# Travel Characteristics of Low Income Households in Western Province, Sri Lanka

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## 1. Introduction

In recent years, transportation has become a critical element for every income group to accomplish tasks in their day-today activities, including accessing goods and services. Transport is of great importance, especially from the perspectives of town development and securing mobility. Travel characteristics of the low income group have been the theme of consideration in many developing countries, even though much still remains to be explored. This research mainly focuses on travel characteristics of the low income group in the Western Province of Sri Lanka. The total population of Western province was Rs 7.8 Million in 2013 and the low-income group (monthly income: less than Rs. 40,000) accounts for 70% (Fig 01) of the total population (CoMTrans Study, 2014). The role of public transport is hence of great importance in providing an affordable means of transport for people with lower incomes to access goods and services.

## 2. Objective

The primary object of this research is to examine the daily trips and travel pattern undertaken by the low income group of Western Province in Sri Lanka.

## 3. Methodology

The travel characteristic of the low income group is based on the detailed transportation survey of Household Visit Survey (HVS) in 2013, which was conducted as part of the Urban Transport System Development Project for Colombo Metropolitan Region and Suburbs (CoMTrans) from 2013 to 2014 (JICA and Ministry of Transport Sri Lanka), and analysis was undertaken to prepare a comprehensive long-term transportation plan. The HVS survey covers the entire Western Province, which includes three districts; namely, Colombo, Gampaha, and Kalutara having 2496 GN divisions in total. Originally, the target sampling ratio was about 3.0% of the population of the survey area and the sample size was approximately 35,850 households. In this paper, a household monthly income less than LKR 40,000 is defined as low income and a monthly income above LKR 40,000 is defined as non-low income.

## 4. Results and Discussion

According to the survey, there were about 3.9 million trips made by people with low-incomes and about 6.1 million trips made by non-low income people in 2013 in the Western Province of Sri Lanka. Table 1 provides the key household characteristics of the sample data.

**Table 1: Key Households Characteristics**

| Description | |
|---|---|
| Average Household size | 3.24 |
| Average Age | 38 |
| Average Monthly Income | Rs. 23,053* |
| Average Monthly per Capita Income | Rs. 7115 |
| Monthly Transport Cost | Rs. 4070 |

*(Source- COMTrans Technical Report, 2014)*

Table 2 provides the comparison of key travel characteristics of low income and non-low income groups, the analysis on which are summarised below.

### 4.1 Commuting Length and Time
Low-income people make shorter-distance trips than non-low income people (9.13 km vs 10.64 km). Similarly, trip duration of low income people is slightly lower than the non-low income group.

### 4.2 Trip Modes Distribution
The low income people mainly rely on the non-motorised modes such as walking and bicycle. The predominant motorised mode of the low income group is bus, while that of the non-low income group is car.

### 4.3 Trip Purpose
Subsistence activities of work and education by low-income people are higher than the non-low income people. On the other hand, low income group makes fewer non-home-based trips like recreation and shopping than the non-low income group. The reason may be the low salary and budgeting.

### 4.4 Gender
Nearly 60% of the trips are made by males, while only 40% are made by females. However, low income females make more trips than the non-low income group females. The reason may be that the female working population is greater in the low income group than in the other groups

**Table 2: Comparison of Key Travel Characteristics
of Low-Income and Non-Low Income**

|  | Low Income | Non-Low-Income |
|---|---|---|
| **Average Trip Duration** | 36.51 Min | 42.54 Min |
| **Average Trip Distance** | 9.13 Km | 10.64 Km |
| **Trip Modes Distribution** | | |
| **Car** | 2.42% | 24.36% |
| **Motorcycle** | 13.97% | 14.19% |
| **Three-wheeler** | 14.07% | 10.74% |
| **Taxi** | 0.18% | 0.37% |
| **Bus** | 39.21% | 35.69% |
| **Railway** | 2.42% | 3.10% |
| **Non-Motorized** | 27.73% | 11.56% |
| **Trip Purpose** | | |
| **Home to Work** | 12.63% | 14.55% |
| **Home to Education** | 12.76% | 9.87% |
| **Home to Other** | 16.10% | 11.86% |
| **Work to Home** | 12.62% | 14.74% |
| **School to Home** | 12.58% | 9.73% |
| **Other to Home** | 15.93% | 11.41% |
| **Non Home Based** | 17.38% | 27.84% |
| **Gender** | | |
| **Male** | 59.61% | 60.29% |
| **Female** | 40.39% | 39.71% |

## 5. Conclusion

Low-income population accounts for 70% of the total population in the Western Province, Sri Lanka. The results have shown marked differences in income, car ownership levels, mode preferences, trip purpose, travel length and time and trip rates between low income group and non-low income groups.

## References

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**Keyword:** *Households, Travel characteristics, Low income, Non-Low income*