Taksiran Nilai Ekonomi Hutan Mangrove Di Kecamatan Mundu, Kabupaten Cirebon, Jawa Barat
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TAKSIRAN NILAI EKONOMI HUTAN MANGROVE DI KECAMATAN MUNDU, KABUPATEN CIREBON, JAWA BARAT

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INTISARI

Hutan mangrove berfungsi sebagai tempat pemijahan, asuhan, dan mencari makan bagi biota laut yang menopang hasil tangkapan nelayan. Manfaat tidak langsung ini tidak memiliki harga pasar sehingga sering luput dari pertimbangan pengelolaan. Di Kecamatan Mundu, Kabupaten Cirebon, mangrove tertekan oleh konversi lahan dan pembangunan infrastruktur. Penelitian ini bertujuan menghitung keuntungan nelayan, mengidentifikasi faktor yang memengaruhi hasil tangkapan, dan menaksir nilai ekonomi mangrove sebagai tempat pemijahan biota laut.

Penelitian dilaksanakan pada Mei 2026 di empat desa pesisir. Data primer dikumpulkan melalui wawancara terstruktur terhadap 92 nelayan perahu kecil (<5 GT) yang dipilih dengan *accidental sampling* dari populasi 1.148 nelayan (rumus Yamane, galat 10%). Data sekunder diperoleh dari instansi terkait. Keuntungan dihitung dari selisih penerimaan dan biaya, sedangkan faktor yang memengaruhi hasil tangkapan dianalisis dengan regresi berganda, *backward elimination*, dan regresi log-log. Nilai ekonomi ditaksir dengan metode *Effect on Production* melalui surplus konsumen. Surplus ini diturunkan dari fungsi permintaan regresi log-log dengan harga sebagai satu-satunya variabel bebas (*Adjusted* R^2 0,760), karena model tiga variabel menghasilkan surplus konsumen negatif.

Keuntungan rata-rata nelayan sebesar Rp38.866.712 per tahun. Jumlah trip, jumlah ABK, dan harga jual berpengaruh signifikan terhadap hasil tangkapan (*Adjusted* R^2 0,883). Surplus konsumen rata-rata Rp252.797.745 per nelayan per tahun menghasilkan taksiran nilai ekonomi kawasan mangrove seluas 183 ha sebesar Rp290,21 miliar per tahun, atau Rp1,59 miliar per hektar per tahun. Karena seluruh surplus diatribusikan kepada mangrove, nilai ini mendekati batas atas kontribusinya. Meski demikian, hasil ini menunjukkan peran penting mangrove bagi perikanan tangkap sehingga perlu dilestarikan dan direhabilitasi.

Kata Kunci: *Effect on Production*, Surplus Konsumen, Nelayan Perahu Kecil, Mangrove Mundu, Kentungan Nelayan

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ESTIMATION OF THE ECONOMIC VALUE OF MANGROVE FOREST IN MUNDU DISTRICT, CIREBON REGENCY, WEST JAVA

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ABSTRACT

Mangrove forests serve as spawning, nursery, and feeding grounds for marine biota that sustain fishers' catches. However, this indirect benefit has no market price and is therefore often overlooked in management decisions. In Mundu District, Cirebon Regency, mangroves are under pressure from land conversion and infrastructure development. This study aims to calculate fishers' profit, identify the factors influencing fishers' catch, and estimate the economic value of mangroves as a spawning ground for marine biota.

The research was conducted in May 2026 across four coastal villages. Primary data were collected through structured interviews with 92 small-boat fishers (<5 GT) selected by accidental sampling from a population of 1,148 fishers (Yamane's formula, 10% margin of error), while secondary data were obtained from relevant institutions. Profit was calculated as the difference between revenue and costs, and the factors influencing catch were analyzed using multiple regression, backward elimination, and log-log regression. The economic value was estimated using the Effect on Production method through consumer surplus. This surplus was derived from a log-log demand function with price as the only independent variable (Adjusted R^2 of 0.760), because the three-variable model produced a negative consumer surplus.

The average fisher's profit was IDR 38,866,712 per year. The number of trips, crew size, and selling price significantly affected the catch (Adjusted R^2 of 0.883). The average consumer surplus of IDR 252,797,745 per fisher per year yielded an estimated economic value of IDR 290.21 billion per year for the 183-hectare mangrove area, or IDR 1.59 billion per hectare per year. Because the entire surplus is attributed to mangroves, this value approaches the upper bound of their contribution. Nevertheless, the results show the important role of mangroves in capture fisheries, so they need to be conserved and rehabilitated.

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Keywords: *Effect on Production, Consumer Surplus, Small-Boat Fishers, Mundu Mangrove, Fishers' Profit*

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