

Pengembangan ekosistem mangrove sebagai penyerap karbon di Kabupaten Lombok Barat, Nusa Tenggara Barat = Development of mangrove ecosystem as carbon uptake and ecotourism in West Lombok District West Nusa Tenggara

Faradiba, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20467507&lokasi=lokal>

Abstrak

ABSTRAK

Pengembangan ekosistem mangrove sebagai penyerap karbon di Kabupaten Lombok Barat, Nusa Tenggara Barat. Program Studi Ilmu Kelautan, Program Pascasarjana Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas Indonesia Kampus UI, Depok, Jawa Barat fara_diba272@yahoo.com

ABSTRAK Penelitian dilakukan pada bulan Mei-Oktober 2017 di Kawasan Mangrove Kabupaten Lombok Barat, Nusa Tenggara Barat. Tujuan penelitian untuk mempelajari struktur vegetasi mangrove, potensi biomassa, stok karbon dan potensi serapan CO₂ di ekosistem mangrove. Metode yang digunakan untuk mengetahui struktur komunitas vegetasi mangrove menggunakan transek kuadrat secara purposive sampling dengan total luasan pengamatan 2.000 m² di Desa Lembar Selatan Stasiun I, 33.000 m² di Desa Buwun Mas Stasiun II dan 1.400 m² di Desa Cendi Manik Stasiun III. Biomassa diestimasi dengan persamaan allometrik DBH > 4 cm untuk dikonversikan menjadi nilai cadangan karbon dan serapan CO₂. Sebanyak total 10 spesies dari 4 famili mangrove sejati telah diidentifikasi. Nilai kerapatan vegetasi pohon di Stasiun I sebesar 1.085 pohon/Ha dan Stasiun III sebesar 521 pohon/Ha. Kedua stasiun didominasi oleh *Rhizophora stylosa*, sedangkan di Stasiun II nilai kerapatan sebesar 1.218 pohon/Ha didominasi oleh *Rhizophora mucronata*. Kandungan biomassa, stok karbon dan serapan CO₂ total di Stasiun I sebesar 43.81 ton biomassa/Ha 20.59 ton C/Ha setara 75.56 ton CO₂/Ha, Stasiun II sebesar 162.16 ton biomassa/Ha 76.21 ton C/Ha setara 279.71 ton CO₂/Ha, dan Stasiun III sebesar 46.34 ton biomassa/Ha 21.78 ton C/Ha setara 79.94 ton CO₂/Ha. Sumbangan terbesar stok karbon berasal dari famili Rhizophoraceae. Kata Kunci: allometrik, biomassa, stok karbon, serapan CO₂, vegetasi mangrove.<hr />

ABSTRACT

Research has been conducted in May October 2017 on the mangrove area in West Lombok District, West Nusa Tenggara. The objectives were to obtain information of vegetation structure and composition, biomass potential, carbon stocks and CO₂ uptake. Structure and compotion of mangrove are measured by purposive sampling of quadrant method, with total observation area are 2.000 m² in Lembar Selatan Village Station I, 33.000 m² in Buwun Mas Village Station II dan 1.400 m² in Cendi Manik Village Station III. Biomass is estimated by allometric equations DBH 4 cm to be converted into carbon stocks and CO₂ uptake values. The results showed that there are 10 true mangrove species from 4 family were identified. The vegetation in Station I and III dominated by *Rhizophora stylosa* that has density around 1,085 trees Ha and 521 trees Ha, while in Station III is dominated by *Rhizophora mucronata* with density around 1,218 trees Ha. The total of biomass content, carbon stock and CO₂ uptake in Station I was amount 43.81 ton biomass Ha 20.59 ton C Ha equivalent to 75.56 ton CO₂ Ha, Station II was amount 162.16 ton biomass Ha 76.21 ton C Ha equivalent to 279.71 ton CO₂ Ha, and Station III was amount 46.34 ton biomass Ha 21.78 ton C Ha equivalent to 79.94 ton CO₂ Ha. The largest contribution of carbon stocks comes from Rhizophoraceae

Family. Keywords allometric, biomass, carbon stock, CO2 uptake, mangrove vegetation