Analisis emisi karbon dari perubahan penutup lahan dan pendapatan per kapita berbasis kewilayahan = Analysis of carbon emission from land cover change and income per capita based on region

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Abstrak

[ABSTRAK
Persoalan kerusakan lingkungan semakin meningkat dengan terjadinya penurunan luas lahan hutan ke non hutan. Cadangan luas hutan yang semakin terbatas menimbulkan permasalahan dari sisi suplai dan berimplikasi pada peningkatan emisi Gas Rumah Kaca (GRK). Sebagai gambaran, pada tahun 2005 sebesar 62,8% emisi GRK Indonesia dihasilkan dari perubahan penggunaan lahan dan kehutanan (Kementerian Lingkungan Hidup, 2010). Emisi karbon dari perubahan lahan hutan memiliki keterkaitan erat dengan perekonomian (PDB) suatu wilayah. Salah satu model yang sering digunakan untuk menganalisis hubungan indikator kerusakan lingkungan dan indikator ekonomi di suatu wilayah adalah Environmental Kuznets Curve (EKC). Secara umum di 7 (tujuh) wilayah terjadi penurunan emisi karbon dari perubahan penutup lahan pada periode 1997-2013. Wilayah Sumatera adalah wilayah dengan emisi karbon/tahun tertinggi yaitu 148,08 juta ton CO2, selanjutnya wilayah Kalimantan 130,51 juta ton CO2, wilayah Papua sebesar 66,34 juta ton CO2, dan wilayah Sulawesi sebesar 62,97 juta ton CO2. Sedangkan 3 (tiga) wilayah lainnya yaitu wilayah Maluku sebesar 16,21 juta ton CO2, wilayah Jawa sebesar 9,13 juta ton CO2, dan wilayah Bali dan Nusa Tenggara sebesar 5,44 juta ton CO2. Hasil estimasi data panel, hubungan emisi karbon per kapita dari perubahan penutup lahan dan PDRB per kapita di Sumatera, Bali dan Nusa Tenggara, Kalimantan, Sulawesi, dan Papua digambarkan dengan bentuk kurva U yang berarti bahwa emisi karbon per kapita akan terus meningkat seiring dengan peningkatan pendapatan per kapita, sedangkan wilayah Jawa dan Maluku digambarkan dengan bentuk kurva U terbalik sesuai dengan hipotesis EKC yang berarti bahwa setelah mencapai titik balik emisi karbon per kapita akan terus menurun seiring dengan peningkatan pendapatan per kapita.
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ABSTRACT
The issues of environmental damage increases with changing of forest land to non-forest. Reserve forest area is more limited caused supply side problems and the implications of this is increased of Green House Gas (GHG emissions). As an illustration, in 2005, 62,8% Indonesia's GHG emissions resulting from land-use change and forestry (Ministry of Environment, 2010). Carbon emissions from changes in forest land are closely related to the economy of a region (GDP). One model that is commonly used to analyze the relationship between indicators of environmental damage and economic in a region is the Environmental Kuznets Curve (EKC). Generally in 7 (seven) region, carbon emissions from changes in land cover in the period 1997-2013 is decreased. Sumatra region is the region with carbon emissions/year is 148,08 million tonnes of CO2, Kalimantan 130,51 million tonnes of CO2, Papua is 66,34 million tonnes of CO2, and Sulawesi region is 62,97 million tonnes of CO2. While the 3 (three) other areas, namely the Moluccas with a value of 16,21 million tons CO2, Java is 9,13 million tonnes of CO2, and Bali and Nusa Tenggara region is 5,44 million tons of CO2. Relationship between emissions of carbon per capita from land cover change and

GDP per capita in Sumatra, Bali and Nusa Tenggara, Kalimantan, Sulawesi, and Papua described by U curve shape which means that the carbon emissions per capita will continue to increase along with the increase in income per capita, while Java and Maluku depicted the shape of an inverted U curve according to the EKC hypothesis, which means that after reaching a turning point in carbon emissions per capita will continue to decrease with the increase of income per capita., The issues of environmental damage increases with changing of forest land to non-forest. Reserve forest area is more limited caused supply side problems and the implications of this is increased of Green House Gas (GHG emissions). As an illustration, in 2005, 62,8% Indonesia's GHG emissions resulting from land-use change and forestry (Ministry of Environment, 2010). Carbon emissions from changes in forest land are closely related to the economy of a region (GDP). One model that is commonly used to analyze the relationship between indicators of environmental damage and economic in a region is the Environmental Kuznets Curve (EKC). Generally in 7 (seven) region, carbon emissions from changes in land cover in the period 1997-2013 is decreased. Sumatra region is the region with carbon emissions/year is 148,08 million tonnes of CO2, Kalimantan 130,51 million tonnes of CO2, Papua is 66,34 million tonnes of CO2, and Sulawesi region is 62,97 million tonnes of CO2. While the 3 (three) other areas, namely the Moluccas with a value of 16,21 million tons CO2, Java is 9,13 million tonnes of CO2, and Bali and Nusa Tenggara region is 5,44 million tons of CO2. Relationship between emissions of carbon per capita from land cover change and GDP per capita in Sumatra, Bali and Nusa Tenggara, Kalimantan, Sulawesi, and Papua described by U curve shape which means that the carbon emissions per capita will continue to increase along with the increase in income per capita, while Java and Maluku depicted the shape of an inverted U curve according to the EKC hypothesis, which means that after reaching a turning point in carbon emissions per capita will continue to decrease with the increase of income per capita.]