COST BENEFIT ANALYSIS

Project: Diversion of 69.41 Ha. of Forest land for laying of Xeldem- Xeldem (Existing) 220 kV HTLS D/C transmission Line in the State of Goa under the scheme of Additional 400 kV feed to Goa State.

Table B- Estimation of cost of forest diversion (as per MoEF&CC Guideline dated 1st Aug 2017) related to cost benefit analysis)

Sl No	Parameters	Remarks (For Transmission Line)
1	Ecosystem Services losses due to proposed forest diversion	NPV of the forest land being diverted i.e Govt. Forest and Pvt. Forest = 28.24 ha x Rs. 9.39 lac=Rs **265.17 lac** Total = **Rs 265.17 lac**
2	Loss of animal husbandry productivity including loss of fodder.	Productivity of livestock will not be affected due to construction of transmission line. 10% of NPV Applicable i.e. **Rs. 26.51 lac**
3	Cost of human resettlement.	Since there is no displacement of people due to the project hence there would be no cost of human resettlement.
4	Loss of public facilities & administration infra-structure (roads, building, school, dispensary, electric lines, railways etc.) on forest land or which would require forest land if these facilities were diverted due to project.	Not applicable, Since these facilities are not available inside the forest area for proposed diversion. The route/corridor of the Transmission line not affecting any public facilities on diverted forest land.
5	Possession value of forest land diverted.	30% of Environmental Costs (NPV) i.e. **Rs. 79.55 lac**
6	Cost of suffering of oustees	Not applicable since there will be no displacement of peoples.
7	Habitat Fragmentation Cost	50% of NPV Applicable as thumb rule i.e. **Rs. 132.58 lac**
8	Compensatory Afforestation and Soil & Moisture Conservation Cost	Comp. Affn. cost **Rs. 141.2 lac** **Soil & Moisture Conservation cost included in Comp. Afforestation cost.**
Total Loss (Against the proposed forest land diversion)		**Rs. 645.01 lacs**

Table C- Estimation of Benefit of Forest Diversion in Cost Benefit Analysis (as per MoEF&CC Guideline dated 1st Aug 2017 related to cost benefit analysis)

SN	Parameters	Remarks (For Transmission Line)
1	Increase in Productively attribute to the specific project.	There are 400 MW increase in productively attributes to this project for 35 years. Monetary Benefits 1520736 lacs
2	Benefit to economy due to the specific project	Rs 1523091.2 Lacs
3	No of population benefited due to specific project	Evacuation of approx. 400 MW Power by constructing said transmission line in the State of Goa will illuminate thousands of families along with the generation of huge job opportunities during construction & maintenance activity under Goa, Karnataka & Chhattisgarh states.
4.	Economic benefit due to direct and indirect employment due to the project	3024 lacs (in 35 years)
5.	Economic benefits due to Compensatory Afforestation	Rs. 2.5 lac x 56.48 ha (as per Guideline issued by MoEF,vide,letterNo.F.No.5-3/2007/FC, Dt.05.02.2009) = Rs. 141.2 lac approx.
	T o t a l (monetary Benefits)	**Rs. 1523901.2 lac**

C. Cost Benefit Ratio i.e. Project Benefit / Forest loss **= (2361: 1)**

Hence the Project has very high benefit to the country as compared to forest loss. **The benefit to loss ratio is approximate 2361 times**.