



RURAL ROAD DEVELOPMENT

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Abstract : The number of rural road networks is created recently in developing countries are reviewed in this report. The main objective of this study is to reduce the time of transportation, planning of road alignment and its formation. Road development in a remote area is a tedious job and requires a lot of gathered experience. In this report the study area at village called Bhatpada locality Shirgaon , it is a small village in vasai taluka, palghar district is located. Traveling to Bhatpada by road is very difficult and tedious work current situation, as the road is narrow, risky, hard rock patches & that region comes under the forest department. In the preliminary investigation has been carried out in the current study, the villagers are facing acute problems such as road transportation. The roads are increases social and economic benefits in rural areas.

Keywords – aggregate, forest department, hard rock patches, risky, rural road, soil.

I. INTRODUCTION

Rural roads are the tertiary road system in total road network which provides accessibility for the rural habitations to market and other facility centre. In India, during the last five decades, rural roads are being planned and programed in the context of overall rural development, and tried to provide all-weather connectivity with some level of achievement. The long term road development plans for the country provided policy guidelines and priorities for rural roads, while the funds for rural roads were allocated in the Five Year Plans. Recently, during the last five years Government of India has undertaken a dedicated program known as 'Pradhan Mantra Gram Sadak Yojana (PMGSY)' to provide rural connectivity to all habitations under the Ministry of Rural Development. More recently, Bharat Nirman, a time bound business plan adopted to provided rural infrastructure during 2005-09, rural roads have been to upgrade the existing rural roads for overall network development which is a more objective approach.

II. LITERATURE VIEW

2.1 General:

A literature review is a crucial step for researchers to understand the design of green building. It includes academic publications, books, articles, and relevant data. It's essential to understand the problem's status, practical solutions, and previous studies. Ineffective research may result from ignoring available online, book, and journal material.

2.2 Review of Journal Papers:

- 2.2.1 Gayatri Ahirrao, Shivani Rangwal, Divya Khanal, Manish Kumar Prof. Pragya Sharma, A Review Paper On Rural Road Development (March 2021), 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.
- 2.2.2 Jayant Mishra, Ajay Swaroop, Systematic Review of the Effects of Rural Roads on Expanding Agricultural Markets in Developing Countries (August 2016) , This systematic review consists of a narrative synthesizing the findings of 15 relevant rigorous impact evaluations of the impacts of rural

road interventions in developing countries on farmer livelihoods. Specifically, the review examines the impact of roads on farmer incomes, transport costs, production, yields, prices, market access, and adoption of modern farming technology, poverty, transportation times, and cropping patterns. SI conducted this review over a period of eight months – from protocol development to drafting and finalizing the report.

2.2.3 Sam Asher and Paul Novosad, *Rural Roads and Local Economic Development* (January 2019), They constructed a high spatial resolution dataset that combines administrative microdata 2 covering all households and firms in our regression discontinuity sample of villages with remote sensing data and village aggregates describing amenities, infrastructure, and demographic information. Because variation induced by program rules is across villages rather than across larger administrative units, and because of the possibility of heterogeneous effects by individual characteristics, village-identified microdata are essential for studying the impacts of roads.

III. METHODOLOGY

The methodology adopted would be studying and identifying with the existing conditions. We had studied map, auto level survey and traffic survey then we have done the soil test in lab as well as on field then we have design the road flexible pavement.

3.1 Study area Location:

Bhatpada is a small village it comes under 'Group Gram Panchayat Arnala' Vaitarna of district Palghar, Maharashtra. Nearest railway station from Bhatpada is Vaitarna. Distance of Vaitarna from Bhatpada is 2.33 km. The transportation of Bhatpada is risky, hard rock patches. Bhatpada is a village in Virar, District-Palghar, and State Maharashtra. Popular language in Bhatpada is Marathi; income source of Bhatpada is farming and Auto Driver. Shown in Fig 1

3.2. Questionnaire Survey to gather information for the Rural Road:

We are conducting a survey to understand the condition and usage of rural roads in Virar from shirgaon to vaitarna. Our team will be visiting your area to gather information and hear from local residents about the roads. We want to know about your experiences, concerns, and suggestions for improving the roads. Your input will help us identify priorities for maintenance, upgrades, and new infrastructure. A member of our team will visit your household/community to ask about:

- a) Your daily usage of rural roads
- b) Conditions and challenges you face
- c) Safety concerns and accidents
- d) Desired improvements and upgrades
- e) Any other relevant information

IV. FIGURES AND TABLES

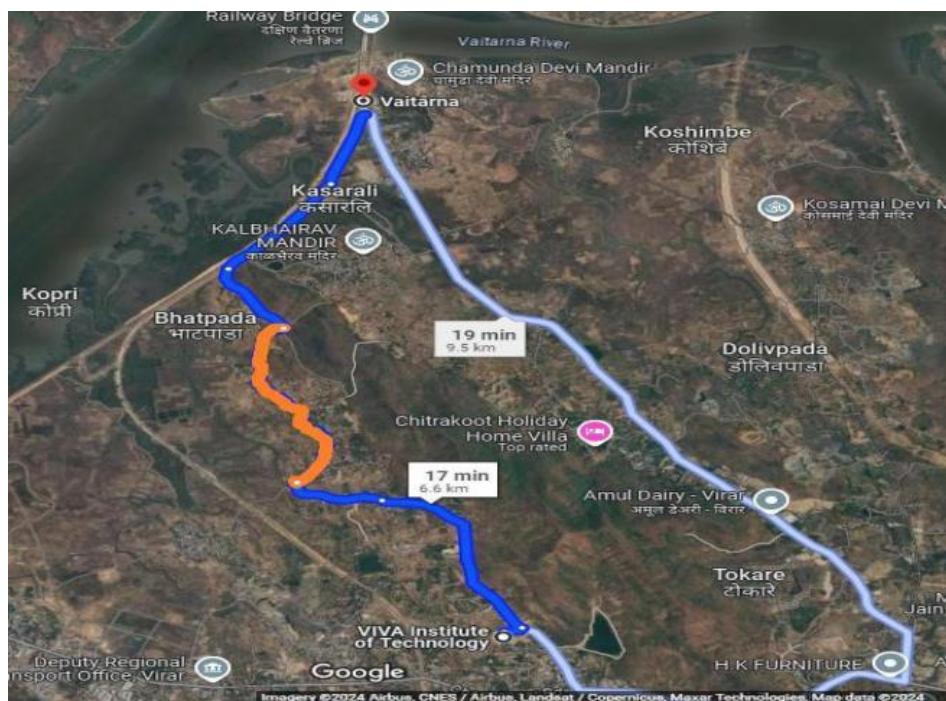


FIG 1. SPATIAL VIEW OF PROPOSED ROAD

V. CONCLUSION

Rural road development enhances connectivity, promotes economic growth, and improves access to essential services in remote areas. It reduces transportation costs, boosts agricultural productivity, and supports poverty alleviation. Programs like India's PMGSY focus on building all-weather roads for year-round access.

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