Determination of Vehicle Kilometers Travelled and to Find Methodology for Calculating VKT in Future Years

D.A.S.Jayasekera¹ and W.K.Mampearachchi²

Vehicle kilometers traveled is the total kilometers traveled by motor vehicles on the highway system during a given period of time. Vehicle kilometers traveled by passenger automobile is an important variable in the analysis of fuel efficiency, fuel consumption, environmental quality, and highway safety. Changing patterns of future vehicle kilometers traveled have significant applications for energy conservation and economic stability. This report evaluates fuel pumped data for vehicle kilometers traveled and fuel consumption. Collection, reporting, consolidation, and estimation procedures are addressed. Since direct measurement of vehicle kilometers traveled has never been made, the surveyed information consists of indirect estimates based on various sets of assumptions. The type of assumptions and the reliability of the data determine the models that can be meaningfully tested. Historically, the importance of vehicle kilometers traveled accumulation has been directed toward highway planning and included such areas as traffic density, highway safety, and other non-energyrelated areas. For these non-energy endeavors, the traffic-counting methodology has been the procedure used most widely by the individual states to estimate vehicle kilometers traveled. However in Sri Lanka, Estimation of Annual kms by vehicle type from Interviews is done in 1992 by Prof. Amal S. Kumarage but this estimation is carried out for determination of vehicle kilometers traveled based on volume of fuel pumped, average fuel volume utilized for different vehicle classifications.

Key Words: Fuel Consumption, Vehicle Kilometer Travelled (VKT), Passenger Automobile, Fuel Efficiency

Authors Details:

- Chief Eng. , Road Development Authority, No:15, Manthri Place, Colombo 05, darshika9@gmail.com
- 2. Senior Lecturer, Transport Engineering Division, Department of Civil Engineering, University of Moratuwa, wasanthak@civil.mrt.ac.lk