POTENSI SERAPAN GAS CO_2 PADA RUANG TERBUKA HIJAU UNTUK MITIGASI EMISI GAS CO_2 SEKTOR DOMESTIK DI KECAMATAN ARGOMULYO, KOTA SALATIGA

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INTISARI

Pemanasan global dan perubahan iklim merupakan masalah lingkungan yang serius selama beberapa dekade terakhir. Faktor utamanya adalah gas rumah kaca. Indonesia sebagai negara berkembang, ikut berperan aktif dalam upaya penurunan emisi gas rumah kaca melalui kegiatan inventarisasi gas rumah kaca. Salah satu sumber emisi tersebut berasal dari aktivitas antropogenik di lahan permukiman. Berdasarkan hal tersebut, penelitian ini bertujuan untuk mengetahui kontribusi serapan gas CO_2 dari ruang terbuka hijau dan tutupan lahan terhadap emisi gas CO_2 sektor domestik di Kecamatan Argomulyo, Kota Salatiga, Jawa Tengah.

Potensi serapan gas CO_2 oleh tutupan lahan dihitung menggunakan pendekatan metode *stock difference*, sedangkan pada RTH dihitung melalui perhitungan biomassa dan simpanan karbon, kemudian dikonversi menjadi nilai serapan gas CO_2. Perhitungan nilai potensi emisi gas CO_2 sektor domestik mengacu pada pedoman inventarisasi gas rumah kaca IPCC, 2006.

Nilai potensi serapan gas CO_2 oleh tutupan lahan di Kecamatan Argomulyo sebesar 11.858,59 ton CO_2/tahun, sedangkan oleh RTH yaitu 481,81 ton CO_2/tahun. Sehingga total nilai potensi serapan gas CO_2 di Kecamatan Argomulyo mencapai 12.340,40 ton CO_2/tahun. Sedangkan nilai emisi gas CO_2 sektor domestik di Kecamatan Argomulyo yaitu 77.141,47 tonCO_2/tahun. Dari hasil tersbut, dapat diketahui bahwa tutupan lahan dan RTH di Kecamatan Argomulyo hanya mampu menyerap 15,997% dari emisi yang dihasilkan sektor domestik per tahunnya.

Kata kunci : serapan CO_2, emisi CO_2, tutupan lahan, ruang terbuka hijau, sektor domestik

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POTENTIAL CO_2 ABSORPTION BY GREEN OPEN SPACES FOR MITIGATING CO_2 EMISSIONS FROM THE DOMESTIC SECTOR IN ARGOMULYO DISTRICT, SALATIGA CITY

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ABSTRACT

Global warming and climate change have been serious environmental issues over the past few decades, primarily caused by greenhouse gases. As a developing country, Indonesia actively participates in efforts to reduce greenhouse gas emissions through greenhouse gas inventory activities. One of the sources of these emissions comes from anthropogenic activities in residential areas. Based on this context, this study aims to determine the contribution of CO_2 absorption by green open space and land cover to CO_2 emissions from the domestic sector in Argomulyo, Salatiga, Central Java.

The potential CO_2 absorption by land cover is calculated using the stock difference method, while for green open spaces, it is calculated through biomass and carbon storage inventories, and then converted into CO_2 absorption values. The calculation of potential CO_2 emissions from the domestic sector refers to the IPCC 2006 greenhouse gas inventory guidelines.

The potential CO_2 absorption by land cover in Argomulyo is 11,858.59 tons of CO_2 per year, while for green open spaces, it is 481.81 tons of CO_2 per year. Therefore, the total potential CO2 absorption in Argomulyo reaches 12,340.40 tons of CO_2 per year. Meanwhile, the CO_2 emissions from the domestic sector in Argomulyo amount to 77,141.47 tons of CO_2 per year. From these results, it can be concluded that the land cover and green open spaces in Argomulyo can only absorb 15.997% of the CO_2 emissions produced by the domestic sector annually.

Keywords: CO_2 absorption, CO_2 emissions, land cover, green open spaces, domestic sector

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