

A	20542
length of Road	16.00
PCUS	265
Name of Road	Construction of Bhelli Lal Draman road Km 4th to Km 19th by way of Earthwork & walling(Phase-I).
Toal cost of project	803.26
population	5000
Distance reduction	16.00

PCU

1	Motercycle	40
2	Passenger car, van	29
3	Truck, Bus	45
4	Agricultral Tractor	18

Phasing	frist year=	2022-2023
	second year	2023-2024
	Third Year	2024-2025

[Signature]
 Asst. Ex. Engineer
 PWD (R&B) West Sub Division
 Doda

[Signature]
 Executive Engineer
 PWD (R&B) Spl. Sub. Division
 Doda

FINANCIAL VIABILITY EXISTING LEVEL OF AVERAGE ESTIMATED BENEFITS SAVING PRODUCES 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 Bheli Lal Draman road Km 4th to Km 19th by way of Earthwork & walling(Phase-I).

Total Length of road in Distt. Doda:

800 km

Total Earning: $A \times C/B =$

$\frac{A}{20542} \times \frac{C}{16.00} \times \frac{B}{800}$

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

Total Earning=

410.84


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PCU

s.no	particulars	No/day	Factor	PCU/Day
1	Motercycle	40	0.50	20
2	Passenger car, van	29	1.00	29
3	Truck, Bus	45	3.00	135
4	Agricultral Tractor	18	4.50	81
			Total	265


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CALCULATION OF BENEFIT COST RATIO

Name of Scheme: Construction of Bheli Lal Draman road Km 4th to Km 19th by way of Earthwork & walling(Phase-I).

Total cost of Project: 803.26 lac

Length of Road: 16.00 km

Population: 5000 souls

PCU's: 265

distance Reduction: 16.00

SAVING IN VEHICLE OPERATION COST

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

PCU	dist.red	voc	365	Saving in VOC
265	16.00	7.00	365	108.33 lac

Travel Time Speed

Population: 5000 souls

Assuming 10% population is engaged in taking commercial activities with average time reduction of 5m in /km with probability of securing employment at 0.65 and current wages rate at Rs350.00/day the proportionate saving in travel time shall be as under

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


0.10	5000.00	5/60	365/8	16.00	30416.667
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b) Value of travel time saved = $\frac{\text{Man days saved} \times 0.65 \times 350}{100000} = 69.20$

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

588.37 lac


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PHASING


Frist Year =	2022-2023	@	30%	i.e	240.98
Second year=	2023-2024	@	40%	i.e	321.30
third year=	2024-2025	@	30%	i.e	<u>240.98</u>
				Total	<u>803.26</u>


BENEFITS= 588.37

Particulars	1st year	2nd year	3rd year	4th year	Total
Capital cost	240.98	321.30	240.98		803.26
Benefits	176.51	235.35	176.51	588.37	
Discount Factor	0.87	0.756	0.658	2.73	
Present cost of worth	209.65	242.91	158.56		611.12
Present cost of benefits	153.56	177.92	116.14	1606.25	2053.88

$$BCR = \frac{PWB}{PWC} = \frac{2053.88}{611.12} = 3.36$$

BCR= 1:3.36


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