

Analisis serapan karbondioksida berdasarkan tutupan lahan di kota Palangka Raya / Neny Fidayanti

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Abstrak

This research was made not only to find out scope of green area and total of carbon dioxide's emission in Palangka Raya which can be absorbed by vegetation but also to find out suitability of land use of green area of Palangka Raya with necessity of green open space in Palangka Raya. The research was a description about environment condition in Palangka Raya which related to total of carbon dioxide's emission and scope of vegetated land. The result of the research based on analysis of land cover and carbon dioxide absorption showed that scope of vegetated land in Palangka Raya was 219.498.7 hectares and it was still able to absorb all carbon dioxide's emission amount to 387.366,248 tons which came from energy consumption and respiration of Palangka Raya's inhabitants. Based on the extent of its region, urban area of Palangka Raya needed green open space (RTH) with wide to 14.096,1 hectares, based on the number of inhabitants was needed 581,84 hectares RTH which consisted of city park, city forest, median, river border and cemetery, based on equality of water use was needed 323,75 hectares RTH and based on carbon dioxide's emission was needed 3.331,38 ha RTH. Based on suitability plan of land use of green area in urban area of Palangka Raya, there was lack of green open space. Sub district Pahandut lack of RTH based on extent of its district (-3.513,23 hectares), number of inhabitants (-244,85 hectares), need of water (-142,45 hectares) and carbon dioxide's emission (-2.368,88 hectares) while sub district Jekan Raya lack of RTH based on extent of its district (-9.071,96 hectares) and carbon dioxide's emission (-5.660,93 hectares).

Penelitian ini bertujuan untuk mengetahui luas kawasan hijau dan jumlah emisi karbondioksida yang mampu diserap oleh vegetasi serta untuk mengetahui kesesuaian tata ruang kawasan hijau Kota Palangka Raya dengan kebutuhan ruang terbuka hijau Kota Palangka Raya. Penelitian berupa deskripsi tentang keadaan lingkungan di Kota Palangka Raya yang berkaitan dengan jumlah emisi karbondioksida dan luas lahan bervegetasi. Hasil penelitian menunjukkan bahwa berdasarkan analisis tutupan lahan dan serapan karbondioksida, diketahui luas lahan bervegetasi di Kota Palangka Raya adalah 219.498,7 ha dan masih mampu menyerap seluruh emisi karbondioksida sejumlah 387.366,248 ton yang berasal dari konsumsi energi dan respirasi penduduk Kota Palangka Raya. Berdasarkan luas wilayah, kawasan perkotaan Kota Palangka Raya memerlukan RTH seluas 14.096,1 ha, berdasarkan jumlah penduduk diperlukan 581,84 ha RTH yang berupa taman kota, hutan kota, jalur hijau jalan, sempadan sungai dan pemakaman, berdasarkan kesetaraan penggunaan air diperlukan 323,75 ha RTH dan berdasarkan emisi karbondioksida diperlukan 3.331,38 ha RTH. Berdasarkan kesesuaian rencana tata ruang

hijau kawasan perkotaan Kota Palangka Raya, diperoleh adanya kekurangan RTH. Kecamatan Pahandut kekurangan RTH berdasarkan luas wilayah (-3.513,23 ha), jumlah penduduk (-244,85 ha), kebutuhan air (-142,45 ha) dan emisi karbondioksida (-2.368,88 ha), sedangkan Kecamatan Jekan Raya kekurangan RTH berdasarkan luas wilayah (-8.936,96 ha) dan emisi karbondioksida (-2.849,04 ha).