

प्रारूप-29.1

Parameter for Evaluation of loss of Forests

प्रधानमंत्री ग्राम सड़क योजना के अर्न्तगत जनपद टिहरी के जौनपुर विकास खण्ड में मरोडा से वनाली

मोटर मार्ग के कि०मी० 3 से कुण्ड (8.125 कि०मी०)के नव निर्माण हेतु वन भूमी हस्तान्तरण प्रस्ताव।

Annexure VI(B)

S.N.	Parameters	Details
1	2	3
1	Ecosystem Services losses due to proposed forest diversion.	The estimated NPV (Economic Value of loss of ecosystem services ) of the 5.1415 ha forest land is 48.28 Rs.
2	Loss of Value of timber, fuel wood and minor forest produce on an annual basis, including loss of man hours per annum of people who derived there livelihood and wage from the harvest of these commodities	Effectuated trees in 8.125 km length have been compensated by road side & compensatory plantation taking cost of Rs 20.98 lakhs.
3	Loss of animals husbandry productivity including loss of fodder	10% of NPV = Rs 4.83 Lakhs
4	Cost of human re-settlement	Nil
5	Loss of public facilities and administrative infrastructure (Roads, Buildings, Schools, Dispensaries, Electric lines, Railways etc.) on which would require forest land if these facilities were diverted due to the project.	There is no loss of public facilities and administrative infrastructures on forest land.
6	Possession value of forest land diverted	30 % of NPV=14.48Lakhs
7	Habitat fragmentation cost	50 % of NPV=24.14 Lakhs
8	Compensatory afforestation and soil & moiststure conservation cost.	The estimated cost for raising the CA in 5.1415 Ha. Is Rs 23.68 Laks for 10 Years.Considering discounting rate 12% for future 99 years , the present value is Rs65.40 Laks
9	Suffering to oustees	Nil

Total Environmental Loss

178.11

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खण्ड सिंचाई-२ नई टिहरी

सहायक अभियन्ता

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अधिशारी अभियन्ता

पी.एम.जी.एस.वाई.

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प्रारूप-29.2

Parameter for Evaluation of Benefit, notwithstanding loss of Forests

प्रधानमंत्री ग्राम सड़क योजना के अर्न्तगत जनपद टिहरी के जौनपुर विकास खण्ड में मरोडा से वनाली मोटर मार्ग के कि०मी० 3 से कुण्ड (8.125 कि०मी०)के नव निर्माण हेतु वन भूमी हस्तान्तरण प्रस्ताव।

Annexure VI(C)

S.N.	Parameters	Details
1	Increase in productivity attributable to the specific project.	Vegetables and fruits =200 Qtls @Rs 2000.00 = Rs 400000.00 For 99 years: 400000.00*99 = Rs 39600000.00
2	Benefits to economy	Market development (taking 5 shops are to be developed after construction of motor road & considering minimum benefit per shop per day be Rs 300.00. Benefit for one month 5*30*300=45000.00 Benefit for 5 shops for 1 year=540000.00 Benefit for 99 year = 540000.00*99= 53460000.00
3	No. of population benefited.	1424
4	Cost if Nap land	Nap land 0.702 Ha. @Rs 22.00 Lakh/ha =Rs 15.80 Lakh
5	Economic benefits due to direct and indirect employment due the project	Abut 720 man days (40x18) employment will generated directly takong Rs 40x18x400=2.88 laks and skilled development will generated = 5x500x18=Rs 45000 So taking total minimum wage (2.88+0.27)=Rs.3.32
6	Economic benefits due to Compensatory afforestation.	The annual value of timber and fulewood, carbon NTFP, eco-tourisum, fodder and watershed services from CA is Rs 4200/annum. Considering discounting rate 4% for future 99years, the peresnt value =RS 3.75 Laks

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खण्ड सिंचाई-२ नई टिहरी

सहायक अभियन्ता  
पी०एम०जी०एस०वाई०  
खण्ड सिंचाई-२ नई टिहरी

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खण्ड सिंचाई-२ नई टिहरी



**Cost Benefit Ratio Chart**

प्रधानमंत्री ग्राम सड़क योजना के अर्न्तगत जनपद टिहरी के जौनपुर विकास खण्ड में मरोडा से वनाली मोटर मार्ग के कि०मी० 3 से कुण्ड (8.125 कि०मी०)के नव निर्माण हेतु वन भूमी हस्तान्तरण प्रस्ताव।

SL. No.	Particulars	Amount in lakhs	Remark
<b>1</b>	<b>Total cost (Investment incurred)</b>		
(A)	Construction cost of the project	538.30	
(B)	N.P.V. Amount to be deposited [5.1415 ha @ Rs. 9.39 lakh/ha = Rs 48.28 lakhs]	48.28	
(C)	Substitute/Alternative Plantation Cost to be deposited:- (120.14+3.93)	124.07	
(D)	Environmental Losses (Soil erosion effect on hydrological cycle, wildlife habitat, microclimate upsetting of ecological balance) as per annexure VI (B)	178.11	
(E)	Cost of Nap land as per annexure VI (C)	15.80	
	<b>Total</b>	<b>904.56</b>	
<b>2</b>	<b>Benefits: Total benefit during the life (Assuming life be 99 years)</b>		
(A)	Economic Benefit - Market development (taking 5 shops are to be developed after construction of motor road & considering minimum benefit per shop per day be Rs 300.00. Benefit for one month $5 \times 30 \times 300 = 45000.00$ Benefit for 5 shops for 1 year = 540000.00 Benefit for 99 year = $540000.00 \times 99 = 53460000.00$	534.60	
(B)	In this project, about 120 labours (20 permanent & 100 temporary) will get employment. Their social, economical and cultural life structure will also be benefited. Thus, employment potential as per annexure VI (C)	3.32	
(C)	Employment generation due to other activities like transportation, taking 5 people get job per month @ Rs 9000.00 per month $4 \times 9000.00 = 36000.00$ Benefit for 1 year $36000 \times 12 = 432000.00$ Benefit for 99 year $432000.00 \times 99 = 53460000.00$	427.68	
(D)	Tourism- Emploment growth due to tourism activities : Rs 150000.00 per man per year. If 15 people get employment, then Benefit for 99 years : $100000.00 \times 15 \times 99 = \text{Rs } 148500000.00$	1485.00	
(E)	Economic benefits due to Compensatory afforestation.	3.75	
(F)	Vegetables and fruits = 200 Qtls @Rs 2000.00 = Rs 400000.00 For 99 years : $400000.00 \times 99 = \text{Rs } 39600000.00$	396.00	
	<b>Total Economic Benefit</b>	<b>2850.35</b>	
	<b>Hence, Benefit Cost Ratio</b>	<b>3.15</b>	<b>&gt;1</b>
Note:- The Cost Benefit Ratio is greater than 1, hence , project is economically viable and socially as well as ecologically beneficial.			

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