THE RELATIONSHIP BETWEEN URBAN POPULATION DENSITY AND TRANSPORTATION FUEL CONSUMPTION IN MALAYSIAN CITIES

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Abstract
This paper describes an exploratory study to analyze the relationship between urban population density and transportation energy consumption in the context of urban planning. Urban population density is used because it is commonly accepted as “proxy” for urban form pattern analysis in terms of degree of centralization. This paper reviews sustainable urban form, relationship between urban transportation and urban population density. Based on the secondary data, multi regression analysis on the relationship between urban population density and transportation fuel consumption on Malaysian cities are carried out. In this analysis, three main variables are explored: population density, private vehicle ownership and transportation fuel consumption. In order to understand the relationship between population density and transportation energy consumption, other selected global cities are used as benchmarks in relation to selected Malaysian cities.

Keywords: Urban Population Density, Transportation Fuel Consumption, Urban Form, Private Vehicle Ownership

INTRODUCTION
The future of our cities lies in the actions we make today. Achieving sustainable cities are crucial in the urbanization of the world. This is reflected with the increase of population in settlements known as the urban areas. In 1950, 30% of the world’s population lived in urban areas. By year 2008, these figures would have dramatically risen to almost 50%. According to the United Nations Report of the World Summit on Sustainable Development 2002, approximately 61% of the world’s projected population will be urban by the year 2030. Almost all will take place in developing

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