Study of Transportation Needs Rural and Semi Urban

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ABSTRACT

Purpose – The purpose of this study is to examine the growing energy consumption pattern and emissions due to increasing vehicular density in the Vellore district. The transport demand in Indian cities has increased substantially over the past few years. Increasing household incomes and economic development in cities have added to this growing demand.

Design/methodology/approach – The growth of Vellore town currently is such that in a short period of time, the development is likely to engulf the entire district as one big city, as it happened for Chennai. It is at a transitional stage where it is possible to bring about certain policy changes to prevent the catastrophic effects of urbanization. To test the objectives of the study, statistical and mathematical tools such as mean, coefficient of variation, correlation and regression models are used. Growth of vehicle population in Tamil Nadu in general and Vellore in particular are analyzed by computing the percentage rate of change and trend rate of growth.

Findings – A study of the past four years shows a tremendous growth in the number of two-wheelers, while the number of buses has declined. The study also shows that public transport fuel consumption is 20 per cent of the overall fuel consumption. The emission of all greenhouse gases is rising and it shows a linear growth. The increase in emission of CO_2 is most alarming   Research limitations/implications – The diversity of sources that have been combined together implies a consequent reduction in accuracy. Data from different sources had different geographical boundaries (state, district, region and country). Thus, the data had to be translated to the relevant geographical area by using proportionality ratio. This manipulation does impact on the accuracy of the used data. Practical implications – This article provides a framework that can inform decisions makers on consequences in the absence of timely intervention and policy changes.

1. INTRODUCTION

Transportation, the movement of goods and persons from place to place and the various means by which such movement is accomplished.

The growth of the ability—and the need—to transport large quantities of goods or numbers of people over long distances at high speeds in comfort and safety has been an index of civilization and in particular of technological progress.

Rural residents are more reliant on personally-owned, single driver automobiles for transportation than their urban counterparts. However, many rural residents are unable to rely on this mode of transportation. Personal vehicles can be expensive to purchase and maintain, and some residents may not have drivers' licenses. Additionally, rural residents who have physical or mobility limitations may not be able to drive.

2. Literature review-

- Transportation demand management in rural areas Biljana Ranković Plainer Jadranka Jović presented paper on

- Road safety analysis using multi criteria approach: A case study in india (10-15 July 2016) Shalini Kanuganti

Road Safety Analysis (RSA) ensure prevention of loss of human life and damage to property which is a procedure to assess the safety standards of a road and helps in the overall decision making process of road management. Road are to be prioritized based on Safety levels to identify the most vulnerable roads to provide mitigation measures. In this paper a study was carried out to determine the priority of safety requirements of a certain category of rural roads, viz., Pradhan Mantri Gram Sadak Yojana (PMGSY) roads in the Jhunjhunu district of Rajasthan, India. Multi-criteria techniques were used to quantify the safety levels. Further analysis has also been done on the road having the worst safety features to rank various stretches. The parameters vital for safety have been selected and quantified using three multi-criteria decision making analysis tools: Simple Additive Weight age (SAW), Analytical

Hierarchy Process (AHP) and Fuzzy AHP methods and results are compared. The methodology presented herein gives an insight to prioritize roads for safety mitigation measures which is expected to be useful to various Decision Makers

Investigating causality between transport infrastructure and urbanization: A state- level study of India (1991–2011)Tuhin Subhra Maparu. Transport infrastructure has often been observed to influence urbanization which is again associated with economic development and improvement in quality of life. However, the direction of causality between the two is unclear as it may depend on the particular context which is very much determined by the socio-economic conditions, political policy decisions, etc. Also, the role of different transport sectors (e.g. road, rail, port, etc.) may change over different phases of development and historic conditions. This study, thus, attempts to explore the causal direction between transport infrastructure and urbanization during the post-liberalization era in India (1991–2011). It has used eleven variables to represent various transport sectors and also categorizes the Indian states into leading, intermediate and lagging groups to find out how the role of various transport sectors changes with various phases of development. The study has used dynamic time series models such as Vector Error Correction (VEC) and Vector Auto-Regression (VAR) for this purpose, which is absent in the present literature. Results showed support in favor of modernization theory of urbanization in most of the cases.

Analysis of road transport energy consumption and emissions: a case study Sainu Franco Venkata Ravibabu Mandla ,(2014)

3. Needs of transportation

- ◗ Transportation allows for access to food, healthcare, educational opportunities, and employment.
- ◗ To access to transportation increases rural residents' ability to access recreation, entertainment, and other activities that promote community engagement.
- ◗ The role of transport is to facilitate the access people have to goods, services and information
- ◗ A good transport system can broaden the market for goods.

4. OBJECTIVES OF PROJECT

1. To study modes of transportation available in rural areas
2. To suggest improvement techniques for transportation in rural area
3. To suggest suitable pavement design
4. To provide to market center to rural producers

5. METHODOLOGY
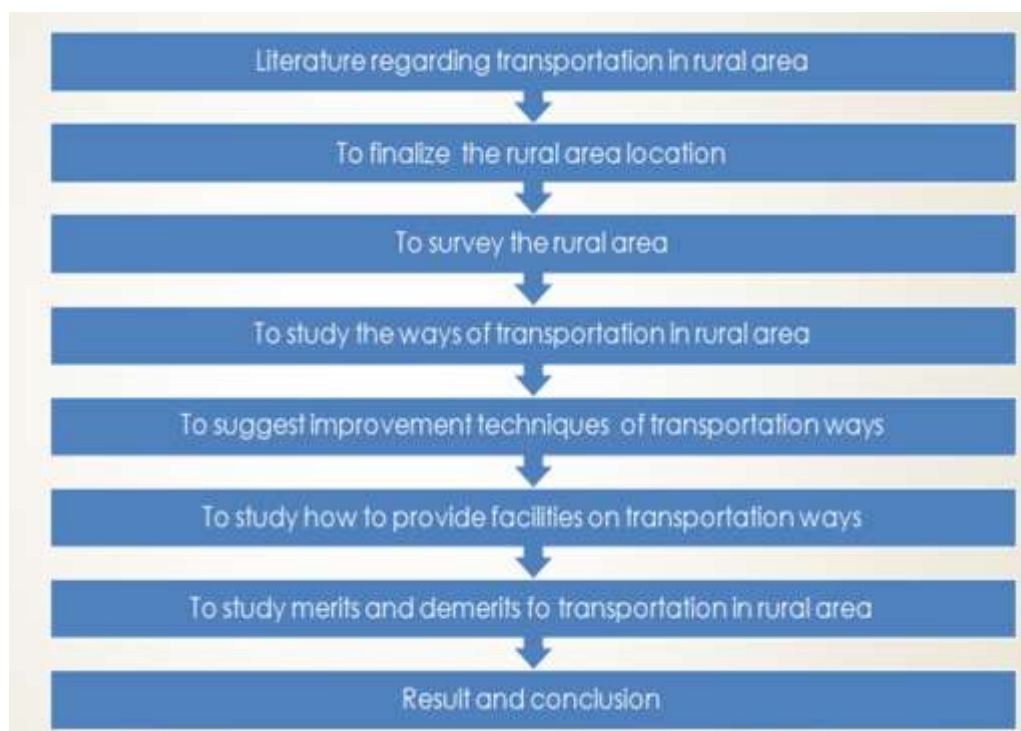
6. EXPECTED OUTCOME

Improve access to market centre for the rural producers, better availability of form inputs at reduced price.

7. REFERENCES

1. Plainer Transportation demand management in rural area (Biljana Ranković)(10-15 July 2016)

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3. Sustainable development and carbon neutrality: Integrated assessment of transport transitions in India

4. Analysis of road transport energy consumption and emissions: a case study Sainu Franco Venkata Ravibabu Mandla , (2014)