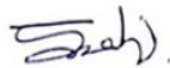# Cost Benefit Analysis Report

For

Diversion of Forest Land over an extent of

8.02 Ha in Ravipahad Village, Suryapet District, Telangana

For

Railway siding and associated activities
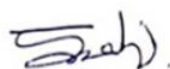
In respect of

M/S Deccan Cements Limited

N.SRINIVASA RAJU
CHIEF GENERAL MANAGER (WORKS)
M/S DECCAN CEMENTS LIMITED

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

Sl. No.	Nature of Proposal	Applicable/Not Applicable	Remarks
1	Proposal involving forest land more than 5 Ha. in hills including railway line	Applicable	The proposed project is for diversion of 8.02 Ha of forest land in Ravipahad Village, Suryapet District, Telangana

Table B: Estimation of Cost of Forest Diversion

Sl. No.	Parameter	Remarks
1	Ecosystem services losses due to proposed forest diversion	Economic value of loss of eco-system services due to diversion of forest at proposed Ravipahad Village, Suryapet District, Telangana State shall be Rs. 6.26 Lakhs/Ha (NPV rate as per ECO value of open Forest class II as per Guideline of MoEF&CC, GOI dated 05/02/2009 $= 8.02 \times 6.26 =$ **Rs. 50.2052 Lakhs**
2	Loss of animal husbandry productivity, including loss of fodder	10% of the NPV (as per the cost benefit guideline) $= 10\% \times$ Rs. 6.26 Lakh $\times$ 8.02 = **Rs. 5.02052 Lakhs**
3	Cost of human resettlement	Nil
4	Loss of public facilities and administrative infrastructure if these facilities are diverted due to the project	Nil
5	Possession value of forest land diverted	$= 30\% \times$ Rs. 6.26 $\times$ 8.02 = **Rs. 15.06156 Lakhs**
6	Cost of suffering to oustees	Nil
7	Habitat fragmentation cost	$= 6.26 \times 8.02 \times 0.5 =$ **Rs. 25.1026 Lakhs**
8	Compensatory afforestation and soil & moisture conservation cost	The cost @ Rs. 4.00 Lakhs per Ha. is taken for compensatory afforestation and soil moisture conservation. $= 16.04 \times 4.0 =$ **Rs. 64.160 Lakhs**
Total Cost		(50.2052 + 5.02052 + 15.06156 + 25.1026 + 64.160) **Rs. 159.54988 Lakhs**

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Table C: Estimation of Benefits of Forest Diversion

Sl. No.	Parameter	Remarks
1	Increase in Productivity attribute to the specific project	Total quantity of cement transported through rail = 18,00,000 tons X 0.36% X Rs. 5,000 per ton = Rs. 324 Lakhs/year Over a period of 99 years = **Rs. 32,076 Lakhs**
2	Benefit to economy due to specific project	G.S.T. @ 28% Total quantity of cement transported through rail = 18,00,000 tons X 0.36 % X Rs. 1,400 per ton = Rs. 90.72 Lakhs/year Over a period of 99 years = **Rs. 8,981 Lakhs**
4	No. population benefitted due to the specific project	1. Employment of around 600 man days 2. Employment generated on non-forest land in afforestation programme. 3. Local people will have income opportunity in various ancillary work and other activities.
5	Economic benefits due to direct and indirect employment due to specific project	600 man days X Rs. 453.42 = Rs. 2.72 Lakhs Over a period of 99 years = 2.72 X99 = **Rs. 269.28 Lakhs**
6	Economic benefits due to compensatory afforestation	Compensatory afforestation of 16.04 Ha. of land @ 2500 no.s of saplings X survival rate 100 no.s of saplings per Ha. = 1604 no. of trees. Economic benefit of one tree accruing over next 50 years monetized in terms of providing oxygen, water, soil, moisture conservation etc + timber and firewood = Rs. 23.50 Lakhs Future benefit of 1604 tress @ Rs. 23.50 Lakhs = 23.5X 1604 = **Rs. 37,694 Lakhs**
Total Benefit		(32,076 + 8,981 + 269.28 + 37,694) **Rs. 79,020.28 Lakhs**

$$\text{Cost Benefit Ratio} = \frac{\text{Total Benefit}}{\text{Total Cost}} = \frac{79,020.28}{159.54988} = 495.27$$

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