

Cost Benefit Analysis Report
for
Diversion of Forest Land over an area of 184.23 hectare
in village Bandhdih, Bhagabandh, Hutupathar &
Siyaljori, Dist Bokaro, Jharkhand
for
Integrated Steel Plant
In respect of
ELECTROSTEEL STEELS LIMITED.

Table –A: Cases under which a cost- benefit analysis for forest diversion are required

No	Nature of proposal	Applicable/ not applicable	Remarks
1	<i>All categories of proposals involving forest land up to 20 hectares in plains and up to 5 hectare in hills</i>	Not applicable	
2	<i>Proposal for defence installation purposes and oil prospecting (prospecting only)</i>	Not applicable	
3	<i>Habitation, establishment of industrial units, lodges complex and other building construction.</i>	Applicable	The project is for diversion of forest land for already constructed Integrated Steel plant for manufacturing of Steel Products over an forest area of 184.23 hectares in village Bandhdih, Bhagabandh, Hutupathar & Siyaljori, Dist-Bokaro, Jharkhand
4	<i>All other proposals involving forestland more than 20 hectares in plains and more than 5 hectares in hills including roads, transmission lines, minor, medium and major irrigation projects, hydro projects, mining activity, railway lines, location specific installations like micro – wave stations ,auto repeater centres, TV towers etc.</i>	Not Applicable	

Table – B: Estimation of cost of forest diversion

SN	Parameters	Remarks
1	Ecosystem services losses due to proposed forest diversion	<p>As per guidelines for cost benefit analysis 2017, Economic value of ecosystem services due to diversion of forest shall be the Net Present Value (NPV) of the forest land being diverted as prescribed by the Central Government (MoEF @ CC).</p> <p>Based on the vegetation existing in the area required for diversion and in surrounding areas, NPV rate of Rs.700000 (Rupees Seven Lakhs) per hectare is considered.</p> <p>Therefore the total Ecosystem services losses = 700000 * 184.23 = 1289.61 Lakhs</p>
2	Loss of animal husbandry productivity, including loss of fodder	128 lakhs(10% of NPV)
3	Cost of human resettlement	Not Applicable as there is no PAF displacement within the project area
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	Not applicable as there is no public facilities within the project area

	the project	
5	Possession value of forest land diverted	387 lakhs (30% of NPV)
6	Cost of suffering to oustees	Not Applicable
7	Habitat Fragmentation cost	644 lakhs (50% of NPV)
	Compensatory afforestation and soil & Moisture conservation cost	Compensatory Afforestation: Rs. 800000/ha, therefore 800000* 184.23 = 1473.84 lakhs Total= 1473.84 lakhs

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

Sr. No	Parameters	Remarks
1	Increase in productively attribute to the specific project	Steel Products such as Bellets, Pig Iron, TMT Bar, WRM & DI Pipe = Annual Sale in INR = 3600.00 crores Grand Total – Rs 3600 crore
2	Benefits to economy due to the	520 Crores

	specific project	
3	No. of population benefited due to specific project	50,000 nos.
4	Economic benefits due to of direct and indirect employment due to the project	<p>(a) Direct : 2491 nos = Total Salary– 140 crore per annum</p> <p>(b) Indirect : No. of Contract Labours to be engaged by third party and not by company = 8318 nos Total salary- 110 crore per annum</p> <p>Grand Total – 140+110 = 250 Crore</p>
5	Economic benefits due to Compensatory afforestation	<p>Compensatory forestation of 184.23 ha of Land@2500 no of sapling = survival rate 100 nos of sapling per 1 hectare = 18423 nos of trees.</p> <p>Economic benefits of one tree accruing over next 50 years monetised in terms of providing oxygen, water, soil, moisture conservation, etc + timber & firewood= 2.00 lakh</p> <p>Future benefits of 18423 nos of trees @ 2.00 lakh = 36846 lakh</p> <p>Total Economic benefits = 368.46 - 39.22 = 329.24 Crore</p> <p>.</p>

COST BENEFIT ANALYSIS

(a) Based on value of products (Rs.)

Benefit - Rs 6778.16 Crore

Loss - Rs 39.22 Crore

b) Cost Benefit Ratio

$$\text{i.e. Benefit} = \frac{6778.16}{39.22} = 172.81 \text{ say } 173$$