

COST BENEFIT ANALYSIS

Project: Diversion of 134.69 Ha of forest land (83.24 Ha Reserved Forest land and 51.45 Ha of Revenue Forest land) for mining purpose of Kulda Expansion OCP of Mahanadi Coalfields Limited having mine lease area of 921.305 Ha (Proposal No. 50293/2020. State Serial No. OR-050/2021 dated 08/07/2021)

Table B – Estimation of cost of forest diversion (as per MoEF&CC Guideline related to cost benefit analysis)

SN	Parameters	Remarks
1.	<p>Ecosystem Services losses due to proposed forest diversion- NPV as per guidelines dt. 06.01.2022 of MoEF&CC</p> <p>NPV of the forest land being diverted i.e.</p> <p>Reserved Forest (Eco Class II having density of 0.5-0.6) 83.24 Ha @ Rs. 15.95 lac (A) = Rs. 1327.68 lac</p> <p>Revenue Forest (Eco Class II having density of 0.3-0.4) 51.45 Ha @ Rs. 11.16 lac (B) = Rs. 574.182 lac</p> <p>Total (A+B) = 1901.86 lac</p>	Rs. 1901.86 Lac
2.	Loss of animal husbandry productivity including loss of fodder	10% of NPV applicable i.e. Rs. 190.18 Lac
3.	Cost of human resettlement	Rs. 5635.50 Lac
4.	Loss of public facilities & administration infrastructure (roads, building, school, dispensary, electric lines, railways etc.) on forest land.	Not Applicable
5.	Possession value of forest land diverted	30 % of NPV i.e. Rs. 570.56 Lacs
6.	Cost of suffering of oustees	975 person x Rs. 340/- per day x 2 years (730 days) x 1.5 times = Rs. 3629.92 Lacs
7.	Habitat Fragmentation Cost	50% of NPV applicable as thumb rule i.e. Rs. 950.93 Lacs
8.	Compensatory Afforestation and Soil & Moisture Conservation Cost	2191.38 Lacs
	Total	Rs. 15070.33 Lacs
	or say	Rs. 150.70 Cr.

Table C – Estimation of Benefit of Forest Diversion in Cost Benefit Analysis (as per MoEF&CC Guideline related to cost benefit analysis)

SN	Parameters	Remarks
1.	Increase in Productivity attribute to the specific project. (If raw coal will be sold in million ton x sale price)	Increase in productivity due to sale of raw coal = Rs. 16572 Cr (218.63 Million tonnes coal @ Rs. 758 /- sale per tonne of G14)
2.	Benefit to economy due to the specific project	Benefit of the Project to be furnished here in shape of - Total sale value is Rs. 16572 Cr - Profit is Rs. 2186 Cr (218.63 Million tonnes coal @ Rs. 100 /- profit per tonne)
3.	No. of population benefitted due to specific project	No. of Population to be benefitted here – 5000
4.	Economic benefit due to direct and indirect employment due to the project	Socio economic condition of the persons to be employed will be increased. Besides, the direct employment, the operation of Kulda OCP has the potential to create in-direct employment opportunities in the service sector and is expected to provide a major boost to local economy.
5.	Economic benefits due to Compensatory Afforestation	Rs. 9.57 lac x 134.69 ha (as per Guideline issued by MoEF vide letter No. F.No.5-3/2011_FC (Vol-I) dt. 06.01.2022) = Rs. 1288.98 lacs Or say = 12.88 Cr.
	Total	Rs. 2198.88 Cr.

COST BENEFIT RATIO OF THE PROJECT =

Benefit Rs. 2198.88 Cr

Loss Rs. 150.70 Cr.

Ratio 1:14.59


 Project Officer,
 Kulda OCP,
 MCL, Basundhara Area