



Research Paper

Perceptions and preferences for urban trees across multiple socio-economic contexts in the Eastern Cape, South Africa

Nanamhla Gwedla^a, Charlie M. Shackleton^a Department of Environmental Science, Rhodes University, Grahamstown 6140, South Africa

ARTICLE INFO

Keywords:

Multiple
Perceptions
Preferences
Urban trees

ABSTRACT

Urban trees are vital components of urban ecosystems, and are important for environmental quality, urban sustainability, and quality of life in cities. Regrettably, urban trees are sometimes unequally distributed both between and within towns, a pattern largely associated with differences in the social environment of cities and historical patterns of development, and the dearth of strategic management plans and systematic monitoring of the existing urban forest. Most management plans focus on ecological and arboricultural aspects at the expense of the social, and studies examining perceptions of urban forests are largely from developed countries. Accordingly, we conducted a study to examine the perceptions and preferences regarding urban trees of 1200 residents from 10 urban areas across multiple socio-economic contexts in South Africa. We found that most (87%) urban residents have positive perceptions of trees. This was supported by emphasis placed on the importance of urban trees for quality of life in towns by > 70% of respondents. However, > 70% of respondents were dissatisfied with both the appearance of their streets and the insufficient number of street trees. They emphasized their preference for having trees both on the street and in their private yards, highlighting an array of benefits provided by urban trees. Incorporating residents' perceptions and preferences of urban greening into plans and strategies towards urban forest establishment and management is a crucial strategy towards the reduction of disparities in urban forest distribution. Furthermore, it contributes to the establishment of an urban forest that accommodates user needs based on user preferences, while also serving the needs of the broader natural environment.

1. Introduction

Urban trees growing in roadside verges, boulevards, parkways, tree lawn/strip, private gardens, and remnant forest patches constitute the largest component of urban greenery in most cities (Fong & Tan, 2017). Urban trees are vital components of urban ecosystems and are therefore important for environmental quality, quality of life, sustainable urban development (Dauker et al., 2015), and for the resilience of cities. The contributions of urban trees to urban residents' quality of life, and attitudes towards the environment can be established through their benefits to people and biodiversity (Shillington, Lukke, & Trueman, 2015). These benefits include the ecological (Gillner, Vogt, Tharang, Dettmer, & Jendoff, 2015), social (Nowak & Dwyer, 2007), and economic benefits (Pandit, Poljakovic, Tapscott, & Morand, 2013). Perceived disservices (Vogt, Hauer, & Fischer, 2015) can also become apparent, especially in cases where less importance is attached to urban trees.

Regrettably, urban trees and green spaces are sometimes unequally

distributed both between and within towns (Kurururi-Chitope & Shackleton, 2011; McConnachie & Shackleton, 2010), a pattern partially associated with differences in the social environment of cities and historical patterns of development (Fan, Johnston, Darling, Scott, & Li, 2019; Gwedla & Shackleton, 2017; Kendal, Williams, & Williams, 2012). This is particularly true of the South African urban landscape, which mirrors the development history and legacy of apartheid (Gwedla & Shackleton, 2017). This legacy has unfortunately left visible disparities in the distribution, diversity and variation of urban trees in the private and public spaces, both between and within towns (Gwedla & Shackleton, 2015, 2017; Kurururi-Chitope & Shackleton, 2011; Shackleton et al., 2014). This pattern is further exacerbated by the apparent dearth in strategic management plans, and systematic monitoring of the existing urban trees and green spaces (Chibalehale, Shackleton, Gambiza, & Gumbo, 2015); as well as the relatively few policies that deal specifically with, and promote tree planting and maintenance in South African towns and cities (Shackleton et al., 2014). Furthermore, housing policies continuously refer to the need for

^a Corresponding author.E-mail addresses: gng@rhu.ac.za (N. Gwedla), c.shackleton@rhu.ac.za (C.M. Shackleton).