

ABSTRAK

ANALISIS DATA KLIMATOLOGI MIKRO HUTAN MANGROVE PETENGORAN

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Iklm dunia sedang mengalami kerusakan akibat aktivitas manusia. Hal ini disebabkan oleh peningkatan konsentrasi gas-gas yang menghalangi pantulan energi sinar matahari dari bumi dan menyebabkan peningkatan efek rumah kaca. Dampak perubahan iklim bagi ekosistem manusia adalah seperti: peningkatan suhu udara, naiknya permukaan air laut, peningkatan cuaca ekstrem, kerusakan lingkungan dan fluks karbon. Perubahan iklim memiliki pengaruh yang signifikan terhadap hubungan antara fluks karbon dan iklim Indonesia yang terdiri dari suhu ruangan dan suhu air, kelembapan, kecepatan angin, curah hujan, radiasi matahari, arah angin dan tekanan udara. Hutan mangrove menjadi faktor penting dalam mitigasi bencana dan perubahan iklim serta komponen *Blue carbon* penting penyerap karbon yang menyerap karbon dua hingga empat kali lebih banyak per unit area dibandingkan hutan di daratan. Dalam hal ini, hutan mangrove petengoran merupakan salah satu hutan mangrove yang ada di Indonesia. Karena itu diperlukan adanya analisa keterkaitan atau korelasi antara fluks karbon dan iklim seperti suhu, kelembapan, curah hujan, kecepatan angin, radiasi matahari dan parameter iklim lainnya. Korelasi yang digunakan adalah korelasi *spearman rank*, *kendall tau* dan *kanonikal*.

Kata kunci: *Iklim, Hutan mangrove, fluks karbon, blue carbon, korelasi, spearman rank, kendall tau, kanonikal*

ABSTRACT

MICRO CLIMATOLOGY DATA ANALYSIS OF PETENGORAN MANGROVE FOREST

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The world's climate is being ravaged by human activities. This is due to an increase in the concentration of gases that block the reflection of sunlight energy from the earth and cause an increase in the greenhouse effect. The impacts of climate change on human ecosystems are such as: increased air temperature, rising sea levels, increased extreme weather, environmental damage and carbon flux. Climate change has a significant influence on the relationship between carbon flux and Indonesia's climate consists of room temperature and water temperature, humidity, wind speed, precipitation, solar radiation, wind direction and air pressure. Mangrove forests are an important factor in disaster mitigation and climate change and an important carbon sink component of Blue carbon that absorbs two to four times more carbon per unit area than forests on land. In this case, petengoran mangrove forest is one of the mangrove forests in Indonesia. Therefore, it is necessary to analyze the relationship or correlation between carbon flux and climate such as temperature, humidity, rainfall, wind speed, solar radiation and other climate parameters. The correlations used are spearman rank, kendall tau and canonical correlations.

Keywords: Climate, Mangrove forest, carbon flux, blue carbon, correlation, spearman rank, kendall tau, canonical