

## INTISARI

Evaluasi lahan pada prinsipnya adalah untuk menduga potensi lahan serta faktor pembatasnya agar penggunaan lahan dapat optimal. Tujuan penelitian ini adalah menentukan kelas kesesuaian lahan untuk pengembangan kopi Arabika di Pagerharjo serta membuat peta kesesuaian lahan pengembangan kopi Arabika di daerah tersebut. Penelitian dilaksanakan di Pagerharjo, *Kapanewon* Samigaluh, Kabupaten Kulon Progo dengan metode *purposive sampling* dan analisis laboratorium untuk melihat sifat fisik dan kimia tanah berupa BV (metode *ring sample*), BJ (metode piknometer), tekstur (metode pemipetan), dan analisis sifat kimia tanah berupa BO (metode *walkley and black*), KPK, KB (ekstrak  $\text{NH}_4\text{OAC}$ ), N-total (metode kjeldahl), dan P-tersedia (metode *bray*) sementara untuk menentukan kelas kesesuaian lahan menggunakan tiga pendekatan diantaranya sistem limitasi sederhana, kriteria Sys, dan parametrik. Hasil penelitian menunjukkan bahwa dengan pendekatan limitasi sederhana kelas kesesuaian lahan aktual diperoleh dua kelas yakni S3 (sesuai marginal) dan N (tidak sesuai) sementara dengan kriteria Sys diperoleh tiga kelas yakni S1 (sangat sesuai), S2 (cukup sesuai) dan S3 (sesuai marginal) sedangkan parametrik diperoleh tiga kelas yakni S2 (cukup sesuai), S3 (sesuai marginal) dan N (tidak sesuai). Dengan tiga pendekatan tersebut diperoleh juga kelas kesesuaian potensial dimana untuk limitasi sederhana kelasnya adalah S2 dan S3, kriteria Sys dengan kelas S1 dan S2, sementara dengan parametrik diperoleh S1, S2 dan S3. Dengan demikian kriteria Sys merupakan pendekatan yang paling sesuai untuk menilai kesesuaian lahan untuk pengembangan Arabika di Pagerhajro. Dari sisi produktivitas kopi Arabika, diketahui bahwa Pagerharjo menyumbang sekitar 21% produksi kopi untuk Kabupaten Kulon Progo.

Kata kunci : Kopi Arabika, Pagerharjo, Parametrik, Kriteria Sys, Sistim Limitasi Sederhana

## ABSTRACT

Land evaluation aims to assess the potential and limiting factors of a particular land area to optimize its utilization. This study is to determine land suitability classes for the development of Arabica coffee in Pagerharjo, as well as to provide recommendations and create a suitability map for Arabica coffee development in that area. The research was conducted in the Pagerharjo, Samigaluh Subdistrict, Kulon Progo, using purposive sampling method and laboratory analysis to examine properties of the soil, including bulk density (ring sample), particle density (pycnometer), texture (pipette method), and chemical properties such as organic matter content (Walkley and Black method), CEC, base saturation (NH<sub>4</sub>OAC extraction), total nitrogen (Kjeldahl method), and available phosphorus (Bray method). The land suitability classes were determined using three approaches, namely simple limitation system, Sys criteria, and parametric methods. The results showed that using the simple limitation system, the actual land suitability classes were obtained into S3 (marginally suitable) and N (unsuitable), while using the Sys criteria, three classes were obtained, namely S1 (highly suitable), S2 (moderately suitable), and S3 (marginally suitable). Using the parametric approach, three classes were obtained, namely S2 (moderately suitable), S3 (marginally suitable), and N (unsuitable). With these three approaches, potential suitability classes were also identified, where for the simple limitation system, the classes were S2 and S3, for the Sys criteria, the classes were S1 and S2, and for the parametric, the classes were S1, S2, and S3. Thus, the Sys criteria is considered the most suitable for assessing land suitability for arabica coffee development in Pagerharjo. In terms of Arabica coffee productivity, it is known that Pagerharjo contributes approximately 21% of the coffee production in Kulon Progo.

**Keywords :** Arabica coffee, Parametric approach, Pagerharjo, Sys Criteria, Simple Limitation System.