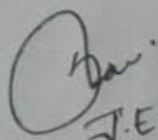


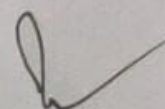
Cost Benefit Analysis Guidelines for forest land diversion-2017

Table B:- Case under which a cost benefit analysis for forest diversion are required

Sl. 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 judgement
2	Proposal for defence installation purposes and oil prospecting (prospecting only)	Not applicable	-
3	Habitation, establishment of industrial units, tourist lodges complex and other building construction.	Not applicable	-
4	All other proposals involving forestland 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 centers, TV towers etc.	Applicable	These are cases where a cost-benefit analysis is necessary to determine when diverting the forest land to non-forest use in the overall public interest.


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COST BENEFIT ANALYSIS

As per MoE'F & CC guideline no 7-69/2011-FC (Pt. Dated 1st Aug 2017)

Table B:- Estimation of Loss of Forest Diversion

Sl. No.	Parameters	Estimated Cost
1	Ecosystem service losses due to proposed forest diversion	The Estimated NPV (Economic value of Loss of ecosystem services) of the 9.2 Hect forest Land is Rs:- 76.50 Lacs
2	Loss of animal husbandary productivity including loss of fodder	10% of NPV = 9.536 Lac
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, schools, Dispensaries electric lines, railway etc.) on forest land, or which would require forest land if this facilities were diverted due to the project.	No Loss of Public facilities and administrative infrastructures due to the project therefore loss is 0.00
5	Possession value of forests land diverted	30% of NPV = 22.95 Lacs
6	cost of suffering to oustees.	No suffering of oustees. Therefore cost is 0.00
7	Habitat fragmentation cost	50% of NPV = Rs:- 38.248 Lacs
8	Compensatory afforestation and soil and	The Estimated cost for raising the CA in 18.106 Ha is 49.047 Lacs for 10 years
	TOTAL ENVIRONMENTAL LOSSES	Considering discounting rate 12% for further 50 years the present value is Rs:- 264.85

Hence Total Environmental

Losses is

= 461.13 Lacs

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COST BENEFIT ANALYSIS

Table C:- Estimation of Loss of Forest Diversion

S. No.	Parameters	Estimated Cost
1	Increase in productivity attributable to the specific project.	By the construction of this motor road Cash Crop such as orange, pulses, Potato, green vegetables for 1 year @ 500 gk @ 1500 = 750,000.00 1 year 750,000 @ 50 = 37,500,000.00 = 37.50
2	Benefits to economy due to the specific project.	About Rs 80,00,000 due milk production, animal husbandry, tourism etc.
3	No. of population due to the specific project.	About people will be directly benefited by the project
4	Economic benefited due to direct and indirect employment due to the project	Direct Employment :- for annual maintenance :- 30 belder 30 belder @ 390.92 = 11727.60 Per day for 1 year 11727.60 x 365 = 4280574.00 for 50 years 4280574.00 x 50 = 2140.29 Lacs After the extension of road people will establish shops for daily livelihood :- 100 x 200.00 x 30 = 600,000 monthly for 1 year = 600,000 x 12 = 72,00,000.00 for 50 years :- 72,00,000 x 50 = 360,00,000.00 3600.00 Lacs Employment in road construction = 10.00 Lacs Employment due to transportation = 450 Lacs
5	Economic Benefit due to compensatory afforestation	The annual value of timber and fuel, wood, carbon, NTFP Eco-tourism, fodder and water service from CA is Rs = 47292/Annum (As Rancho Chopra Committee Weighted average for H.P) Considering discounting rate 4% for further 50 years the Present value = 3.46 Lacs
	Total Benefits of derived from the project	6648.75 Lacs

Benefit cost ratio = $\frac{6648.75}{461.13} = 14.42 \text{ i.e. } > 1$

It is clear from above analysis that construction of Nandprayag-Ghat Motor road is more Benefit than environmental losses.

Chauhan
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