GREEN SPACES ANALYSIS IN RESIDENTIAL DEVELOPMENT OF PUCHONG, PETALING JAYA USING GEOGRAPHICAL INFORMATION SYSTEM (GIS)

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ABSTRACT

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Urbanisation poses a challenge to the distribution and accessibility of green spaces, which are critical for the sustainability of urban ecosystems. This study examines green space ratios in Puchong, Petaling Jaya, Selangor, within urban residential developments, in accordance with Malaysia's National Urbanisation Policy and the Town and Country Planning Act 1976, which require at least 10% green space in residential zones. This study used an imagery taken from USGS website (Landsat 8). The image was processed with GIS techniques, such as image classification and image clipping to identify existing green spaces and locations with insufficient coverage, then compares the findings to regulatory requirements. The insights are intended to enlighten urban planners and developers about the need of incorporating sufficient and high–quality green spaces to improve climate resilience, sustainable development, and urban liveability. The result of this report showcases the imbalance between areas that fulfil the requirements and the area that does not reaching the 10% percentage.

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CHAPTER 1

INTRODUCTION

1.1 Background and Problem Statement

Urban regions throughout the world are witnessing unprecedented expansion, resulting in rising urbanization and accompanying difficulties. This issue is mostly caused by the concentration of buildings, infrastructure, and the lack of green areas. As cities grow, the need for appropriate urban planning techniques to alleviate the negative consequences of urban heat becomes more pressing. Green space (parks, gardens, urban forests, etc.) will play an important role in urban ecosystems. However, the distribution and accessibility of green areas inside cities are frequently uneven, with marginalized communities disproportionately affected by the lack of access to quality greenery (Zhang et al., 2016). By 2020, the National Urbanisation Policy (NUP) of Malaysia has set a standard to achieve two hectares of green areas for every 1,000 people. This was not just a number: It was the essence of the urban green space planning policy. It aimed to ensure that every citizen has access to urban areas.

The purpose of this study is to analyse the ratio of green space of the study area, Puchong, Petaling Jaya District, Selangor specifically in urban residential development and to identify the importance of green spaces in