



Peer Reviewed

# Amount Stock of Blue Carbon in Mangrove on the Area of Pt Arutmin Indonesia Kintap Mine Mekarsari Village, Tanah Laut Regency, South Kalimantan

Frans Tony<sup>1</sup>, Putri Mudhlika Lestarina<sup>2\*</sup>, Abdurrahim Putra<sup>3</sup>, Rina Iskandar<sup>4</sup>

<sup>1</sup>Department of Marine Science, Faculty of Fisheries and Marine Science, University of Lambung Mangkurat, South Kalimantan, Indonesia.

Email: [frans@uilm.ac.id](mailto:frans@uilm.ac.id)

<sup>2\*</sup>Department of Marine Science, Faculty of Fisheries and Marine Science, University of Lambung Mangkurat, South Kalimantan, Indonesia.

Email: [putri.mudhlika@uilm.ac.id](mailto:putri.mudhlika@uilm.ac.id)

<sup>3</sup>Department of Marine Science, Faculty of Fisheries and Marine Science, University of Lambung Mangkurat, South Kalimantan, Indonesia.

Email: [1810716310007@uilm.ac.id](mailto:1810716310007@uilm.ac.id)

Department of Aquaculture, Faculty of Agriculture, Achmad Yani University, South Kalimantan, Indonesia.

Email: [Oriens\\_rin@yahoo.com](mailto:Oriens_rin@yahoo.com)

Received: 30 Jun 2022; Received in revised form: 18 Jul 2022; Accepted: 25 Jul 2022; Available online: 31 Jul 2022

©2022 The Author(s). Published by Infogain Publication. This is an open access article under the CC BY license

(<https://creativecommons.org/licenses/by/4.0/>).

*Abstract*— Mekarsari Village is located in the Kintap sub-district, Tanah Laut district, South Kalimantan Province, which is an area that has a 1.83 ha mangrove ecosystem. Mangrove ecosystem is one form of forest ecosystem that is unique and distinctive, found in tidal areas of coastal areas, beaches, and several small islands. In addition to the mangrove ecosystem, there is also a coral reef ecosystem with the condition of coral reefs around the marine waters of Kintap District ranging from low to moderate based on coral reef assessment criteria according to the Indonesian Environment Ministerial Decree, No. 4/2011, (Tony, F, et al 2021). The purpose of this study was to determine the amount of biomass and the amount of blue carbon stock in the mangrove ecosystem in Mekarsari Village. Data was collected by plotting the area and taking the upper sample to determine the amount of blue carbon stock through the results of laboratory analysis. The results of the study based on data collection in the field, namely the mangrove ecosystem in Mekarsari Village has a total biomass value of 98.52 tons/ha and the total amount of blue carbon stock is 84.72 tons C/ha.

*Keywords*— Mekarsari Village, Mangrove, Biomass, Blue Carbon Stock.