COST BENEFIT ANALYSIS		
Name of Project:- TO2 (ODR TO MANJOKHI Motor Road		
(As Per MoEF &CC guideline no 7-69/2011-FC (Pt.) dated 1st August, 2017) Table B: Estimation of cost of Forests Diversion		
Sr No.	Parameters	Estimated Cost (in Lakhs)
1	Ecosystem services losses due to proposed forest diversion	The estimated NPV (Economic value of loss ecosystem services) of the 5.659 ha forest land Rs 53.14 Lakhs
2	Loss of animal husbandry productivity, including loss of fodder	10% of NPV = Rs 5.31 Lakhs
3	Cost of human settlement	There is no displacement due to the project therefore, the cost of human settlement is Rs. 0.00
4	Loss of public facilities and administrative infrastructure (Roads, buildings, School dispensaries, electric lines, railway etc.) on Forest land, or which would	No loss of public facilities and adminisstrative infrastrucure due to the project therfore loss is Rs. 0.00
5	Possession value of forests land diverted	30% of NPV = Rs. 15.94 lakhs
6	Cost of Suffering to oustees	**No Suffering of oustess. Therefore the cost of suffering to oustess is Rs. 0.00**
7	Habitat fragmentation cost	50% of the NPV = **Rs. 26.57 Lakhs**
8	Compensatory afforestation and soil & moisture conservation cost	The estimated cost for raising the CA in 11.318 ha is Rs. 106.28 Lakhs for 10 years
	Total Environmental Losses	**Rs 207.24 Lakhs**

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Table C: Estimation of Cost of Forests Diversion			
Sr. No.	**Parameters**	**Estimated Cost (in Lakhs)**	**Calculation (In Lakhs)**
1	increase in productivity attributable to the specific project ,	Construction of Road will give the benefit Return in term of Agriculture, industries and commercial development of area, 50 lakh per year, so total profit for 99 years = 50 *99= 4950.00 lakhs	Rs 4950 Lakhs
2	Benefits to economy due to the specificproject	Project will enhance the agricultural, commercial andindustrial activities 4 times due construction of road = 4950 x 4 = Rs. 19800.00 Lakhs	RS 19800 Lakhs
3	No. of Population benefited due to the specific project	About 266 people will be benefitted directly and about 10000 people of near by area will be benefitted indirectly from the construction of the project.	
4	Economic benefits due to direct and indirect employment due the project	About 32850 man days (60 x 365 x 1.5) employment will be generated directly. Taking Rs. 300 minimum wages 32850 x 300 = Rs. 98.55 lakhs	Rs 98.55 Lakhs
5	Economic benefits due to compensatory afforestation	The annual value of timber and fuel-wood, carbon, NTFP, eco-tourism, fodder and watershed services from CA Is Rs. 47292/annum (As assessed by Kanchan Chopra Committee -weighted average for Uttarakhand). Considering discounting rate 4% for future 50 years, the present value Rs. 3.32729 lakhs	Rs 3.33 Lakhs
Total Benefits derived from the Project			**Rs 24851.88 Lakhs**

Benefits cost ratio **24851/207.24 = 119.91**

it is clear from above analysis that construction of this road project is more beneficial than Environmental losses.

JE

AE

Signature of user agency
EE

Executive Engineer
office seal
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