

## **ABSTRACT**

***Disty Fairuz Tama, 2024. Analysis of Carbon Reserves Stored in Trees in Green Open Space (RTH) Tegalega Park, Bandung City. Supervised by Dr. Ida Yuyu Nurul Hizqiyah S.Pd., M.Si., and Cita Tresnawati M.Pd.***

*Environmental issues faced today are global warming and climate change. One of the causes of global warming is the increase in air pollution. The provision of green open space (RTH) is an effective step to reduce the impact of global warming, because trees, which are the main element of green open space, have the ability to absorb CO<sub>2</sub> emissions. trees, which are the main element of green spaces, have the ability to absorb CO<sub>2</sub> emissions, thus helping to reduce the concentration of CO<sub>2</sub> in the environment. In addition, plants also produce oxygen (O<sub>2</sub>) which is very important to support the metabolic process of living things. metabolic processes of living things. Research on carbon stocks aims to provide data to park managers in utilizing urban parks as a climate change mitigation effort. climate change mitigation efforts. The method used in this research is descriptive quantitative, with sampling using the census method and purposive sampling model, where all trees with a diameter of 20 cm were taken as samples. were taken as samples. The results showed that Tegalega Park in Bandung City has a total carbon stock of 90,178.02 kg, with the highest carbon stock in Swietenia trees. the highest carbon stock in Swietenia macrophylla (broadleaf mahogany) trees of 23,148.58 kg and biomass value of 46,297.15 kg. While the lowest carbon stock was found in Mangifera indica (mango) trees with a value of 91.8 kg and 183.59 kg of biomass. The high carbon stock is influenced by several factors such as vegetation density, stem diameter, wood specific gravity, and environmental factors, especially sunlight intensity.*

***Keywords:*** Biomass, Carbon Reserve, Green Open Space, Tegalega Park