


COST BENEFIT ANALYSIS

(As Per MoEF & CC 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 10.71 ha forest land is - Rs. 90.49950 Lakhs |
| 2. | Loss of animal husbandry productivity, including loss of fodder | 10% of NPV = Rs. 9.049950 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 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% of NPV = Rs. 27.14985 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. 45.24975 Lakhs |
| 8. | Compensatory afforestation and soil & moisture conservation cost | The estimated cost for raising the CA in 21.42 ha is Rs. 52.63549 Lakhs for 10 years, Considering discounting rate 12% for future 50 years, the present value is Rs. 88.03529 lakhs |
| Total Environmental loss | | Rs. 259.98434 Lakhs |


 E.E. P.M.G.S.Y Division
 PWD Karanprayag

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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=Rs37500*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 project. |
| 3. | No. of Population benefited due to the specified project. | About 3999 people will be benefitted directly from the construction of the project. |
| 4. | Economic benefites 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 per month For 1 year=180000*12=2160000.00 For 50 year=2160000*50=10800000.00=1080.0Lacs After the road consteruction people will establish shops for daily livelihood. Taking 10 shoops are established after construction with minimum benefit of 180.00Rs. per day benefit per shop month =180*10*30=54000.00Rs. For 1 year =54000.00*12=648000.00 For 50 year=648000.00*50= 324.00Lacs Direct Employment in construction =Rs 120lacs Employment Generation due to transportation=Rs.240.00 lacs |
| 5. | Economic benefit due to compensatory afforestation | The annual value of timber and fuel wood, carbon,NTEP, eco-torism, 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= $1974.82729/259.98340 = 7.595 : i.e > 1.0$

It is clear from above analysis that construction padair gaon to pairi Motor raod is more beneficial than Environmental losses.

Signature of user agency

Official stamp: P.W.D. Karanprayag, Division