

Cost Benefit Analysis

Total Length of the Road = 12.842 km

Benefits -

(A) Benefit due to easy communication of vehicles -

Suppose 500 vehicle (heavy) ply per day

For 1 year nos of Vehicles = $365 \times 500 = 182500$

Assuming Rs. 2000 (av) benefit per vehicle per day

Total benefit = $182500 \times 2000 = \text{Rs. } 36.50 \text{ Crores}$

(B) Benefit due to transportation of Food grains, vegetables, Jungle products etc.

Assuming 2500 MT Paddy & Wheat

700 MT Mahua

100 MT Vegetable

Cost enhancement of product due to easy/proper connectivity

 $2500 \text{ MT} \times 2000 \text{ per MT} = 0.50 \text{ Crores}$ $700 \text{ MT} \times 5000 \text{ per MT} = 0.35 \text{ Crores}$ $100 \text{ MT} \times 5000 \text{ per MT} = 0.05 \text{ Crores}$

Sub Total = 0.90 Crores

(C) Hat Bazar Development besides alignment of road

Assuming Rs. 2,50,000.00 benefit (av) per day

For 1 year $365 \times 2,50,000.00 = \text{Rs. } 9.125 \text{ Crores}$

(D) Social upliftment of area

Assuming L.S. = 50.00 Crores

(E) Other benefits such as petrol pump, School, College, industries etc establishment

Assuming L.S. = 100.00 Crores

Total 196.525 Crores

Value of Forest/ Environment

Assume loss due to forest per hectare = 0.50 Lakh

Total Loss = $6.532 \times 0.5 = 3.27 \text{ Crore}$

Thus even for as much as 6.532 hectare forest area involved in the construction of Gumla By pass road would be advantage in monetary terms

Cost benefit ratio = $196.525/3.27 = 60.10$ Chd
11-6-16

JE

NH Section, Gumla

Jm
11-6-16
AE

NH Div. Gumla

Gumla
11-06-2016

EE

NH Division, Gumla