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 7.950 hectare forest land is rs :- 52.23 Lacs
2	Loss of animal husbandary productivity incliding loss of fodder	10% of NPV = 5.22 Lacs
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 world require forest land if this facilities where diverted due to the project.	No loss of Public facilities and administrative infrastructure due to the project. Therefor loss is 0.00
5	Possession value of forests land diverted	30% of NPV = 15.669 Lacs
6	cost of suffering to oustees.	No suffering of oustees. Hence = 0.00.
7	Habitat fragmentation cost	50% of NPV = 26.112 Lacs
8	Compensatory afforestation and soil and	The Estimated Cost for raising the CA in 15.90 Hec is 45.33 Lacs for ten years
	TOTAL ENVIRONMENTAL LOSSES	Cosidering discounting rate 12%. for further 50 year the present value is rs = 244.77

Hence total Environmental
Losses is   = 344.00 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 pulse potato, green vegetables for 1 year 200 Qtl @ 1500 = 300,000.00 for 50 year 300,000.00 × 50 = 15,000,000.00 = 150 Lacs
2	Benefits to economy due to the specific project.	About as 40 Lacs due to milk production, animal husbandry and tourism etc. = 40.00 Lacs.
3	No. of population due to the specific project, benefited	About 2500 People directly benifited to the Project
4	Economic benefited due to direct and indirect imployment due to the project	Direct Employement :- for annual maintenance 5 beldar (5.00 @ 390.92 = 1954.60 P. day for 1 year 1954.60 × 365 = 713429.00 for 50 years 713429.00 × 50 = 35671450.00 After the Construction of road people will slablish the shop and othe tourism activity for livlyhood. 50 × 200 × 30 = 30,0000 for 1 year 3,00,000.00 × 12 = 3,00,000.00 for 50 years 36 00000 × 50 = 180000000.00 = 1800.00 Lacs ((190.20 × 11.625) × 40%) ÷ 390.92 = 170,000 Days Lacs Employment in road Construction = ~~800.00 Lacs~~ Employment due to transpotation = ~~100.00 Lacs~~ (50 × 12 × 365 × 10) = 2190000 Days
5	Ecomomic Benefit due to comoensatory afforestation	Anual value of timber and fuel, wood, Carbon NTEP, Eco-toorism, fodder and waterser services from CA is Rs 47292/annum/Hec as per Kancha Chopra committee weighted avg.) Considering discounting rate 4% for further 50 years the present value is = 330.85 Lacs
	Total Benefits of derived from the project	= ~~2720.85~~ Lacs 2370.31

Benefit cost ratio 2720.85/344.00 = ~~7.9~~ 6.89 > i.e. 1

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

J.E