

ABSTRAK

Ekosistem danau merupakan komponen penting perairan darat yang berfungsi sebagai habitat utama ikan air tawar serta penyedia jasa ekosistem bagi masyarakat. Namun, meningkatnya tekanan antropogenik dan perubahan iklim telah menyebabkan degradasi kualitas dan fungsi ekologis danau di berbagai wilayah, termasuk Kabupaten Barito Selatan, Kalimantan Tengah. Penelitian ini bertujuan untuk menganalisis tingkat kesesuaian penentuan kawasan konservasi danau di Kabupaten Barito Selatan berdasarkan kondisi biofisik, kimia, biologi, serta aspek sosial-ekonomi masyarakat. Penelitian dilakukan pada tujuh danau calon kawasan konservasi, yaitu Danau Mengkare, Lelek, Keranen Kecil, Bateken, Mangguruh, Raya, dan Melawen. Metode penelitian menggunakan survei lapangan, pengukuran kualitas air, inventarisasi keanekaragaman ikan, serta pengumpulan data sosial melalui wawancara dan diskusi dengan pemangku kepentingan. Analisis data dilakukan secara deskriptif dan kuantitatif dengan pendekatan pembobotan multi-kriteria untuk menilai tingkat kesesuaian masing-masing danau sebagai kawasan konservasi. Hasil penelitian menunjukkan bahwa secara umum kondisi kualitas air masih mendukung kehidupan biota perairan, namun terdapat variasi tingkat keanekaragaman hayati, tutupan vegetasi, dan tekanan antropogenik antar danau. Beberapa danau menunjukkan tingkat kesesuaian tinggi sebagai kawasan konservasi, terutama yang memiliki keanekaragaman ikan tinggi dan tekanan manusia relatif rendah. Penelitian ini merekomendasikan penetapan kawasan konservasi danau berbasis data ilmiah serta pengelolaan adaptif yang melibatkan masyarakat lokal guna menjamin keberlanjutan ekosistem perairan darat di Kabupaten Barito Selatan.

Kata kunci: *Kawasan konservasi danau, Perairan darat, Keanekaragaman ikan, Pengelolaan berbasis ekosistem, Kabupaten Barito Selatan*

ABSTRACT

Lakes are essential inland water ecosystems that function as key habitats for freshwater fish and provide critical ecosystem services for local communities. However, increasing anthropogenic pressures and climate change have led to the degradation of lake ecosystems in many regions, including South Barito Regency, Central Kalimantan, Indonesia. This study aims to assess the suitability of lake conservation area designation in South Barito Regency based on bio-physical, chemical, biological, and socio-economic conditions. The research was conducted in seven candidate lakes, namely Mengkare, Lelek, Keranen Kecil, Bateken, Mangguruh, Raya, and Melawen Lakes. The study employed field surveys, water quality measurements, fish biodiversity assessments, and social data collection through interviews and stakeholder discussions. Data were analyzed using descriptive and quantitative approaches with a multi-criteria weighted assessment to evaluate the conservation suitability of each lake. The results indicate that overall water quality conditions remain supportive for aquatic biota; however, substantial variations were observed among lakes in terms of biodiversity levels, vegetation cover, and anthropogenic pressures. Several lakes exhibit high conservation suitability, particularly those characterized by high fish diversity and relatively low human disturbance. This study highlights the importance of science-based conservation planning and recommends the establishment of lake conservation areas supported by adaptive management strategies and active community participation to ensure the long-term sustainability of inland aquatic ecosystems in South Barito Regency.

Keywords: *Lake conservation planning, Inland freshwater ecosystems, Freshwater fish diversity, Ecosystem-based management, Tropical floodplain lakes*