

区域碳排放量的计算——以广东省为例

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Calculation of regional carbon emission: A case of Guangdong Province.

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摘要 采用IPCC 2006年版碳排放计算公式、经济-碳排放的动力学模型和水泥碳排放模型,提出了区域碳排放量计算框架和研究方法,并以广东省为例,基于广东省社会经济统计数据、能源消费数据、水泥产量数据和森林碳汇数据,预测了广东省2008—2050年能源消费碳排放量、水泥消费量和碳排放量、森林碳汇值.结果表明:2008—2050年,广东省水泥产量及其生产过程中的碳排放量基本稳定,年碳排放量在10~15 Mt C;广东省能源消费碳排放和总的碳排放趋势均呈倒U型曲线,其峰值年份分别在2035和2036年;2008—2050年,广东省碳排放强度将持续下降,森林碳汇量呈波动式下降趋势.本文提出的区域碳排放计算框架在广东省具有可行性和合理性.

关键词: 内生经济增长 能源消费 水泥生产 碳排放 森林碳汇

Abstract: By using IPCC carbon emission calculation formula (2006 edition), economy-carbon emission dynamic model, and cement carbon emission model, a regional carbon emission calculation framework was established, and, taking Guangdong Province as a case, its energy consumption carbon emission, cement production CO₂ emission, and forest carbon sink values in 2008-2050 were predicted, based on the socio-economic statistical data, energy consumption data, cement production data, and forest carbon sink data of the Province. In 2008-2050, the cement production CO₂ emission in the Province would be basically stable, with an annual carbon emission being 10-15 Mt C, the energy consumption carbon emission and the total carbon emission would be in inverse U-shape, with the peaks occurred in 2035 and 2036, respectively, and the carbon emission intensity would be decreased constantly while the forest carbon sink would have a fluctuated decline. It was feasible and reasonable to use the regional carbon emission calculation framework established in this paper to calculate the carbon emission in Guangdong Province.

Key words: endogenous economic growth energy consumption cement production carbon emission forest carbon sink

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[1] 田晓瑞;殷丽;舒立福;王明玉. 2005—2007年大兴安岭林火释放碳量[J]. 应用生态学报, 2009, 20(12): 2877-2883.

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