

Abstrak

Permasalahan sampah masih menjadi isu krusial di Indonesia, terutama pada pengelolaan di Tempat Pemrosesan Akhir (TPA) yang sering menimbulkan dampak lingkungan seperti pencemaran air, udara, dan tanah. Salah satu dampak signifikan adalah terbentuknya air lindi (*leachate*) hasil pembusukan sampah yang berpotensi mencemari sumber air tanah masyarakat. TPA Kaligending, yang berlokasi di Desa Kaligending, Kecamatan Karangsambung, Kabupaten Kebumen, merupakan fasilitas utama pengelolaan sampah di wilayah timur Kebumen. Lokasinya yang berdekatan dengan permukiman warga menimbulkan kekhawatiran akan penurunan kualitas air sumur serta persepsi negatif masyarakat terhadap keberadaan TPA. Oleh karena itu, penelitian ini dilakukan untuk menganalisis pencemaran timbunan sampah terhadap kualitas air sumur masyarakat serta menilai persepsi masyarakat mengenai dampak lingkungan dari TPA Kaligending.

Tujuan penelitian ini adalah: (1) menganalisis kondisi kualitas air sumur masyarakat di sekitar TPA Kaligending berdasarkan parameter fisik, kimia, dan mikrobiologi; (2) mengidentifikasi persepsi masyarakat terhadap keberadaan TPA dan dampaknya terhadap lingkungan serta kesehatan; dan (3) menganalisis hubungan antara kualitas air sumur dengan persepsi masyarakat terhadap keberadaan TPA Kaligending. Penelitian ini juga memiliki kebaruan (*novelty*) berupa penggabungan analisis uji laboratorium air sumur dengan survei persepsi masyarakat secara bersamaan, serta lokasi penelitian yang tergolong baru karena TPA Kaligending telah bertransisi menuju sistem *sanitary landfill*.

Metode penelitian yang digunakan adalah pendekatan kuantitatif dengan desain *cross sectional study* dan metode deskriptif analitik. Penelitian dilaksanakan di Dukuh Kraminan, Desa Kaligending, Kecamatan Karangsambung, pada bulan Desember 2024. Populasi penelitian adalah 57 kepala keluarga, dengan sampel sebanyak 37 responden yang ditentukan menggunakan rumus Slovin dan metode *simple random sampling*. Data primer diperoleh melalui observasi lapangan, pengambilan sampel air sumur, uji laboratorium, dan penyebaran kuesioner persepsi masyarakat.

Berdasarkan hasil penelitian diperoleh hasil bahwa kualitas air sumur masyarakat di sekitar TPA Kaligending masih memenuhi baku mutu untuk parameter fisik (suhu, TDS, TSS), pH, BOD, COD, minyak dan lemak, serta parameter mikrobiologi (total coliform), kecuali fenol, PO₄, Cd, Cu, dan Cr⁶⁺. Dalam hal persepsi, masyarakat di sekitar TPA Kaligending umumnya memiliki pandangan yang positif terhadap keberadaan TPA. Masyarakat menilai baik untuk persepsi kondisi lingkungan, persepsi manfaat TPA, persepsi pengelolaan TPA, persepsi lingkungan dan keamanan, serta persepsi kesadaran dan keterlibatan. Untuk persepsi penerimaan TPA, persepsi kualitas air dan kesehatan, serta persepsi, masyarakat memberikan penilaian kurang baik. Kemudian secara statistik, hubungan bermakna signifikan antara persepsi dan kualitas air, kecuali hubungan antara persepsi sosial dan informasi dan kualitas air.

Kata Kunci: air lindi, kualitas air sumur, persepsi masyarakat, pencemaran lingkungan, TPA Kaligending

ABSTRACT

The problem of waste remains a crucial issue in Indonesia, particularly in the management of Final Processing Sites (TPA), which often causes environmental impacts such as water, air, and soil pollution. One significant impact is the formation of leachate resulting from the decomposition of waste, which potentially contaminates community groundwater sources. The Kaligending TPA, located in Kaligending Village, Karangsambung Subdistrict, Kebumen Regency, serves as the main waste management facility for eastern Kebumen. Its proximity to residential areas raises concerns about declining well water quality and negative public perceptions of the TPA's presence. Therefore, this study was conducted to analyze the pollution of well water caused by waste accumulation and to assess community perceptions regarding the environmental impacts of the Kaligending TPA.

The objectives of this research are: (1) to analyze the condition of well water quality in the surrounding community based on physical, chemical, and microbiological parameters; (2) to identify public perceptions of the TPA's existence and its impacts on the environment and health; and (3) to analyze the relationship between well water quality and community perceptions of the Kaligending TPA. This study also presents a novelty by integrating laboratory analysis of well water with community perception surveys simultaneously, while the research location is relatively new since the Kaligending TPA has transitioned into a sanitary landfill system.

The research employed a quantitative approach with a *cross-sectional study* design and descriptive-analytic method. It was conducted in Dukuh Kraminan, Kaligending Village, Karangsambung Subdistrict, in December 2024. The population consisted of 57 households, with a sample of 37 respondents determined using the Slovin formula and *simple random sampling* method. Primary data were obtained through field observation, well water sampling, laboratory testing, and the distribution of community perception questionnaires.

The research findings indicate that the quality of well water in the community surrounding the Kaligending TPA still meets the quality standards for physical parameters (temperature, TDS, TSS), pH, BOD, COD, oil and grease, and microbiological parameters (total coliform), except for phenol, phosphate (PO_4), cadmium (Cd), copper (Cu), and hexavalent chromium (Cr^{6+}). In terms of perception, the surrounding community generally holds a positive view of the TPA's existence. Respondents gave good ratings for environmental conditions, TPA benefits, TPA management, environmental security, and awareness and participation. However, they rated less favorable for TPA acceptance, water quality and health, and certain social aspects. Statistically, there was a significant relationship between community perceptions and water quality, except for the relationship between social-information perception and water quality.

Keywords: community perception, environmental pollution, Kaligending Landfill, leachate, well water quality