

KAJIAN KARAKTERISTIK DAN POTENSI MATA AIR DI DESA HILITOBARA, KECAMATAN TELUK DALAM, KABUPATEN NIAS SELATAN, PROVINSI SUMATERA UTARA

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INTISARI

Lokasi mata air Zumo dan mata air Bayo secara administrasi berada di Desa Hilitobara, Kecamatan Teluk Dalam, Kabupaten Nias Selatan. Daerah penelitian tidak memiliki sungai sehingga masyarakat desa hanya memanfaatkan mata air sebagai sumber airnya. Berdasarkan hasil wawancara bersama Kepala Desa dan masyarakat desa, bahwa di salah satu mata air yaitu mata air Bayo sering mengalami kekeringan ketika kemarau, serta hingga saat ini belum pernah dilakukan uji kualitas air. Tujuan dari hasil penelitian ini adalah mengetahui karakteristik dan potensi mata air dari segi kuantitas dan kualitas agar layak bagi masyarakat, kemudian akan dilakukan arahan pengelolaan sesuai dengan hasil penelitian.

Metode penelitian yang digunakan dalam penelitian di Desa Hilitobara, Kecamatan Teluk Dalam, Kabupaten Nias Selatan adalah gabungan dari pendekatan kuantitatif dan kualitatif. Metode pengumpulan data yang digunakan yaitu metode survei dan pemetaan lapangan, uji laboratorium, dan wawancara. Metode pengambilan sampel yang digunakan yaitu metode *purposive sampling*, serta metode analisis data menggunakan metode analisis deskriptif dan metode matematis.

Hasil penelitian mata air Bayo dan mata air Zumo didapatkan Karakteristik mata air Bayo berdasarkan sifat pengalirannya memiliki tipe mata air musiman (*intermittent springs*), dan mata air Zumo memiliki tipe mata air tahunan (*Perennial Springs*). Berdasarkan proses terjadinya kedua mata air adalah tipe mata air kontak (*contact springs*). Potensi kedua mata air dari segi kuantitas mata air Bayo mengeluarkan rata-rata debit air 2.289.150,7 L/tahun, sedangkan mata air Zumo mengeluarkan rata-rata 43.693.655,04 L/tahun. Potensi dari segi kuantitas ini dapat memenuhi kebutuhan akan air bersih hingga 10 tahun mendatang. Potensi dari segi kualitas air dari kedua mata air semua cukup baik, namun terdapat 1 parameter yaitu Fe mata air Bayo yang melebihi baku mutu. Arahan pengelolaan di daerah penelitian dibagi 3 yaitu konservasi kuantitas mata air berupa pembuatan bak penampung, pompa serta pipa pendistribusian. Konservasi secara kualitas yaitu pembuatan aerasi sistem venturi. Konservasi daerah imbuhan berupa pembuatan teras gulud.

Kata Kunci : Mata Air, Mata Air Bayo, Mata Air Zumo, Konservasi Mata Air

**STUDY OF CHARACTERISTICS AND POTENTIAL OF SPRINGS
IN HILITOBARA VILLAGE, TELUK DALAM DISTRICT, SOUTH
NIAS REGENCY, NORTH SUMATERA PROVINCE**

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ABSTRACT

The location of Zumo springs and Bayo springs is administratively located in Hilitobara Village, Teluk Dalam District, South Nias Regency. The research area does not have a river so that the villagers only use springs as their water source. Based on the results of interviews with the Village Head and the village community, one of the springs, namely the Bayo spring, often experiences drought during the dry season, and until now there has never been a water quality test. The purpose of the results of this study is to determine the characteristics and potential of the springs in terms of quantity and quality so that they are suitable for the community, then management will be carried out according to the results of the study.

The research method used in the study in Hilitobara Village, Teluk Dalam District, South Nias Regency is a combination of quantitative and qualitative approaches. Data collection methods used are survey and field mapping methods, laboratory tests, and interviews. The sampling method used is the purposive sampling method, and the data analysis method uses descriptive analysis methods and mathematical methods.

The results of the research on Bayo springs and Zumo springs showed that the characteristics of Bayo springs based on the nature of their flow have the type of seasonal springs (intermittent springs), and Zumo springs have the type of annual springs (Perennial Springs). Based on the process of occurrence, the two springs are contact springs. The potential of the two springs in terms of quantity is that the Bayo spring discharges an average of 2,289,150.7 L/year, while the Zumo spring produces an average of 43,693,655.04 L/year. This potential in terms of quantity can meet the need for clean water for the next 10 years. The potential in terms of water quality from both springs is quite good, but there is 1 parameter, namely the Fe of the Bayo spring which exceeds the quality standard. The management directions in the research area are divided into 3, namely conservation of the quantity of springs in the form of making reservoirs, pumps and distribution pipes. Conservation in terms of quality, namely the manufacture of filtration and aeration of the venturi system. The conservation of the recharge area is in the form of making mound terraces.

Keywords: Springs, Bayo Springs, Zumo Springs, Spring Conservation