

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.	Considering the Net present value of forest area to be diverted be 6.26 Lakh per Ha as per 0.3 density in Eco class III Hence losses to Eco system: 9.57780 Lakh x 65.612 Ha = 628.4186136 Lakh
2	Loss of animal husbandry productivity, including loss of fodder.	Considering 10% of NPV applicable of diversion area. Hence Losses of Animal Husbandry: 9.57780 Lakh x 41.848 Ha x 10% = 62.84186136 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: 9.57780 Lakh x 65.612 Ha x 30% = 188.52558408 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: 9.57780 Lakh x 41.848 Ha x 50% = 314.2093068 Lakh
8	Compensatory afforestation and soil & Moisture conservation cost.	Considering 4.0 Lakh/Ha including CA and soil & Moisture Conservation cost Hence Total Losses: 4.0 Lakh x 65.612 Ha x 2 = 524.90 Lakh



Table B: Estimated Benefits of Forest Diversion

Sl.No	Parameters	Valuation in INR
1	Increase in Productivity attribute to the specific project	Construction cost of project (civil work): 24467 Lakh which will flow in the market Hence benefit: 24467 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 which require direct employment for the construction of above project. Benefit from Direct Employment estimated: 120000 Man days' x Rs 500 = 600 Lakh
5	Economic benefits due to compensatory afforestation	Considering it to be equivalent to the Compensatory afforestation on the area to be diverted. Hence benefits: 4.0 Lakh x 65.612 Ha x 2 = 524.90 Lakh

Total Loss to Environment : 1718.89536584 Lakh

Benefit to Economy : 25591.90 Lakh

Cost Benefit Ration : Total Loss to Environment: Benefit to economy
= 1718.89536584 : 25591.90
= 1 : 14.888 = **1 : 15**

Authorised Signatory



Arun Kumar Singh
Executive Engineer
NH Division -1, PWD, Varanasi