

## ECONOMIC ANALYSIS

### 1 GENERAL

The economic analysis in the present submission is for 2-Laning of Joram-Koloriang Road from Existing Km 70.00 to Existing Km 138.00 (Length = 68 Km) in the state of Arunachal Pradesh under SARDP-NE on EPC Mode. Economic analysis for the entire project is done based on the field data and by following the guidelines of SP:30-2009 and presented herewith.

### 2 BASIC DATA

Road characteristics of existing road and proposed road are summarized in Table 1 as follows

**Table 1: Road Characteristics**

BASIC DATA	EXISTING ROAD	PROPOSED ROAD
LANE	1	2
PAVEMENT WIDTH	3.75m	7m
SHOULDER WIDTH	1.875 m	1.5M PAVED+ 1M HARD
ROUGHNESS OF PAVEMENT	6000 mm/KM	2000 mm/KM
LENGTH OF ROAD	68 KM	62.99 KM
CAPACITY OF ROAD	600 PCU/Hr	3000 PCU/Hr
RISE AND FALL	50	30

### 3 MAINTENANCE COST

The maintenance cost of existing roads is evaluated as **680000000** rupees per year, whereas that of the proposed road is evaluated as **15747500** rupees per year .

### 4 VEHICLE OPERATING COST

The total vehicle operating cost for the whole length of one year is evaluated and it is found at **845793.11** Lakhs for the existing road and that for proposed road is found as **324884.33** Lakhs.

### 5 COST AND BENEFIT ANALYSIS

A Cost and Benefit evaluation was undertaken for the proposed road section by comparing the "Do-nothing" and "Project" cases. The results are summarized in

Table 2, which gives the economic internal rate of return(EIRR) and the net present value(NPV) for the proposed project improvement case. Benefits considered include the vehicle operating cost savings, cost of construction and maintenance and cost of accidents.

**Table 2: Cost and Benefit Analysis Results**

ROAD NAME	EIRR (%)	NPV (RS LAKHS)	BENEFIT-COST RATIO
Joram-Koloriang (70KM to 138 KM)	23.7959	95635	7.94

The economic analysis indicates that the proposed improvements of the project roads are economically feasible yielding an EIRR well above the opportunity cost of capital of 12% and is therefore justified in cost-benefit terms.



  
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