

Project Name: Forest proposal for Approach Road with Avalanches Protection Works from Z-morh Tunnel East Portal to Zojilla Tunnel West Portal in Ganderbal district of Jammu & Kashmir.

Cost benefit analysis

Table-B: Estimation of cost of forest diversion

S.N.	Parameters	Details	Remarks
1.	Ecosystem services losses due to proposed forest diversion 36908388.3	346.63 lakhs 6,99,000 per ha (Class VI-OF)	NPV
2.	Loss of animal husbandry productivity, including loss of fodder.	34.67 lakhs	10% of NPV
3.	Cost of human resettlement	0.00	-
4.	Loss of public facilities and administrative infrastructure (Roads, building, schools, dispensaries, electric lines, railways, etc.) on forest land, which would require forest land if these facilities were diverted due to the project.	5.0 lakhs	1- forest picket at forest land z
5.	Possession value of forest land diverted	103.99 lakhs	30% of NPV
6.	Cost of suffering to oustees	0.00	
7.	Habitat Fragmentation Cost	173.32 lakhs	50% of NPV
8.	Compensatory Afforestation and soil & moisture conservation cost.	198.36 lakhs	2.0 lakhs per ha for 99.1808 ha (double of FA proposed)
	Total	861.97 lakhs	



Table-C: Existing guidelines for estimating benefits of forest diversion in CBA

S.N.	Parameters	Details	Remarks
1.	Increase in productivity attribute to the specific project	There are 449 trees are growing on the 49.5904 ha forest land proposed to be diverted, it can be calculated about 9 trees per hectare. It is proposed to undertake compensatory afforestation on 99.1808 ha degraded forest land (double of 49.5904 ha) in the Division/ district.	
2.	Benefits to economy due to specific project.	As the Srinagar- Leh highway remains closed for 6-7 months in winter due to heavy snowfall and avalanches. After successful implementation of the project, it will provide all-weather connectivity to Leh and Srinagar through proposed Zojila Tunnel. All-weather connectivity in area will enhance tourism by attracting more tourists and its allied activities as Sonamarg is a tourist hub during summers.	
3.	No. of population benefitted due to specific project.	Entire population along the project road will be benefitted.	
4.	Economic benefits due to direct and indirect employment due to the project.	366 nos. employment (311 nos. temporary and 55 nos. permanent employment) will be directly benefitted being involved in construction work of the project. Alongside, other indirect long term benefits in terms of saving vehicle operating cost, less fuel consumption, and cost of conveyance will result in economy of resources and time. Further, due to all weather connectivity in the area livelihood opportunity directly and indirectly will be created for locals.	
5.	Economic benefits due to compensatory afforestation.	There shall be compensatory afforestation on 99.1808 ha degraded forest land (double of 49.5904 ha) in the Sind Forest Division/ Ganderbal district. Over the years it will lead economic benefits by providing timber, fuel and fodder in the area.	

