

A REVIEW PAPER ON RURAL ROAD DEVELOPMENT

Gayatri Ahirrao¹, Shivani Rangwal², Divya Khanal³, Manish Kumar⁴

Prof. Pragma Sharma⁵

¹²³⁴ Student & DY Patil School of Engineering Lohegaon Pune

⁵Professor, Dept. of Civil Engineering, DY Patil School of Engineering Lohegaon Pune

Abstract –Rural road are the tertiary road system in total. Road network which provides connectivity for the rural population to market and other cilities centers. In India rural road are being planned and programmed in the favors of overall rural development and tried to provide all weather connectivity with some level of achievement. The main aim is to balance the connection and provide good facilities of roads as it's the key component of development. This paper contends that these rural roadways funding subsidies could be allocated in a manner that is more economically equitable across geographic region.

Key Words: -1] Highway Road 2] Gini Coefficient 3] Weighted coefficient of Variation.

1. INTRODUCTION

This paper contends that these rural roadway funding subsidies could be allocated in a manner that is more economically equitable across geographic regions in India and, thus more effectively (i.e., equitably) promoting the overall economic development of rural India. As such, this paper presents a proposed method for allocating rural roadway construction funding among Indian provinces in a more economically equitable manner.

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The challenges of managing public infrastructure investments in developing countries are complex, especially those associated with the planning and management of rural roads. Although it may be tempting to attribute the challenges to technical deficiencies in engineering aspects of roadway design and construction, in fact they are much more likely to be traced to non-technical issues of planning, management (including maintenance) and finance.

2. OBJECTIVE: -

The main intention of this study is to develop road information system so that it will be useful for solving complex planning, Decision making and management problems of rural roads in the study area. It covers the application of GIS to find optimal route by using network analysis.

The objectives are: -

- To develop spatial and attribute database for the road network of this study area
- To identify the growth centers and rural hubs
- To select the optimal route between two locations
- To prepare up-gradation and maintenance priority list.

3. LITERATURE REVIEW

Literature related to Rural Road development are presented in this study: -

Government has organized so many plans like :-

- 1)2nd 20 year Development plan(1961-1981)
- 2)3rd 20 year Developmentplan (1981-2001)
- 3)4th20year Development plan (2001-2021)
- 4)Rural road Development plan (2005-2025)

A) Economy Impact of PMGSY on rural Economy: -

Some districts are selected in this study and it is tried to get effect of rural road on different parameter.

1) Impact on agriculture: -

PMGSY road connectivity leads to a better transport system during all seasons. Farmers mentioned that the problem of not being able to access the markets during monsoon has been solved by the construction of the roads. The PMGSY road shave made easier to transport chemical fertilizers, seeds and pesticides. Considerable change in cropping pattern was observed in the various districts and villages of Telangana, with switch from food crops to cash crops (such as ginger, sugarcane, sunflower and other vegetables).

2) Impact on Employment Generation: -

After the construction of PMGSY roads, an improvement in the employment situation in terms of more job opportunities was observed. A lot of house wives were mentioned that they have started small scale in dustries like making,pickle,papad, bidi, sivai, jhaduetc.

On-farm employment opportunities have increased due to shift from grains to cashcrops.

3) IMPACT ON POVERTYALLEVIATION

Under PMGSY, rural road shave decreased the rapid growth rate of poverty and had increased the involvement of people into the growth process of the state, which is the main objective of inclusive growth of Telangana.

With the improve mentinon-farmandn on farm employment opportunities, beneficiaries in all the districts reported increase in their average house hold income.

B) Social Impact of PMGSY on Rural Economy: -

1) Impact on health

Positive impact was observed with regard to increase in accessibility to prevent health care facilities; better management of in fectious diseases and att endinge mergencies due to faster access to health facilities and increase in frequency of visits by health workers especially in the Telangana districts.

Pregnant women have easier accesst o prenatal and postnatal care, and can reach health centers outside the village in time for deliveries. Ambulance facilities have also been increased in maximum villages.

2)Impact on education

Beneficiaries reported that the PMGSY road connectivity had led to an increase in the number of girls going to schools in the various village. in the state. Most parents mentioned that they are now more confident about sending their daughters to schools/colleges.

Another noteworthy impact has been in terms of regular attendance of the teachers throughout the year. Teachers, living out side are also able to travel for work in rural schools.

3) Impact on Urbanization

Trend towards urbanization of an area as an immediate and direct impact of providing rural road connectivity was observed in course of the study. The study areas have seen some rapid changes from traditional to modern ways of life. For instance, the phenomenon of neon light attraction has drawn the villagers to the town entert a in ments;the re has

been increased use and owner ship of televisions, computers, mobiles, cars, tractors and other electri calgadgets.

4. METHODOLOGY

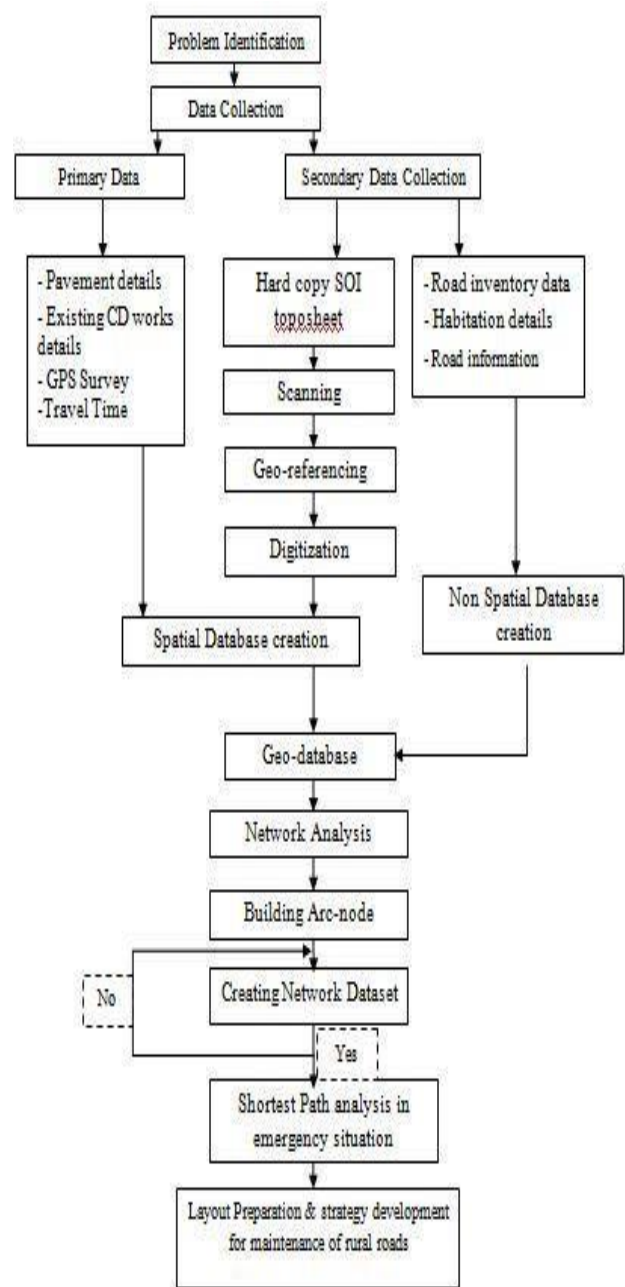


Fig. 1: Flow chart showing methodology for Development of Rural Road

The methodology adopted would be studying and identifying with the existing conditions. We have studied the map, road network & survey, traffic survey, soil test and then designed the road as flexible pavementA)Analyze and

Identify the problem in road design by study area and data collection.

1) STUDY AREA:-

We have selected a village named NYALKAL in the Medak district of Telangana, India as the study area to develop rural road information system(RRIS). The transportation here is risky with hard rock patches. The study aimed at developing RRIS and making shortest path analysis for the road networks of the study area. The detail description of the step by step procedure is given below. Collection of data in the form of map for study area from different sources. Development of database of road network by putting attributes variables. Development of network dataset of the road network. Performing Network Analysis to find the optimal route.

(B) DATA COLLECTION & SURVEY:-

Collecting the data and quantifying the information from various survey in the field or study area in a systematic path in order to get proper picture of area of interest, and also to analyze and evaluate the outcomes and report to the research problems.

- 1) Primary Data: The data like chainage length, water way span, cross drainage work and its conditions were gathered.
- 2) Secondary Data: The data like map study, reconnaissance survey, preliminary survey, habitation details and other data were collected from Panchayat Raj and Roads & Building department of the district.

(C) Study of Existing Roads Network :-

The roads of study area can be classified as Major District Roads(MDR), Other District Roads (ODR), and Village Roads (VR). The surface of roads are bitumen treated, water bound macadam, cement concrete, gravel and track. These roads have been maintained by different departments of Govt. like Panchayat Raj and Roads & Buildings department.

(d) Traffic volume count: -

To decide the number of lanes and roadways width, pavement design, economy analysis traffic surveys are conducted.

5) PROBABLE CONCLUSIONS

- 1) A stand survey in village has been proposed for the road and transportation sector.
- 2) Basic need: -medical facility in the village, food supply, education facility and living life style of the village.

3) Social needs: -Transportation facility will reduce time travelled required for traveling purpose. enhance the agriculture as well as the industrialization hence the financial ability of the village.

4) Economy needs: -The construction cost is reduced by facility using naturally available materials.

5) Improving rural road reduces transport cost and stimulates marketing this results in increased productive and profitability.

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