

COST BENEFIT ANALYSIS

NAME OF THE PROJECT: Widening and improvement of main alignment of NH-39 (Imphal-Moreh) of 29.516 km from Khongkhang to Moreh in the state of Manipur

NATURE OF PROPOSAL: Diversion of Forest Land under FCA, 1980 for road widening

PURPOSE - This Cost Benefit Analysis is being undertaken for Proposed Diversion of Forest Land being affected due to **Widening and improvement of main alignment of NH-39 (Imphal-Moreh) of 29.516 km from Khongkhang to Moreh in the state of Manipur.**

TABLE - A: ESTIMATION OF COST OF FOREST DIVERSION

Sl. No.	PARAMETER	DESCRIPTION
1	Ecosystem services losses due to proposed forest diversion	<p style="text-align: right;">Rs.335.58566lakhs</p> <p>(1. Proposed forest area to be diverted Total = 48.288ha 2. Crown density of the proposed area:0-60% 3. Forest Cover Area in ha: A.Class:Total Area</p> <p>(i) Dense forest : 8.144 ha (ii) Open forest:35.495 ha (iii) Scrub:4.649 ha 48.288 ha</p> <p>3.As per Supreme Court's Order dated 28.03.2008 in WP(C) No. 202/1995: (i) Forest type of the proposed diversion area : Eco-Class I (ii) Net Present Value: (a) Dense forest = (i) Area: 8.144ha @ Rs. 9.39 lakhs = Rs. 76.47216 lakhs (b) Open forest = (i) Area: 35.495ha @ Rs. 7.30 lakhs = Rs. 259.1135 lakhs TOTAL NPV (a) + (b) = Rs. 76.47216 lakhs + Rs. 259.1135 lakhs = Rs.335.58566lakhs)</p>
2	Loss of animal husbandry productivity, including loss of fodder	10% of NPV = 10% of Rs.335.58566lakhs = Rs.33.558566 lakhs

3	Cost of human resettlement	Nil. The cost of Human Resettlement for diversion of Forest Land is Nil.
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. Electric Lines & Poles, Water Pipe Lines, Water Tank etc. public facilities which are being affected have been considered in the budget. Also the budgets for affected CPRs have been considered.
5	Possession value of forest land diverted	30% of environmental cost NPV) = 30% of Rs.335.58566lakhs= Rs. 100.675698 lakhs
6	Cost of suffering to ousters	Nil. The widening and strengthening of the project road is to be undertaken on the adjoining land of the existing road, so there are no sufferings to ousters
7	Habitat Fragmentation Cost	As per thumb rule : 50% of NPV = 50% of Rs.335.58566lakhs= Rs.167.79283 lakhs
8	Compensatory afforestation and soil & moisture conservation cost	Compensatory Afforestation cost of 96.576 ha land for 48.288ha proposed forest land diversion: Rs.192.959 lakhs @Rs.225/- wage rate(including Rs.14.293 lakhs as soil & moisture conservation cost which is 10% of CA item work cost for a maintenance period of 8 years)

TABLE B: ESTIMATION OF BENEFITS OF FOREST DIVERSION

Sl. No.	PARAMETER	DESCRIPTION
1	Increase in productivity attribute to the specific project	Rs. 1083302.719 cr.
2	Benefit to economy due to the specific project	Economic Improvement in the Project District considering 15% enhanced growth in the GDP against normal benefit will be for 5 years at enhanced rate of 15% and growth rate due to the project. This 10 years for enhanced 5% rate (current GDP of the state @ 14,000 crore / annum in 2014-15) Rs.10833.02719 cr
3	No. of population benefited due to specific project	96,000 no.

4	Economic benefits due to direct and indirect employment due to the project	<p>A. Employment Potential - Construction :</p> <p>(i) Skilled Manpower - 500 nos. x Rs. 600/day x 365 days x 3 years = Rs.3285lakhs (ii) Semi-skilled Manpower - 250 nos. x Rs. 350/day x 365 days x 3 years = Rs.958.125 lakhs (iii) Technical People - 80 nos. x Rs.2000 / day x 365 days x 3 years = Rs.1752 lakhs</p> <p>B. Employment Potential - Maintenance :</p> <p>(i) Skilled Manpower - 50 nos. x Rs. 600 / day x 365 days x 30 years = Rs. 3285 lakhs (ii) Semi-skilled Manpower - 25 nos. x Rs. 350/day x 365 days x 30 years = Rs. 958.125 lakhs (iii) Technical People - 8 nos. x Rs.2000/day x 365 days x 30 years = Rs. 1752 lakhs</p> <p>Total (C=A+B) = Rs. 11990.25 lakhs</p>
5	Economic benefits due to Compensatory Afforestation	<p>40,490 Man day as per prevailing wage rate for a maintenance period of 8 years of (48.288*2 = 96.576 ha CA area) @ present wage rate Rs.225.00 Mday = Rs. 91.10250 lakhs</p>