

परियोजना का नाम:- उत्तराखण्ड राज्य में उत्तरकाशी जिले के अन्तर्गत रा0 रा0 -134(पुराना रा0रा0-94) के कि0मी0 24.300 से कि0मी0 51.900 तक सिल्व्यारा बैड पर सुरंग निर्माण का कार्य हेतु वन भूमि हस्तान्तरण का प्रस्ताव।

COST-BENEFIT ANALYSIS
Details of Cost Benefit Ratio

District: Uttarkashi

Sl. No.	Particulars	Amount (Rs. In Crores)	Remark
1	Total Cost (Investment Incurred)		
(A)	Construction Cost of Project		
(B)	N.P.V. Amount to be deposited @ 8.45 lakh/Hactare for dense forest/ surface area and @6.57 lakhs /Ha. (Open forest/underground) 17.857x6.57= 1.17 cr.(Underground) 7.968x8.45= 0.67(Surface area)	1.84	
(C)	Other Substitute/Alternation Plantation Cost to be deposited:- 16.682 lakh. Timber Loss - 24.881 lakh Environmental loss:- 1701.99 Lakh	17.43	
	Total	1389.27	
2	Benefits:- Benefits from (Taking Age of Road As 50 Years)	50 Yrs	
(A)	Economics Benefits- savings in travel time and Vehicle operating cost for 50 years	2693.1	
(B)	Direct Employment of Labours (Temporary) - About 1000 labours @ Rs. 1095000 for 5 year will get employment and 125 labours @ Rs. 9855000 for 45 years will get employment during Operation & maintenance (Temporaray) .	232.69	
(C)	Economics Benefits due to Tourism enhancement- 25 Crore / Year Approx. access to schools hospitals, farmer produce etc.- 20 Crore / Year Approx.	45	
	Total	2970.79	
	Benefit/ Cost = 2970.79/1389.27	2.138	
Note	Therefore construction of road is Economically viable and Socially beneficial.		

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COST-BENEFIT ANALYSIS

Table (B)

Estimation of cost of forest diversion

Sl. No.	Parameters	Roads, Tr. Lines & Railway Line
1	2	3
1	Ecosystem services losses due to proposed forest diversion.	24.881 lakh
2	Loss of Animals husbandry productivity	Loss of animal husbandry in protected
3	Cost of human resettlement	0
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	No loss of public facilities is taking place and no administrative infrastructure (roads, buildings, school, dispensaries, electric line, railway etc.) will be diverted or destroyed.
5	Possession value of forest land diverted	17.857x6.57= 1.17 cr.(Underground) 7.968x8.45= 0.67 cr.(Surface area) Total =1.84cr.
6	Cost of Suffering to oustees	0
7.	Habitat fragmentation Cost	0
8	Compensatory afforestation and soil & moisture Conservation cost	23.00+4.55 +17.73= 44.88 Lakhs

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COST-BENEFIT ANALYSIS

Table (C)

Existing guidelines for estimating benefits of forest diversion.

Sl. No.	Parameters	Roads, Tr. Lines & Railway Line
1	2	3
1	Increase in productivity attributable to the project	Mobility is difficult and time taking in mountainous Region. By the construction of tunnel saving in travel time, fuel and peoples energy. Saving of time and fuel itself shall help indirectly in increasing the productivity of the commercial and industrial activities for which transportation shall take place along the tunnel. Besides it will increase the tourism.
2	Benefits to economy to the project	<p>The main objective of this project is to alleviate the Current unsafe condition of the highway and provide better quality and safe transport to the users by construction of the tunnel the chances of accident will minimize and it will also decrease the 22-23 kms length from the existing highway.</p> <p>The project will yield significant economic benefit to the state. Construction of tunnel will lead to much better connectivity, which will play significant role in improving the socio- economic condition of the people of the state in many folds. It will aid in boosting the tourism in the region and also generate direct and indirect employment opportunities for the people in addition to the other indirect benefits by way of saving vehicle operating costs, less fuel consumption and saving time and cost of passenger travel etc.</p> <p>An amount of Rs. 250 Million (per capita expenditure of tourist taken as Rs. 10,000 (approx.) per person for 10 days package for additional 25000 tourists) may be earned from tourism due to approximately increase of 10% tourist flow of 2.5 lakhs of present tourist flow.</p>
3	No. of population benefited due to project	<p>Entire population along the NH-58 Uttarkashi District(3,00,000) shall be benefitted from the project.</p> <p>In addition, the project will boost the economic growth of the Region and State as well by boosting through religious tourism benefits due to Tourism enhancement- 25 Cr./ Year Approx.</p> <p>access to schools hospitals, farmer produce etc.- 20Cr./Yr Approx.</p>
4	Employment potential due to direct and indirect Employment due to project	<p>Approximate 1825000 man days of temporary employment will be generated for the construction period of 60 months. That will cost approximate Rs. 109.5 cr. Approximately 125 skilled manpower will also be required for whole Operation & maintenance period, which will cost about Rs. 123.19 Cr..</p> <p>Total employment potential will cost approximately Rs. 232.69 Cr.</p>
5	Economic benefit due to Compensatory afforestation	The amount of Rs. 45 Lakhs deposit to forest department for compensatory afforestation. There will be various employment generate for execution as well as maintenance of this CA work.

Sharma