

Name of Project :- Construction of Pokhari to Kandai Motor road under PMGSY

Cost-Benefit Ratio - Calculation Performa

Annexure-vi(A)

Block :-Pokhari District -Chamoli

Road lenth :- 14.2 Km

Nap Land :- 2.45 ha

Forest Land :-7.35 ha

Population :- 893

Sl.No.	Particulars	Amount(Rs .Lacs)	Remark
1.	Total Cost (Investment Incurred)		
(A)	Construction cost of project	695.95	Lacs
(B)	N.P.V Amount to be deposited (7.35Ha@ 8.45 lacs per ha.)	62.10	Lacs
(C)	Substitute/Alternation Plantation Cost to be Deposited-	56.55	Lacs
(D)	Cost of Nap Land (2.45 Ha @ 9 lacs per ha) as per annexure VI (C)	22.05	Lacs
(E)	Loss of value of timber,fuelwood & minor forest produce on annual basis,including loss of man-hours per annum of people who diverted livelihood and wages from the harvestoftheircommodities.	7.08	Lacs
(F)	Environmental Value	186.3	Lacs
	Total Cost (A1)	1030.03	Lacs
2.	Benefits:- Benefits from Road (Taking Age of Road As 50 years)	Estimated Cost/ yearly	-
(A)	Economics Benefits – Market Development Taking– 20 shops are established after construction of above road taking minimum benefit for per shop per day Rs 250.00 benefit for 20 shops per month 20 x 30 x 250 = 150000.00 x 12=1800000.00 Benefit for 1year =1800000.00 Benefit for 50 year =1800000.00 x 50= 90000000.00	900	Lacs
	Total Direct Benefits	900	Lacs
(B)	Direct Employment of Labours - Benefits for Annual Maintenance Road Take 20 Beldar for Maintenance of Road for one month @ Rs.6000.00 Benefits to 20 Beldar = Rs.6000.00 x 20 = Rs.1,20,000.00 per month Benefits for 1 Year = Rs 1,20,000.00 x 12 = Rs. 1440,000.00 Benefits for 50 years = Rs 1440,000.00 x 50= Rs.720,00000.00	720	Lacs
	Total Employment	720	Lacs
(C)	Employment Generation Due to other Activities like transportation market development etc. Benefits to 30 people get job per month @ Rs.6000=Rs. 180000.00 Benefits for 1 Year = Rs 180000.00.00 x 12 = Rs. 2160000.00 Benefits for 50 years = Rs 2160000.00 x 50 = Rs. 108000000.00	1080.00	Lacs
(D)	Vegetables and fruits = 200 Qtl @ 1500 = Rs.300000.00 X 50 YR	150 .00	Lacs
	Total Benefits (B1))	2850.00	
	Hence Cost Benefits Ration (B1/A1)	= 2.76	

Note - Therefore construction of above road is economically viable and socially beneficial.


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COST- BENEFIT ANALYSIS

Annexure-vi(B)

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A. Parameters for Evaluation of Loss of Forests

Sr. No.	Parameter	Description
1	Loss of value of timber, fuelwood & minor forest produce on annual basis, including loss of man hours per annum of people who diverted livelihood and wages from the harvest of their commodities.	Loss of total 211 no of trees costs Rs. 7.08lacs misc. Species which will be compensated by compensatory afforestation. No livelihood of people affected.
2	Loss of animal husbandry productivity Including loss of fodder	There is no loss of animal husbandry in the proposed Forest land
3	Cost of human resettlement	There will be no human resettlement in the forest land.
4	Loss of public facilities and administration Infrastructures (roads, building, schools, dispensaries, electricline, railways etc.) on forest land of which would require forest land if these facilities were diverted due to the project	There is no diversion of public facilities and Administration infrastructures (roads, buildings, school, dispensaries, electricline, railway etc.) on forestland.
5	Environmental Losses to soil erosion, effect On hydrological cycle, wild life habitat, micro climate up setting of ecological balance.	Environmental Loss: Environmental value of 1 Hectare of forest land with density 1.0 is estimated to be = 126.74 lakh Density of forest area to be diverted = 0.2 value as per density estimated to be = Rs. 25.348 Lakh (i.e., 0.2 of Rs. 126.74 Lakh) So, Environmental value of 7.35 hectare of forest area = Rs. 186.3 Laacs
6	Suffering to ousters.	Nil
7	Amount of Compensatory Afforestation.	Rs. 28.00 Laacs
8	Amount of NPV to be deposited.	Rs. 62.10 Laacs

COST- BENEFIT ANALYSIS



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Annexure-vi(c)

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B. Parameters For Evaluation Of Benefit, Not withstanding Loss Of Forests

Sr. No	Parameters	Roads, Transmission lines & Railway lines
1.	Increase in productivity Attributable to the specific project	By the construction of this road cash crops such as Orange ,Dal, Potato, Green Vegetables. Vegetables and fruits 200 Qtl @1500= Rs.300000.00 For 50 year= 300000 x 50=150 Lacs
2	Benefits to economy	About Rs. 1.00 lacs due to milk production ,vegetable ,fruits, tourism and other mining mineral materials.
3.	No.of population benefited.	Population of the surrounding area along the section shall be benefited during and after execution of the Road. Around 893 peoples along the section will be benefited.
4.	Employment potential	Direct Employment of Labours - Benefits for Annual Maintenance Road Take 20 Beldar for Maintenance of Road for one month @ Rs.6000.00 Benefits to 20 Beldar = Rs.6000.00 x 20 = Rs.1,20,000.00 per month Benefits for 1 Year = Rs 1,20,000.00 x 12 = Rs. 1440,000.00 Benefits for 50 years = Rs 1440,000.00 x 50= Rs.720,00000
5.	Economics Benefits–Market Development Taking	Economics Benefits – Market Development Taking – 20 shops are established after construction of above road taking minimum benefit for per shop per day Rs 250.00 benefit for 20 shops per month 20 x 30 x 250 = 150000.00 x 12=1800000.00 Benefit for 1 year =1800000.00 Benefit for 50 year =1800000.00 x 50= 90000000.00
6.	Cost of acquisition of facility on non-forest land wherever feasible	Nap land 2.45 Hectare @ 9.00 lakh per ha = 22.05 Lakh
6.	Loss of (a) agriculture & (b) Animal husbandry production due to diversion of forest land	Nil
7.	Cost of rehabilitating the displaced Persons as different from compensatory amount given	There will be no displacement due to the project, so resettlement Is not required.
7.	Cost of supply of free fuel-wood to workers residing in forest area during the period of construction.	Kerosene Oil /Gas Connection service is available in the area /dry fuel wood will be sufficient from nearby during construction


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