

Table B- Estimation of cost of forest diversion (as per MoEF & CC Guideline dated 1st Aug 2017 related to cost benefit analysis)

Sl. No.	Parameters	Remarks (Rupees in lakhs)
1	Ecosystem Services losses due to proposed forest diversion. NPV of the forest land being diverted i.e. (Eco class value-III Tropical Dry Deciduous Open Forest) Forest land 697.979 ha @ Rs. 9,57,780 lakhs	Rs. 6685.10
2	Loss of animal husbandry productivity including loss of fodder (10% of NPV)	668.510
3	Cost of human resettlement.	No R & R is involved
4	Loss of public facilities & administration infrastructure (Roads, building, school, dispensary, electric lines, railway etc.) on forest land.	Not applicable, Since these facilities are not available inside the forest area for proposed diversion.
5	Possession value of forest land diverted (30% of environmental cost (NPV) due to loss of forest or circle rate of adjoining area in the district should be added as a cost component as possession value of forest land whichever is maximum).	2005.531
6	Cost of suffering of oustees	Not applicable since there will be no displacement of peoples.
7	Habitat Fragmentation Cost (While the relationship between fragmentation and forest goods and services is complex, for the sake of simplicity the cost due to fragmentation has been pegged at 50% of NPV applicable as a thumb rule)	3342.552
8	Compensatory Afforestation and Soil & Moisture Conservation Cost	12618.5940
Total Loss (Against the proposed forest land diversion)		Rs. 25320.287



Chittaranjan Pati
General Manager (Mech.)
Pottangi Mines Project
M&R Complex, NALCO
Damanjodi - 763008

Table C- Estimation of Benefit of Forest Diversion in Cost Benefit Analysis (as per MoEF & CC Guideline dated 1st Aug 2017 related to cost benefit analysis)

Sl. No.	Parameters	Remarks (Rupees in lakhs)
1	Increase in Productivity attribute to the specific project considering average Bauxite Ore price @ Rs. 1300 per tonne X 40 MT.	520000.00
2	Benefit to economy due to the specific project	52000.00
3	No of population benefited due to specific project 50000	
4	Economic benefit due to direct and indirect employment due to the project Direct: 551 (Approx) Indirect: 1000 (Approx)	
5	Economic benefits due to Compensatory Afforestation. (The benefit from such Compensatory Afforestation accruing over next 50 years magnetized and discounted to the present value should be included as benefit by Compensatory Afforestation). For next 50 years the estimated cost of NPV for present value is taken as benefit by Compensatory Afforestation i.e. $\text{Present value} \times (i + i)^N$ $= 12618.5940 \times (1+0.04)^{50}$ (i = interest, N=Time)	89676.3518
	Grand Total	Rs. 661676.3518

COST BENEFIT RATIO OF THE PROJECT

Benefit - 661676.3518

Loss - 25320.287

Ratio - 1: 26.13



Authorised Signatory
Ghittaranjan Pati
General Manager (Mech.)
Pottangi Mines Project
M&R Complex, NALCO
Damanjodi - 763008

**Divisional Forest Officer
Koraput Forest Division**