

**KAJIAN POTENSI MATA AIR BEBENG DALAM MEMENUHI  
KEBUTUHAN RUMAH TANGGA MASYARAKAT DESA GLAGAHARJO,  
KECAMATAN CANGKRINGAN, KABUPATEN SLEMAN, DAERAH  
ISTIMEWA YOGYAKARTA**

**INTISARI**

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Mata air menjadi salah satu sumber utama kebutuhan air untuk kehidupan masyarakat Desa Glagaharjo. Mata air yang tersedia berasal dari mata air Bebeng yang berada di Kawasan Taman Nasional Gunung Merapi. Mata air tersebut sangat dipengaruhi oleh keadaan sekitar sempadan air seperti tutupan lahan dan tegakan vegetasi. Hal tersebut mempengaruhi debit mata air yang dapat dimanfaatkan oleh masyarakat.

Tujuan penelitian ini adalah mengetahui lokasi dan debit mata air yang dimanfaatkan oleh masyarakat, mengetahui karakteristik vegetasi daerah resapan air, mengetahui besarnya kebutuhan konsumsi air rumah tangga masyarakat dan mengetahui keseimbangan antara suplai mata air terhadap kebutuhan air masyarakat Desa Glagaharjo. Pengambilan data debit mata air dilakukan dengan metode volumetrik. Data Karakteristik vegetasi didapatkan dengan menggunakan metode kuadrat dan dilakukan analisis vegetasi. Data kebutuhan konsumsi air masyarakat didapatkan melalui wawancara dengan alat ukur berupa kuesioner.

Hasil Penelitian menunjukkan potensi air di mata Air Bebeng sebesar 21,14 liter/detik. Karakteristik vegetasi pada sekitar mata air Bebeng salah satunya tersusun dari jenis *A. decurrens* dengan INP sebesar 127,73% sedangkan untuk karakteristik tumbuhan bawah tersusun dari 37 spesies tumbuhan bawah dengan nilai ID Simpsons sebesar 0,95044 dan ID Shannon Wiener sebesar 5,86401. Kebutuhan air masyarakat desa Glagaharjo sebesar 6,44 liter/detik. Keseimbangan antara suplai mata air terhadap kebutuhan air masyarakat di jelaskan ke dalam Indeks Penggunaan Air (IPA) sebesar 0,304 yang menunjukan penggunaan air masyarakat Desa Glagaharjo terbilang rendah. Potensi yang dimiliki mata air Bebeng mampu memenuhi kebutuhan air masyarakat desa di Glagaharjo.

Kata kunci: Sumber Mata air, Debit Mata Air, Karakteristik Vegetasi, Potensi Mata Air, Kebutuhan Air, Indeks Penggunaan Air

## **The study of Bebeng spring potential to fulfill the household requirement of water in Glagaharjo Village, Cangkringan, Sleman District, Special Region of Yogyakarta**

### **ABSTRACT**

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Spring is one of the main sources for the water requirement, particularly for the people who live in *Glagaharjo* Village. The spring that available for the Glagaharjo people located in Mt. Merapi National Park, named Bebeng Spring. Bebeng spring is strongly influenced by the circumstances surrounding the spring such as land cover and vegetations. That matter affected spring discharge which is used by the community

The purpose of this research is to identify the location and the water discharge from the spring that the local people use, to know the characteristic of vegetation around the water absorption area, to identify how much the local household consume water from that spring, and to ascertain the balance between the water supply that came from the spring and the water requirement in the Glagaharjo Village. The data for the water discharge was taken by the volumetric method. The data for vegetation's characteristic was taken with the quadratic method and then carried out by the analysis of the vegetation. Lastly, the data concerning water requirement of local people was taken by doing interview with a standardize questionnaire.

The result of this research shows that the Bebeng Spring has the potential of 21,14 liters per second. Then, the vegetation characteristics around the Bebeng Spring is composed of type *Acacia decurrens* with Important Value Index of 127,73%, while the underground characteristic consists of 37 species of plants that has Simpsons Diversity Index of 0.95 and Shannon Wiener Diversity Index of 5.86. The water requirement of Glagaharjo Village residents is 6,44 liters per second. The balance between the water supply and the water requirement in the village is shown by Water Usage Index of 0,304 and its classified as low level, although Bebeng Spring has enough potential to fulfill the water requirement of Glagaharjo Village residents.

**Keywords:** Springs, Water Discharge, Vegetation Characteristic, Springs Potency, Water Requirement, Water Usage Index