

COST BENEFIT ANALYSIS

KALIAPANI CHROMITE MINE OF M/s BALASORE ALLOYS
TAHASIL: SUKINDA, DIST: JAJPUR, ODISHA.

A. Cost of the Project.**1. Parameters for Evaluation Of Losses Of Forests**

Sl No	Parameters	Description.	Amount in Lakh Rupees.
1	Loss of value of timber, fuel-wood and minor forest produce on an annual basis, including loss of man-hours per annum of people who are deprived livelihood and wages from the harvest of these commodities.	Timber & Fire wood: 244 trees equivalent to 23.98 unit @ Rs1514 /- per unit (2015-16 year) = 0.363 lakh. MFP: Fruits of Barkoli (Ber), Jamun, Bahada, Neem, Char Sal seeds (from 23 trees) 230 man hr per annum for 50 year= 230x50x50 =5.75 lakh	6.11
2	Loss of animal husbandry productivity, including loss of fodder.	Not used as grazing ground. Fodder species available are Bara, Barkoli. Bada Chakunda, Osta, Gambhari , Dimiri Total 11 number of pole size trees available. Though, Not used by public for any form of animal husbandry the fodder loss is estimated to be 5.5ton per annum for 50 years @ 1000/- per ton.	2.75
3	Cost of human resettlement	No settlement within ML area. No Replacement of Habitation	0.00
4	Loss of public facilities and Administrative infrastructure (Roads, buildings, schools, dispensaries, electric lines, railways etc.)On forest land, or which would require forest land if these facilities were diverted due to the project.	No public facilities available on the ML area.	0.00
5	Environmental losses: (Soil erosion, effect on hydrological cycle, wildlife habitat, microclimate, upsetting of ecological balance).	Forest Area within ML area proposed for Diversion: 64.119 ha Crop Density at present < 0.1 For calculation of Loss crop density 0.1 is taken. Rs126.74 lakhx0.1x 64.119	812.64
6	Suffering to oustees	There is no oustees	0.0
Total Loss from Forest			821.50

2. Project Implementation Cost.

Sl No	Parameters	Description.	Amount in Lakh Rupees.
1	Payment of NPV	@7.30 lakh over 64.119 ha	468.07
2	Cost of Compensatory Afforestation	Over 64.119 @92600/- per ha =59.37 lakh Fencing Cost over 3RKM @1.5 lakh =4.5 lakh EPA / VSS activation =5.00 lakh	68.87
3	Wildlife Management Cost	As per approval of WLCP for the Mine by PCCF & CWLW, Odisha vide his letter No 8475/1WL (C) SSP-425/2014 Dated 07th November,2014	281.89
4	Project Cost	Construction activity for U/G mining	150000.00
	Total Cost:		150818.83

Total Project Cost: 1+2 = 821.50 + 150818.83= 151640.33 lakh for 50 year

Project Cost Per Annum= 151640.33 / 50= 3032.80 Lakh


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B. Benefits of the Project:

Parameters for Evaluation Of Benefit, Notwithstanding Loss Of Forest

Sl.No	Parameters	Description	Amount in Lakh Rs
1	Increase productivity attributable to the specific project	Ore production @16,92,000 Ton /annum, benefit will be @Rs 13484/ton Amount $1692000 \times \text{Rs } 13484 = 228149.28$ (-) less by working Cost i.e. Cost of Raising : 4107.0 Amount $1692000 \times \text{Rs } 13484 - 4107.0 = 158658.84$	69490.44
	Benefits to economy	Royalty Rs 2022.60. DMF 30% of royalty: Rs 606.78. NMET 2% of royalty: Rs 40.45 TCS 2% of royalty: Rs 40.45 Cess Rs 6\MT Total Rs 2716.28/Ton for 16.92 lakh Ton	45959.45
	No. of population benefited	Including plant and mine(both Direct and Indirect) 5000nos @Rs5000/Month	3000.00
	Employment potential	600 no Indirect@5000/Month 1500 no Direct@20000/Month	3960.00
	Cost of acquisition of facility on non-forest land where feasible	Not available	00
	Loss of (a) agricultural & (b) non-forest land wherever feasible	Not Applicable	00
	Cost of rehabilitating the displaced persons as different from compensatory amounts given for displacement.	Not Applicable	00
	Cost of supply of free fuel wood to workers residing in or near forest area during the period of construction	Not required as workers belong to local area	00
	Total Benefit		122409.45


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C. Cost Benefit Ratio

Total Cost/Annum: Rs 3032.80 Lakh

Total Benefit: Rs 122409.45 Lakh

Cost / Benefit ratio =1:40.36



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