

Name of Project — Reconstruction with geometric improvement of existing intermediate lane to 2 lane with paved shoulder configuration Existing Km. 28.600 to Km. 59.420 (Design chainage 28.320 to Km. 58.603) of NH-94 in the state of Uttarakhand on EPC Mode under improvement to NH connectivity to Chardham


COST-BENEFIT ANALYSIS

Annexure VI (A)

Block:-

District: Tehri Garhwal

Sl. No.	Particulars	Amount (Rs. In Lac)	Remark
1	Total Cost (Investment Incurred)		
(A)	Construction Cost of Project	23364.00	
(B)	N.P.V. Amount to be deposited @ 6.57 lakh/Hactare (Density 0.3 & Eco Class-V) (6.57 x 61.2689)	402.54	
(C)	Other Substitute/Alternate Plantation Cost CA (122.54 x 2.53) = Rs. 310.02 Lac Loss of Timber = Rs. 6.02 Lac Environmental loss = Rs. 2329.57 Lac	2645.61	
(D)	For Land Acquisition including cost of structures etc.	6720.85	
	Total	33133.00	
2	Benefits		
(A)	Benefits for 30.82 km. (Taking Age of Road as 30 Years)	30 Years	
(B)	Economics Benefits- savings in travel time and Vehicle operating cost for 30 years	25118.30	
(C)	Direct Employment of Labours- (1) Non-skilled 204 @ Rs. 300/day employed during construction for 24 Month i.e Rs. 440.64 Lac (2) Skilled 201 @ Rs. 833/day during operation stage for 24 Month i.e. Rs. 1205.52 lac	1646.16	
(D)	Economics Benefits due to Tourism- As per govt. data, during 2017 Six lac tourists registered for Chardham Yatra. Considering Rs. 2000 revenue generation per person, the benefit for generated for this project would be = Rs. (30x600000x2000x30.82)/739	15013.80	
	Total	41778.26	
	Cost / Benefit = 33133/41778.26	0.793	
Note	Therefore construction of road is Economically viable and Socially beneficial.		


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COST-BENEFIT ANALYSIS

Annexure VI (B)

Parameter for Evaluation of loss of Forests
Nature of Proposal

Sl. No.	Parameters	Roads, Tr. Lines & Railway Line
1	2	3
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 wage from the harvest of these commodities	Rs. 6.02 Lac
2	Loss of Animals husbandry productivity including loss of fodder	Being a linear project loss of animal husbandary will be negligible
3	Cost of human resettlement	No resettlement is required.
4	Loss of public facilities and administrative infrastructure (Roads, Buildings, Schools, Dispensaries, Electric Lines, Railways, etc.) on which would require forest land if these facilities were diverted due to the project	There is no presence of public facilities and administrative infrastructure in proposed site. Accordingly, no loss of public facilities and administrative infrastructure is happening.
5	Environmental losses; (soil erosion, effect on hydrological cycle, wildlife habitat, microclimate upsetting of ecological balance.)	Environmental loss = $0.3 \times 61.2689 \times 126.74/ha =$ Rs. 2329.57 Lac
6	Suffering to oustees	0.00


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COST-BENEFIT ANALYSIS

Annexure VI (C)


Parameter for Evaluation of Benefit, not with standing loss of Forests
Nature of Proposal

Sl. No.	Parameters	Roads, Tr. Lines & Railway Line
1	2	3
1	Increase in productivity attributable to the specific project.	Mobility is difficult and time taking in mountainous regions. The work of widening to 2 lane with paved shoulder will save time, fuel and increase productivity.
2	Benefits to economy.	<p>The main objective of this project is to alleviate the current unsafe condition of the highway and provide better quality and safe road to the users by widening of the highway to 2 lane with paved shoulders will minimize the chances of accidents.</p> <p>As per govt. data, during 2017 Six lac tourists registered for Chardham Yatra. Considering Rs. 2000 revenue generation per person, the benefit for generated for this project would be = Rs. $(30 \times 600000 \times 2000 \times 30.82) / 739 = \text{Rs. } 15013.80 \text{ Lac}$</p> <p>With saving travel time the vehicle operating cost per Km is 815.00 lakh for taking Road age as 30 years Therefore $815.00 \times 30.82 \text{ Km.} = \text{Rs. } 25118.30 \text{ Lac}$</p>
3	No. of population benefited	Entire population along the NH-94 Tehri Garhwal district (3,00,000) shall be benefitted from the project. In addition, the project will boost the economic growth of the Region and State as well by boosting through religious tourism.
4	Employment potential	<p>About 204 non-skilled labour and 201 skilled labour per day will generate direct employment due to Project. In addition to that further employment shall be generated due to religious tourism and adventure tourism.</p> <p>$204 \times 30 \times 24 \times 300 = \text{Rs. } 44064000.00$ $201 \times 30 \times 24 \times 833 = \text{Rs. } 120551760.00$ Total = Rs. 164615760.00</p>
5	Cost of acquisition of facility on non forest land wherever feasible.	It will be approximately equivalent to Rs. 6720.85 Lac
6	Loss of (a) agricultural & (b) animal, husbandary production due to diversion of forest land.	NIL
7	Cost of rehabilitating the displaced	No displacement shall take place as the project only

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	persons as different from compensatory amount given for displacement.	includes widening of road to two lane with paved shoulder is proposed and the person affected are duly compensated by disbursement of compensation.
8	Cost of supply of free fuel-wood to workers residing in or near forest area during the period of construction.	No such proposal is under consideration as the contractor shall provide all modern fuel facilities to the workers.


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