



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय, भारत सरकार)

National Highways Authority Of India

(Ministry of Road Transport and Highways, Govt. of India)

कार्यालय परियोजना निदेशक, परियोजना कार्यालय ईकाई, बिलासपुर

Office of Project Director Project Implementation Unit, Bilaspur

डी-61, एच.आई.जी.- I, अभिलाषा परिसर, नया बस स्टैण्ड के पीछे तिफरा, बिलासपुर (छ.ग.)

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Project- Development of Economic Corridor to improve the efficiency of freight movement in India under Bharatmala Pariyojana [Lot-3/Chhattisgarh/Package-1(Bilaspur Urga Section of Raipur Dhanbad Economic Corridor)]

Undertaking regarding Forest Rights Act, 2006

This is to undertake that documentary evidence in support of Settlement of Rights under the Forest Rights Act, 2006 on the forest land proposed to be diverted shall be obtained from District Collector after detailed joint inspection in Part II stage of forest proposal. Same shall be uploaded in the portal as soon as it is furnished.


Project Director
NHAI, PHU, Bilaspur
PROJECT DIRECTOR
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COST BENEFIT ANALYSIS

Name of the Project: Development of Economic Corridor to improve the efficiency of freight movement in India under Bharatmala Pariyojana, Bilaspur – Urga section of NH-130A (Raipur – Dhanbad Economic Corridor)

Nature of Proposal: Diversion of 41.1366 of forest land under FCA, 1980 for road construction.

Purpose: The Cost of Benefit Analysis is being undertaken for proposed Diversion of Forest land being affected due to Development of Economic Corridor to improve the efficiency of freight movement in India under Bharatmala Pariyojana, Bilaspur – Urga section of NH-130A (Raipur – Dhanbad Economic Corridor).

Total length of the road along the PF/RF

Under Janjgir Champa forest division = 5.86 km approx.

Total Forest area proposed for diversion

Under Janjgir Champa forest division = 41.1366 Ha.

a) Parameter for Evaluation of Loss of Forests (As per Form VI-C)

Sl. No.	Parameters	Roads. Tr. Lines & Railway Lines
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	Nos. of trees to be affected shall be accounted during joint inspection with Forest Dept. and Cost Benefit Analysis shall be updated accordingly. However, since the forest area is classified as moderately dense forest, for estimation of loss at this stage of project, canopy density of 0.7 nos. /sq. m has been considered as affected due to proposed development. Therefore total values of trees @ average INR 3500 per tree = INR 3500 x 0.7 x 411366 = INR 10078.467 Lakhs No livelihood of people will be affected due to proposed diversion of forest land
2	Loss of animal husbandry productivity, including loss of fodder	Nil
3	Cost of human resettlement	No resettlement in the forest land that are diverted for the project
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	No public facilities and administration infrastructures will be diverted on forest land due to project.

Sl. No.	Parameters	Roads. Tr. Lines & Railway Lines
	these facilities were diverted due to the project.	
5	Environmental losses (Soil erosion, effect on hydrological cycle, wildlife habitat, micro climate upsetting of ecological balance)	<p>Environment Loss Environmental value of 1 ha. of forest land with density 1.0 is estimated to be 126.74 Lakhs</p> <p>Janjgir Champa Division Density of Forest Area = 0.7 Per ha loss based on density = INR 88.718 Lakhs Forest Area for Diversion = 41.1366 Ha. Total Loss = INR 3649.5569 Lakhs</p>
6	Suffering to oustees	Nil

Therefore, **Net Current Environmental loss** (a) = INR 10078.467 Lakhs (total value of trees) + INR Lakhs 3649.5569 (Environmental loss) = INR 13728.1239 Lakhs = INR 137.28 Crores.

b) **Parameters for Evaluation of Benefit, not with standing loss of Forests (As per form VI-b of MoEF&CC Handbook)**

S. No.	Parameters	Roads Tr. Lines & Railway Lines
1	Increase in productivity attributable to the specific project	<p>In lieu of total trees to be affected in forest land it is proposed to be undertake at least twice of the affected trees as compensatory afforestation as per Forest (Conservation) Act. So the net productivity will increase. Apart from compensatory plantation.</p> <p>The compensatory afforestation will be taken up in about 82.5 ha of Degraded Forest land which is about two times of the area proposed to be diverted. The compensatory afforestation cost will be INR 3.3 Crores @ INR 400000 per ha.</p> <p>The compensatory afforestation will be done in 82.5 ha of degraded forest land, which is down the line would be having a density of minimum 0.7. The ecological value for a 50 years period for the density of 1.0 is INR 126.74 lacs per hectare. By considering minimum 0.7 density the ecological gain for this project would be INR 36.3912 Crores down the line.</p> <p>In addition to the above the value of the trees at INR 3500 per tree for about 5.775 Lakh trees shall be 202.125 Crores</p>

S. No.	Parameters	Roads Tr. Lines & Railway Lines
2	Benefits of economy	Economic benefit in terms increase in trade, saving in vehicular operation and maintenance cost, better connectivity and saving of travel time.
3	No. of population benefited	Population of surrounding districts Korba (1,206,563), Janjgir Champa (1,317,431) and Bilaspur (2,663,629) will get benefited due to proposed development.
4	Employment potential	Permanent/Regular Employment(Number of persons): 900 Temporary Employment(Number of person-days): 200000
5	Cost of acquisition of facility on non-forest land wherever feasible	No additional facility is required for the project.
6	Loss of (a) agricultural & (b) animal husbandry production due to diversion of forest land	Nil
7	Cost of rehabilitating the displaced person as different from compensatory amount given for displacement	There is no displacement related to the project in the forest area proposed for diversion
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 LPG fuel for the cooking and other purpose in the worker's camp to the workers

Total cost to the environment= Total values of trees to be lost+ Environmental value of the forest area to be lost+ cost of compensatory afforestation = 10078.467 Lakhs+ 3649.5569 Lakhs+ 3.3 Crores= 140.580 Crores

Environmental Benefits = Total value of the trees planted + Ecological Value of the compensated forest area= 202.125 Crores + 36.3912 Crores= 238.5162 Crores

Therefore, Cost benefit Ratio = Total Environmental Benefits/Total cost of the environment
 $= 238.5162 / 140.580 = 1.7 > 1$

Hence, Project is found viable.


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