RURAL ROAD TRAFFIC VOLUME CHARACTERISTICS AND TRENDS IN CONSTRUCTION COST

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ABSTRACT

Rural development has become a matter of growing urgency for considerations of social justice, national integration, economic upliftment and inclusive growth. For rural development, the provision of rural road network is a key component to enable the rural people to have access to schools, health centers and markets. Rural roads serve as an entry point for poverty alleviation since lack of access is accepted universally as a fundamental factor in continuation of poverty. The term "Rural" refers to the predominant characteristics of adjacent land use along roads, and rural roads. They have fundamentally different characteristics than urban roads regarding density, type of land use, density of street, roadway network, natures of travel patterns and the way in which these elements of the city are related. More specifically, land use is the most important factor dictating rural road standards. The intensity of access needs change in rural settings, with associated roadway geometric requirements dictated by the agricultural, residential, industrial or commercial areas being served. The information on traffic volume is an important input required for planning, analysis, design and operation of roadway systems. The traffic scenario in developing countries like India differs significantly from the conditions of developed countries in many respects. In Indian road traffic, the heterogeneity is of high degree with vehicles of widely varying static and dynamic characteristics.

With this background in the present study an attempt has been made, to assess the rural road traffic volume characteristics and analysis of cost of road construction trends with and without Cross Drainages (CDs) for roads constructed under Pradhan Mantri Gram Sadak Yojana (PMGSY)roads. This study was conducted in three districts of Telangana State. The three districts are namely Warangal, Khammam and Karimnagar. These districts consists of 153 mandals. For the current study 30 representative 30 mandals were selected using proportionate random sampling technique. For the selected roads in these 30 mandals the secondary data was extracted from d Detailed Project Reports (DPRs) of PMGSY roads from 2005 to 2013 and analysis was carried out. It was observed that the total share of non-motorized vehicles per day is more in Warangal and Karimnagar has the least share. The percentage share of two wheelers is the highest share of traffic volume in the study area, with total share of 22 percent.As the minimum share of the traffic goes to buses (4 percent), a Light commercial vehicle (LCV) was the second minimum share of traffic (5 percent) in the selected roads of the study area. Motorized two wheelers has the second largest share of traffic volume (22 percent), cars and trucks and tractors took the third and fourth largest traffic share of the study area which is 16 percent and 15 percent respectively .The average cost of road construction with and without cost of cross drainage work is linearly increasing from 2005 to 2013 and the total cost of construction increases as the number of CD work increases and average cost without the cost of CD works has an increase with an average of 13.32 percent for the last 8 years (2005 to 2013).

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