

## Chapter 22

# The Role of Mass Transport for Sustainable Public Transit in Developing Cities: Issues and Imperatives in Addis Ababa City, Ethiopia

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### ABSTRACT

*The need for an efficient public mass transportation system in the context of developing countries can well be overemphasized since a majority of the urban population continues to be either captive walkers or users of the public transport facility. In Addis Ababa, inadequacy of public transit and improper traffic management issues are dominant problems. Evidence indicates that solutions related to traffic congestion and accidents are still left behind the city. However, it is expected that the recent project interventions and initiatives will enhance the capability of the public transit to deliver effective and sustainable transportation. This chapter evaluates the public transit performance, the initiatives towards terminals, and the future models for implementation. It concludes that an integrated public mass transit system is vital to a sustainable future public transport in developing cities in general and in Addis Ababa in particular. Recommendations are forwarded in the chapter.*

### INTRODUCTION

Public transport (PT) systems play an important role in providing affordable mobility to the people in growing urban areas. Cities with an extensive and efficient PT system contribute significantly towards a cleaner environment and enable effective management of urban travel demand. As cities grow and expand, PT systems also need to progressively transform themselves from a mixed and simple unimodal system to a more complex integrated multimodal system. Multimodality (coordinated system of many means of transport modes) is a mandatory issue at each vehicle terminals. This is necessary for effectively

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handling the growing public transport demand and for efficiently utilizing limited public and private resources. An efficient and integrated PT system is one of the most effective tools for managing urban travel demand in a sustainable manner over the long run.

In Ethiopia, urban transport is a high-risk sub-sector with fragmented responsibilities, weak fiscal and implementation capacity of local bodies, and complex safeguard issues. Addis Ababa is a unique primate city which is about 9.1 times greater in its population than the next respective populous secondary cities (Dire Dawa, Hawassa, Bahir Dar, Adama and Mekele) and is full of high risk of transportation. The major motorized modes of public transportation in the city are buses, light rail transit (LRT) and taxis. The existing public transportation is generally of a low quality, poor management, and weak behavior of drivers (Mintesnot & Shin, 2007). The status of road network in Addis Ababa is still below the world standard (22% as opposed to 25-30% world standard) (Addis Ababa City Road Authority (AACRA), 2017). Due to such low network distribution, the City is suffering from congestion, traffic accident and environmental degradations.

This Chapter discusses the importance of mass transport and recommends a suitable public transport for sustained mobility in cities. Specifically, it intends to: describe best practices on public transit, analyzes Public Transport (PT) system and the current commuting situation in Addis Ababa, investigates performance of Anbassa City Bus Services Enterprise (ACBSE) and its coverage in Addis Ababa, assess the recent actions and development proposals of PT in the City, and analyzes and discusses strategies and proposes paradigms for sustainable future PT in Addis Ababa.

In this study, more of secondary and tertiary data had been employed. However, to supplement secondary data, interviews had been considered. Secondary data are gathered from the Ethiopian Roads Authority (ERA), Federal Transport Authority (FTA), AACRA, and Central Statistical Agency (CSA). Three case studies conducted by AACRA in 1997, 2005 and 2012 are analyzed and the raw data has been used for comparisons. Regarding primary data, interview was made with ten transport sector officials, six passengers and five Higer bus drivers. The research has used both quantitative and qualitative data analysis methods.

## **INSIGHTS FROM LITERATURE AND ANALYTICAL FRAMEWORK**

### **Best Practices on Bus Rapid Transit (BRT)**

In recent years a number of BRT projects have been implemented, resulting in benefits to users and increased ridership. The experience of some countries is summarized as follows:

*Seoul, South Korea* is a fast-growing Asian mega-city—its population increased from 5.4 million inhabitants in 1970 to over 10 million in 2010, with 20 million in the metropolitan area. Similarly, the fast growth of the motor vehicles started causing severe traffic congestion, public health and pollution problems. To solve these problems, beginning in 2002, Mayor Lee Myung-Bak and his team at the Seoul Development Institute embarked on a variety of transportation and land use innovations. This measure could improve mobility alternatives and reduce private motorized trips. In July 2004, the city launched a new Bus Rapid Transit (BRT) system that has dramatically improved the quality of public transport. Over 76 kilometers of median busways were constructed in 2004. Global Positioning System (GPS) tracking technology has been installed on over 5,000 buses to ensure improved customer service, and 815 buses converted to operate on natural gas. A smart card system is utilized to allow free transfers to

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