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## **Acknowledgement**

The author wishes to place on record, the appreciation for the invaluable guidance and encouragement given by Prof. Dayantha Wijeyesekera, Prof. L.L. Ratnayake of University of Moratuwa and Mr. D.S. Jayaweera of the Transport Studies Planning Centre, throughout this project, along with the swift and timely assistance rendered by Mr. U.E. Storm World Bank Consultant Srilanka Railway and Mr. Sunil Peiris Planning officer, National Transport Commission without which collecting the data would have been difficult.



## ABSTRACT

This study is on "Examination of change of patterns and trends in the interaction of public transport in Colombo - Matara corridor - Bus and Rail, to provide an improved service." The study was centered on the coastal belt of Sri Lanka where the rail and road run parallel from Colombo to Matara.

The study area included two provinces namely the Western and Southern provinces and included five districts viz. Colombo, Kalutara, Galle, Matara and Hambantota, fig.1.1.(Appendix 11). The requirement was to process the modal shift of passengers between bus and rail in relation to increase in Regional Gross Domestic Product (RGDP), increase in fares, and development in Western and Southern provinces. The present status of both road and rail has been highlighted along with the anticipated growth in road traffic thus justifying the necessity to carry out the particular study, in order to propose means of improvement of the present level of bus and rail services, and to realise optimum potential from the available resources.



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Regression analysis using Lotus package was adopted to evaluate and analyse the behaviour between bus and rail with the increase in the regional gross domestic product and fares. Regression analysis was centered mainly around the effect on rail demand with increase in RGDP. It is inferred from the calculations, that an appreciable increase in rail demand is not reflected due to certain limitations in policy, operations, and facilities, existing as at present, in the rail service. The economics of operation, for both bus and rail were analysed with the available bus and rail passenger statistics. Thus the potential of each mode was evaluated. The limitations were then analysed individually, and their affects on the rail demand were discussed. Recommendations have been made how to overcome them, so that an effective modal shift from road to rail can transpire.



## **1.0 INTRODUCTION**

The Colombo – Matara corridor is being served both by the road and the rail which run almost parallel to each other. The rail has been constructed in a straight alignment while the road which crosses the rail at no less than three locations, viz Paiyagala, Bentota, and Warahena, has emerged with social, occupational, and habitational requirements of the natives. This coastal belt of 160 km has elegant sandy beaches, bays, lagoons, and natural harbours and is obviously an attraction to tourists.

The climate is more wet, with the natural vegetation being tropical rain forest. The atmosphere near the coastal belt is rather humid with temperature ranging from 28°C-33°C.

The main agricultural products of this region are paddy, low grown tea, rubber, coconut, and a variety of other crops varying from vegetables, yams, and spices. Most of the crops other than coconuts are grown in the hinterland around 2-3 km from the coastal belt, while tea is found 15 –20 km from the coastal belt. The coastal belt is also rich in limestone and mining of limestone has become a lively hood of a few people in the recent past, specially with the boom in the building industry.

From the ancient times, one of the prime occupations in the area has been fishing and as a result almost all those who were engaged in this profession lived by the sea. This could be one of the main reasons for road and subsequently the rail to be constructed bordering the fishing villages. The other main occupation by the coast is toddy tapping. The toddy so tapped is collected and transported to distilleries in the region for manufacture of alcoholic brews. It could be well assumed, that those in the hinterland would have transacted their agricultural products with the catch of fish, and alcoholic brews, and thus the need for the former foot paths, and cart tracks to be developed as country roads.

The development in the Colombo district and with the establishment of various government organisations under the British rule from beginning of the twentieth century, attracted the southerners, to educate their succeeding generations to take up white collar jobs in state sector which enabled them to secure a firm and a fixed income while providing them with a status in society. By the middle of the century more people opted to work as state employees and the need for a good transport system was felt. The bus transport service which was dominated by a few private entrepreneurs did not run much inter city services and could not cater for this need. On the other hand railway handled about 70% of inter city passengers and 50%-60% of freight. In late fifties the bus companies were nationalised and such nationalised services catered for long distance travel. The train service too was improved with the dieselisation, colour light signalling, and running of a few express trains such as Ruhunu Kumari. Rickshaws, passenger carts pulled by ponies and bulls were a common sight in this