
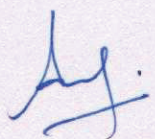


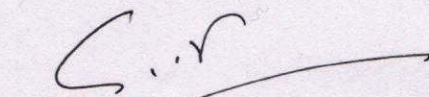
Cost Benefit Analysis Guidelines for forest land diversion-2017

Table-A: Cases under which a cost-benefit analysis for forest diversion are required

No.	Nature of Proposal	Applicable/not applicable	Remarks
1	All Categories of proposals involving forest land upto 20 hectares in plains and upto 5 hectare in hills.	Not applicable	These proposals may be considered on a case to case basis and value judgment.
2	Proposal for defence installation purposes and oil prospecting (prospecting only)	Not applicable	In view of national Priority accorded to these sectors, the proposals would be critically assessed to help ascertain that the utmost minimum forest land is diverted for non-forest use.
3	Habitation, establishment of industrial units, tourist lodges complex and other building construction.	Not applicable	These activities being detrimental to protection and conservation of forest, as a matter of policy, such proposals would be rarely entertained.
4	All other proposals involving forest land more than 20 hectares in plains and more than 5 hectares in hills including roads, transmission lines, minor, medium and major irrigation projects, hydro projects, mining activity, railway lines, location specific installations like micro-wave stations, auto repeater centres, TV towers etc.	applicable	These are cases where a cost-benefit analysis is necessary to determine when diverting for forest land to non-forest use in the overall public interest.


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COST BENEFIT ANALYSIS FOR SAHASTRADHARA KARLIGARD TO NALIKALA MORTOR ROAD

(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 9.194 ha forest land is Rs. 81.55 lakhs
2.	Loss of animal husbandry productivity, including loss of fodder.	10% of NPV = Rs 8.155 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 24.465 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. 40.775 lakhs
8.	Compensatory afforestation and soil & moisture conservation cost.	The estimated cost for raising the C.A in 18.388 ha is Rs. 26.29 lakhs for 10 years. Considering discounting rate 12% for future 50 years, the present value is Rs. 57.838 lakhs
Total Environmental loss		Rs.212.775 lakhs

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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 vegetable 220qtl@1500=Rs 330000. For 50 years = 330000*50= 165.00 lacs
2.	Benefits to economy due to the specific project	About Rs 18.00 lacs due to milk production, animal husbandry and tourism works.
3.	No of Population benefited due to the specific project.	About 568 pepole 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 Maintanace road taking 30 beldar for maintenance of the road for one month @ Rs 6000.00 Benefit fo 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= 1080.00 lacs After the road costruction people will establish shops for daily livelihood, taking 20 shops are established after construction with minimm benefit of 200 Rs per day benefit per shop per month 200*20*30 =120000.00 Rs For 1 year = 120000*12=Rs 1440000 For 50 years = 1440000*50= Rs 72.00 lacs Direct Employment in construction= Rs 36.00 lacs Employment Generation due to Transportation = Rs 60.00 lacs
5.	Economic benefits due to compensatory afforestation	The annual value of timber and fucl-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 - 2082.32 lacs

Benefit Cost Ration = 2082.32/742.27=2.805:1 i.e> 1.0

It is clear from above analysis that construction of Sahastradhara Karligard to Nalikala Motor Road is more beneficial than Environmental losses.

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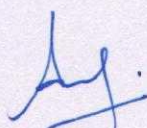
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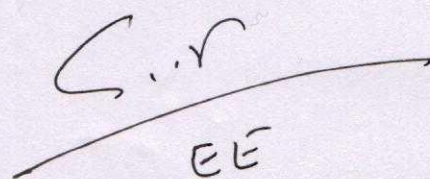
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