

**Name of scheme:- Name of scheme:- Construction of Channi Bridge Elaka  
Mata to Jalsu Jot M/able Road K.M. 0/0 to17 /0 with the Jurisdiction of  
Bharour forest Division Distt. Chamba H.P.**


**Estimation of cost of Forest Diversion**

S.NO.	PARAMETERS	Value expressed in monetary terms and in detail	Remarks
1	Ecosystem services losses due to proposed forest diversion	Rs 657000/- per ha ( for 9.3355 ha)  =Rs 6133424/-	Economic value of loss of ecosystem due to diversion of forest shall be the net present value (NPV) of the forest land being diverted as prescribed by the Central Government (MOEF & CC)
2	Loss of animal husbandry productivity including loss of fodder	Rs/-613342	To be expressed in monetary terms or 10% of NPV applicable whichever is maximum
3	Cost of human resettlement	Since no residential village /area is getting affected , there will be no cost of human resettlement	To be quantified and expressed in monetary terms as per approved R & R plan
4	Loss of public facilities and administrative infrastructure (roads, buildings, schools, dispensaries, electric lines land railways, etc.) on forest land, or which would require forest land if these facilities were diverted due to the project	Since no public facilities and administrative infrastructure (roads, building, schools, dispensaries, electric lines , railway etc. ) on forest land , being diverted due to the project , there will be no such loss	To be quantified and expressed in monetary terms on actual cost basis at the time of diversion
5	Possession value of forest land diverted	<b>30% of environmental costs (NPV) due to loss of forest i.e. Rs 1840027/-</b>	30% of environmental costs (NPV) due to loss of forests or circle rate of adjoining area in the district should be added as a cost as processor value of forest whichever is maximum
6	Cost of suffering to outsees	nil	The social cost of rehabilitation of outsee (in addition to the cost likely to be incurred in providing residence' occupation and social services as per R & R plan) be worked out as 1.5 times of what outsee should have earned in two years had be not shifted.
7.	Habitat Fragmentation cost	Rs 3066712/-	While the relationship between fragmentation and the forest goods and services in complex , for the sake of simplicity the cost due to fragmentation has been pegged at 50 % of NPV

			applicable as thumb rule
8.	Compensatory afforestation and the soil & moisture conservation cost	Rs 4935379/-	The actual cost of compensatory afforestation and soil & moisture conservation and its maintenance in future at present discounted value

- 1) Construction cost of project=1354 lacs
- 2) NPV amount to be deposited for 9.3355 ha land @Rs 657000/Ha=Rs 6133424/--=61.3 lacs
- 3) Cost occurred due to evaluation of loss of forest =Sum of 1 to 8  
 $= (6133424 + 613342 + 1840027 + 3066712 + 4935379) / 100000 = 16588884 / 100000 = 165.89$  lacs

Total Cost =sum of above 3= $(1354 + 61.3 + 165.89) = 1581.19$ lacs

  
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Estimating benefits of Forest Diversion in Cost Benefits Analysis

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S.NO.	PARAMETERS	ROADS, TR. LINE AND RAILWAY LINE	Monetary value in lacs	Remarks
1	Increase in the productivity attributable to the specific project	With the construction of this road, people of Holi /Bharmour valley will connect with Distt. Kangra through shortest route having population of 10000 souls will be benefited. This area falls under tribal area of Chamba Distt. & peoples are very poor .The agriculture and Horticulture produce peaches, walnuts , potatoes, pulses, apples are grown in this area and people face lot of problems in marketing the above crops. They will have an easy access to the educational and health institutions as well as marketing centers. The availability of the road transport facility will trigger the tapping of cash crops harvesting potential of the area and thus resulting in improvement in economic status of	160000 lacs	The 10000 people from Bharmour Division will be benefited and can shift their products like apple, Rajmah, Akhrot etc directly to Market and can travel directly in car, buses, jeeps .Total benefit @Rs 4000/- per head/year (for 40 years) will be $= (10000 \times 4000 \times 40) / 100000 = 16000 \text{ lacs}$

		the people of the area. The travel distance will reduce by around 200 km( considerable margin) to Knagra District .		
2	Benefits to the economy	The total cost of proposed road has been estimated for 1354 lakhs. The Scheme will generate 500000 man days of the employment directly i.e. during the construction period. The development activities to be induced with the construction of this scheme will provide more opportunities to the local people to improve their economic conditions	250	500000 days @Rs 250 per day=250x500000= <b>1250 Lacs</b>
3	Number of population benefited	10000 souls will be benefited with the construction of this road		Monetary value included in S.No 2
4	Employment potential	300 people will be employed during the construction of this road		Monetary value included in S.No 2
5	Economic Benefits due to compensatory afforestation	Economic benefits due to Compensatory Afforestation includes Benefits due to animal husbandry productivity including fodder and fuel wood, Ecosystem benefits due to proposed forest diversion, possession value of forest land diverted will be (6 times cost of		=6x6133424/100000= <b>368 lakh</b>

		compensatory afforestation)		


Total Benefits = 1+2+5=16000 lacs+1250 Lacs+368=17618 lacs


**Cost- Benefit ratio**

= Total benefit /Total Cost

=17618/1581.19=11.14

**So Cost Benefit Ratio is 11.14 times**

  
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