TRANSPORT DEMAND MODELS

FOR

WESTERN PROVINCE OF SRI LANKA

by

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ABSTRACT

This study is based on the transport data of Western Province National Road Network compiled by the Transport Engineering Division of the University of Moratuwa carried out as a pilot study seeking views to extend this project to the whole island.

The objective is to develop Mode Choice Models to predict the traffic demand for different types of vehicles traveled from one zone to another zone (DSD – Divisional Secretary's Division) in the Western Province in terms of socio-economic and travel data.

Socio-Economic data such as population, job, vehicle ownership etc. and the travel data such as travel time, the distance of the travel between two zones (DSDs) were considered. By correlating the vehicle trip rate with the socio-economic data and the travel data, four traffic models were calibrated using non-linear regression.

These models were to predict CarVanJeep, Mobykes, Three Wheelers and Goods Vehicle trips in terms of significant socio-economic and travel data. The obtained traffic models can be recommended up to some extent to provide a planning tool to estimate future traffic and its' characteristics.