

North Karanpura Transco Limited

(Program Under Government of India)

Sunita Sadan, 1st Floor, Ashram Marg Bariatu, Near Military Firing Range,
Dist –Ranchi, Pin 834009 Jharkhand, Fax: 91-(79)-2555 7177
Email id: northkaranpuratransco@gmail.com

Full Title of the Project : Construction of 400 kV D/C North Karanpura to Gaya transmission line

File No. : FP/JH/TRANS/41236/2019

Date of Proposal : 18/07/2019

COST BENEFIT ANALYSIS

Cost Benefit analysis for 400 KV D/C North Karanpura to Gaya Transmission Line of North Karanpura Transco Limited in Jharkhand State is estimated as per the Guidelines of Govt. of India, issues with letter no. 7-69/2011-FC(Pt.) dated 1st August, 2017, and given below:

Table-A: Estimation of cost of forest diversion:

Sl.	Parameters	Cost (Rs. Lakhs)
1.	Ecosystem services losses due to proposed forest diversion (Economic value of loss of eco-system services due to proposed forest diversion has been taken as the "Net Present Value (NPV)" of the forest land being diverted as prescribed by the Central Government (MoEF&CC) NPV rates taken as Rs. 8.03 Lacs per Ha. under Class III of Medium Density Forest born by the Project, works out to be Rs. 1582 Lakhs for 197.0115 Ha Forest Land	1582
2.	Loss of animal husbandry productivity (Taken at 10% of NPV)	158.2
3.	Cost of human resettlement (There is no human resettlement due to proposed forest diversion)	Nil
4.	Loss of public facilities and administrative infrastructure (Roads, building, schools, dispensaries, electric lines, railways, etc.) on forest land, which would require forest land if these facilities were diverted due to the project (No public facilities and administrative infrastructure are involved)	Nil
5.	Possession value of forest land diverted (Taken at 30% of NPV)	474.6
6.	Cost of suffering to oustees (There are no oustees due to proposed forest diversion)	Nil
7.	Habitat Fragmentation Cost (Taken at 50% of NPV)	791
8.	Compensatory afforestation and soil & moisture conservation cost (CA arrived at Rs. 2,50,000/- per Ha for 197.0115Ha) (Cost for double the area is Rs. 985.05lakhs)	985.05
9.	Project Cost: Fixed assets, inclusive of investments, Current assets, Loans & Advances: Rs. 16700Lakhs Other Expenditures like preoperative expenses, interests during construction, etc. Rs. 1,000 Lakhs	17700
	TOTAL	21690.85

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Table-B: Estimation of benefits of forest diversion:

Sl.	Parameters	Benefits (Rs. Lakhs)
1.	Increase in productively attributed to the project (The project is part of Immediate Evacuation for North Karanpura (3X660MW) generation project of NTPC. Hence productively attributed cannot be quantified)	NA
2.	Benefits to the economy to the specific project (The project is part of Immediate Evacuation from North Karanpura generation project of NTPC to the load centre. There will be benefits to the economy in terms of developing robust grid infrastructure and associated economic benefits, which will be qualitative in nature)	NA
3.	No. of population benefitted due to specific project (The evacuation of power will help the power generation and distribution companies and which in turn will benefit large population, which again is in qualitative in nature)	NA
4.	Economic benefits due to of direct and indirect employment due to the project During Project Stage, the project will provide temporary employment to 150 person for a period of 23 months. The Economic Benefit is estimated at Rs. 378.111 Lakhs (For Temporary Employment@ Rs. 438.39 per day) $=150 \times 23 \times 25 \times 438.39 = 378.111$ Lakhs During operation Phase employment generation for 35 years $= 5 \times 35 \times 12 \times 25 \times 438.39 = 230.15$ lakhs	608.261
5.	Economic benefits due to Compensatory afforestation (The NPV of the CA Land considered as prescribed by the Guidelines, 7-69/2011-FC(Pt.) dated 01.08.2017) NPV rates taken as Class III Medium Density Forest Rs. 8.03Lakhs/Ha for 197.0115Ha.	1582.002
6.	Revenue from the Project (Revenue from Transmission Line for 35 Years)	123535.52
	TOTAL	125725.783

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Benefit and Cost Ratio (BC Ratio)

- I Cost of Project (including loss of Forest) = Rs. **21690.85**Lakhs
- II Financial Benefits of the Project: Rs. **125725.783**Lakhs

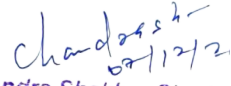
Benefit and Cost Ratio = Rs. **125725.783** Lakhs / Rs. **21690.85** Lakhs = 5.79: 1

The Benefit and Cost Ratio (BC Ratio) of the Project is estimated at 5.79: 1.

Place: Ranchi

Date : 07.12.2021

Name: Chandra Shekhar Singh


Chandra Shekhar Singh
Assistant Manager
North Karanpura Transco Limited,
Ranchi

Office Seal & Signature:

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