DISTRIBUSI SPASIAL KUALITAS AIR TANAH DAN DESKRIPSI PENYAKIT YANG BERKAITAN DENGAN AIR DI DESA BRINGKENG, KECAMATAN KAWUNGANTEN, KABUPATEN CILACAP

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Abstract	Access to clean water is fundamental for the population health, but for many rural and remote areas in Indonesia include Cilacap Regency those accesses are still limited. Furthermore, studies that assess the water quality in remote and rural areas in Indonesia are still lacking. Most of the people in Cilacap regency use dug wells and ponds as sources of clean water. Preliminary observations indicate that well and pond water smells fishy, reddish-yellow, or brownish. This condition indicates high iron levels. The test results showed that the iron content exceeded the standard in the pond in Sumbereja Hamlet, RT 03 RW 02, which was 9.8 mg/l (standard quality of 1 mg/l). This study aims to determine the spatial distribution of the water quality and the health-related problems in the rural areas of Cilacap Regency, Central Java, Indonesia. This was a descriptive observational study with a cross-sectional approach. We purposely sampled 40 wells and ponds located in Bringkeng Village, Cilacap Regency, Indonesia and assess the water quality by measuring the level. The results showed the lowest and the highest level of TDS (125.90-5090 mg/l), color (40 -2047 TCU), iron (0.16-6.45 mg/l), manganese (<0.1- 3.61 mg/l). Health problems experienced by respondents and or their families during the last three months, namely 3 people with diarrhea, 7 people with diabetes, 12 people with gout arthritis, 10 people with hypertension, 1 person with nervous system disorders, and 7 people with dry skin disorders/scaly. All dug wells and ponds did not meet the quality standards based on TDS, color, iron, and manganese levels. Water from dug wells and ponds needs special treatment to obtain water that is suitable for hygiene and sanitation purposes.
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