

ABSTRAK

KEMAMPUAN TUTUPAN VEGETASI RTH DALAM MENYERAP EMISI CO₂ SEKTOR TRANSPORTASI DI KOTA SURAKARTA

Gas CO₂ merupakan salah satu gas yang dapat menyumbang emisi terutama gas CO₂ dari sektor transportasi. Ruang terbuka hijau khususnya tutupan vegetasi merupakan salah satu cara menangani emisi gas rumah kaca. Surakarta merupakan kota padat terdiri dari penduduk yang terus bertambah hal ini pun berbanding lurus dengan pergerakan atau kegiatan transportasi yang terus bertambah. Namun faktanya ketersediaan ruang terbuka hijau yang ada di Kota Surakarta baru mencapai 12,74% pada tahun 2014. Metode yang digunakan dalam penelitian ini adalah pengumpulan data sekunder berupa penggunaan bahan bakar minyak di Surakarta yang kemudian dihitung emisinya menggunakan rumus dari IPCC. Serta digitasi citra satelit luas tutupan vegetasi menggunakan ArcGIS dan observasi lapangan. Emisi CO₂ sektor transportasi di Surakarta tahun 2017 sebesar 343.195,63 ton/tahun sedangkan untuk emisi CO₂ seluruh sektor kegiatan di Surakarta tahun 2017 1.309.906,98 ton/tahun. Daya serap tutupan vegetasi tahun 2017 di Surakarta adalah 416.193,63 ton/tahun. Dari hasil tersebut disimpulkan bahwa daya serap tutupan vegetasi untuk menyerap emisi CO₂ sektor transportasi sudah mampu, namun untuk menyerap emisi CO₂ seluruh sektor kegiatan di Surakarta belum mampu. Sisa emisi yang belum mampu diserap kemudian diarahkan penambahan luasan tutupan vegetasi dalam bentuk pohon berdasarkan skala prioritas di tiap dominasi guna lahan.

Kata Kunci: Emisi CO₂, Transportasi, Tutupan Vegetasi

ABSTRACT

THE CAPABILITY OF VEGETATION COVER OF RTH IN ABSORBING CO₂ EMISSION OF TRANSPORTATION SECTOR IN SURAKARTA CITY

CO₂ gas is one of the gas that can contribute emissions, especially CO₂ from the transportation sector. Green open space, especially vegetation cover is one solution to handle greenhouse gas emissions. Surakarta is a densely populated city consisting of a growing population in which this is also directly proportional to the movement or transportation activities that continue to grow. However, the availability of green open space in Surakarta City only reached 12.74% in 2014. The method employed in this study was the collection of secondary data in the use of fuel oil in Surakarta which was then calculated the emissions by using the formula of the IPCC, as well as digitized satellite images of vegetation cover using ArcGIS and field observations. The CO₂ emissions of the transportation sector in Surakarta in the year of 2017 amounted to 343,195.63 tons/year, while for the CO₂ emissions of all activity sectors amounted 1.309.906,98 tons/year. The absorption capacity of vegetation cover in 2017 in Surakarta was 416,193,63 tons/year. From these results, it is concluded that the absorption capacity of vegetation cover to absorb CO₂ emissions of the transportation sector has been able to be done, but to absorb CO₂ emissions of all activity sectors in Surakarta has not been able. The remaining emissions that have not been able to be absorbed are then directed to increase the extent of vegetation cover in the form of trees based on priority scale in each land use domination.

Keywords: *CO₂ emission, Transportation, Vegetation cover*