

Cost Benefit Analysis in respect of Phase-II Urga to Dharamjaygarh Rail Corridor			
(As per new guideline in Handbook of Forest Conservation Act 1980 published in 2019, issued by MoEF/CG Govt. of India, New Delhi)			
Table - A: Estimation of cost of forest diversion:-			
SL.No	Parameters	Rail Line Cost (in Rs. Cr.)	Remarks
1	Ecosystem services losses due to Proposed forest diversion	630.50	Eco Class III Dense Forest NPV rate is 8,03,000/Ha
2	Loss of animal husbandry productivity, including loss of fodder	63.05	10% of NPV Rate
3	Cost of Human Resettlement	30.33	As Per R&R Plan Amount Approved for District Raigarh Rs 8.10 Cr and District Korba Rs 22.23 Cr.
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.	-	NIL public infrastructure in the forest patches
5	Possession Value of Forest Land Diverted	223.50	Average Circle Rate of Adjoining District Raigarh & Korba Rs 948840/Ha.
6	Cost of suffering to oustees	91.00	As Per R&R Plan
7	Habitat Fragmentation Cost	315.25	50% of NPV
8	Compensatory afforestation and Soil & Moisture Conservation Cost for Railway Line	26.17	Cost of 10 year CA plantation scheme + estimated Rs.1 Crore for soil and moisture conservation cost
	<b>Sub Total</b>	1,379.80	
	<b>Total Cost in Crores</b>	1,379.80	

Table - B: Estimation of benefits of forest diversion:-			
SI No.	Parameters	Rail Line Cost (in Rs. Cr.)	Remarks
1	Increase in productively attribute to the specific project	11,102.34	The profit from rail transport per tonne is Rs. 1.41/km. The production at each mine is multiplied by profit, line length for a period of 50 years
2	Benefits to economy due to the specific project (for 50 Years)		Rail line is specific for evacuation of coal. No passenger traffic is possible in foreseeable future. As such the direct benefits to economy is difficult to monetize
3	No. of population benefited due to specific project(for 50 Years)	1,170.09	No. of population in adjacent village is multiplied by per capita income
4	Economic benefits due to direct and indirect employment due to the project.	155.38	Direct employment-54 nos. and Indirect employment - 191625 Mandays .
5	Economic benefits due to Compensatory Afforestation (for 50 Years)	94.54	The benefits from such compensatory afforestation accruing over next 50 years, monetized and discounted to the present value should be included as benefits of compensatory afforestation. Standard gain x applied area x average forest density =150.5 Lakhs X 157.035 * 0.4
	<b>Sub Total</b>	12,522.35	
	<b>Total Benefit in Crores</b>	12,522.35	
	<b>Cost Benefit Ratio</b>	1:9	9.08