ABSTRAK

Latar belakang: Peningkatan volume sampah di Kota Tasikmalaya yang seluruhnya ditampung di TPA Ciangir dengan sistem open dumping berpotensi menghasilkan air lindi yang mencemari air tanah di sekitarnya. Jarak aliran air lindi diduga berperan dalam menentukan tingkat kontaminasi, sementara respons masyarakat terhadap perubahan kualitas air belum sepenuhnya rasional dan adaptif. Tujuan: Penelitian ini bertujuan menganalisis hubungan jarak aliran air lindi dengan kualitas air tanah, pengaruh kualitas air tanah terhadap tindakan masyarakat, serta pengaruh simultan jarak aliran air lindi dan kualitas air tanah terhadap tindakan masyarakat di sekitar TPA Ciangir Kota Tasikmalaya. Metode: Penelitian kuantitatif eksplanatori dengan pendekatan cross-sectional dilakukan pada 35 sumur gali dalam radius 1 km menggunakan stratified random sampling. Data dikumpulkan melalui uji laboratorium (E. coli, Total Coliform, pH, BOD, COD, TSS), observasi lapangan, dan kuesioner berbasis teori tindakan sosial Max Weber. Analisis menggunakan uji korelasi, Chi-Square, dan regresi logistik biner pada tingkat signifikansi 95%. Hasil: Sebanyak 48,6% air tanah tidak memenuhi syarat, dan 68,6% tidak memenuhi standar bakteriologis. Terdapat hubungan signifikan antara jarak sumur dan Total Coliform (p=0,009) serta antara kualitas air tanah dan tindakan masyarakat (p=0,006). Secara simultan, jarak aliran air lindi dan kualitas air tanah berpengaruh signifikan terhadap tindakan masyarakat dengan kontribusi penjelasan model sebesar 38,8% dan akurasi klasifikasi 80%. Kesimpulan: Jarak aliran air lindi dan kualitas air tanah berperan signifikan dalam membentuk tindakan masyarakat. Variabel jarak aliran air lindi merupakan faktor dominan, sehingga penguatan sistem pengelolaan TPA dan peningkatan literasi lingkungan masyarakat menjadi urgensi untuk meminimalkan risiko kesehatan.

Kata Kunci: Jarak aliran air lindi, Kualitas air tanah, Tindakan masyarakat, Kontaminasi bakteriologis, TPA Ciangir.

ABSTRACT

Background: The increase in the volume of waste in Tasikmalaya City, which is entirely accommodated in the Ciangir Landfill with an open dumping system, has the potential to produce leachate that pollutes the surrounding groundwater. The distance of leachate flow is thought to play a role in determining the level of contamination, while community responses to changes in water quality have not been fully rational and adaptive. Objective: This study aims to analyze the relationship between leachate flow distance and groundwater quality, the effect of groundwater quality on community actions, and the simultaneous influence of leachate flow distance and groundwater quality on community actions around the Ciangir Landfill, Tasikmalaya City. Methods: Explanatory quantitative research with a cross-sectional approach was conducted on 35 wells dug within a radius of 1 km using stratified random sampling. Data were collected through laboratory tests (E. coli, Total Coliform, pH, BOD, COD, TSS), field observations, and questionnaires based on Max Weber's social action theory. The analysis used correlation tests, Chi-Square, and binary logistics regression at a significance rate of 95%. Results: A total of 48.6% of groundwater did not meet the requirements, and 68.6% did not meet bacteriological standards. There was a significant relationship between well distance and Total Coliform (p=0.009) and between groundwater quality and community actions (p=0.006). Simultaneously, leachate flow distance and groundwater quality had a significant effect on community actions with a contribution of 38.8% to the model explanation and 80% classification accuracy. Conclusion: The distance of leachate flow and groundwater quality play a significant role in shaping community actions. The variable distance of leachate flow is the dominant factor, so strengthening the landfill management system and increasing community environmental literacy is an urgency to minimize health risks.

Keywords: Distance of leachate flow, Groundwater quality, Community actions, Bacteriological contamination, Ciangir Landfill.