

COST BENEFIT ANALYSIS

Nature of Project : DIVERSION OF 19.5896 HA. FOREST LAND FOR REHABILITATION AND UPGRADATION TO TWO LANE WITH PAVED SHOULDER CONFIGURATION & STRENGTHENING OF PADHAR TO BIJNI (PACKAGE-VA) FROM KM 180.00 TO KM 202.815 (DESIGN LENGTH 19.050 KM) OF NH-20 (NEW NH-154) OF PATHANKOT(NEW NH-154) OF PATHANKOT-MANDI SECTION IN THE STATE OF HIMACHAL PRADESH. In the state of Himachal Pradesh

Nature of Proposal Diversion of Forest Land Under FCA, 1980: Road

Purpose- This Cost benefit Analysis is being undertaken for Proposed Diversion of Forest Land Being affected Due to DIVERSION OF 19.5896 HA. FOREST LAND FOR REHABILITATION AND UPGRADATION TO TWO LANE WITH PAVED SHOULDER CONFIGURATION & STRENGTHENING OF PADHAR TO BIJNI (PACKAGE-VA) FROM KM 180.00 TO KM 202.815 (DESIGN LENGTH 19.050 KM) OF NH-20 (NEW NH-154) OF PATHANKOT(NEW NH-154) OF PATHANKOT-MANDI SECTION

Table-A

Case under which a cost-benefit analysis for diversion is required

Sr. No.	Nature of Proposal	Applicable /Not Applicable	Remarks
1	All Categories of proposal involving forest land upto 20 Hectares in Plains and upto 5 hectares in hills.	Not applicable	These Proposals may be considered on a case to case basis and the value judgement.
2	Proposal for defense installation purpose and oil prospecting(prospecting only).	Not applicable	
3	Haltation,establishment of industrial units,tourist lodges, complex and other building construction.	Not applicable	
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-waves stations,auto repeater centers, TV towers etc.	Applicable	These are the cases where a cost-benefit analysis is necessary to determine when diverting the forest land to non forest use in the overall public interest.

Table-B

Parameters for evaluation of loss of Forest

DIVERSION OF 19.5896 HA. FOREST LAND FOR REHABILITATION AND UPGRADATION TO TWO LANE WITH PAVED SHOULDER CONFIGURATION & STRENGTHENING OF PADHAR TO BIJNI (PACKAGE-VA) FROM KM 180.00 TO KM 202.815 (DESIGN LENGTH 19.050 KM) OF NH-20 (NEW NH-154) OF PATHANKOT(NEW NH-154) OF PATHANKOT-MANDI SECTION IN THE STATE OF HIMACHAL PRADESH.

The parameters for the evaluation of 'costs' incurred due to a project for which a cost benefit analysis must be done is provided in the guidelines to this Act, issued by the MoEF.

Sr. No.	Parameters	Descriptions	Remarks	TOTAL
1	Ecosystem services losses due to proposed forest diversion	Total nos of Trees 2302 will be affected due to the project in the forest land area.The total NPV stands to be 1,96,91,662/-. No livelihood of people will be affected due to proposed diversion of forest land.	Economic value of loss of ecosystem services due to diversion of forest shall be the net present value(NPV)of the forest land being diverted as prescribed by the Central Government.(MOEF&CC)	19,691,662
2	Loss of animal husbandry productivity. Including loss of fodder	1,969,166.00	To be quantified and expressed in monetary terms or 10%of NPVapplicable whichever is maximum.	1,969,166
3	Cost of human resettlement	NIL	To be quantified and expressed in monetary terms as per approved R&R Plan	0
4	Loss of public facilities and administrative infrastructure (Roads) building. Schools dispensaries. Electric lines, railways etc.) on forest land. Or which would require forest land if these facilities were diverted due to the project.	26,78,916/-	To be quantified and expressed in monetary terms on actual cost basis at the time of diversion.	2,678,916
5	Possession value of Forest Land Diverted	Forests land being diverted for the construction of the project is Forest case of DIVERSION OF 19.5896 HA. FOREST LAND FOR REHABILITATION AND UPGRADATION TO TWO LANE WITH PAVED SHOULDER CONFIGURATION & STRENGTHENING OF PADHAR TO BIJNI (PACKAGE-VA) FROM KM 180.00 TO KM 202.815 (DESIGN LENGTH 19.050 KM) OF NH-20 (NEW NH-154) OF PATHANKOT(NEW NH-154) OF PATHANKOT-MANDI SECTION. (As per Forest (Conservation) Act 1980 the environmental loss for density 1.0 is 126.74 lakhs per hectare for 50 years. Considering density of 0.14, the cost of environmental losses is Rs.59.07498 lakhs").	30% of Environment costs(npv)due to loss of forest or Circle rate of adjoining area in the district should be added as a cost component as possession value of forest land which ever is maximum.	5,907,498
6	Suffering to oustees		The social cost of rehabilitation of outsee in addition to the cost likely to be incurred in providing residence,occupation and social services as per R&R Plan be worked out as 1.5 times of what outsee should have earned in two years had he not been shifted.	

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7	Habitat Fragmentation Cost	The Habitat Fragmentation Cost has been estimated to Rs. 98,45,831/-.	while the relationship between fragmentation and forest goods and services is complex for the sake of simplicity the cost due to fragmentation has been pegged at 50% of NP/ applicable as a thumb rule.	9,845,831
8	Compensatory afforestation and soil & moisture conservation cost.	The cost of compensatory afforestation has been calculated at Rs. 1,37,70,582/-.	The actual cost of compensatory afforestation and soil moisture conservation and its maintenance in future at present discounted value.	13,770,582
			TOTAL	93,863,655

Table-C				
Parameters for Evaluation of benefits, not with standing loss of forests.				
The parameters for the evaluation of benefits provided by a project for which a cost-benefit analysis must be done is provided in the guidelines to this Act, issued by the MoEF.				
Sr. No.	Parameters	Descriptions		TOTAL
1	Increase in productivity attributable to the specific project	The project road will improve accessibility to the region. This will help in both economic & social development. Further the Road is one of the strategic road projects of Govt. Of India.	To be quantified and expressed in monetary terms	
2	Benefits to economy	Improving the accessibility shall help in regional economic development by the way of marketing of Agri products and also due to opening up of eco-tourism the economy of the area will be benefited by approximate. 1,03,75,68,975/-	The incremental economic benefit in monetary terms due to the activities attributed to the specific project.	1,037,566,975
3	No. of population benefitted	Entire Population of surrounding area of project will be benefitted directly hence total nos. of 44744. will be benefitted by the proposed Road.	As per detailed Project Report	
4	Economic benefits due to direct and indirect employment due to the project.	Induced development of economy will help in generation of employment as well. Where as 100000 mandays will be required for construction of roads as such with the average rate @230/- per day labour. Rs.2,20,28,460/- lac will be earned as wages through indirect employment.	As per detailed Project Report	22,028,460
5	Economic benefits due to Compensatory Afforestation.	Approximately Rs. 1,30,75,000 Lac of revenue is estimated over the span of 50 years by the way of fuel timber and fodder due to the Compensatory Afforestation.	Benefit from such compensatory Afforestation accruing over next 50 years monetized and discounted to the present value as benefits of CA	13,075,000
			Total	1,072,672,435

As such after considering the above figures of Cost of the diversion of the project comes to Rs.5,38,63,655/-, and benefits to the economy comes to Rs.1,07,26,72,435/- thus the benefits are much more than the cost incurred which makes the Project Viable. where as the ratio is concerned it works out to be 1:19.91

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