

## ABSTRACT

In Sumbada Sulistyorini, 2019. Mangrove Forests Utilization Based Ecosystem Characteristics and Social of Community (Case: Kutai National Park East Kalimantan). Supervised by Erny Poedjirahajoe, Lies Rahayu Wijayanti Faida, and Ris Hadi Purwanto.

Sustainable preserve of conservation areas such as mangroves in Kutai National Park (KNP) requires new concepts that are in line with environmental changes including the social of community. Assessment of ecosystem characteristics from biotic and abiotic aspects is very important in the context of sustainable use of mangrove ecosystems. Social capital can be a strength in protect the integrity of conservation area. The purposed of this research is to study the mangroves characteristics (biotic and abiotic) and social capital for the assessment of ecotourism and silvofishery use based on ecosystem characteristics.

The study was conducted on the KNP mangrove with a mixed methods approach, namely qualitative-quantitative descriptive analysis (Mixed Methods). 530 respondents came from communities in five villages in the Districts of Teluk Pandan and Sangatta Selatan, East Kutai Regency, East Kalimantan Province. The total number of plots used in this study were 170 plots with a sampling intensity of 0.05%. In the Teluk Lombok mangrove as many as 76 plots, Teluk Kaba 56 plots and Muara Teluk Pandan 42 plots. The mangroves characteristics are represented by five elements of the ecosystem, namely social capital, ecosystem biology, regional geophysics, soil conditions and hydrological-quality waters. Analysis of the data used consists of analysis of vegetation, social capital, soil, water quality, analysis of the suitability of mangrove ecosystems for ecotourism and silvofishery and PLS-SEM (Partial Least Square-Structural Equation Modelling) analysis.

Social capital such as trust, social norms, and community networks in the five villages (Singa Geweh, Sangkima, Teluk Singkama, Kandolo and Teluk Pandan) are still relatively weak to support mangrove conservation and mangrove utilization patterns for silvofishery and ecotourism. Regional development in the regions can affect the integrity of conservation areas and demand the need for re-zoning a conservation area and determine the sustainable use of mangroves by surrounding communities. Based on scoring assessments, the ecosystem of the Teluk Lombok mangrove is more recommended for ecotourism utilization than the other two locations. The use of silvofishery that has not been suggested should be strengthened by the support of social capital by strengthening the understanding of silvofishery. The results of the PLS-SEM analysis show for Ecotourism in Teluk Kaba is supported by ecosystem elements, namely social capital, soil conditions and hydrology-water quality. Whereas the other two locations are only supported by one ecosystem element, namely the biology-ecosystem in Teluk Lombok and social capital in the Muara Teluk Pandan. There is only one support for ecosystem elements for silvofishery, namely the geophysical of the Teluk Kaba mangrove and Muara Teluk Pandan, while the other elements have not been supported.

Keywords: utilization, mangrove, assessment, ecosystem, conservation

## ABSTRAK

In Sumbada Sulistyorini, 2019. Pemanfaatan Hutan Mangrove Berbasis Karakteristik Ekosistem dan Sosial Masyarakat (Kasus: Taman Nasional Kutai Kalimantan Timur). Dibimbing oleh Erny Poedjirahajoe, Lies Rahayu Wijayanti Faida, dan Ris Hadi Purwanto.

*Menjaga kelestarian mangrove Taman Nasional Kutai (TN-Kutai) memerlukan konsep baru yang sesuai dengan perubahan lingkungan termasuk sosial masyarakat. Penilaian terhadap karakteristik ekosistem dari sisi biotik dan abiotik sangat penting dalam rangka pemanfaatan ekosistem mangrove secara berkelanjutan. Modal sosial dapat menjadi kekuatan dalam mempertahankan keutuhan kawasan konservasi. Tujuan penelitian ini adalah melakukan kajian terhadap karakteristik mangrove dari unsur biotik dan abiotik serta modal sosial untuk penilaian pemanfaatan ekowisata dan *silvofishery* berbasis karakteristik ekosistem.*

*Penelitian dilakukan pada mangrove TN-Kutai dengan pendekatan metode campuran, yaitu analisis deskriptif kualitatif-kuantitatif (Mixed Methods). Responden sebanyak 530 berasal dari masyarakat di lima desa di Kecamatan Teluk Pandan dan Sangatta Selatan, Kabupaten Kutai Timur Provinsi Kalimantan Timur. Jumlah total plot yang digunakan dalam penelitian ini sebanyak 170 plot dengan intensitas sampling sebesar 0,05%. Pada mangrove Teluk Lombok sebanyak 76 plot, Teluk Kaba 56 plot dan Muara Teluk Pandan 42 plot. Karakteristik mangrove diwakili oleh lima elemen ekosistem, yaitu modal sosial, biologi ekosistem, geofisik kawasan, kondisi tanah dan hidrologi-kualitas perairan. Analisis data yang digunakan terdiri dari, analisis vegetasi, modal sosial, tanah, kualitas perairan, analisis kesesuaian ekosistem mangrove untuk ekowisata dan *silvofishery* serta analisis PLS-SEM (Partial Least Square- Structural Equation Modelling).*

*Elemen modal sosial, yaitu kepercayaan, norma sosial, dan jaringan masyarakat di lima desa studi (Singa Geweh, Sangkima, Teluk Singkama, Kandolo dan Teluk Pandan) masih tergolong lemah untuk mendukung bentuk pemanfaatan mangrove untuk *silvofishery* dan ekowisata. Berdasarkan penilaian skoring, pada mangrove Teluk Lombok lebih disarankan untuk pemanfaatan ekowisata dibanding dua lokasi lainnya. Pemanfaatan untuk *silvofishery* yang belum disarankan harus diperkuat dengan dukungan modal sosial dan penguatan pemahaman tentang *silvofishery*. Hasil analisis PLS-SEM, untuk ekowisata di Teluk Kaba didukung oleh modal sosial, kondisi tanah dan hidrologi-kualitas perairan. Dua lokasi lainnya hanya didukung oleh satu elemen ekosistem, yaitu biologi ekosistem pada mangrove Teluk Lombok dan modal sosial pada mangrove Muara Teluk Pandan. Dukungan elemen ekosistem untuk *silvofishery* ditemukan hanya satu, yaitu geofisik kawasan pada mangrove Teluk Kaba dan Muara Teluk Pandan, sedangkan elemen lainnya belum mendukung.*

Kata kunci: pemanfaatan, mangrove, penilaian, ekosistem, konservasi