

Name of Project:- Himani Chamunda Passenger Ropeway Project

Proposal No.:- FP/HP/OTHERS/31571/2018

Date of Proposal:- 01-02-2018

COST BENEFIT ANALYSIS
CHECK LIST 33
Estimation of Cost of Forest Diversion

Table -B-

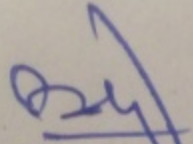
Sr. No.	Parameters	Value expressed to monetary terms	Remarks
1.	Ecosystem services losses due to proposed forest diversion	Rs 68,10,531/-	Economic value of loss of ecosystem services due to diversion of forest shall be the net present value (NPV) of the forest land being diverted as prescribed by the Central Government (MoEF & CC).
2.	Loss of animal husbandry productivity, including loss of fodder	Rs.6,81,053/- {10% of NPV is more than Loss of animal husbandry productivity, including loss of fodder}	To be quantified and expressed in monetary terms or 10% of NPV applicable whichever is maximum.
3.	Cost of human resettlement	Since no residential village/ area is getting affected, there will be no cost of human resettlement.	To be quantified and expressed in monetary terms as per approved R&R plan
4.	Loss of public facilities and administrative infrastructure (Roads, building, schools, dispensaries, electric lines, railways, etc.) on forest land, which would require forest land if these facilities were diverted due to the project.	Since no public facilities and administrative infrastructure (Roads, building, schools, dispensaries, electric lines, railways, etc.) on forest land, being diverted due to the project, there will be no such loss.	To be quantified and expressed in monetary terms on actual cost basis at the time of diversion
5.	Possession value of forest land diverted	Rs.26,91,160/- {30% of environmental costs (NPV) due to loss of forests is Rs. 20,43,159/- or circle rate of adjoining area in the district is Rs. 26,91,160/-}	30% of environmental costs (NPV) due to loss of forests or circle rate of adjoining area in the district should be added as a cost component as possessor value of forest land whichever is maximum
6.	Cost of suffering to oustees	Nil	The social cost of rehabilitation of oustees (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 oustees should have earned in two years had he not been shifted.
7.	Habitat Fragmentation Cost	Rs.34,05,265/-	While the relationship between fragmentation and forest goods and services is complex, for the sake of simplicity the cost due to

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		fragmentation has been pegged at 50% of NPV applicable as a thumb rule.
8.	Compensatory afforestation and soil & moisture conservation cost	Rs. 15,97,209/- The actual cost of compensatory afforestation and soil & moisture conservation and its maintenance in future at present discounted value

Date:

Place: Dharamshala


Divisional Forest Officer,
Dharamshala Forest Division
DHARAMSHALA


Deputy Director (Tourism),
Distt. Tourism Dev. Officer
Kangra at Dharamshala
Ph. 01892-224430

Estimating Benefits of Forest Diversion in Cost Benefit Analysis

Table- C-

Sr. No.	Parameters	Value expressed in monetary terms	Remarks												
1.	Increase in Productively attribute to the specific project	Growth of local business by almost Rs. 1,20,00,000.00 (One crore Twenty Lakhs Only) per annum.	To be quantified & expressed in monetary terms												
2.	Benefits to economy due to the specific project.	Salient benefits of the project are Minimum Guaranteed Amount (MGA) of Rs. 7,21,00,000.00 (Rs. Seven Crore Twenty One Lakhs Only) to be paid to the HP Govt. per year with an increase of 5% every year by the concessionaire in addition there will be increase in Tourism Potential, direct and indirect employment Opportunities improvement.	The incremental economic benefit in monetary terms due to the activities attributed to the specific project.												
3.	No. of population benefited due to specific project.	<p>The local population will be the beneficiary indirectly (shopkeepers, hoteliers, taxi, potters etc.) Total Pilgrims/Tourist visit in a year 5 lakhs (approx.)</p> <p>The ropeway corridor covers Two Villages as Kardiana and Paddar. These villages having a population as given below who will be the Direct Beneficiaries of the project.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Sr. No.</th> <th style="text-align: center;">Villages</th> <th style="text-align: center;">Population</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.</td> <td style="text-align: center;">Paddar</td> <td style="text-align: center;">2879</td> </tr> <tr> <td style="text-align: center;">2.</td> <td style="text-align: center;">Kardiana</td> <td style="text-align: center;">1436</td> </tr> <tr> <td colspan="2" style="text-align: center;">Total</td> <td style="text-align: center;">4315</td> </tr> </tbody> </table> <p>On an average each person earns minimum of Rs.1000 per day. Moreover, after the construction of the ropeway the tourism activity will be spread over 12 months in a year instead of 5-6 months at present.</p>	Sr. No.	Villages	Population	1.	Paddar	2879	2.	Kardiana	1436	Total		4315	As per the Detailed Project Report
Sr. No.	Villages	Population													
1.	Paddar	2879													
2.	Kardiana	1436													
Total		4315													
4.	Economic benefits due to of direct and indirect employment due to the project.	<p><u>Economic Benefits due to direct employment</u></p> <p>During Construction period of 30 Months Rs.3,60,00,000.00 (Rs. Three Crore sixty Lakhs Only). (100 men per day @Rs. 400 per day average wages for 30 months of thirty days each)</p> <p>During Operational period per year Rs. 86,40,000.00 (Rs. eighty six lakhs forty thousands Only) (40 men per day @Rs. 600 per day average wages for 12 months of thirty days each). This benefit will increase at a rate of 8-10% each year for next 40 years.</p> <p><u>Economic benefits due to indirect employment</u></p> <p>The total quantified Indirect benefit to an local population will be Rs.1,44,00,000.00 (Rs. One crore Forty four Lakhs Only) (Rs. 1000 per person earning x 30 days per month x 12 months in a year). this benefit will also increase at a rate of 8-10 % each year for next 40 years.</p>	As per the Detailed Project Report												

5. Economic benefits due to Compensatory Afforestation

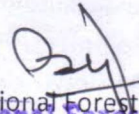
Economic benefits due to Compensatory Afforestation that will accrue in the coming years on account of animal husbandry productivity including fodder and fuel wood , Ecosystem services, Possession value, etc. and Tangible and Intangible benefits will be Rs. 90,00,000/- (approx.)

Deputy Director (Tourism)
Distt. Tourism, Dev. Officer
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Ph. 01922-224430

Date: 12/06/18

Place: Dharamshala

Counter signed by:-


Divisional Forest Officer,
Dharamshala Forest Division
DHARAMSHALA

Name of the Project;- C/o Himani Chamunda Passenger Ropeway

Proposal No:- FP/HP/Others/31571/2018

Date of Proposal:-01 Feb 2018

COST BENEFIT RATIO

Benefits of the Project in Monetary Terms

Monetary Return of the Project for 40 years

a	Maximum Capacity of the Passengers in Ropeway Trolley in both side per hour @ 1600 person (as per design)	1600 person both side
b	Considering the average burden on both side person	800 person Both Side
c	Cost of Fair (assume an average value)	Rs 600 /- (per person)
d	Monetary return of the project for 40 years includes 8 hours, 800 average burden, 30 days, 12 months, 40 years, 600 Cost of Fair	$8 \times 800 \times 30 \times 12 \times 40 \times 600 = \text{Rs. } 55296000000$
Cost Benefit Ratio	Monetary Return of the Project for 40 years i.e. 5,52,96,000,000	
	Enviornmental loss for a period of 40 (forty) Years (adding all amounts of Cost Benefit Analysis x Density of Vegetation x 40 Years) i.e. Rs. 1,51,85,218 x 0.5 x 40 = 30,37,04,360	
	Calculation as under:-	
	Monetary Return of the Project for 40 years i.e. 5,52,96,000,000 / Enviornmental loss for a period of 40 (forty) Years i.e.30,37,04,360	
Rs.	= 182.07	
	182 (approx.)	

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