

Estimation of Carbon Dioxide Absorption in DKI Jakarta Green Space

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Abstract : The issue of climate change become world attention where one of them increase in air temperature due to greenhouse gas emissions. This climate change is caused by gases in the atmosphere, one of which is CO₂. DKI Jakarta as the capital has a dense population with a variety of existing land use. Land use that is dominated by settlements resulting in fewer green space, which functions to absorb atmospheric CO₂. Image interpretation SPOT-7 is used to determine the greenness level of vegetation on a green space using the vegetation index NDVI, EVI, GNDVI and OSAVI. Measuring the diameter and height of trees were also performed to obtain the value of biomass that will be used as the CO₂ absorption value. The CO₂ absorption value that spread in Jakarta are classified into three classes: high, medium, and low. The distribution pattern of CO₂ absorption value at green space in Jakarta dominance in the medium class with the distribution pattern is located in South Jakarta, East Jakarta, North Jakarta and West Jakarta. The distribution pattern of green space in Jakarta scattered randomly and more dominate in East Jakarta and South Jakarta

Keywords : carbon dioxide, DKI Jakarta, green space, SPOT-7, vegetation index

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