

Potensi aplikasi teknologi taman vertikal sebagai solusi bagian ruang terbuka hijau (RTH) terbatas (suatu kajian di Jalan Gatot Subroto Sudirman, Jakarta) = Potential application technology green wall as a part solution of limited urban open space (a study in Gatot Subroto-Sudirman, Jakarta)

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Abstrak

[ABSTRAK

Teknologi taman vertikal (dinding hijau) merupakan suatu konsep penanaman vegetasi alami yang dibangun secara tegak lurus atau vertikal. Penelitian ini bertujuan untuk menganalisis dan mengidentifikasi potensi taman vertikal sebagai suatu solusi keterbatasan ruang hijau dan pengendali kualitas udara di wilayah Ruang Terbuka Hijau (RTH) terbatas pada wilayah gedung bertingkat tinggi. Penelitian ini juga bertujuan mengidentifikasi komponen biaya dan manfaat serta mengetahui pengetahuan, persepsi dan sikap masyarakat terhadap teknologi taman vertikal ini. Analisis dilakukan dengan metode perbandingan berdasarkan kondisi eksisting tutupan tanah berdasarkan hasil citra Landsat dan pengukuran kualitas udara, analisis biaya dan manfaat serta analisis frekuensi untuk kuesioner. Proporsi luas tutupan vegetasi pada wilayah penelitian sebesar 21,13%, taman vertikal mampu menjadi RTH pengendali kualitas udara dengan menurunkan konsentrasi CO₂ sebesar 4,85%, nilai B/C ratio sebesar 14,63 serta pengelola gedung memiliki tingkat persepsi terhadap manfaat teknologi taman vertikal diatas 75,9%.

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ABSTRACT

Vertical garden technology (green wall) is a concept of natural vegetation constructed perpendicularly or vertically. This study aims to analyze and identify potential vertical garden as a green solution to space limitations and control of air quality in the area of green open space (RTH) is limited to the area of high-rise buildings. This study also aims to identify the components of the costs and benefits as well as knowing knowledge, perceptions and attitudes towards this vertical garden technologies. The analysis was performed by the method of comparison based on the existing condition of land cover based on Landsat imagery and measurement of air quality, cost-benefit analysis and frequency analysis to the questionnaires. Proportion of vegetation covered in the study area by 21,13%, vertical gardens could become RTH controlling air quality by reducing CO₂ concentration of 4,89% , the value of B/C ratio of 14,63 and building management have a certain level of perceptions of the benefits of vertical garden technologies above 75,9%., Vertical garden technology (green wall) is a concept of natural

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