

ABSTRAK

Kereta api merupakan transportasi dengan multi keunggulan komparatif, misalnya hemat lahan dan energi, rendah polusi, bersifat massal, adaptif dengan perubahan teknologi yang memasuki era kompetisi. Perkeretaapian tidak saja memberi dampak yang positif bagi masyarakat sekitarnya, tetapi juga kemungkinan dampak negatif berupa pencemaran suara (*noise pollution*) akibat kebisingan. Pada penelitian ini bertujuan untuk mengevaluasi tingkat kebisingan terhadap Risiko Relatif dampak negatif kebisingan dengan fokus kepada dampak ketergangguan akibat kebisingan kereta api yang melintas, studi kasusnya di permukiman dekat rel kereta api jalur Tawang - Surabaya Kelurahan Tambakrejo. Gangguan kebisingan dinilai pada tingkat populasi melalui kuesioner sikap yang mengacu pada Komisi Internasional tentang Efek Biologis dari Kebisingan (ICBEN) dan Organisasi Standardisasi Internasional (ISO 15666) Sedangkan pengukuran tingkat kebisingan dilakukan pada 8 titik dengan jarak yang berbeda dari rel kereta api selama 2 hari menggunakan metode Keputusan Menteri Negara Lingkungan Hidup Nomor 48 Tahun 1996. Dari pengukuran tingkat kebisingan didapatkan nilai Leq sebesar 57 - 72 dBA. Hasil studi kuesioner menunjukkan bahwa 46,15 % responden dari total 102 responden merasa sangat terganggu pada tingkat kebisingan > 70 dBA. Adapun untuk nilai Risiko Relatif HA (*Highly Annoyed*) dan Selang Kepercayaannya didapatkan sebesar 6,078 kali dan [(2,49),(14,78)].

Kata kunci: kereta api, kebisingan, gangguan, kuesioner sikap, ICBEN dan ISO, Risiko Relatif

ABSTRACT

[Relative Risk Evaluation of Annoyance due to Railway Noise in Tambakrejo Gayamsari Semarang]. Train is a transportation with multi comparative advantages, such as Energy saving, low pollution, mass transportation, and adaptive to technological changes entering the era of competition. Railways not only have a positive impact on the surrounding community, but also the possibility of a negative impact such as noise pollution. This research aims to evaluate the noise level towards Relative Risk of negative impact with a focus on the impact of community annoyance due to passing railway noise, in a case study in the railway line settlement Tawang - Surabaya in Tambakrejo. Noise annoyance was assessed at the population level through an attitude questionnaire that refers to the International Commission on the Biological Effects of Noise (ICBEN) and the International Standardization Organization (ISO 15666). Noise level measurements were carried out at 8 points with different distances from the railroad for 2 days using method of Decree of Minister of Environment Number 48/1996 about Standard Noise Level. From the measurement of noise level, the Leq value was 57 - 72 dBA. The results of the questionnaire study showed that 46.15% of the 102 respondents felt highly annoyed at the noise level > 70 dBA. Therefore the Relative Risk value of HA (Highly Annoyed) and Convidence Interval, were 6.078 times and [(2.49), (14.78)], respectively.

Keywords : *Trains, noise, annoyance, attitude questionnaire, ICBEN and ISO, Relative Risk*