



Cost Benefit Analysis Guidelines for forest land diversion-2017

Table-B Estimation of cost of forest diversion.

S. No	Parameters	VALUATION IN INR.
1	Ecosystem service losses due to proposed	Considering the Net present value of forest area to be diverted be 10.43 Lakh per Ha as per density in Eco class I Hence losses to Eco system: $10.43 \text{ Lakh} \times 13.43 \text{ ha} = \mathbf{140.07 \text{ Lakh}}$
2	Loss of animal husbandry productivity, including loss of fodder	$10.43 \text{ Lakh} \times 13.43 \text{ ha} \times 10\% = \mathbf{14.01 \text{ Lakh}}$
3	Cost of human resettlement	There is no Human Resettlement involved in the project. Hence losses: NIL
4	Loss of public facilities and administrative infrastructure (roads, building, school, dispensaries, electric lines railways, etc.) on 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: $10.43 \text{ Lakh} \times 13.43 \text{ ha} \times 30\% = \mathbf{42.02 \text{ Lakh}}$
6	Cost of suffering to outers	There is no rehabilitation of people, hence no social losses. Losses: NIL
7	Habitant fragmentation Cost	No Habitant fragmentation will be at their construction of Transmission line. Hence losses : NIL
8	Compensatory a forestation and soil & moisture conservations cost	Considering 4 Lakh/Ha including CA and soil & Moisture conversation cost Hence Total Losses: $4 \text{ Lakh} \times 13.43 \text{ Ha.} = \mathbf{53.72 \text{ Lakh}}$
9	Compensatory a forestation and soil & moisture conservation cost	Considering 50% of applicable NPV Total Losses: $4 \text{ Lakh} \times 13.43 \text{ Ha} \times 50\% = \mathbf{26.86 \text{ Lakh}}$

Table-C -Existing guidelines for estimating of forest-diversion in CBA.


S.No.	Parameters	VALUATION IN INR.
1	Increase in productively attribute to the specific project	<p>The total quantity and value of product carried by 18 inch pipeline:</p> <p>Average flow rate of gas through pipeline 1.5mmscmd (Million Metric Standard Cubic Meter per day) Average volume of gas likely to be delivered to consumer 1.5mmscmd Average value of Unit gas volume – Govt published 6 month tariff is (INR 7000/ 1000 scm) Average value added : gas sent out every year: $1.5 \times 365 = 547.5 \text{ mmscm}$ Value added: $547.5 \text{ mmscm} \times \text{INR } 7000/1000 \text{ scm}$ $= \text{Rs. } 38325 \text{ Lakh /Year}$</p> <p>Transportation of crude oil through 8 inch pipeline</p> <p>The total quantity and value of product carried by the 8 inch pipeline on an annual basis.</p>

		<p>Quantity of Crude Oil transported to Digboi refinery: 0.65 Million Ton per Annum (40,88,403 bbl)</p> <p>Value of product transported per annum @ INR 3680/bbl: INR 150453 lakh/year</p> <p>Total quantity of crude oil & gas transported through 18 inch & 8 inch pipeline. INR 188778 lakh/year</p>
2	Benefits to economy due to the specific project	Same as above.
3	No of population benefited due to specific project	Mainly the gas will be supplied to BCPL, other industries include NRL / AGPL / AGCL / APL / BVFCL / NEEP Co/ Digboi Refinery
4	Economic benefits due to of direct and indirect employment due to the project	<p>The project requires an average of 100 man force for 12 months for 18 inch pipeline and 15 months for 8 inch pipeline with an average of 250 days/year</p> <p>Total 56,250 man day's for both the project</p> <p>50,000 man days per year X Rs. 272 per day labour charge = 136 Lakh/year</p>
5	Economic benefits due to compensatory forestation	<p>Considering it to be equivalent to the NPV on the area to be diverted.</p> <p>Hence benefits: 10.43 Lakh X 13.43 ha = 140.07 Lakh</p>

Total loss of Environment : 276.68 lakh
 Benefits of Economy : 189,054.10 Lakh
 Cost of Ratio : Total Loss to Environment: Benefits to economy
 = 276.68: 189,054.10
 = 1: 683.30

Date: 30.03.2021
 Place Duliajan

OIL India Limited


(S Basumatary)
 Chief General Manager (HSE)
 &
 Nodal officer (EC, FC, NBWL)
For Resident Chief Executive
 Nodal Officer (EC/FC/NBWL)
 OIL INDIA LIMITED