.E.P over Dibang River is Unclassed State Forest and Community Forest Land. In such Unclassed and Community Forest lands no cadastral survey or any kind of survey have been carried out by the State Government of Arunachal Pradesh till date.*

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2. Item wise break-up details of the forest land proposed for diversion.

S. No.	Name of project Component	Forest land falling Under Dibang Forest Division, Roing	Forestland falling Under Anini S.F Forest Division, Anini	Non-Forest Land (ha)	Land under Wet rice cultivation (ha)	Total (ha)	Area falling under 10 km radius of Mehao Wildlife Sanctuary
		(ha)	(ha)				
1	Submergence Area						
(i)	Dibang River	Left Bank 144.23	803.1				
		Right Bank 119.55	541.4				
(ii)	Ari Pani	Left Bank 52					
		Right Bank 50					
(iii)	Ilu Pani	Left Bank 81					
		Right Bank 102					
(iv)	Ithun River	Left Bank 48	120				
		Right Bank 43	135				
(v)	Ithli River	Left Bank 19					
		Right Bank 21					
(vi)	Emra River	Left Bank					
			7				
(vii)	Alu River	Right Bank	5				
		Left Bank	86				
(viii)	Imu River	Right Bank	49				
		Left Bank	77				
(ix)	Ahi River	Right Bank	62				
		Left Bank	90				
		Right Bank	107				
	<b>Sub Total(i)</b>	<b>679.78</b>	<b>2082.5</b>				
(x)	River Bed area	453.42	723.3				
2	River Bed area	61.27					
3	Area for Dam ,DT, HRT, Pressure	88		38.73		100	0
				12.06		100.0	0
4	Area for muck disposal ,batch plant	20				6	0
5	Area for NHJC, Contractor camp & Office			19		20	0
						19	2,284
6	Area for permanent magazine opposite to Pathar camp & Office			60.25		60.25	10,279
7	Area for DT outlet & TRT outlet on right Bank			2.5		2.5	2.5
8	Area for muck disposal, fabrication yard and & aggregate processing plant on right Bank near pathar camp			13.3		13.3	0
				40		40	40
9	Epali Clay Quarry						
10	Colony Area			4.52		4.52	0
11	Land for rehabilitation purpose			100		100	0
				137.02		137.0	0
12	Road land	124	53			2	
13	Area for towers for 66 KV line from Chimari to Project site and Substation at Chimari(5 towers/km with 9 sq.m are for each tower & 250 sq.m for substation)	0.23	53			177	0
						0.23	0

	Name of Project Component	USF		Non-Forest Land(ha)	Land under wet rice cultivation (ha)	Total (ha)	Area falling under 10 km radius of Mehao Wildlife Sanctuary (ha)
		Forest land falling under Dibang Forest Division,Roing	Forest land falling under Anini S.F Forest Division,Roing				
		(ha)	(ha)				
14	Area for Right of way for 66 KV line from Chimari to project Site(45 km long and 18 m wide)	81				81	0
15	Eme River/Diri Korong Deposit	167				167	0
16	Nizamghat-Sirkj						
17	Aya Korong/Aka Korong fan deposit			108		108	0
18	Rest Area for project	150				373	33.658 (Muck Disposal area 7.379 and Boulder collection Area for aggregate production-26.279)
	<b>Total</b>	<b>2197.7</b>	<b>2858.8</b>	<b>165.92</b>	<b>70</b>	<b>315.92</b>	<b>81.942</b>
							<b>170.56</b>

Forest land as per forest proposal(=2197.7+28258.8)

Private Land under wet rice cultivation(ha)

Non-Forest land(ha)

**Total Area Required for project:**

Area within 10 Km radius of Mehao Wildlife Sanctuary

Total Area:

5056.5 ha  
70 ha  
701.3 ha  
**5827.8 ha**  
**170.56 ha**  
**5657.24 ha**

The State Government vide letter No.FOR.10-44/Cons/2003/1918-22 Dated 16/04/2012 informed that out of the total 170.56 ha ,33.65 ha is the forest land and remaining 136.902 ha is Non-forests land. The revised Forest area required for the project is (5056.50 ha -33.65 ha )i.e.5022.842 ha.

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

**Details of Project Colony Development for Dibang Multipurpose Project (3000 MW),NHPC.**

**Proposed Land Requirement for project Colony Development**

1. At Roing (near Chimri) - 51.38 ha
2. At Project Site (Pathar Camp) -47.0 ha

Total Area =51.38 +47.0=98.38 ha

- (a)  
(i) Proposed Residential Buildings in the Complex:  
At Roing (near village Chimri)

Sl. No	Description	No.		Plinth Are as per norms(Sq.km)	Total Area		No of Blocks(for permanent Qtrs)	Type (for permanent Qtrs)	
		Permanent	Temporary		Permanent	Temporary			
1	Ex. Director /General Manager (Type-VI(S)	1		225	225		1	Single Storey	
2	C.E(C) Chiefs (Type Vi)	2	2	190	380	380	4	Single Storey	
3	Sr. Managers/Managers CISF Commander(Type-V)	8	4	140	1120	560	3	Double Storey	
4	Deputy Manager/asstt. Manager/Asst Commandant (Type -IV)	16	8	100	1600	800	3	Triple Storey	
5	Engineers /BO/AO/PO/ RO/Mo/ARO/AAO/ AE (Type-III)	30	24	80	2400	1920	5	Triple Storey	
6	Sr. Acctt/JF/Sr. Sup/Sr. D. Man etc.(Type-II)	36	18	70	2520	1260	6	Triple Storey	
7	AG-II/AG-III/D. Man/Para medical etc(Type-I (A)	6	6	50	300	300	1	Triple Storey	
8	Foreman /Mechanic/Mason/ Pump operator/S. Guard/ Driver/Attdt etc	36	18	40	1440	720	6	Triple Storey	
9	Filed Hostel for executives And non-executives	100	75	30	3000	2250	2	Triple Storey	
10	CISF Staff-(Barrack)	30	20	25	750	500	1	Double Storey	
Total		265	175		13735	8690			
<b>TOTAL GRAND</b>					<b>22425 sq.km</b>				

(ii) At the Project Site (Pathar Camp)

Sl. No.	Description	No.		Plinth Are as per norms(Sq.km)	Total Area (Sq.km)		No of Blocks(for permanent Qtrs)	Type (For Permanent Qtrs)	
		Permanent	Temporary		Permanant	Tempora ry			
1	Ex. Director /General Manager (Type-VI(S)	6		100	600		0	Triple Storey	
2	Engineers /BO/AO/PO/ RO/Mo/ARO/AAO/ AE (Type-III)	18	6	80	1440	480	3	Triple Storey	
3	Sr. Acctt/JF/Sr. Sup/Sr. D. Man etc.(Type-II)	12	6	70	840	420	2	Triple Storey	
4	AG-II/AG-III/D. Man/Para medical etc(Type-I (A)		6	50		300	0	Triple Storey	
5	Foreman /Mechanic/Mason/ Pump operator/S. Guard/ Driver/Attdt etc		6	40		240	0	Triple Storey	
6	Filed Hostel for executives And non-executives	180	45	30	5400	1350	4	Triple Storey	
7	CISF Staff-(Barrack)	60	40	25	1500	1000	2	Single Storey	
<b>Grand Total</b>					1500	1000	2	Single Storey	
					<b>13570 sq.km</b>				

(b) Proposed Non-Residential Building  
(i) At Roing (near Chimri)

Sl No.	Description	No	Plinth Area Required	Total Area	Type	
1	Administrative Block office	1	2000	4000	Double Storey	Permanent
2	Hospital /Dispensary	1	500	1000	Double Storey	Permanent
3	V.I.P Guest House at Roing	1	1000	1000	Single Storey	Permanent
4	Guest House at Roing	1	500	1000	Double Storey Double Storey	Permanent
5	School	1	500	1000	Double Storey	Permanent
6	Officers Club & Auditorium	1	500	300	Single Storey	Permanent
7	Staff Club/Union Office	1	300	300	Single Storey	Permanent
8	Shopping Centre	1	500	500	Single Storey	Permanent
9	Bank	1	200	200	Single Storey	Permanent
10	Telephone Exchange	1	100	100	Single Storey	Permanent
11	Canteen	2	200	400	Single Storey	Permanent
12	Model Room	1	150	150	Single Storey	Permanent
13	Stores	1	1000	1000	Single Storey	Permanent
14	Sub station	1	500	500	Single Storey	Permanent
15	Fire Station	1	200	200	Single Storey	Permanent
16	Water Supply, Filter Plant and pump houses	1	300	300	Single Storey	Permanent
17	Workshop	1	400	400	Single Storey	Permanent
18	DG Building	1	250	250	Single Storey	Permanent
19	CISF Store/Office	1	1250	1250	Single Storey	Permanent
20	LPG Godown	1	200	200	Single Storey	Permanent
<b>Grand Total</b>				15750 sq.km		

## (ii) At the project (Pathar Camp)

Sl. No	Description	No	Plinth Area Required (Sq.km)	Total Area (Sq.km)	Type
1	Office	1	750	1500	
2	Hospital /Dispensary	1	200	200	
3	Staff Club/Union Office	1	125	250	
4	Shopping Centre	1	200	400	
5	School	1	500	500	
6	Telephone Exchange	1	50	50	
7	Indoor Games Hall	1	500	500	
8	Sub Station	1	500	500	
9	LPG Godown	1	200	200	
10	DG Building	1	250	250	
11	Quality Control Lab	1	100	600	
12	Fire station	1	200	200	
13	Water Supply Filter Plant and Pump Houses	1	200	200	
14	Officers Club & Auditorium	1	250	500	
15	Stores	1	1000	1000	
16	Hangar,Helipad Office,Helipad	1	100	100	
17	Explosive magazine	1	200	600	
18	CISF Store/Office	1	1225	2450	
19	Workshop	1	200	200	
	GRAND TOTAL		10200 sq.km		

Total Building area at Roing (Chimri)

38175 sq.km

Total Buildup area at Project Site (Pathar Camp)

23770 sq.km

GRAND TOTAL

61945 sq.km

*The buildup area for Building and construction Project for the Dibang HEP(3000 MW) is more than 20,000 sq.mtrs and it attracts Para 8 (a) of Environment Impact Assessment Notification 2006. Further the site for proposed Colony at Chimri is within 4 Km of the Mehao Wildlife Sanctuary and it attracts the Ministry's letter No.5-3/2007-FC (Pi) Dated 19/08/2010.*

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

*The Project is estimated to Cost of Rs.14530.48 crores at November 2005 price level excluding transmission portion. This includes RS.1269.89 crores as Hard Cost Rs.10780.36 crores for Civil Works and Rs.2189.53 crores for Electrical and Mechanical Works and Soft Cost as Rs.1560.59 crores as I.D.C and financing charges. The HEP Project is still in the process state for obtaining Environmental Clearance & Forest Clearance. As the Project Cost was estimated in 2005, the project cost will be inflated at the time of implementation in the future.*

5. Wildlife

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

The site inspection report of the DFO Dibang Forest Division and Anini SF Division has stated that the Forests area is not important from the Wildlife point of view as mentioned in the Sl.no.5 of the Respective Site Inspection Reports as Annexure F & G. The DFO Dibang has submitted details of list of Fauna which are found in the proposed diversion area for the Dibang Multipurpose Project. The DFO has specifically mentioned "The proposed forest land for Dibang Multipurpose Project is the major habitat of scheduled flora and Fauna. All the listed fauna & Flora were not sighted during the field survey. However, they have been enlisted herewith based on secondary data available." The list of the Fauna is enclosed as Annexure H.

The DFO Anini has submitted the list of Fauna where he has mentioned that the Forest area of the proposed Dibang Multipurpose Project is the major habitat of scheduled species and IUCN red data book recorded species (copy enclosed as Annexure I).

The Chief Conservator of Forests Eastern Arunachal Circle in his site inspection report Sl.No.7 he has mentioned that "There is neither Wildlife Sanctuary, National Park ,biosphere reserve, Corridor nor protected area in the vicinity of 15-20 kms. Despite non sighting of Wild animals, during inspection ,movement of animals including Schedule-I in view of wide range of subtropical semi evergreen rain forest towards Dibang Forest Division cannot be ruled out". (copy enclosed as Annexure J).

During the site visit on the right bank of the proposed Forest area for diversion including the dam axis the slopes of the right bank and the left bank of Dibang river have good forest cover (moderate Forest cover)with few patches of dense forests in pockets. Such area is a habitat of Wild mammal Fauna and Avi, snakes etc.

The Divisional Forest Officer of the Dibang Forest Division and Anini SF Division by mentioning that the proposed diverted area is not important from Wildlife in sl.no 5 of the inspection report contradicted themselves as they certified that important Wildlife Fauna area available as per the certified list. The presence of such Wild life Fauna has been supported by the Chief Conservator of Forests statement at Sl.No.7 of his site inspection report (copy enclosed as Annexure J).

From the proposal there is nothing ever mentioned that wildlife survey has been carried out before the finalization of this project. It is therefore suggested that a study on survey of Wild life species in this area may be taken up by the Wildlife Institute of India, Dehradun along with the Wildlife management plan. (i)

It is suggested that the length of reservoir i.e. 43km on both sides of the bank of the river Dibang from the FRL level upto a distance of 100 m distance may be declare as the wild life sanctuary to protect the Wildlife Schedule-I species as mentioned by Chief Conservator of Forests Eastern, Arunachal Circle at Sl. No. 7 of his inspection report.



### 6. Vegetation

Total number of trees to be felled 3,55,614 as per statement submitted by the State Government.

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

There will be a significant effect on removal of trees in the general ecosystem of the area. As the proposed diversion site is having a steep slope with patches of Jhum cultivated area, removal of the trees will affect the micro climate of the area and the Wildlife and Flora endemic in the proposed sub-mergence area. The trees and shrubs all along the sub-mergence area should be removed so that they will not be left sub-merged thereby causing decomposition and lead to the accumulation of the methane gas causing Green House effect. The construction of the dam itself may leads to the increase in the temperature in the sub-mergence area which may also effect the micro aqua habitat.

#### Important species

A few of the important species listed in the enumeration list and as observed during the site inspection are:  
 Hollock (*Terminilia myriocarpa*), Khokon (*Duabanga grandiflora*), Borpat (*Ailanthus grandis*), Siris (*Albizia lebbak*) Amari (*Ameera wallichii*), Sellang (*Sapium baccatum*), Moj (*Albizia lucida*), Pichola (*Kydia calycina*), Simul (*Bombax ceiba*), Jia Oporma, Makrisal (*Schima wallichii*), Hingori (*Castanopsis Indica*), Udal (*Sterculia villosa*), Gonsorai (*Cinnamomum*), Ghora Neem (*Melia (Azederach)*), Urium (*Bischofia Javanica*).

- (i) Number of trees to be felled of girth below 60 cm. As per the enumeration lists Annexure.

Sl.No.	Name of the site	Annexures	No of Trees enumerated
1	Dambuk Project Site Road	1 (a)	255
2	Road Site	1 (b)	346
3	FRL Site	1 (c)	537
4	Dam Site	1 (d)	1228
5	Power house	1 (e)	750
6	FRL 2	1 (f)	127
7	FRL 4	1 (g)	235
<b>Total</b>			<b>3478</b>

- (ii) The number of trees below 60 cms as per the Abstract statement submitted by DFO Dibang Forest Division

Sl.No.	Name of the site	No of Trees enumerated
1	Dambuk Project Site Road	287
2	Road Site	346
3	FRL Site	537
4	Dam Site	1578
5	Power house	750
6	FRL 2	127
7	FRL 4	235
<b>Total</b>		<b>3860</b>

From the above there is difference in the number of trees below 60 cms from the list of enumeration and abstract statement submitted by the Divisional Officer, Dibang

(i) Number of trees to be felled of girth above 60 cm. As per the enumeration lists Annexure

Sl.No.	Name of the site	Annexures	No of Trees enumerated
1	Dambuk Project Site Road	1 (a)	329
2	Road Site	1 (b)	4201
3	FRL Site	1 (c)	25047
4	Dam Site	1 (d)	16864
5	Power house	1 (e)	14434
6	FRL 2	1 (f)	345
7	FRL 4	1 (g)	940
<b>Total</b>			<b>61310</b>

(ii) The number of trees above 60 cms as per the Abstract statement submitted by DFO Dibang Forest Division

Sl.No.	Name of the site	No of Trees enumerated
1	Dambuk Project Site Road	297
2	Road Site	4201
3	FRL Site	25047
4	Dam Site	16514
5	Power house	14434
6	FRL 2	345
7	FRL 4	940
<b>Total</b>		<b>61778</b>

From the above there is difference in the number of trees above 60 cms from the list of enumeration and abstract statement submitted by the Divisional Officer, Dibang Forest Division.

(v) As per the statement submitted by the DFO, Anini Social Forestry Division the number of the trees of the proposed submergence area below 60 cm and above 60 cm are 55965 and 234011 respectively.

Therefore the grand total number of trees/poles as per the enumeration list is 3478+61,310+55,965+2,34011= 3,54,764. However the State Government in the forwarding letter No.FOR.10-44/Cons./2003/Vol-I/312-16 dated 18.08.2011 has stated a total of 3,55,614 numbers of trees/poles. The difference in the total numbers of the trees to be felled is to be re-examine again by the forest department.

From the enumeration list, the numbers of the trees indicates that the area is moderately dense forest. The area area of the river bed included in this proposal is 514.70 ha under Dibang Forest Division and 723.30 ha under Anini Forest Division. The total riverbed devoid of trees is 1138 ha as per Part-II of the proposal therefore the forest area which have trees is 3918.50 ha and the number of trees per ha is approximately 905 nos. Sampling check of tree to be affected could not be carried out as the Divisional Forest Officer have not laid out the sample plot nor could identify the area for sample checking on the first site inspection visit and the second site inspection visit.

## 7. Background note on the proposal.

The Dibang Multipurpose Project (MW) previously investigated by the Brahmaputra Board was transferred to the N.H.P.C by the Ministry of Water Resources (MoWR) during 20.12.2002 and was taken over by N.H.P.C on 24.12.2002 for establishment, operation and maintenance of the project.

Dibang Multipurpose Project (3000 MW) has been conceived on River Dibang which originates from snow covered southern flank of the Himalayas closed to Tibet border at an altitude of more than 5000 metres. The river emerges from the hills and enters the sloping plain area near Nizamghat in Arunachal Pradesh, from where the river flows a distance of 50 metres to meet the River Lohit. The total catchment area of the Dibang up to the confluence with Lohit River is 12015 sq km, which is almost entirely located in India.

The main project area is located in Lower Dibang Valley District with reservoir extending in Dibang Valley District of Arunachal Pradesh with negligible R & R problems and no submergence of archaeological/other installations.

The project envisages utilization of 233 m of net rated head by construction of a 288 m high concrete gravity dam above the deepest foundation level near Munli. An underground power house has been proposed on right bank located 250 m downstream of the dam axis. The water is led to head race tunnel through six intake structures. Six 9 m diameter horseshoe shaped concrete lined head race tunnels have been proposed. The water from turbine shall be discharged back to river through six 9 m diameter tail race tunnel.

The reservoir created behind Dam will provide flood moderation benefit in the downstream. The back water in the reservoir will travel up to a length of 43 km in Dibang river and its various tributaries - Airi Pani, Ilu Pani, Imu Pani, Ahi River, Ithu River, Emra River etc, which will facilitate promotion of navigation by connecting inaccessible upstream villages/area. The project headquarter is proposed to be at Project site near Pathar Camp on right Bank about 6 km downstream of the Dam Axis. The project is about 43 km from Roing. The nearest broad gauge railhead is at Tinsukia which is 110 km from Roing (head quarter of Lower Dibang Valley District) and the nearest airport is at Mohanbari (Dibrugarh), which is further 45 km from Tinsukia.

The salient features of the project are :

- The Project area is located in the Dibang River and the Dam site is 1.5 km upstream of confluence of Ashupani with Dibang.
- The co-ordinates of the project site is Latitude  $28^{\circ}20'7''$  NORTH and Longitude  $95^{\circ}46'38''$  EAST.
- The catchment area of the project is 11276 sq.km and the co-ordinates are Latitude  $28^{\circ}11'50''$  to  $29^{\circ}25'59''$  NORTH and Longitude  $95^{\circ}14'47''$  to  $96^{\circ}36'49''$  EAST.
- The average annual rainfall of the catchment area is 4405 mm with the maximum temperature of  $45^{\circ}\text{C}$  and minimum of  $2^{\circ}\text{C}$ .
- The maximum water level in the reservoir is 548 m. The full reservoir level is 545m. The total area under sub-mergence at the full reservoir level is 40.09 sq.km.
- The height of the dam above the deepest foundation level is 288m and the top elevation of the dam is 500m. The length of the dam at the top is 816.3m.

**8. Compensatory afforestation:**

The compensatory afforestation for the diversion 5056.50 ha forest lands is proposed to be taken up in the three Forest Divisions as mentioned below:

**1 (a). Compensatory afforestation proposed area under Dibang Forest Division**

Sl. No	Name of Forest Division	Name of R.F./USF	Comptt No/Plot No	Area proposed for raising compensatory afforestation (Ha)
1	Dibang Forest Division	Kerim R.F	8,9,10,11,12,13, 14,15,16,17,20& 21	1209.00
2	Dibang Forest Division	Deopani R.F	93,101,125 parts of	414.00
3	Dibang Forest Division	Deopani R.F	84,104,109,110, 116,117,124,133, 145 & 156	120.00
4	Dibang Forest Division	Koromu U.S.F	Plot No.1	100.00
5	Dibang Forest Division	Koromo U.S.F	Plot No.2	200.00
6	Dibang Forest Division	Koromu U.S.F	Plot No.3	200.00
7	Total			2243.00

(b). Whether land for compensatory afforestation is suitable for plantation and management point of view or not.

- (i) Deopani R.F: The Divisional Forest Officer, Dibang Forest Division on the date of site inspection could show this forest area, however the area is occupied by encroachers and there is biotic pressure from the cattle of the encroachers. On visiting part of the area it is observed that there are good growth of *Bombax ceiba* in the areas of 414.00 ha and 120.00 ha. The proposed area near the river bank is prone to flood and is not suitable. Though the co-ordinates were provided but the forest officials could locate only few in the field. As the area is covered by moderately dense growth of *Bombax ceiba* the blank area for the compensatory afforestation is less than 400 ha and 120 ha the forest department needs to resurvey the area excluding the moderately dense forest patch and the areas prone to flood and are required to locate the degraded forest area of 400 ha and 120 ha and to be depicted in a map excluding the moderately dense growth of *Bombax ceiba* plantation.
- (ii) Kerim R.F: The Divisional Forest Officer could show the Kerim R.F from the banks of Deopani river and explained that the site proposed for raising compensatory afforestation is not approachable. This cannot be accepted as it may not be possible for the forest staff to actually take up the plantation works and its maintenance, further it will be not possible for the officers of the Regional Office MoEF to monitor the implementation of the Compensatory Scheme over 1209 ha when the area is not approachable.

(iii). **Koronu U.S.F:**

*On the day of the second site inspection it was observed that the G.P.S Co-ordinates of point near the road construction across the proposed site do not match with that depicted in the map. Further there still exist labour camps of the Border Road Organisation and the area of 500 ha do contain moderately dense forest patches. Besides this it also includes eroded flood areas along the river Dilu which is not suitable for raising afforestation. As an inspecting officer I do not recommend this site for compensatory afforestation.*

- (c). Whether land for compensatory afforestation is free from encroachments/other encumbrances.

*The forest area under Deopani is not free from encroachment, though has been proposed for the compensatory afforestation .*

- (d). Whether land for compensatory afforestation is important from Religious/ Archaeological point of view.

*The area is not important from religious / archaeological point of view.*

- (e). Land Identified for compensatory afforestation is in how many patches, whether patches are compact or not.

*The forest land under Deopani R.F is in two patches 400 ha and 120 ha and is spread out in thirteen different compartment. The forest officials could not identify the compartment number during the site inspection.*

*The forest land under Kerim R.F is in one patches of 1209 ha and is spread out in twelve different compartment. This site could not be inspected as it is not approachable.*

- (f). Map with details.

*Maps submitted along with the proposal but does not show the G.P.S coordinates however subsequently the co-ordinates are provided by the officials of NHPC on the day of site inspection.*

- (g). Total financial outlay.

*The financial compensatory afforestation outlay under Dibang Forest Division as per documents submitted along with the proposal is Rs 32,61,85,950.00.00*

**II(a). Compensatory afforestation proposed area under Namsai Forest Division**

Sl.No	Name of Forest Division	Name of R.F/USF	Comptt No/Plot No	Area proposed for raising compensatory afforestation (Ha)
1	Namsai Forest Division	Kamlang R.F	53,54 & 55	500.00
2	Namsai Forest Division	Lai R.F	4,5,6,7,8,&12	500.00
3	Namsai Forest Division	Lohit R.F	30,31,32,33,34,35,36,37&38	1000.00
	Total			2000.00

(b). Whether land for compensatory afforestation is suitable from plantation and management point of view or not.

(i). Lohit R.F: The Assistant Conservator of Forest, Namsai Forest Division along with the Range Forest Officer Namsai, on the date of site inspection could show this forest area, however the area is occupied by encroachers and there is biotic pressure from the cattle of the encroachers. On visiting part of the area it is observed that the is under cultivation by the encroachers and as such the area proposed is not free from encroachment and therefore not suitable for raising compensatory afforestation. The area occupied by the encroachers is surrounded moderately dense forest. The GPS Coordinates also does not match the map of the compensatory site depicted in the map. It was also informed by the Assistant Conservator of Forest in the site that 99.00 ha of plantation has been created during 2012-2013 in the same area proposed for compensatory afforestation. Therefore as an inspecting officer I do not recommend this site.

(ii). Kamlang R.F: The Assistant Conservator of Forests and the Range Forest Officer Namsai showed the site for raising compensatory afforestation. It was observed in the field that this site identified for raising compensatory afforestation have a profuse growth of Dalbergia sisso and the area have a moderately dense forest cover wherever the natural growth of Dalbergia sisso exist. As observed in the field and as an inspecting officer I do not recommend this site for the compensatory afforestation. The blank area do spread out in the area and it is very less than 500.00 ha. The Forest Department should therefore now identified new degraded forest area for raising compensatory plantation.

(iii). Lai R.F: The Assistant Conservator of Forests and the Range Forest Officer Namsai informed on the date of site inspection that the area is very far and is not approachable. On seeing the area of the two Reserved Forest identified for raising compensatory afforestation there is every possibility that the same observations may perhaps be aslo for this site. As I could not reach the site as an inspecting officer I do not recommend this site.

(c). Whether land for compensatory afforestation is free from encroachments/other encumbrances.

The forest area under Lohit R.F is not free from encroachment, the area proposed for the compensatory afforestation at present as on date of site inspection are occupied by the encroachers. In Kamlang R.F it was observed there is no encroachment. The situation in Lai R.F cannot be ascertain as the area has not been inspected.

(d). Whether land for compensatory afforestation is important from Religious/ Archaeological point of view.

The area is not important from religious / archaeological point of view

(e). Land Identified for compensatory afforestation is in how many patches, whether patches are compact or not.

The forest land under Lohit R.F is in one patches of 1000 ha and is spread out in nine different compartment.

The forest land under Kamlang R.F is in one patches of 500 ha and is spread out in three different compartment.

The forest land under Lai R.F is in one patches of 500 ha and is spread out in six different compartment. This area could not be inspected.

(f). Map with details.

Maps submitted along with the proposal but does not show the G.P.S co ordinates however subsequently the co-ordinates are provided by the officials of NHPC on the day of site inspection.

(g). Total financial outlay.

The financial compensatory afforestation outlay under Namsai Forest Division as per documents submitted along with the proposal is Rs 28,82,84,350.00.

**III(a). Compensatory afforestation proposed area under Anini Social Forestry Division**

Sl. No	Name of Forest Division	Name of R.F./USF	Comptt No/Plot No	Area proposed for raising compensatory afforestation(Ha)
1	Anini Social Forestry Division	Echanli V. R.F	Plot No.1	898.87
2	Anini Social Forestry Division	Echanli V. R.F	Plot No. 2	493.76
3	Anini Social Forestry Division	Echanli V.R.F	Plot No.3	561.93
4	Anini Social Forestry Division	Echanli V.R.F	Plot No.4	560.50
5	Anini Social Forestry Division	Echanli V.R.F	Plot No.5	534.00
6	Anini Social Forestry Division	Echanli V.R.F	Plot No.6	638.00
7	Anini Social Forestry Division	Echanli V.R.F	Plot No.7	712.94
8	Anini Social Forestry Division	Biyarli V.R.F	Plot No.A	470.70
9	Anini Social Forestry Division	Biyarli V.R.F	Plot No.B	543.30
10	Anini Social Forestry Division	Biyarli V.R.F	Plot No.C	456.00
Total				5870

The proposed compensatory afforestation under Anini Social Forestry Division was not inspected as these area mentioned above is pending in Guwahati High Court in the matter of W.P(C) NO.177(A.P)/2011 Ngasi Mena petitioner Versus State of A.P Ors respondent (Copy of affidavit provided by the officials of N.H.P.C is enclosed as Annexure J). The Ministry of Environment & Forest , Government of India is not a respondent since the proposal for the diversion of forest land is yet to be consider for approval. As an inspecting officer I do not recommend these site as it attracts Para 2.1(vi) of the Forest Conservation Act 1980 Clarifications and Guidelines. The Forest Department should now identify another site for raising compensatory afforestation.

- Whether proposal involves violation of Forest (Conservation) Act, 1980 or not. If yes, a detailed report on violation including action taken against the concerned officials. **There is no such report from the State Government and no violation observed during the site inspection**
- Whether proposal involves rehabilitation of displaced persons. If yes, whether rehabilitation plan has been prepared by the State Government or not. **There are sixty families which will be displaced by this proposed project belonging to five villages viz Sukla Nagar, New Anaya, Eprali, Kano and an unmanned village in Dibang Valley & Lower Dibang Valley Districts.**

Details be furnished specifically if rehabilitation plan would affect any other Forest area by translocating outsees in and around the said forest.

*Details of such rehabilitation plan is yet to be submitted by the N.H.P.C*

**11.Reclamation plan:**

Details and financial allocation

*Details of such rehabilitation plan is yet to be submitted by the N.H.P.C*

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

*The details of the catchment and command area along with the Treatment Plan has been elaborated in the Detailed Project Report i.e Environmental Management Plan of Dibang Multipurpose Project (3000 MW). However there is no document submitted in the proposal to confirm that this management plan has approval of the State Government.*

13.Cost benefit ratio.

*As submitted by the User Agency in the proposal.*

14..Recommendations of the Principal Chief Conservator of Forests/State Government.

*The State Government has recommended the proposal in Part V of the format.*

15..Recommendations of Regional Chief Conservator of Forest along with detailed reasons.

*As mentioned in the forwarding letter.*

16.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.

*As mentioned in the forwarding letter.*

17.Utility of the project.

Numbers of Scheduled caste/Scheduled Tribe to be benefited by the project.

18. Whether land being diverted has any socio-cultural/religious value.

Whether any sacred grove or very old growth trees/forests exists in the areas proposed for diversion.

*As mentioned in the site inspection note of the Chief conservator of Forests Eastern Arunachal Circle there are no records to show that the proposed area do not have any socio-cultural/religious values and no sacred grove exist in the proposed area.*

Whether the land under diversion forms part of any unique eco-system.  
*No such information mentioned by the State Government in the proposal but the proposed area is a moderately dense forest.*



19. Situation w.r.t. any P.A.

From the purpose wise break-up of the Forest land submitted by the NHPC. The area within 10 km radius of Mehao Wildlife Sanctuary is 170.56 ha. This also includes the proposed residential colony at Chimri which is within 5 kms from Mehao Wildlife Sanctuary.

20. Any other information relating to the project.

- (a) *The Forest Department Government of Arunachal Pradesh should seriously identify the degraded forest area free from any encumbrances and demarcated the areas with boundary pillars along with G.P.S Co-ordinates and also to be delineated in a map to the scale. In case there exist dense or moderate dense forest patch such areas are to be avoided and to be depicted in a map. This will ensure the correct area requires for the compensatory afforestation.*
- (b) *The compartments identified for raising compensatory afforestation is to be shown clearly in the map.*
- (c) *Areas under encroachments and flood prone areas adjacent the river banks is to be avoided to prevent loss of afforestation and queries which may come up during Adhoc Campa Audit.*
- (d) *The areas of reserved forest most of them are criss-crossed by streams and rivers it is suggested that the Forest Department should have its own departmental country boat along with accessories such as life jackets.*
- (e) *In case no area is found suitable for raising compensatory afforestation under Namsai Forest Division, Dibang Forest Division and Anini Social Forestry Division, such areas may be identify elsewhere in the other Forest Divisions in the State. However in case no such areas could be identified within the State the Ministry of Environment & Forests, New Delhi may take a decisions in this matter.*
- (f) *In the details of the project colony development at Chimri and Pathar camp there is no mentioning of the site for sewage treatment plant and waste disposal site(Bio-degradable and non-biodegradable).*
- (g) *The total number of trees to be affected as per enumeration by the Forest Department is more than 3,52,000 approximately with the approximate volume of 418902.77cum. When the project will be implemented the yield from the approved working plans of various Forest Division in the State is to be adjusted with these trees/volume to be affected in the project area.*
- (h) *Removal of stone from the river bed of Eme river and Dirj Dorong river in an area of 167 ha as mentioned in the land use break up shall be as per para 4.6 (iii) of the Forest (Conservarion)Act 1980 Rules, Guidelines & Clarifications.*
- (i) *The estimate for the Compensatory afforestation scheme under Dibang Forest Division i.e in Koronu VRF , Kerim R.F and Depoani R.F each has a component for purchase of one Light Motor Vehicle(L.M.V) and one Heavy Motor Vehicle(H.M.V) which amounts to three L.M.V and three H.M.V in one Division which is not justified. It is suggested that nursery within the site for compensatory afforestation be established for easy transportation of the seedlings. Therefore the compensatory afforestation scheme for these three areas is to be revised excluding the vehicles but provisions for boats , boat- man, life jacket is to be included . This is necessary as the forest area in Deopani R.F and Kerim R.F are criss-crossed with streams and river.*

- (j) The estimate for the Compensatory afforestation scheme under Namsai Forest Division i.e in Kamlang R.F , Lohit R.F and Lai A.R.F each has a component for purchase of one Light Motor Vehicle(L.M.V) and one Heavy Motor Vehicle(H.M.V) which amounts to three L.M.V and three H.M.V in one Division which is not justified. It is suggested that nursery within the site for compensatory afforestation be established for easy transportation of the seedlings. Therefore the compensatory afforestation scheme for these three areas is to be revised excluding the vehicles but provisions for boats , boat- man, life jacket is to be included . This is necessary as the forest area in Lohit R.F, Lai A.R.F and Kamlang R.F are criss-crossed with streams and river.
- (k) It is suggested that the length of reservoir i.e. 43km on both sides of the bank of the river Dibang from the FRL level upto a distance of 100 m distance may be declare as the wild life sanctuary to protect the Wildlife Schedule-I species as mentioned by Chief Conservator of Forests Eastern, Arunachal Circle at Sl. No. 7 of his inspection report.
- (l) The Forest Officials who accompanied the first site inspection from 16<sup>th</sup> and 18<sup>th</sup> Feb 2013 were Shri M. Riba ( Divisional Forest Officer, Dibang Forest Division) and Shri T, Rima( Range Forest Officer) and NHPC officials who accompanied were Raj Mal, Chief Engineer(C), Kumar Manoranjan Singh (Deputy Manager, Environment), Santosh Kumar (Deputy Manager, Environment), Mahesh Tondon, Manager(Civil).
- (m) The Forest Department do not have any boat for crossing the river in Lohit R.F hence the boat of an encroacher was utilized while crossing the river in Lohit R.F. This only show the extend of encroachment inside the reserved forests.
- (n) Disaster management plan for the downstream not mentioned in the proposal. Arunachal Pradesh being in a sensitive seismic zone the State Government may come up with such plan for taking necessary measures.
- (o) The level of water in the river Dibang downstream of Dam will have to be maintained for ecological balance of aquatic fauna and flora habitat. The Project Authorities and the Forest Department may examine this and come up with a plan for such measures.

(p) **Photographs on compensatory afforestation sites:**  
**ANNEXURES-(I)**

The GPS coordinate of the compensatory afforestation site on the ground in Lohit RF does not correlate with that shown in the map. In the field it is observed that the river cuts across the compensatory afforestation site.

**ANNEXURES-(II)**

Encroached area inside Lohit RF identified for compensatory afforestation showing the encroachers crossing by boat to the RF for cultivation, huts of encroachers existing as on date.

**ANNEXURES-(III)**

Crossing by boat (owned by encroacher) to the proposed compensatory afforestation site inside Lohit RF.

**ANNEXURES-(IV)**

The area visited after crossing by boat showing the encroached area within the proposed compensatory afforestation site. Photographs showing in Annexures I, II, III and IV of the proposed compensatory afforestation site in the Lohit RF visited at different locations which is being occupied by encroacher's for cultivation.

**Annexure V**

GPS Coordinates BF (27 51 03.40N; 95 46 22.5 E) located in the ground inside Kamlang RF showing abundant natural growth of *Dalbergia sisso* in the proposed Compensatory afforestation site. As observed in field an area of approximately 50 ha more or less out of 500 ha is available for raising compensatory afforestation.

**Annexure VI**

**Different location inside Kamlang RF showing abundant natural growth of *Dalbergia sisso* in the proposed Compensatory afforestation site.**

**Chief Conservator of Forest (Central) standing at the GPS coordinates B7((27 51 03.40N; 95 46 22.5 E). Photographs (d) during the site visit.**

**Annexure VII**

Photographs showing the Compensatory afforestation site at Bismarknagar in Dibang Forest Division. (a) Labour camp of BRO inside proposed compensatory afforestation site.(b) Moderately dense patches of natural forest inside the proposed Compensatory afforestation(95 59 03.4E; 28 03 34.00 N) site.(c) & (d).Good forest patches inside the the proposed Compensatory afforestation site.

**Annexure VIII**

GPS coordinates (95 59 03.4E; 28 03 34.00 N) showing the presence of labour Camp in the proposed Compensatory afforestation site at Bismarknagar in Dibang Forest Division, Beyond the Camp good patches of forest within the proposed Compensatory afforestation site.

**Annexure IX**

Plantation of Bombax ceiba inside the proposed compensatory afforestation site in Deopani RF under Dibang Forest Division

**Annexure X**

The proposed compensatory afforestation site inside Deopani RF in Dibang Forest Division. (a), (b) Good patches of forest beyond the boundary of the compensatory afforestation site. (c) and (d) Photographs showing flood prone area during the rainy season.

**Annexure XI**

Accompanied by DFO, Roing Shri M. Riba along with NHPC officials crossing the stream to reach the proposed compensatory afforestation site

**Annexure XII**

Good patches of *Bombax ceiba* plantation existing in the proposed compensatory afforestation site.

**Annexure XIII**

Trekking along the banks of the river inside Deopani RF along with Shri V.S. Ratan, General Manager, NHPC on the compensatory afforestation site.

**Annexure XIV**

The view from the river bank showing the flood prone area and synoptical view of *Bombax ceiba* plantation inside the Deopani RF in Dibang Forest Division (photograph c & d).

**Annexure XV**

View of Karim RF proposed for the compensatory afforestation shown by the DFO, Dibang Forest Division from the Compensatory afforestation site inside Deopani RF.

**Annexure XVI**

Photographs taken inside the proposed compensatory area of Deopani RF showing the *Bombax ceiba* plantation and GPS coordinates point D (95 43 08.6E ; 28 01 41.4N) with blank patches.

On ocular estimation out of (414 + 120) ha of the proposed compensatory afforestation site approximately 100 ha of blank area may be available.

**(q) Photographs on the proposed forest area for diversion:****Annexure I(A)**

- (a) Photographs showing the proposed forest area of Eme River and Diru Korong from the left bank of Dibang river.
- (b) The proposed forest area of Diru Korong on the right bank of Dibang river.
- (c) & (d) Natural forest adjacent to Diru Korong.

**Annexure II(B)**

- (a), (b), (c) and (d). The photographic view of the Eme deposit on the right bank of Dibang.

**Annexure III(C)**

Landslide area in between the proposed Eme deposit area and proposed muck disposal area on the way to Dam site,

**Annexure IV(D)**

The open forest with bushy growth in the muck disposal site.

**Annexure V(E)**

The forest cover and the land slide portion of the forest area on the way to Dam site

**Annexure VI (F)**

- (a) & (b) Dam Axis on the left side of the bank showing the portion excavated for soil testing taken from the river bank, (c) & (d) The white flag showing dam axis on the right side of the bank.

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**ANNEXURE VII (G)**

- (a) Dam axis on the right bank taken from the existing foot track (b) The forest cover on the right bank of the submergence area (c) & (d) Forest cover on the left bank of the Dam site of the submergence area showing patches of Jhum cultivation.

**ANNEXURE VIII (H)**

Forest cover on the right bank of the submergence area.

**ANNEXURE IX (I).**

Photograph (a), (b) & (c) showing forest cover on the left Submergence area on left bank of the Dam site. Photograph (d) showing the forest cover at the Dam axis.

**ANNEXURE X (J)**

Submergence area photographs taken at the river bed of the right bank.

**ANNEXURE XI (K)**

*Forest cover in Pathar Camp area proposed for construction of colony. It may be mentioned that this proposed colony is mentioned as non-forest land in the proposal.*

As observed in the field during the site visit, the area on the right bank of Dibang river is a forest land and there are no human habitation. In the area proposed for colony at Pather camp there is only one family living and practising jhum cultivation which is done in the forest area

The second site inspection was carried out on 26.04.2013 and 27.04.2013. The Forest Officials who accompanied on 26.04.2013 at Namsai Forest Division for the compensatory afforestation site were Shri. G.C. Doley (Assistant Conservator of Forests), A. Jerang (Range Forest Officer, Chowkhan), S.P. Verma (Range Forest Officer, Namsai), B. D. Deon (Range Forest Officer, Mesabhum) whereas NHPC officials who accompanied were Santosh Kumar (Deputy Manager, Environment), Shri Hazarika (Surveyor). The Forest Official who accompanied on 27.04.2013 at Dibang Forest Division on 27.04.2013 for the compensatory afforestation site is Shri M. Riba (Divisional Forest Officer, Dibang Forest Division) whereas NHPC officials who accompanied on this day were V.K. Rattan (General Manager, NHPC), Raj Mal, ( Chief Engineer, Civil), Santosh Kumar (Deputy Manager, Environment), Mahesh Tondon, Manager (Civil).

Two site inspections has been carried out, but still the Forest Department could not show the sample plot for checking the numbers of trees to be affected which are more than 3.50,000 within the proposed area for forest diversion. Therefore not to further delay the submission of site inspection report, factual information as observed during the field visit is submitted for the Ministry to take further necessary action with the State Government.

*B.S. Kharmawphlang* 30/5/2013.  
B.S. Kharmawphlang, I.F.S  
Chief Conservator of Forests (Central)