

CALCULATION OF BENEFIT COST RATIO

Name of Scheme: Construction of Road Padri to Bhal Padri.

Total cost of Project: 1900.00 lac

Length of Road: 10.00 km

Population: 15000

PCU's: 150

distance Reduction: 20.00

SAVING IN VEHICLE OPERATION COST

As per IRC norm and guidelines of may 1998 assuming $\text{th} = \text{VOC} \times \text{Dist.Red} \times \text{PCU} \times 365/2$
vehicle operating cost at Rs 7.00/km/PCU the annual saving Voc may be qualified consedring
50%period for transportation , agricultral and other econmic activites

PCU	dist.red	voc	365\2	Saving in VOC
150	20.00	7.00	182.5	38.325 lac

Travel Time Speed

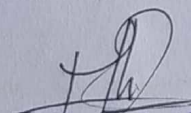
a) Man Days saved= 10% of population X time X time reduction

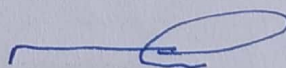
0.10	15000.00	5/60	365/8	20.00	114062.5
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b) Value of travel time saved = $\frac{\text{Man days saved} \times 0.65 \times 150}{100000} = 111.21$

Total benefit= saving in Voc + Time travel saved+ Total earning

406.31 lac


Assistant Executive Engineer
B.C Road Sub-Division
Bhaderwah


Executive Engineer
B.C Road Division
Bhaderwah

FINANCIAL VIABILITY
EXISTING LEVEL OF AVERAGE ESTIMATED BENEFITS
SAVING PRODUCE OF DODA DISTRICTS

S.NO	COMMODITY	Price for tonner procured	Prod. 000qtls	% prod. For marketing surplus Qtls	Qty of production for marketing	Add benefits 2% of col.6	Total marketing 6+7	Total earning(in lacs)
1	2	3	4	5	6	7	8	9
1	Rice	18050	300.00	60	180.00	3.60	183.60	3313.98
2	Maize	29050	450.00	60	270.00	5.40	275.40	8000.37
3	Wheat	10750	180.00	60	108.00	2.16	110.16	1184.22
4	Other cereals millets	7000	12.50	50	6.25	0.13	6.38	44.63
5	Pulses	31100	35.00	50	17.50	0.35	17.85	555.14
6	Horticulture produced	15131	130.00	60	78.00	1.56	79.56	1203.82
7	Oil seeds	2300	102.00	80	5.16	0.10	5.26	12.11
8	Vegetable produces and Food crops					0.00	0.00	0.00
9	Fish	3200	0.25	100	0.25	0.01	0.26	0.82
10	Forest Extracts		5070.00	80	4056.00	81.12	4137.12	0.00
11	Khadi & Vill. earning		2400.00	82	1968.00	39.36	2007.36	0.00
12	Raw Silk	1000000	0.02	100	0.02	0.00	0.02	20.40
					20542			

Earning on Account of Project

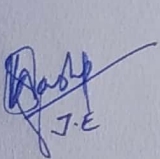
Name of Road: Construction of Road Padri to Bhal Padri.

Total Length of road in Distt. Doda: 800 km

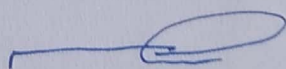
Total Earning: $A \times C/B = \frac{A}{20542} \times \frac{C}{10.00} \times \frac{B}{800}$

c= length of road and B = total length of roads in distt doda

Total Earning= 256.775


J.E

Assistant Executive Engineer
B.C Road Sub-Division
Bhaderwah


Executive Engineer
Bhaderwah Chamba Road Division
Bhaderwah

PCU

s.no	particulars	No/day	Factor	PCU/Day
1	Motercycle	26	0.50	13
2	Passenger car, van	29	1.00	29
3	Truck, Bus	15	3.00	45
4	Agricultral Tractor	10	4.50	45
Total				132

[Signature]
J.E

[Signature]
Assistant Executive Engineer
B.C Road Sub-Division
Bhaderwah

[Signature]
Executive Engineer
Bhaderwah Sub-Division
Bhaderwah

PHASING

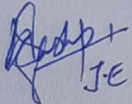
Frist Year =	2021-22	@	30%	i.e	570.00
Second year=	2022-2023	@	40%	i.e	760.00
third yer=	2023-2024	@	30%	i.e	<u>570.00</u>
				Total	<u>1900.00</u>

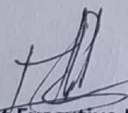
BENEFITS

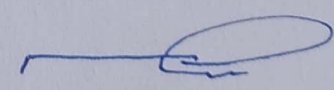
Particulars	1st year	2nd year	3rd year	total
Capital cost	570.00	760.00	570.00	1900.00
Benefits		101.58	406.31	
Discount Factor	0.87	0.76	2.73	
Present cost of worth	495.90	574.56		1070.46
Present cost of benefits		76.79	1556.10	1632.89

$$\text{BCR} = \frac{\text{PWB}}{\text{PWC}} = \frac{1632.89}{1070.46} = 1.53$$

$$\text{BCR} = 1:1.52$$


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