

**LAND SUITABILITY EVALUATION FOR COCOA (*Theobroma Cacao L.*)
IN BIGARAN VILLAGE BOROBUDUR DISTRICT MAGELANG
REGENCY CENTRAL JAVA PROVINCE**

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ABSTRACT

Bigaran Village, located in the Menoreh Hills area of Borobudur District, Magelang Regency, Central Java Province, is recognized as a tourist village that cultivates cocoa plants and produces various cocoa-based products. This study aims to assess the land characteristics, land suitability classes, and limiting factors affecting the growth of cocoa plants in Bigaran Village. The research methodology involved a survey approach, combining field observations and laboratory analyses. The sampling point determined purposively based on the land system map obtained from the overlay of land use maps and slope maps. The land suitability analysis was conducted by comparing the estimated and measured land properties with the growth requirements of cocoa plants and the FAO land suitability classification. The findings revealed that the actual land suitability in Bigaran Village falls into Class S3 (Marginally Suitable) with the following subclasses: S3wa covering 18,174 ha (9,46%), S3waeh covering 66,987 ha (34,86%), S3wana covering 11,489 ha (5,98%), and S3waehna covering 7,592 ha (3,95%). Additionally, a portion of the land is classified as Class N (Not Suitable), specifically subclass Neh, which covers 36,552 ha (19,02%). The primary limiting factors for land suitability in Bigaran Village include the length of dry months, slope gradient, and available potassium (K) nutrients. The potential land suitability classes identified are Class S1 (Highly Suitable) and S2 (Moderately Suitable). Class S2 is further divided into subclasses: S2lp covering 66,987 ha (34,86%), S2eh covering 36,552 ha (19,02%), and S2rc covering 11,489 ha (5,98%), while Class S1 covers 25,766 ha (13,41%).

Keywords : Land Evaluation, Land Suitability, Cocoa