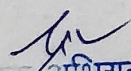


COST BENEFIT ANALYSIS

(As Per MoEF guideline no 7-69/2011-FC(Pt.) dated 1st August, 2017)

Table B: Estimation of cost of Forests Diversion

S. No.	Parameters	Estimated Cost
1-	Ecosystem services losses due to proposed forest diversion.	The estimated NPV (Economic value of loss of ecosystem services) of the 7.094 ha forest land is Rs. 46.60758 Lakhs
2-	Loss of animal husbandry productivity, including loss of fodder.	10% of NPV = Rs. 4.660758 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 of which would require forest land if these facilities were diverted due to the project.	No loss of public facilities and administrative infrastructure due to the project. Therefore loss is Rs. 0.00
5-	Possession value of forests land diverted	30% if NPV = Rs. 13.982274 lakhs
6-	Cost of Suffering to oustees	No suffering of oustees. Therefore the cost of suffering to oustees is Rs. 0.00
7-	Habitat fragmentation cost	50% of the NPV = Rs. 23.30379 Lakhs
8-	Compensatory afforestation and soil & moisture conservation cost.	The estimated cost for raising the CA in 14.188 ha is Rs. 35.94274 lakhs for 10 years. Considering discounting rate 12% for future 50 years, the present value is Rs. 54.06539 lakhs
Total Environmental Loss		Rs. 142.619792 lakhs


सहायक अभियन्ता
पी. एम. स. वाइ.
सि. अ. उदप्रयाग

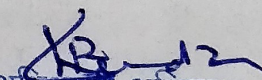

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सि. अ. उदप्रयाग

Table C: Estimation of Cost of Forests Diversion

S. No.	Parameters	Estimated Cost
1-	Increase in productivity attributable to the specific project.	By the construction of this motor road cash crops such as oranges, pulses, potato, green vegetables. 250 qtl@1500=Rs 375000. For 50 years = 375000*50= 187.5 lacs
2-	Benefits to economy due to the specific project.	About Rs 20.00 lacs due to milk production, animal husbandry and tourism works.
3-	No. of Population benefitted due to the specific project.	About 3999 people will be benefitted directly from the construction of the project.
4-	Economic benefits due to direct and indirect employment due the project.	Direct Employment of labours:- Benefits for Annual Maintenance road taking 30 beldar for maintenance of the road for one month @Rs 6000.00 Benefit of 30 beldar=6000.00*30=180000.00 per month For 1 year = 180000.00*12= Rs 2160000.00 For 50 years= 2160000.00*50 = Rs 10800000.00= 1080.0Lacs After the road construction people will establish shops for daily livelihood. taking 10 shops are established after construction with minimum benefit of 180.00 Rs per day Benefit per shop per month =180*10*30 = 54000.00 Rs. For 1 year = 54000.00*12=Rs 648000.00 For 50 years= 648000.00*50= Rs 324.00 lacs Direct Employment in construction =Rs 120 lacs Employment Generation Due to Transportation = Rs 240.00 lac
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 Himachal Pradesh). Considering discounting rate 4% for future 50 years, the present value = Rs. 3.32729 lakhs
Total Benefits derived from the Project		Rs. 1974.82729 Lacs

Benefit Cost Ratio = 1974.82729/142.619792 = 13.8467 :1 i.e >1.0

It is clear from above analysis that construction San band to bajyun Motor road is more beneficial than Environmental losses.

[Signature]

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Signature of user agency

Office seal

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