

COST BENEFIT ANALYSIS FOR AURANGABAD-DHULE SECTION OF NH-211 IN THE STATE OF MAHARASHTRA (AURANGABAD DISTRICT)

A) Parameter for Evaluation of Loss of Forests

S.No.	Parameters	Descriptions
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 derived livelihood and wages from the harvest of these commodities	Nil. No livelihood of people affected
2.	Loss of animal husbandry productivity, including loss of fodder	Nil
3.	Cost of human resettlement	Nil
4.	Loss of public facilities and administrative infrastructure (Roads, buildings, school, dispensaries, electric lines, railways etc.) on forest land, or which would require forest land if these facilities were diverted due to the project.	Nil
5.	Environmental losses : (Soil erosion effect on hydrological cycle, wildlife habitat, microclimate upsetting of ecological balance)	<p>The total area of Reserved forest land along the project road required for the widening is 11.78 ha. The environmental loss for density 1.0 is Rs 126.74 lacs per hectare (As per Forest (Conservation) Act) for 50 years.</p> <p>Considering density of the forest as 0.4, the cost of environmental losses per hectare is Rs. 50.696 lakhs for 50 years.</p> <p>So, Environmental losses for total reserved forest affected are Rs 597.19 lakhs for 50 years.</p> <p>Therefore, Current environmental loss is Rs.597.19 lakhs</p>
6.	Suffering to oustees	Nil

Therefore Net Loss: Rs. 597.19 lakhs

B) Parameter for Evaluation of Benefit, notwithstanding Loss of Forests

S.No.	Parameters	Descriptions
1.	Increase in productivity attributable to the specific project	In lieu of total trees to be affected in reserved forest land, it is proposed to undertake at least twice of affected trees as compensatory afforestation as per Forest (Conservation) Act. So the net productivity will increase.
2.	Benefits of economy	<p>Socio-economic benefits due to the project will be:</p> <ul style="list-style-type: none"> • Better accessibility social infrastructure like educational institutions, health facilities, markets etc. • Savings in vehicular operating cost • Savings in travel time • Benefits to trade especially in movement of perishable

4

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S.No.	Parameters	Descriptions						
		<p>goods</p> <ul style="list-style-type: none"> • Reduced vehicular maintenance cost • Reduction in accidents and • Overall enhancement of socio-economic conditions of the area along the project corridor <p>Based on economic analysis of the project, the Economic Internal Rate of Return (EIRR) is as below:</p> <table border="1"> <thead> <tr> <th>Project</th><th>EIRR (%)</th><th>NPV @ 12 % (Rs. lakhs)</th></tr> </thead> <tbody> <tr> <td>Widening of existing road to 4 lane with paved shoulder</td><td>21.1%</td><td>116430.45</td></tr> </tbody> </table> <p>The results of Economic Evaluation show that the proposed upgrading of the project road to 4 lane is economically viable with EIRR 21.1% which is more than the discount rate of 12%. So total benefit of Economy due to the project = Rs. 116430.45 lakhs</p>	Project	EIRR (%)	NPV @ 12 % (Rs. lakhs)	Widening of existing road to 4 lane with paved shoulder	21.1%	116430.45
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Widening of existing road to 4 lane with paved shoulder	21.1%	116430.45						
3.	No. of population benefited	Total no. of population likely to be benefited about 36 Lakh.						
4.	Employment potential	About 5,40,000 man days of employment will be generated during construction period of the project for a period of 3 years.						
5.	Cost of acquisition of facility on non-forest land wherever feasible	Nil						
6.	Loss of (a) agricultural & (b) animal husbandry production due to diversion of forest land	Nil. There is no existing practices in the affected area						
7.	Cost of rehabilitating the displaced person as different from compensatory amounts given for displacement	Nil. No displacement of person is required for the proposed diversion of forest.						
8.	Cost of supply of free fuel wood to workers residing in or near forest area during the period of construction	No fuel wood will be supplied to the workers during the construction period. Contractor will supply fuel for the cooking and other purposes in the worker's camp to the workers.						

Therefore Net Benefit: Rs. 116430.45 lakhs

Date:

Place:


Project Director
NHAI-PIU Aurangabad
 (Signature of User Agency)


 For & Rs.
 Bhusel