



INTERNATIONAL JOURNAL FOR ENGINEERING APPLICATIONS AND TECHNOLOGY

STUDY OF TRANSPORTATION NEEDS IN RURAL AND SEMI-URBAN AREAS

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Abstract

The goal of the research is to interpret transport systems of public transit pointed on the assistance in rural or suburban areas. The obsolete rural territories have become suburbanized regions of the towns' back countries in which the transport needs are fulfilled by personal car usage increasingly. The researched settlements are a portion of the "suburban sprawl" system in the suburbanized backcountry of Prague catchment region. The regionally-dominant position of Prague city strongly influences the transport connections between rural Centres. The traffic congestions and prolongation of the travel time considerably decline the travel speed and improve power consumption of commuting. These validities have an unfavourable impact on competitiveness of public transit to correlate with personal car transport. 10 suburban colonies were nominated for the objectives of fuel consumption analysis and for travel speed estimation. The research paper focused on the paths accomplished during the morning peak hours of common working days when the transport needs are inundated. The collected findings have verified crucial advantage of fuel conservations correlated with the public transit usage to distinguish with personal car usage. However on the other hand, there is a depressed competitiveness of municipal transit in the field of travel period. Around 70% of the population of India is inhabiting in the rural areas. Accordingly, advancements in urban centres independently do not demonstrate the all-around improvement or development of the country. Only with the development in transportation installations in rural areas and sub urban areas, there could be rapidly developments of these regions, ensuing in overall improvement of the country. The fertilizer, other things for the agriculture and bungalows, industries could surpass the rural population as well as sub urban communities easily and accordingly the commodities of the villages can be sold in the nearby market ensuing in economic development

Index Terms: Rural area, suburban area, transport system, communities, congestion.

1. INTRODUCTION

Transportation requirement of urban residents is well searched in the literature and it is known a lot about transportation planning procedures and about the effect of certain factors. Unlike urban areas, rural and semi urban areas have remained in the shadows. In most countries in the world rural transport requirement is not specifically investigated. Transport policy, which is inflexible to urban areas, is the result of this omission. However, rural and semi Urban areas are characterized by few specific features that surely have an impact on the existence of differences between the transportation demand in rural and urban areas. Except in highly developed countries, transportation researches in rural areas are rarely being directed. This is especially evident in

underdeveloped countries and countries in transition. This paper presents the specificities of rural areas in the world, their effect on the transportation demand management and the result of their negligence in the transportation demand management.

We commute to work, go shopping, cinema, visit family and friends, and go on vacation. To do this, we travel by bike, car, airplane, train, boat, bus, bicycle, and on foot. Products and services also require to be delivered from place to place. Oil, machine and electronic components, agricultural products, special deliveries, and other goods come by tractor, truck, train, and airplane. The quality of life and economy in rural and semi urban area depends on an efficient and effective transportation system that provides choices for the movement of people and goods and allows quick transfers between

modes when and where they are needed. The need to maintain transportation linkages between rural and semi urban areas with urban areas is very important to the economy, safety and public health and the social structure of rural and semi urban area. Effective rural transportation planning improves the transportation system and helps to ensure that the quality of life and economy in rural and semi urban area is maintained and enhanced. It does so by providing a strategic perspective on system investment over an expanded period of time. Good rural transportation plans consider a wide range of investment, operational, and technology options that can meet the transportation needs of transportation system users. Most importantly, effective rural and semi urban transportation planning provides the users and stakeholders of the transportation system with adequate opportunity to participate in the planning process, thus ensuring maximum input into the aspirations, view, and directions for transportation system investment.

1.1 What is rural and semi urban areas?

In entity, the concept of “rural” cannot be gradually defined. In fact, many definitions of rural areas exist. “Rural” is pondered to be non-metropolitan areas outside the limits of any incorporated or unincorporated city, town, or village. A rural area is an open band of land that has few homes or other buildings, and less population.

A semi urban is a residential district located on the premises of a city. A semi urban or suburban area is a mixed-use or residential area. It exists either as part of a town or urban area or as a distinct residential community inboard commuting distance of a town. Semi urban first come out on a large scale in the 19th and 20th centuries as a result of developed rail and road transport, which led to an increase in commuting.

Rural areas are typically found in areas where the population is self-sustaining off of natural resources of the land, or they work in coal, copper, and oil. Semi urban areas are references to areas where there are residences. These areas have a more population than a rural area; however, they are small and typically distant from a larger city. Semi urban areas are also known as “burbs” for short.



Fig(1): rural and urban area

1.2 Rural transport problem:

The rural transportation difficulty associates to complications encountered in furnishing transport connections to rural societies. Low rural public consistency creates attainable municipal transport problematic, though people in rural regions usually have a tremendous necessity for transport than urban residents. Outstanding levels of car possession can decrease the crisis, but distinct rural organizations (the young, aged or poor) constantly compel municipal transport. Boosting car ownership may impose pressure on prevailing rural public transport, provoking a diminished service, which in turn promotes barely tremendous car possession, establishing a violent orbit o of municipal transport decrease. Transport exploits a key role in reacting to the difficulty of rural civil exclusion. The frequently vast expanses between assistance and community centres in rural regions mean it is problematic for people without entrance to personal transport. In specifically, in rural region and suburban areas all over the world, an increasing number of ageing car drivers are having to render the transition to non-driver. Options for transport will fiddle a key role in keeping these people committed in mainstream community. Through the world, collective hierarchies such as co-operations are frequently utilized to govern rural transport and accessibility problems.

1.3 Needs related to transportation in rural and semi urban areas:

Approach to transportation contributes to the economic evolution, health, and quality of life of rural and semi urban communities. Credible transportation is to be expected for rural residents to approach hospitals, consumer services, employment and educational opportunities, and social services. It is also essential for approaching recreation and other activities of daily life.

Approach to secure and credible transportation effects the health and welfare of rural and semi urban populations. Transportation is important for approaching healthcare

services in rural and semi urban communities, particularly in the communities where walking or cycling may not be possible alternatives to access a healthcare provider. Rural and semi urban populations depend on personal vehicles, public transport like bus, train, and non-emergency medical transport to conjoin their healthcare requirements. When these forms of transportation are unavailable, unaffordable, or difficult to approach, rural and semi urban community members may not be capacitate to obtain important services. Commuting to places of employment is an important use of transportation services in rural and semi urban areas. Economic fixture for many rural and semi urban residents is dependent on a credible means of transportation to a place of employment. The Limited transportation options may inhibit rural and semi urban residents from approaching social services and consumer needs.

1.4 Characteristics of the Rural and semi urban Transportation System:

The rural transportation network is really a network of disparate portions. It is also much decentralized. Most roads are funded and maintained by different levels of administration –towns, counties, nations, and federal. While state and federal administrations provide greatly of the capital allotment for rural public transit in the U.S., substantial systems persist mainly a regional obligation. Rail rights-of-way are normally intimately owned and conserved. Airports are normally occupied by municipal or quasi-public unions, but they also comprise capabilities that are acquired by personal transportations. Both public and personal associations own airports, depots, and other loading and alternate capabilities.

Rural Geographic Challenges:

- Long extents between community centres.
- Steep ratings, cliff passes.
- More spectacular weather circumstances and consequences on road ailments.
- Dispersed policy with great unit expenses for assistance delivery, strategies, and supervision.

A transportation system works appropriately when it enables form crucial municipal and financial relationships. This is particularly true in rural India where distance and an occasional population make these relationships actually more significant. Several rural regions are bridge regions between states or municipal centres. Rural transportation is important not only for relating people to employment, health care, and family in a way that improves their integrity of life, but also

for participating to restricted financial growth and improvement by pertaining employment to consumers, welfares to markets, and visitors to objectives. Stocks encompassing timber, energy, and agricultural commodities must be stridden from rural regions where they are generated, to urban regions where they are expended, refined, or delivered to the state or country. Eventually, transportation is a rural society's crucial relationship to the nation and the world.

1.5 Transportation Use in Rural Areas and sub urban Area.

Transportation relates to any automobile or movement that moves people and the goods from one area to other. In developed countries, key methods of conveyance of people and goods include four Wheelers like buses, trains, trucks, cars also aeroplanes, and different types of automated automobiles. Yet, transportation can be also pertaining to cycles, boats, and even pedestrian traffic.

Both social and private administrations can govern transportation strategy that includes comprising and updating infrastructure to assure the policy operates smoothly. Transportation infrastructure may comprise train tracks, roads, bridges, bus stations, airports, sidewalks, or ferry terminals.

Transportation plays a significant position in the liability of society – the aspects that influence a society's integrity of life. Transportation enables for a permit to sustenance, healthcare, academic opportunities, and employment. Further, entry to transportation improves rural residents' capacity to access enjoyment, entertainment etc. movements that improve population attention. Profitable and accessible transportation is a significant motorist in economic development in rural areas and assists assure that people can receive assistance and contribute in municipal life.

Rural inhabitants are additional reliant on personally-owned, individual driver vehicles for transportation than their metropolitan companions. Yet, several rural citizens are incapable to be sure of on this method of transportation. Private vehicles can be costly to buy and conserve, and some inhabitants may not have drivers' authorizations. Moreover, rural residents those have physical or mobility constraints unable to drive.

Civil transportation is a category of transit available to the public on an expected and lasting basis. There are numerous discrepancies in public transportation aim between urban and rural areas. Where almost 70% of the Indian population exist in rural regions, the national administration only distributes transportation award funding to rural regions.

1.6 Role of transportation in rural and semi urban areas:

1. It enables in transfer of welfares from one location to area in rural demands so that, enhancing people with their needs.

2. It supports diverse as well as vital trade between rural regions and conurbations also depends on helpful 1 carrier system, and it does participation in political and civil life.
3. It is used as a quotation of revenue for people as people earn money for their employment of transportation.
4. It is moreover be used in transportation of natural materials.
5. Facilitates the activity of people into various regions.
6. It is also a reference of revenue for several people. For example: rickshaw driver, horse cart driver, jeep drivers earn currency for their assistance of transportation.
7. It enables to increase attendance statuses in schools by furnishing accessibility bilingual ty to schools both for student and teachers.
8. Enhanced access to demands and towns helps formulate business as well. Reasonable transportation assists the agriculturist to take their farm manufacture easily to the market.
9. It assists rural people to benefit medical capabilities from the remote hospitals or medical centres.

1.7 THE IMPACTS OF RURAL ROAD CONNECTIVITY:

1. Developed transportation services directs to improve approach to market centers for the rural and semi urban area producers, Superior availability of farm inputs at diminished price.
2. Superior connectivity improves employment opportunities in the non-agricultural department.
3. Prominent services with developed road connectivity, improves approach to education, health and financial services.
4. Enhance the connectivity of village people from major city roads result in all public services are improved.

1.8 Advantages of developing transportation system in rural and semi urban areas:

1. It increases approach to market centres, where to promoting commercial farming activities.
2. Approach to many rural areas is a symbol of developed road network results into higher utility of farm inputs at a low price.
3. It fetches about employment juncture.

4. It increases approach to social comfort.
5. It plays a significant role of encouraging advancement in rural communities.
6. It stimulates national integration.
7. It is a equipment for indigence dispense.
8. It supply continuity in moving people and agricultural product from rural communities to urban areas.
9. It supplies the farmer, the occasion to speedily move perishable commodities to the market centres or places where they are needed.
10. It encourages sense of belonging.



Fig(2): advantage of development in rural areas

3. CONCLUSION

In several countries of the world transport strategy is a mutual policy for rural and urban areas, where the criteria recommended for rural regions are not distinguished from the urban or they are proposed lacking prior conducting of transportation surveys in rural regions. The outcomes of this, policy is that rural inhabitants, who are compelled of many transportation alternatives, suffer significant financial penalties under the explanation of sustainability, while at the identical period they are not able to alter their alternative. The ultimate result is that transport comes to be rather restricting than vital factor in the advancement of rural areas and this impacts on the impression of the social groups at hazard of social exclusion. It is familiar that "rural" is identified with "agricultural" and rural development strategy is focused on the modification of agriculture and monetary development of the village, without assessing the state of the transportation

operation and without recommending the criteria for its development. Development of the transportation system is indirectly remembered, without any concrete extents to improve its integrity.

ACKNOWLEDGEMENT

I express my profound gratitude to my guide Prof. P.S.Gawande, Department of Civil engineering, J.D.I.E.T. Yavatmal, for their valuable advice and inspiring guidance which has played a vital role in carrying out this work. I express my thanks to all my department faculties for their valuable advice.

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