# Analisis Pengaruh Ketinggian terhadap Level Intensitas Kebisingan di Apartemen Taman Melati Margonda = Analysis The Effect of Altitude on Noise Intensity Level in Taman Melati Margonda Apartment

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Abstrak

Penelitian ini mengeksplorasi hubungan antara ketinggian hunian vertikal dengan level intensitas kebisingan yang bersumber dari transportasi kereta pada hari libur dan kerja dengan skenario jendela tertutup dan terbuka di sekitar Stasiun Universitas Indonesia. Studi ini berfokus pada Apartemen Taman Melati Margonda, dengan pengukuran mengacu pada SNI 8427:2017. Dampak kebisingan pada kesehatan manusia, yang mencakup gangguan audiotori, non-audiotori, fisiologis, dan psikologis, serta masih terbatasnya penelitian mengenai kebisingan vertikal di hunian dekat transportasi, menjadi latar belakang penting penelitian ini. Hasil penelitian menunjukkan bahwa 83,33% data melebihi baku mutu Keputusan Menteri Lingkungan Hidup No. 48 tahun 1996, dan semua pengukuran malam hari melebihi baku mutu WHO. Level intensitas kebisingan berbanding terbalik dengan ketinggian hunian, semakin tinggi hunian maka semakin kecil level intensitas kebisingan, dengan perbedaan hingga 7,41 dB. Skenario jendela tertutup mengurangi level intensitas kebisingan hingga 11,80 dB, sementara hari kerja dan libur tidak menunjukkan perbedaan signifikan. Penelitian ini diharapkan dapat memberikan pemahaman mendalam mengenai pengaruh ketinggian hunian, waktu pengukuran, dan skenario jendela terhadap level intensitas kebisingan, yang selanjutnya dapat berkontribusi pada mitigasi kebisingan pada hunian vertikal.

.....This study explores the relationship between the height of vertical housing and the noise intensity levels from train transportation on weekdays and weekends, considering both closed and open window scenarios around the Universitas Indonesia Station. The study focuses on the Taman Melati Margonda Apartment, with measurements conducted according to SNI 8427:2017 standards. The impact of noise on human health, including auditory, non-auditory, physiological, and psychological disturbances, and the limited research on vertical noise in housing near transportation, are key backgrounds of this study. The results show that 83,33% of the data exceed the noise standards set by the Minister of Environment Decree No. 48 of 1996, and all nighttime measurements exceed the WHO standards. Noise intensity levels are inversely related to the height of the housing, the higher the location, the lower the noise intensity levels, with differences up to 7,41 dB. The closed window scenario reduces noise intensity levels by up to 11,80 dB, while weekdays and weekends show no significant differences in noise levels. This research is expected to provide in-depth understanding of the influence of housing height, measurement time, and window scenarios on noise intensity levels, which can further contribute to noise mitigation in vertical housing.