

ABSTRAK

ANALISIS SPASIAL KETERJANGKAUAN DAN AKSESIBILITAS TEMPAT PENAMPUNGAN SEMENTARA (TPS) DI KAWASAN PERKOTAAN PEDAN, KABUPATEN KLATEN

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Pengelolaan sampah menjadi isu krusial dalam pembangunan berkelanjutan, terutama dalam mendukung SDGs ke-12. Kabupaten Klaten menempati peringkat ketiga di Jawa Tengah dengan timbulan sampah harian tertinggi terutama di wilayah permukiman dan perdagangan jasa. Di Kabupaten Klaten, Kawasan Perkotaan Pedan menjadi fokus penelitian karena masih terdapat masyarakat yang membuang sampah di lokasi tidak resmi akibat keterbatasan akses terhadap TPS yang tersedia. Penelitian ini bertujuan untuk menganalisis keterjangkauan dan aksesibilitas TPS terhadap permukiman serta area perdagangan dan jasa di kawasan tersebut.

Data yang digunakan mencakup data spasial administrasi Kawasan Perkotaan Pedan, fasilitas persampahan, jaringan jalan, permukiman serta perdagangan dan jasa. Metode yang diterapkan adalah sistem informasi geografis dengan *Network Analysis service area* untuk keterjangkauan serta *Accessibility/Remoteness Index of Australia (ARIA)* untuk aksesibilitas. Perhitungan ini memastikan bahwa TPS dapat mengakomodasi kebutuhan pengelolaan sampah di kawasan permukiman maupun area perdagangan dan jasa.

Hasil analisis keterjangkauan terhadap permukiman diklasifikasikan ke dalam lima kategori, yaitu radius 0 – 250 m (8,49%), 250 – 500 m (8,52%), 500 – 750 m (10,48%), 750 – 1.000 m (10,32%), dan >1.000 m (62,21%), terhadap perdagangan dan jasa 0 – 250 m (32,72%), 250 – 500 m (15,23%), 500 – 750 m (12,11%), 750 – 1.000 m (11,26%), dan >1.000 m (28,68%). Aksesibilitas TPS terhadap permukiman diklasifikasikan ke dalam lima kategori, yaitu sangat tinggi (16,79%), tinggi (29,30%), sedang (27,51%), rendah (16,25%), dan sangat rendah (10,15%). Sementara itu, aksesibilitas TPS terhadap kawasan perdagangan dan jasa menunjukkan bahwa 4,27% wilayah memiliki aksesibilitas yang sangat rendah atau sulit dijangkau. Distribusi aksesibilitas lainnya cenderung merata dalam kategori sangat tinggi (25,63%), tinggi (35,58%), sedang (23,85%), dan rendah (10,67%).

Kata kunci : Keterjangkauan, aksesibilitas, Tempat Penampungan Sementara (TPS), Sistem Informasi Geografis.

ABSTRACT

SPATIAL ANALYSIS OF THE AFFORDABILITY AND ACCESSIBILITY OF TEMPORARY SHELTERING PLACES (TPS) IN THE PEDAN URBAN AREA, KLATEN DISTRICT

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Waste management is a crucial issue in sustainable development, especially in supporting SDGs 12. Klaten Regency is ranked third in Central Java with the highest daily waste generation, especially in residential and trade and service areas. In Klaten Regency, the Pedan Urban Area is the focus of the study because there are still people who dispose of waste in unofficial locations due to limited access to the available TPS. This study aims to analyze the reachability and accessibility of TPS to residential areas and trade and service areas in the area. The data used includes spatial data on the administration of the Pedan Urban Area, waste facilities, road networks, settlements and trade and services. The method applied is a geographic information system with Network Analysis service area for reachability and the Accessibility/Remoteness Index of Australia (ARIA) for accessibility. This calculation ensures that TPS can accommodate waste management needs in residential areas and trade and service areas. The results of the accessibility analysis to settlements are classified into five categories, namely a radius of 0 - 250 m (8.49%), 250 - 500 m (8.52%), 500 - 750 m (10.48%), 750 - 1,000 m (10.32%), and >1,000 m (62.21%), to trade and services 0 - 250 m (32.72%), 250 - 500 m (15.23%), 500 - 750 m (12.11%), 750 - 1,000 m (11.26%), and >1,000 m (28.68%). TPS accessibility to settlements is classified into five categories, namely very high (16.79%), high (29.30%), moderate (27.51%), low (16.25%), and very low (10.15%). Meanwhile, TPS accessibility to trade and service areas shows that 4.27% of areas have very low accessibility or are difficult to reach. The distribution of other accessibility tends to be even in the categories of very high (25.63%), high (35.58%), moderate (23.85%), and low (10.67%).

Key words : reachability, accessibility, Temporary Disposal Site (TPS), Geographic Information System (GIS)