

COST BENEFIT ANALYSIS

Table A: Estimation of Cost of Forest Diversion

Sl.No	Parameters	Valuation in INR
1	Ecosystem services losses due to proposed forest diversion.	Net present value of forest area to be diverted is 6.26 Lakh per Ha as per low density in Eco class III Hence losses to Eco system: $6.26 \text{ Lakh} \times 89.632 \text{ Ha} = \mathbf{561.10 \text{ Lakh}}$
2	Loss of animal husbandry productivity, including loss of fodder.	Considering 10% of NPV applicable of diversion area. Hence Losses of Animal Husbandry: $6.26 \text{ Lakh} \times 89.632 \text{ Ha} \times 10\% = \mathbf{56.11 \text{ Lakh}}$
3	Cost of Human resettlement.	There is No Human Resettlement involved in the project. Hence losses: NIL
4	Loss of public facility and administrative infrastructure (Roads, building, school, dispensaries, electric lines, railways, etc.) on forest land, which would require forest land if these facilities were diverted due to the project.	There is no Loss of public facility and administrative infrastructure due to this project. Hence Losses : NIL
5	Possession value of forest land diverted	Considering 30% of environmental costs (NPV) due to loss of forest. Hence losses: $6.26 \text{ Lakh} \times 89.632 \text{ Ha} \times 30\% = \mathbf{168.33 \text{ Lakh}}$
6	Cost of suffering to oustees	There is No rehabilitation of people, hence no social losses. Losses : NIL
7	Habitat Fragmentation Cost	Considering 50% of applicable NPV Total Losses: $6.26 \text{ Lakh} \times 89.632 \text{ Ha} \times 50\% = \mathbf{280.55 \text{ Lakh}}$
8	Compensatory afforestation and soil & Moisture conservation cost.	Considering 2.5 Lakh/Ha including CA and soil & Moisture Conservation cost Hence Total Losses: $2.5 \text{ Lakh} \times 89.632 \text{ Ha} \times 2 = \mathbf{448.16 \text{ Lakh}}$



Full Title of The Project: 400kV D/C Jaunpur Obra Transmission Line
Proposal No: FP/UP/TRANS/40906/2019

Table B: Estimated Benefits of Forest Diversion

Sl.No	Parameters	Valuation in INR
1	Increase in Productivity attribute to the specific project	Project is under the Tariff based and the tariff is fixed for next 35 years at the time of bidding. Construction cost of project: 24900 Lakh Revenue generated: 110384 Lakh Hence benefit: 85484 Lakh
2	Benefit to economy due to the specific project	Same as of above.
3	No of population benefited due to specific project	Directly or indirectly the complete state of Uttar Pradesh state will be benefited by this project.
4	Economic benefits due to of direct and indirect employment due to project	The project is of 166km Line length which require direct employment for the construction of above project. Benefit from Direct Employment estimated: 60000 Man days' x Rs 500 = 300Lakh
5	Economic benefits due to compensatory afforestation	Considering it to be equivalent to the Compensatory afforestation on the area to be diverted. Hence benefits: 2.5 Lakh x 89.632Ha x 2 = 448.16 Lakh

Total Loss to Environment : 1514.25 Lakh

Benefit to Economy : 86232.16 Lakh

Cost Benefit Ration : Total Loss to Environment: Benefit to economy

= 1514.25 : 86232.16

= 1: 56.95 = **1:57**

Place : Bareilly

Date : 06/03/2020



Sendil Ragavan
General Manager