

Sri Utami, 220311100077, Evaluasi Kesesuaian Lahan untuk Beberapa Komoditas Perkebunan di Kabupaten Bangkalan. Dibimbing Oleh: Fahmi Arief Rahman, S.P, M.Si., dan Ir. Achmad Djunaedy, M.P.

ABSTRAK

Penelitian ini bertujuan untuk mengetahui distribusi spasial kesesuaian lahan komoditas perkebunan utama di Kabupaten Bangkalan serta mengidentifikasi faktor pembatas dan upaya perbaikan yang memengaruhi kesesuaian lahan tersebut. Penelitian dilakukan menggunakan metode *matching* antara karakteristik lahan dengan persyaratan tumbuh empat komoditas perkebunan, kelapa, jambu mete, tebu, dan tembakau berdasarkan kriteria Ritung *et al.* (2011). Analisis spasial menggunakan Sistem Informasi Geografis (SIG) melalui proses *overlay* berbagai parameter yang meliputi iklim, sifat fisik dan kimia tanah, topografi, serta bahaya lingkungan. Hasil penelitian menunjukkan bahwa kesesuaian lahan di Kabupaten Bangkalan didominasi oleh kelas (S3) dan (N). Komoditas kelapa memiliki luas kelas S3 sebesar 47.673,66 ha (83,15%) dan kelas tidak sesuai (N) sebesar 9.655,14 ha (16,85%). Komoditas jambu mete didominasi kelas S3 seluas 42.724,91 ha (82,83%) dan kelas N seluas 8.842,85 ha (17,17%). Pada komoditas tebu, kelas S3 mencapai 40.179,55 ha (85,25%) dan kelas N sebesar 6.947,64 ha (14,75%). Sementara itu, komoditas tembakau memiliki kelas S3 seluas 46.060,36 ha (69,20%) dan kelas N sebesar 20.497,17 ha (30,80%). Faktor pembatas utama yang memengaruhi kesesuaian lahan meliputi ketersediaan air (*water availability/wa*), retensi hara (*nutrient retention/nr*), ketersediaan hara (*nutrient availability/na*), bahaya erosi (*erosion hazard/eh*), dan bahaya banjir atau genangan (*flood hazard/fh*). Upaya perbaikan yang dapat dilakukan untuk meningkatkan kelas kesesuaian lahan antara lain melalui pemupukan berimbang, penambahan bahan organik, pengapuran, pengelolaan drainase dan tata air, serta penerapan teknik konservasi tanah dan air. Hasil penelitian ini diharapkan dapat menjadi dasar dalam perencanaan pengembangan komoditas perkebunan serta mendukung pengambilan keputusan penggunaan lahan yang lebih optimal, adaptif, dan berkelanjutan di Kabupaten Bangkalan.

Kata Kunci: *Evaluasi Kesesuaian lahan, Komoditas Perkebunan, Bangkalan*

ABSTRACT

This study aimed to determine the spatial distribution of land suitability for major plantation crops in Bangkalan Regency and to identify the limiting factors and improvement measures affecting land suitability. The study employed a land suitability evaluation approach for four plantation commodities, namely coconut, cashew, sugarcane, and tobacco. Land suitability assessment was conducted using the matching method by comparing land characteristics with crop growth requirements based on the criteria proposed by Ritung et al. (2011). Spatial analysis was carried out using a Geographic Information System (GIS) through an overlay process involving various parameters, including climate, soil physical and chemical properties, topography, and environmental hazards. The results showed that land suitability in Bangkalan Regency was predominantly classified as (S3) and (N). For coconut, the S3 class covered 47,673.66 ha (83.15%), while the not suitable class (N) occupied 9,655.14 ha (16.85%). Cashew was dominated by the S3 class with an area of 42,724.91 ha (82.83%) and the N class covering 8,842.85 ha (17.17%). For sugarcane, the S3 class reached 40,179.55 ha (85.25%), whereas the N class accounted for 6,947.64 ha (14.75%). Meanwhile, tobacco had an S3 area of 46,060.36 ha (69.20%) and an N area of 20,497.17 ha (30.80%). The main limiting factors affecting land suitability were water availability (wa), nutrient retention (nr), nutrient availability (na), erosion hazard (eh), and flood hazard or inundation (fh). Improvement measures that can be implemented to enhance land suitability include balanced fertilization, organic matter application, liming, drainage and water management, as well as the implementation of soil and water conservation techniques. The findings of this study are expected to serve as a basis for plantation crop development planning and to support more optimal, adaptive, and sustainable land-use decision-making in Bangkalan Regency.

Keywords: Land Suitability Evaluation, Plantation Commodities, Bangkalan