

Impacts and Adaptation

Analysis of Impact Factors on China's CO₂ Emission Trends During 1971-2005

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摘要 China's CO₂ emissions change during 1971-2005 was analyzed by using Kaya Identity in combination with macroeconomic background evolution. The study indicates that the increase of CO₂ emission is mainly due to rapid economic development and population growth. And that to a large extent, the decrease in energy intensity and the decarbonization of energy structure in China jointly limit the augmentation of overall CO₂ emission at a higher rate. So the improvement in energy efficiency and the diversification of energy structure by using more renewable energy are considered to play an important role in realizing the binding target of 20% reduction in GDP energy consumption during the 11th Five-Year Plan.

Abstract China's CO₂ emissions change during 1971-2005 was analyzed by using Kaya Identity in combination with macroeconomic background evolution. The study indicates that the increase of CO₂ emission is mainly due to rapid economic development and population growth. And that to a large extent, the decrease in energy intensity and the decarbonization of energy structure in China jointly limit the augmentation of overall CO₂ emission at a higher rate. So the improvement in energy efficiency and the diversification of energy structure by using more renewable energy are considered to play an important role in realizing the binding target of 20% reduction in GDP energy consumption during the 11th Five-Year Plan.

关键词 [Kaya Identity](#) [CO₂ emission](#) [economic growth](#) [energy intensity](#) [primary energy structure](#)

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