

## Estimasi Valuasi Serapan Karbon Pada Tanaman Perdu dengan Metode Nowak di Hutan Kota Srengseng Jakarta Barat = Estimation of Carbon Uptake Valuation on Shrubs Using The Nowak Method In Srengseng City Forest, West Jakarta

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### Abstrak

Peningkatan pertumbuhan penduduk di DKI Jakarta memicu tingginya pembentukan gas emisi karbon dioksida yang berdampak pada perubahan iklim global. Keberadaan Ruang Terbuka Hijau dalam bentuk hutan kota menjadi salah satu solusi pemerintah sebagai upaya menstabilkan iklim mikro di perkotaan. Tanaman perdu menjadi salah satu komponen vegetasi di hutan kota. Selain perannya sebagai tanaman hias, tanaman perdu memiliki fungsi ekologis yang kerap kali diabaikan. Penelitian ini dilakukan guna mengetahui estimasi daya serap serta simpanan karbon pada tanaman perdu di Hutan Kota Srengseng Jakarta Barat dengan menggunakan metode Nowak. Metode Nowak merupakan metode non destruktif yang diinisiasi oleh United States Department of Agriculture dengan melakukan pengukuran diameter batang tanaman perdu. Berdasarkan hasil penelitian didapatkan estimasi daya serap karbon pada vegetasi perdu di Hutan Kota Srengseng memiliki nilai serapan karbon sebesar 0,07 ton/thn atau setara dengan 6.350 kg/thn serta simpanan karbon sebesar 0,24 ton atau setara dengan 21.772 kg. Daya simpan serta daya serap karbon terbesar diperoleh tanaman Murbei. Perencanaan penanaman vegetasi perdu dari sisi fungsi ekologis di hutan kota memerlukan peninjauan berdasarkan daya serap karbon.

.....The increase in population growth in DKI Jakarta triggers the high formation of carbon dioxide emission gas which has an impact on global climate change. The existence of Green Open Spaces in the form of urban forests is one of the government's solutions as an effort to stabilize the microclimate in urban areas. Shrubs are one of the vegetation components in the urban forest. In addition to its role as an ornamental plant, shrubs have an ecological function that is often overlooked. This research was conducted to estimate the absorption capacity and carbon storage of shrubs in the Srengseng City Forest, West Jakarta, using the Nowak method. The Nowak method is a non-destructive method initiated by the United States Department of Agriculture by measuring the stem diameter of shrubs. Based on the research results, it was found that the carbon absorption capacity of shrub vegetation in Srengseng City Forest had a carbon storage value of 0.24 tons = 21.772 kg with a carbon absorption value of 0.07 tons/year 6.350 . The greatest capacity to store and absorb carbon is obtained by Mulberry plants. So, planning for planting shrubs from an ecological function point of view requires a review based on carbon absorption.