# COST BENEFIT ANALYSIS

## a) Parameter for Evaluation of Loss of Forests.

| Sl.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. | Total No. of matured trees affected in the protected foest land area approximately 90 trees . Average cost of tree is Rs 6760/tree. Therefore the total cost of tree in protected forestland that will be affected due to widening of road is Rs 6,08,400.00. |
| 2 | Loss of animal husbandry productivity, including loss of fodder. | Since the road will be widened mostly on the hill side, few agricultural land is going to be affected. So there is no loss of animal husbandry including loss of fodder. |
| 3 | Cost of human resettlement. | There is no human resettlement in these protected forest land. |
| 4 | Loss of public facilities and administrative infrastructure (Roads, Building, School, Dispensaries, Electric Lines,railway etc) on Forest land or which would require forest land if these facilities were diverted due to the Poject. | There are no public facilities and Administrative infrastructure (Roads, Building, School, Dispensaries, Electric Lines,railway etc) on Forest land. |
| 5 | Environmental losses: (Soil erosion,eefect on hydrological cycle, wildlife habitat,micro climate upsetting of ecological balance). | The total area of the Riverine forest land required for the widening of the Project is approximately 4.98ha. |
| 6 | Suffering to oustees. | Since the road will be widened mostly on the hill side, impact on agricultural land is minimum. No Grazing land is going to be affected so there are no suffering to oustees. |

## b) Parameters for Evaluation of Benefit, notwithstanding loss of forests

<table>
<tr><th>Sl.No</th><th>Parameters</th><th>Descriptions</th></tr>
<tr><td>1</td><td>Increase in productivity attributable to the specific Project.</td><td>In lieu of total trees to be effected in protected forest land, it is proposed to plant at least three trees as compensatory afforestation.</td></tr>
<tr><td>2</td><td>Benefit as economy</td><td>Economic Internal Rate of Return for 25 years (EIRR) and Net Present Value (NPV in millions) in Table
<table>
<tr><th rowspan="2">Descriptions</th><th colspan="2">Results</th></tr>
<tr><th>EIRR (%)</th><th>NPV (Millions)</th></tr>
<tr><td>With project case (2 lane paved shoulder with flexible pavement)</td><td>12.38</td><td>positive (+ ve)</td></tr>
</table>
The results of Economic Evaluation shows that the proposed project is marginally economical viable, yielding EIRR of 12.38% but considering social aspect the project has been considered as feasible.</td></tr>
<tr><td>3</td><td>No. of population benefited</td><td>Total no. of population benefited are 20,000.</td></tr>
<tr><td>4</td><td>Employment potential</td><td>100 workers will be appointed during the construction period. Additional 50 workers will be appointed during the time of tree plantation.</td></tr>
<tr><td>5</td><td>Cost of acquisition of facility on non-forest land wherever feasible</td><td>Cost of land acquisition: approximately Rs 3.64 Crores.</td></tr>
<tr><td>6</td><td>Loss of (a) Agricultural & (b) animal husbandry production due to diversion of forest land</td><td>Nil</td></tr>
<tr><td>7</td><td>Cost of rehabilitating the displaced person as different from compensatory amounts given for displacement.</td><td>There is no displacement in the project</td></tr>
<tr><td>8</td><td>Cost of supply of free fuel wood to workers residing in or near forest area during the period of construction.</td><td>No fuel wood will be supplied to the workers during the construction period. Contractor will suplly LPG for the cooking and other purposes in the worker's camp to the workers</td></tr>
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