

INTISARI

Penelitian ini mengkaji potensi daya dukung lingkungan khususnya untuk penyediaan bahan pangan pertanian menggunakan pendekatan jasa ekosistem. Penelitian dilakukan di Sub-DAS Juwet yang termasuk ke dalam DAS oyo yang berada di Kabupaten Gunungkidul. Tujuan dari penelitian ini adalah 1.) Menganalisis sebaran dan karakteristik jasa ekosistem penyediaan bahan pangan pertanian di Sub-DAS Juwet; 2.) Menganalisis produktivitas penyediaan bahan pangan pertanian; dan 3.) Menganalisis status daya dukung pangan di Sub-DAS Juwet.

Penilaian jasa ekosistem pada penelitian ini menggunakan parameter ekoregion, penutup lahan, jenis tanah dan curah hujan. Metode skoring menggunakan metode *Simple Additive Weighting* (SAW) yang mengacu pada empat parameter tersebut. Nilai produktivitas didapatkan berdasarkan perbandingan produksi pertanian dengan luas garapan lahan untuk pertanian. Status daya dukung lahan dihitung berdasarkan perbandingan ketersediaan pangan pertanian dengan kebutuhan pangan pertanian.

Hasil penelitian menunjukkan bahwa Sub-DAS Juwet memiliki 33,68% dengan klasifikasi penyediaan bahan pangan pertanian tinggi di ekoregion Lembah antar Perbukitan Struktural Formasi Kebobutak, Sambipitu, dan Oyo yang secara administratif berada di Desa Ngalang dan Hargomulyo. Klasifikasi sedang memiliki cakupan wilayah sebesar 62,23% yang sebagian besar berada di ekoregion Lerengkaki Perbukitan Struktural yang secara administratif berada di Desa Hargomulyo, Pilangrejo, dan Kedungpoh. Klasifikasi rendah memiliki cakupan wilayah 4,10% yang berada di ekoregion Igir Perbukitan Struktural Formasi Nglanggeran yang secara administratif berada di Desa Nglegi.

Kata kunci: *Jasa Ekosistem, Penyediaan Bahan Pangan, Sub-DAS Juwet*

ABSTRACT

This study examines the potential of environmental carrying capacity, specifically for the provision of agricultural food supplies, using an ecosystem services approach. The study was conducted in the Juwet Sub-watershed, which is part of the Oyo watershed located in Gunungkidul Regency. The objectives of this research are 1.) To analyze the distribution and characteristics of ecosystem services for agricultural food supply in the Juwet Sub-watershed; 2.) To analyze the productivity of agricultural food supply; and 3.) To analyze the food carrying capacity status in the Juwet Sub-watershed.

The assessment of ecosystem services in this study uses parameters of ecoregion, land cover, soil type, and rainfall. The scoring method employs the Simple Additive Weighting (SAW) method, which refers to these four parameters. Productivity value is obtained based on the comparison of agricultural production with the cultivated area for agriculture. The status of land carrying capacity is calculated based on the comparison between the availability of agricultural food and the demand for agricultural food.

Research results show that the Juwet Sub-watershed has 33.68% classified as high agricultural food supply in the Valley between Structural Hills ecoregion of Kebobutak, Sambipitu, and Oyo Formations, which administratively are located in Ngalang and Hargomulyo Villages. The medium classification covers 62.23% of the area, mostly located in the Footslope of Structural Hills ecoregion, which administratively are in Hargomulyo, Pilangrejo, and Kedungpoh Villages. The low classification covers 4.10% of the area, located in the Ridge of Structural Hills ecoregion of Nglanggeran Formation, which administratively is in Nglegi Village.

Keyword: *ecosystem services, food provisioning, juwet watershed*