

ABSTRACT

Delia Putri Anjelika, 2024. *Analysis of Carbon Reserves Stored in Trees in Green Open Space Cibeuying Park Bandung City and Its Surroundings.* Supervised by Dr. Yusuf Ibrahim, M.P., M.Pd, Dr. Ida Yuyu Nurul Hizqiyah, S.Pd., M.Si., and Gurnita S.Si., M.P.

*Global warming is a phenomenon that occurs when temperatures increase from year to year due to the greenhouse effect. This effect is triggered by an increase in emissions of gases such as carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and chlorofluorocarbons (CFCs), which results in solar energy being trapped into the earth's atmosphere. The city of Bandung is experiencing an increase in bad air pollution. The use of fuel and diesel in vehicles results in a significant edition of CO₂. Urbanization provides green space, which is very important because it can mitigate the impact of global warming, especially in reducing CO₂ gas levels. Trees will absorb CO₂ and will release some O₂ during the process of plant photosynthesis. This research uses quantitative descriptive method. Based on the results of research on the identification of tree species in the Green Open Space (RTH) Cibeuying Park Bandung City and its surroundings, there are 50 individual trees with 19 different species. The type of tree that has the highest biomass and carbon stock is Trembesi (*Samanea saman* Jascq.) with a total biomass of 159,217.79 kg and carbon stock of 79608.88 kg. while the type of tree that has the lowest carbon stock is Buah Roda (*Hura crepitans* (L.) with a total biomass of 87.29 kg and carbon stock of 43.64 kg. Total Carbon Stock stored in Green Open Space Cibeunying Park Bandung City and surrounding areas is 109961.55 kg*

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