ABSTRACT

In developing countries, such as Sri Lanka infrastructure and energy are crucial factors in development. Work on infrastructure is costly and energy usage involves a substantial quantum of foreign exchange. Therefore, for the optimun location of economic activity such as manufacturing industry, the aim should be to maximize the use of infrastructure and to minimize the consumption of energy.

The Colombo Urban Area and the Area of Authority of the Greater Colombo Economic Commission within the Greater Colombo Region form the most developed part of the country. It is high in resources, and therefore, has high potential for further industrial development.

The research study on which the thesis is based is structured on the premise that the demand for travel is due to the interaction of socio-economic factors, infrastructure parameters and vehicle operating performance.

The data and the relevant information were obtained from government departments, corporations, Universities and other organizations. A sample survey was also carried out to supplement the data on the travel characteristics of urban and suburban workers.

The industrial survey data revealed that, approximately, one fourth of all industries, a little over one third of employment, with output and value added of nearly two thirds are concentrated in the Greater Colombo Region.

Analysis of population, employment and industry show remarkably close parallel growth in four stages indicating definite threshold levels. Further analysis of industry highlighted that there are five stages in the industrial growth pattern.

Locational analysis emphasized the clustering of industry around the City of Colombo and the dominating role of the Colombo Municipal Area and the AGA division of Nugegoda. There is also a sharp spatial disparity in location with a heavy concentration of industry in the north and northwest coastline and a very low intensity in the east, south and south east. These show almost parallel relationships to traffic flow patterns.

The role of access is shown by the very close relationship to the densities of intersections, links and mileage and affinity to the Phi and Beta functions.

The influence of mobility in industrial location is illustrated in two ways, viz; the very close relationship of traffic intensity in the study zones and the magnitudes of traffic intersection.

On the other hand the totality of seat kilometers illustrate that 80% to 87% of the workers in industry use the Public Bus Transport System.

The study has revealed the prevalent close affinity between access-mobility and industrial location. Suggestions are outlined as to how access-mobility could be improved to foster industrial growth in the region. Relevant areas in which further research could be carried out with advantage have been stated. The study has also emphasized the urgency and importance of the formulation of clear and enlightened policies for both industry and transport.