

GTTPL/Forest/NXTL/20-21/02

Dated - 29/06/2020

To,  
**The Deputy Conservator of Forests,**  
**North Goa Forest Division,**  
**Ponda- Goa.**

**Sub:-** Diversion of 48.30 Ha of forest land for the construction of LILO of one ckt of Narendra (Existing) to Narendra (New) 400 kV D/C quad transmission line (North Division 36.76 ha + Wildlife and Eco-Tourism (North) 11.54 ha.) in favour of M/s Goa-Tamnar Transmission Project Ltd.

**Reference: -** DIG Forests (Central), MoEF & CC letter No. 4-GOA1219/2019-BAN/dated 04<sup>th</sup> May 2020.

Dear Sir

At the outset, we would like to thank for your kind support rendered to us. With reference to the letter received from the DIG Forests (Central), MoEF & CC Regional Office, Bangalore in which REC sought some additional information on the Diversion of 48.30 Ha of forest land for the construction of LILO of one ckt of Narendra (Existing) to Narendra (New) 400 kV D/C quad transmission line. Please find below the point wise reply: -

**1. Whether the transmission line can be routed adjacent to the existing roads?**

To optimize the forest and wildlife area involvement, we had carried out study in 3 possible alternate routes prior to submission of the proposal and submitted to the Chief Wildlife Warden and PCCF (HoFF), Govt of Goa for route approval for best suitable route. Details & comparative statement of all 3 alternate routes have been studied are shown below: -

<b>Description / Route Details</b>	<b>Alternative 1 (Proposed)</b>	<b>Alternative 2 (Along the Road)</b>	<b>Alternative 3</b>
Route Length	16.331 Km	11.895 Km	12.692 Km
Area in Bhagwan Mahavir Wild Life Sanctuary	11.54 Ha	36.44Ha	30.85 Ha
Tree Density Inside wild life Area	Moderate	High	Very High
Total No. of Towers in side the Wild Life Boundary	6	26	18
<b>Forest Area</b>			
Reserve / Protected Forest/ Pvt Forest Land	36.76 Ha	15.48 Ha	19.85 Ha
Wildlife Area	11.54 Ha	36.44 Ha	30.85 Ha
<b>Total Forest Area (Ha)</b>	<b>48.30 Ha</b>	<b>51.92 Ha</b>	<b>50.70 Ha</b>



We have had a detailed study for three possible alternate routes and the observations after detailing are given below: -

- **Route-1** starts from Substation at Sangod, passing from Tamdi Surla till Karnataka Border and encounters Forest area of 36.76 ha (Notified Forest Area) and 11.54 Ha of Bhagwan Mahavir Wildlife Sanctuary.
- **Route-2** encountered Reserved/Protected Forest 15.48 Ha and an area of 36.44 ha of Bhagwan Mahavir Wildlife Sanctuary and National Park. It has also observed that the tree density in this route is high resulting more tree felling required during construction.
- **Route-3** intersects the more patches of Forest and Wildlife/ National Park area.

Hence after comparing all three routes it has clearly evolved that the Route-1 is best suitable in comparison to Route-2 and Route-3. Additionally, this route has fully avoided nearby National Park area. Tree density in Route-1 is also less in comparison to Route-2 and Route-3. Considering all the possible impact with respect to Forest and Wildlife area, Route-1 has been chosen for further diversion purpose ensuring all necessary measures to reduce forest and wildlife damage that may happen due to this development project.

Further, we would like to inform you that the wildlife clearance proposal has been submitted only after receiving the Route approval from the office of Chief Wildlife warden, Goa vide letter No. 2-10-WL-BMWLS-FD-Vol.IV/2219 dated 02.08.2018. Subsequently this proposal was also approved by Standing Committee of State Board for Wildlife, Goa and National Board for Wildlife on 02<sup>nd</sup> Dec 2019 and 07<sup>th</sup> April 2020 respectively.

## **2. The Possibility of laying underground cable may be examined.**

Possibility of laying underground cable of Extra High Voltage (EHV) transmission line for 400 kV and above voltage is not feasible due to below mentioned reasons:

The underground cabling of 400 kV transmission line in Hilly area will require of huge soil excavation in entire corridor and will have a larger impact on flora and fauna of the area. For a 400kV double circuit line we would need to excavate four trenches each containing three cables and once land is reinstated, land-use restrictions may apply





to avoid risk of cables being disturbed or damaged. In addition to this, all enumerated trees in entire corridor shall have to be extracted to execute the project and natural regeneration of plants shall also be restricted.

Hence in view of above facts, Underground cabling of 400 kV transmission line will have severe social and environmental impacts.

**3. The details on trees to be felled under the transmission line for regular maintenance works needs to be given as the claim by user agency that 35 % of trees only are required to be actually felled out of 15772 trees enumerated is not sufficiently explained.**

For transmission line projects, only tower foundation areas require clear felling of trees and minimum felling is required beneath the conductor (Cable) to maintain the minimum electrical clearance i.e. 5.5 meter from the lower conductor to tree canopy. In hilly terrain, transmission towers are generally fixed at top of the hills which provides automatic ground clearance to the transmission conductors without felling of trees in valley areas.

As most of our tower locations are in hilly area, tree felling shall not be required more than 35% of enumerated trees. An undertaking for the same has already been submitted to the State Forest Department.

**4. As forest land is required in respect of this transmission line in Karnataka state, the proposal will have to examined into as fait accompli situation needs to be avoided.**

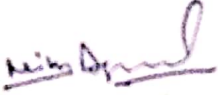
As the transmission line requires diversion of forest land in the state of Goa as well as Karnataka, separate forest diversion proposals have been submitted in both states. The forest diversion proposal of Goa state involves Wildlife proposal which has already been approved by the Standing Committee of SBWL and Standing Committee of NBWL in their meetings dated 02<sup>nd</sup> Dec 2019 and 07<sup>th</sup> April 2020, respectively. The forest diversion proposal in Karnataka State is also under process with State Forest department and shall be forwarded to the Ministry for consideration in REC meeting.



As the project is time bound and is in great National interest, you are requested to consider the request for approval of this proposal in Goa state.

Thanking You

**For Goa Tamnar Transmission Project Limited**

  
**Nitin Agrawal**  
**Chief Manager-Enablement**

Copy to:-

1. The Deputy Conservator of Forests (Monitoring & Evaluation), Goa Forest Department, Panaji, Goa
2. The Principal Chief Conservator of Forests, Goa Forest Department, Govt of Goa, Panaji-403001.





Government of Goa  
Office of Principal Chief Conservator of Forests  
Forest Department  
1<sup>st</sup> Floor, Gomantak Maratha Samaj Bldg.  
Panaji Goa - 403 001

Ph.No 0832-2225926

"Swachh Bharat Nital Goem"  
Towards greener and cleaner Goa

Fax 0832-2221717/2121111  
Email: dcjps@forest.gov.goa.in

No.2-10-WL-BMWLS-FD-Vol.IV/ 2219

Date - 02.08.2018  
Sravana 11,1940 [SAKA]

To,  
Shri Nitin Agarwal,  
Manager-Forest & Wildlife,  
Goa-Tamnar Transmission Project Limited,  
F-1, The Mira Corporate Suites,  
1 & 2, Ishwar Nagar, Mathura Road, Delhi-65.

**Sub:- Request for route approval of 400 kV Xeldem - Narendra transmission line for processing the wildlife clearance proposal of Bhagwan Mahaveer Wildlife Sanctuary to establish transmission system for "Additional 400 kV feed to Goa State Additional System for power evacuation from generation projects pooled at Raigarh (Tamnar) pool".**

Sir,

With reference to your letter No.STL/GRID5/GTTPL/17-18/17 dated 17.05.2018 on the above cited subject, I am directed to inform you to submit the proposal for wildlife clearance and Forest Conservation Act, 1980 clearance for Route No.1 for the proposed laying of transmission line passing through Bhagwan Mahavir Wildlife Sanctuary, Mollem.

Yours faithfully,

Dy. Conservator of Forests  
Planning & Statistics

Copy to:-

The Dy. Conservator of Forests (Wildlife & Eco-tourism) North Panaji -  
Goa for information and necessary action.