

CHAPTER 01

INTRODUCTION

1.1 Background

Infrastructure is basic physical and organizational structures needed for the operation of a society or enterprise, or the services and facilities necessary for an economy to function. It can be generally defined as the set of interconnected structural elements that provide framework supporting an entire structure of development. Actually the infrastructure is an underlying base or foundation especially for an organization or a system.

The term typically refers to the technical structures that support a society, such as roads, water supply, sewers, electrical grids, telecommunications, public institutions including schools, post offices and prisons and so forth, and can be defined as the physical components of interrelated systems providing commodities and services essential to enable, sustain or enhance societal living conditions.



University of Moratuwa, Sri Lanka
Electronic Theses & Dissertations
www.lib.mrt.ac.lk

Nowadays in competitive world modern infrastructure system plays a vital role in rapid development of an economy and urged the government to involved private sector for accelerating the development of physical infrastructure in the country.

Sri Lanka is a developing country where the substantial part of its population lives in rural areas. Hence for the development of the entire country development of rural communities should be considered as a key aspect. Poverty alleviation plays a major role in development of rural communities.

Access is a key determinant of poverty. Without physical access rural communities face much greater obstacles in obtaining health, education and other social services. In addition their ability to take advantage of surplus crop production and of employment opportunities is severely constrained. Provincial roads are the key element in provision of physical access in rural areas.

Provincial roads are often treated as the last links of the transport network. Despite this, they often form the most important link in terms of providing access for the rural population. Their permanent or seasonal absence will act as a crucial factor in terms of the access of rural communities to basic services such as education, primary health care, water supply, local markets and economic opportunities. In addition to that it may cause to provide other benefits such as reducing vehicle operating costs of traffic and journey times. Therefore provincial roads should be developed to maintainable condition.

1.2 Existing Condition of Provincial Roads

Sri Lanka is a country which had been severely affected by many ethnic and political conflicts from time to time in past centuries till the island was approached by Portugese in 1505AC. Even after the independence was achieved in 1948, various ethnic and political groups within the borders of the country had been in conflict due to lack of leadership and good governance. Also we cannot forget the destructions due to ethnic war during last thirty years. The cost of which is beyond calculated estimation. In addition to that Tsunami waves hit the country in the year 2004 and almost all of the Infrastructure in the coastal belt of the country gets destroyed. As a result the overall country is in 'under developed' stage comparing to the other countries. A poorly maintained rural road network is available in substantial part of the country as the past governments were not in a position to draw much attention towards the development of infrastructure due to such conflicts.

1.3 Problem Statement

The administration, management, and control of provincial roads are carried out by Provincial Road Development Authorities (PRDA) established in each province under the Ministry of Local Government and Provincial Councils. For the economic and social development of the country the provincial road network should be in maintainable condition. The road management practices of PRDA affect to the condition of the road network. If the roads are managed efficiently no issues arise regarding the deterioration of roads.

Recently the majority of provincial roads in the country are not in maintainable condition. Some roads are extremely deteriorated. This happens due to some errors and weaknesses in road management practices. In this research, the prevailing road management practices of PRDA are reviewed and the weaknesses of them are identified. Next the issues arise due to these weaknesses are investigated and remedial solutions for these issues are recommended finally.

1.4 Aims and Objectives

These issues and weaknesses of provincial road management are identified under the aims of the research.

The objectives of the research are investigating these issues and finding out solutions to minimize the arising of such issues.

The objectives of this research are as follows.

- I. Identify the root causes and principal factors leading to the issues associated with management practices relevant to road development in provincial roads sector of Sri Lanka.
- II. Analyze the above root causes and principle factors in relation to ongoing and already completed provincial road development projects in Sri Lanka.
- III. To develop the best management practices and guidelines to provide solutions for the above specific issues identified and analyzed in order to satisfy with professional and industrial standards apply to road development.

1.5 Research Method

In this research, case study method is followed as the research methodology.

Following a case study frame work multiple cases are conducted on provincial roads in Sri Lanka. A sample of provincial roads is selected for three provinces as individual provincial roads and one provincial road to cover five provinces in Sri Lanka. Random sampling method is therefore used in selecting the sample of provincial roads. These provincial roads include road widening, road improvements,

road modernizing, and road rehabilitation. Following structured interviews, data on road management aspects are collected from the above sample of provincial roads. The structured interviews were conducted with the technical staff, local government, and administrative body involved in the selected provincial road development and management.

Other case study sources such as project completion reports, project study reports, and project loan documents are also used to collect data under the case study framework. Following the analytical techniques such as pattern matching, explanation building, and cross case synthesis, data were analysed under key aspects, dimensions, and focal areas of road management and development. Following the findings from the analysis recommendations and conclusions are drawn to prepare a guideline for best practices in road management practice in provincial road development in developing country like Sri Lanka.

1.6 Scope and Limitations

The focus of the research is limited to management practices and development in provincial roads in Sri Lanka. Provincial roads are classified as Class C and D under the road categorization of Ministry of Highways of Sri Lanka. The analysis of the road management practices and development is limited to road designing and planning, and construction.

1.7 Chapter Breakdown

This dissertation is arranged with following chapters in the order listed below.

Chapter 01 - Introduction

Chapter 02 - Literature Review

Chapter 03 - Research Methodology

Chapter 04 - Data Collection and Data Analysis

Chapter 05 - Conclusions and recommendations

References

Annexes