

## **Cost Benefit Analysis**

**Steel Authority of India Limited  
Raw materials Division  
Manoharpur Ore Mines, Chiria.**

**EVACUATION CONVEYOR ROUTE LEASE HOLD.**

**Calculation of evolution of loss of Forests:-**

Following have been considered while evaluating the loss of Forests:-

- (i) 14.88 Ha of area applied for diversion is fresh area containing the trees
- (ii) Sample tree enumeration was not done, however highest density of the area is considered for calculation of cost.
- (iii) Density of the forest has been considered 0.5

SL, no.	Parameters	Sub-Parameters-Evaluation of loss of forest	Value in Rs Cores
1	Loss of value of timber, fuel wood and minor forest produce (M.F.P) on annual basis, including loss of man hours per annum of people who derived live hood and wages from the harvest of these commodities.	(a) There will be permanent loss of forest covering in 14.88 Ha having trees. The present value of timber on the basis of sample plot estimated to be 1032.679 cubic meter. Considering the average market value of approximately Rs 20,000 per cubic meter, the loss of timber=2.065 cores	2.065
		(b) The MAI of the area is 0.84, therefore, the loss of production of timber for the next 20 years. Hence, $0.84 \times 14.88 \times 20$ years = 249.984 cubic meter X Rs 20000 per cubic meter = Rs	0.499
		(c) Loss of fuel wood- Loss of fuel wood is estimated @ 10% of above (a) &(b) i.e	0.256
		(d) Loss of MFP(Minor Forest Produce) is estimated @ 20% of above (a) &(b) i.e	0.5513
		(e) Loss of man hours per annum of people who derive live hood and wages from the harvest of these commodities.	Nil
2	Loss of Animal Husbandry productivity, including loss of fodder.	Not Applicable as the lease hold falls under the Saranda Reserve Forest.	Nil
3	Cost of Human Resettlement	Not applicable	Nil
4	Loss of public facilities and administrative infrastructure(Roads, buildings, schools, dispensaries, electric line, Railways etc)on forest land or which would require forest land if facilities were diverted due to the project.	Not Applicable	Nil



## Parameters for Evolution of Benefit, not withstanding Loss of Forests

Nature of Proposal: **Iron Ore Mining**

<b>SL.no.</b>	<b>Parameters</b>	<b>Evolution of Benefits</b>
1	Increase in productivity attributable to the specified project.	7.0 million tones Iron Ore per annum will be transported through the conveyer nor .Considering Rs 100/- per is less in compression to road/other transportation. The total benefit in cost reduction in one year will be 77.0 cores. The benefit over the period of 20 years will be Rs: 1540 Cores
2	Benefits to economy	Iron & Steel making is one of the main contribution of the growth of the Indian Economy. Besides the above , the State Govt. will be benefited by the way of earning from Royalty and other taxes. The mines contribute for industrial development of the state & the Nation. Besides monetary and socio-economic gains, it also contributes towards overall improvement of the living conditions of life.
3	No, of population benefited	5996 no's
4	Employment potential	a) Directly - 996 b) Indirectly - 5000 . Besides this ,there is substantial nos. of indirect employment due to the mines. The mines provide the huge employment potential, as the mining is labour intensive industry.
5	Cost of acquisition of facility on non forest land wherever feasible	Not applicable.
6	Loss of a)agriculture b) animal husbandry production due to diversion of forest land	Not Applicable .
7	Cost of rehabilitating the displaced persons as different from compensatory amounts given for displacement.	Not applicable. As no displacement of people due to project is involved.
8	Cost of supply of free fire-wood to workers residing in or near forest area during the period of construction.	Since the project is an existing mine, all facilities like electricity ,cooking gas, solar lights etc is being provided to workers residing near forest free of cost.

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**Summary of Cost Benefit.**

<b>Benefit in Rs Cores</b>	<b>Loss in Rs Cores</b>
<b>1540</b>	<b>22.228</b>

**Cost: Benefit Ratio=22.228/1540=1:69.28**