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Street Planting Compositions: The public and expert perspectives

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Abstract

A study on street planting was carried out in Shah Alam city. The importance of such study has become increasingly essential due to the public's awareness on landscape planting. The aim of this study is to compare the preferences of the public and the experts on the street planting composition. Using the Likert scale, 296 respondents evaluated the images of the street planting. The findings help to reduce the perceptual gap between the experts and the public thus, creating an environment that would be accepted by various groups of people.

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Keywords: Street planting; preferences; public and expert groups; perceptual gap

1. Introduction

Urban landscape planting is important to our quality of life especially in the town area. They are the living elements of our street infrastructure. Street planting composition refers to all kinds of plants that grow along streets and neighborhood areas. Located in the public right-of-way, they provide cooling shade, cleaner air and more beautiful urban streetscape (Bloomberg, 2008). The planting composition may consist of groundcovers, shrubs and trees. These kinds of plants categories are definitely important in reviving the condition of surrounding environment in term of physical and social along the street. Among

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the street planting categories, trees are significantly giving great contributions towards the surrounding area. Street trees provide many benefits such as energy savings, reduced storm water runoff, clean air, reduced levels of violence, increase levels of community involvement and interaction, higher property values (Shukur et al., 2010), aesthetic values and others. According to Armson et al. (2013), trees belts can reduce runoff from grassed slope by 32%-68% in a one in ten year storm (48mm/h for 13 min). The trees planted on grassland slopes increased water storages beneath their canopy, again reducing erosion and water runoff. The trees act as a mask to sun and wind and as a source to control the air temperature and the temperature of the surrounding surfaces. The effectiveness of these spaces depends on their density, shape, size and position (Boukhabla and Alkama, 2012). Shah Alam town are planted with various types of street trees for environmental, health and economic benefits. Many towns appear to have different degrees of street trees condition in different urban area. Usually, trees was planted just for the sake of beautification and not focusing on the practically of them. These will definitely degrading the quality of street trees thus giving negative consequences to users and surrounding environment as street trees play important role in balancing the element in most developing urban areas. In Malaysia, there is not much research done regarding to visual assessment of street trees in urban area. Therefore this research attempts to study the visual quality, influences and preferences of street trees among people in study area.

This research is investigating various factors that affect the visual quality of street planting including trees and other plant categories such as shrubs and palms. The SPSS software are used to ease in analyzing the statistical data collection by comparing means and finding significant of different variables involved in the study. There are three main objectives regarding this research topic. Three objectives are:

- To identify typical species, characteristics and condition of street trees in the study area.
- To investigate people's opinions on preferences, values and problems of street trees in study area.
- To investigate the reasons for people's assessment and preferences in selected types of street trees species in study area.

2. Literature Review

There are many benefits that can be obtained by having trees as street features. According to Leuzinger et al, (2010) and Mohd Akmal et al, (2012), trees provide various benefits such as local watershed protection and storm water management improvement, reducing air pollution, greenhouse gasses absorption, aesthetic beauty and reducing the heat by providing shade on sidewalks therefore improving energy efficiency for local buildings. The presence of trees leads to cooler areas in urban environment. The trees contribute significantly to the reduction of air temperature (Boukhabal and Alkama, 2012). Tree lined streets provide much welcomed aesthetic beauty and visual relief in concretized city settings and a range of psychological, social and economic benefits for residents and business including reductions in domestic violence, lowering of obesity, higher property values, reduction in asthma levels (Harini and Divya, 2010). Street trees provide a number of environment and social benefits including contributing to climate change adaption and mitigation and providing urban green space (Foresty Commission, 2011). In addition to these ecosystem and environmental services, trees have been further proved to lower traffic speeds in residential neighbourhoods resulting in safer driving and fewer serious auto accidents (Dumbaugh, 2005). The street trees benefits are mostly focus on the comfort of pedestrian users and safety motorists along the particular road (Mohd Akmal et al, 2012).

In order to study on the people preferences towards street planting composition at the study area, comparison on the preferences between the expert and public were made. According to Kaplan and Kaplan (1989), the process of becoming an expert involves acquiring a different way of seeing things than one had before. They are assumed to be unbiased to the existing landscape planting. Environmental