Urban Travel Behaviour in Large Cities of MENA-Region (UTB-MENA)

Research Investigating Urban Transport in Tehran, Istanbul and Cairo

Short Introduction

The project is about the correlation of changed urban land use and the decision of mobility forms in MENA-Region.

Background

The effects of urban land use on travel behavior has been a subject to a large body of literature in especially North America. This topic has gained relatively little attention in developing/emerging countries, especially those located in The Middle East and North Africa (MENA). With respect to rapid urbanization and fast change in urban form characteristics in several countries of MENA, it is assumed that some of the travel behavior specifications including travel length, travel time, transportation mode choice and the like are affected by these transformations. This project collects evidences about such associations in MENA region.

Objectives

• Undertaking micro-scale comparative studies between travel behaviors in different land use types of MENA large cities
• Developing land use/transportation models for the three selected MENA pilot cities in order to study the effects of different land use, socioeconomic, and travel behavior factors
• Generalizing the outcomes to several large cities of MENA, by transferability and applicability studies
• Developing strategies for the future urban development of the region, aiming at promotion of more sustainable transportation

Methods

The analyses of the project is based on a data collection comprised of three surveys in 18 neighborhoods of Istanbul, Tehran, and Cairo. In each city, two neighborhoods represent:

• “traditional urban form”
• “in-between urban form”
• “new developments”

Six surveyors conduct about 7000 face-to-face interviews in the selected neighborhoods of different land use types.

Three important work packages of the project are allocated to undertaking statistical analyses of the raw data provided by the surveys:

• the cities and countries are compared to one another regarding travel behavior
• statistical models are developed for each city
• the causality of transportation mode choices is examined.

The statistical methods include discrete choice models, multivariate regression models, and hypothesis testing methods. Moreover, the applicability and generalizability of findings to other large cities of more than two million inhabitants are explained descriptively.

Outcomes

• Comparative publications on several neighborhood types
• Micro-scale mathematical land use/transportation models
• Sustainable mobility guidelines for MENA countries.
• Roadmap for future LUTI research in MENA