## **Cost Benefit Analysis**

ANNEXURE - VI (b)

Parameters for Evaluation of Losses of Forests

| क्षेत्रीय सन<br>शाहज<br>सा० वा० व० प्र | SI.<br>No.         | Parameters   |   |                                 | Descri                       | ption    |  |  |
|--|--------------------|--|---|---------------------------------|------------------------------|----------|--|--|
|  | 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  | the proposed development. The cost for the same is Rs. 49197307.00 i.e. INR 491.973 Lakh  |                                 |                              |          |  |  |
|  | 2                  | Loss of animal husbandry productivity, including loss of fodder  | Nil   |                                 |                              |          |  |  |
|  | 3                  | Cost of human resettlement   | No resettlement for the project is involved   |                                 |                              |          |  |  |
|  | 4                  | Loss of public facilities and administrative infrastructure (Roads, building, school, dispensaries, electric lines, railways, etc.) on forest land, or which would require forest land if these facilities were diverted due to the project. | Not applicable  |                                 |                              |          |  |  |
|  | 5<br>अधिक<br>इँपुर | Environmental losses (Soil erosion, effect on hydrological cycle, wildlife habitat, micro climate upsetting of ecological balance)   | The total area of Protected forest land being diverted for the Widening of "Gola- Shahjahanpur" section of State Highway No. 93 is 55.100 ha (47.100 Ha in South Kheri& 8.000 Ha in Shahjahanpur) and Reserve Forest is of 1.998 ha (only in South Kheri). As per Forest (conservation) Act, 1980 the environmental loss for a 50 years period for the density of 1.0 is INR 126.74 lacs per hectare. |                                 |                              |          |  |  |
|  | पाग, शा            | इजहापुर  | The division wise environment loss fo & 1.998 ha RF is as follows.  |                                 |                              |          |  |  |
|  |                    | चप प्रभागीय वनाधिकारी  | Division  | Legal<br>Status<br>of<br>Forest | Forest<br>Area<br>(Ha)-<br>A | Density- | Environment<br>Loss (INR-Lakh)<br>(A X D X Rs.<br>126.74 Lakh) |  |
|  |                    | uarai .  | South Kheri   | PF                              | 47.100                       | 0.5      | 2984.727   |  |
|  |                    | भारजदाँपर  | South Kheri   | RF                              | 1.998                        | 0.5      | 126,61326  |  |
|  |                    | <b>धाह्</b> जहाँपुर  | Shahjahanpur  | PF                              | 8.000                        | 0.3      | 304.176  |  |
|  |                    | ž ž  | Total (INR Lakh) 3415.516   |                                 |                              |          |  |  |
|  |                    |  | Hence, on calculation the environmental loss for the project is INR 3415.516 Lakh   |                                 |                              |          |  |  |
|  | B                  | Suffering to oustees   | Not applicable  |                                 |                              |          |  |  |

उप प्रभागीय क्रिक्टिश Current Environmental Net Loss =INR (491,973+3415.516) Lakh = INR 3907.489Lakh

र्गोला दक्षिण खीरी वन प्रभाग लजीमपुर - सीरी

> क्षेत्रीय वनाधिकारी गोला दक्षिण खीरी वन प्रभाग

क्षेत्रीय धर्नाधिकारी मोहम्मदी (महेशपुर)

A. K. Agerwal

Superintending Ennineer
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प्रभागीय निवेशक ना० वा० प्रभाग, शाहजहाँपुर

## Cost Benefit Analysis

ANNEXURE - VI (c)

Parameters for Evaluation of Benefit, Notwithstanding Loss of Forest

| SI.<br>No.          | Parameters  | Roads Tr. Lines & Railway Lines   |
|---------------------|---|---|
| 1                   | Increase in productivity attributable to the specific project   | The productivity attributable due proposed project is subject to estimation as per reduction in travel time for movement of vehicle and finally reduction in consumption of fossil fuels.  Due to widening of the Project Road, the improved traffic condition and reduction of travel time will result in productive benefits of Rs. 23101.600  Lakhs  |
| 2                   | Benefits of economy   | <ul> <li>Socio-economic benefits due to the project will be</li> <li>better connectivity to the project villages/settlements by providing better road condition and reduced travel time</li> <li>Reduction of Vehicular Operational Cost of Rs. 6315.400Lakhsdue tosavings in vehicular maintenance cost and reduced fuel consumption</li> <li>Benefits to trade especially in movement of perishable goods</li> <li>Reduction of Road Accidents and reduction in accident cost of Rs. 1808.400 Lakhs</li> <li>Net Economic Benefits (NPV) for the project Rs. 5267 Lakhs(Total Benefit – Increase in Road Agency Cost; i.e. Rs. 31225.400Lakhs - Rs. 25958.600 Lakhs)</li> <li>Economic Internal Rate of Return (EIRR) is 14.4%</li> </ul> |
| 3                   | No. of population benefited   | Total no. of population benefited are 90000 along the existing road   |
| 4                   | Employment potential  | Regular Employment of 300 people is expected to be generated due to the development of this project. Beside this, Temporary Employment of 1620000 man days is also expected to be generated.  |
| 5                   | Cost of acquisition of facility<br>on non-forest land wherever<br>feasible                                    | Nil   |
| 6                   | Loss of (a) agricultural & (b) animal husbandry production due to diversion of forest land                    | Nil   |
| हाँपुर<br>प्रभाग, श | Cost of rehabilitating the displaced person as different from compensatory amount given for displacement      | There is no displacement due to the project, so resettlement is not required  |
| 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 construction period.  Contractor will supply fuel for the cooking and other purpose in the worker's camp to the workers   |

Therefore Net Benefit of the Project not withstanding loss of Forests is Rs. 5267 Lakhs

Benefit - Cost Ratio

= 5267/3907.489

= 1.35

उप प्रभागीय वस्तायपर गीला दक्षिण खीरी वन प्रभाग चलीमपुर - खीरी

गा० वा० व०

क्षेत्रीय वनाधिकारी गोला क्षेत्रीय वनाधिकारी बोहम्मदी (महेशपुर)

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प्रभागीय निदेशक व्यक्त प्रभाग, शाहजहाँपुर

शाहजहांप्र