

COST BENEFIT ANALYSIS FOR FOREST DIVERSION PROPOSAL OVER 38.441 HA. (SABIK KISAM) OF KHONDBOND IRON & MANGANESE MINES OF M/S TATA STEEL LTD.

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

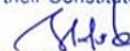
No.	Nature of Proposal	Remarks
1	All categories of proposals involving forest land upto 20 hectares in plains and upto 5 hectare in hills	-
2	Proposal for defence installation purposes and oil prospecting (prospecting only)	-
3	Habitation, establishment of industrial units, tourist lodges complex and other building construction	-
4	All other proposals involving forest land 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.	This is applicable for diversion proposal of Non-Forest land treated as forest as on 25.10.1980 i.e. Sabik Forest over 38.441 ha.

Table-B: Estimation of cost of forest diversion

SN	Parameters	Remarks
1	Ecosystem services losses due to proposed forest diversion	NPV paid @ Rs. 9,39,000.00 per hectare X 38.441 ha. = Rs. 36096099.00
2	Loss of animal husbandry productivity, including loss of fodder	Rs. 3609610 (10% of NPV Value)
3	Cost of human resettlement	Not Applicable
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 infrastructure involved within the applied diversion area.
5	Possession value of forest land diverted	Rs. 10828830.00 (30% of NPV Value)
6	Cost of suffering to oustees	Not Applicable
7	Habitat Fragmentation Cost	Rs. 18048050.00 (50% of NPV Value)
8	Compensatory afforestation and soil & moisture conservation cost	Rs. 14675400.00 (As per Compensatory Afforestation Scheme)

FOR TATA STEEL LTD.

By their Constituted Attorney




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

Sr. No.	Parameters	Remarks
1	Increase in productivity attribute to the specific project	<p>a) Rs. 6087 per Tonne X 85000.00 = Rs. 517395000.00 (Benefit to the economy due to the production of 1,00,000 MT Manganese Ore (ROM)/85000 MT of marketable grade ore attributable from this project)</p> <p>b) Rs. 1732 per Tonne X 60,00,000 MT = Rs. 1039200000.00 (Benefit to the economy due to the production 1 Million Tonnes Iron Ore (ROM)/6 Million Tonnes of final product attributable from this project)</p>
2	Benefits to economy due to the specific project	<p>a) Rs. 6087 per Tonne X 85000.00 = Rs. 517395000.00 (Benefit to the economy due to the production of 1,00,000 MT Manganese Ore (ROM)/85000 MT of marketable grade ore attributable from this project)</p> <p>b) Rs. 1732 per Tonne X 60,00,000 MT = Rs. 1039200000.00 (Benefit to the economy due to the production 1 Million Tonnes Iron Ore (ROM)/6 Million Tonnes of final product attributable from this project)</p>
3	No. of population benefited due to specific project	About 2000 persons
4	Economic benefits due to of direct and indirect employment due to the project	Existing working strength at Khondbond is 3000, further direct employment will be 400 and 600 indirectly after the applied area is available.
5	Economic benefits due to Compensatory afforestation	<p>To be calculated by DFO, Keonjhar as in the remarks column it is mentioned that Benefits from such compensatory afforestation accruing over next 50 years mentioned and discounted to the present value should be included as benefits of compensatory afforestation.</p> <p>*For benefits of CA the guideline of the Ministry for NPV estimation may be counted.</p>

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