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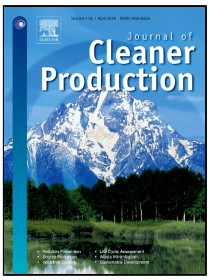

Analysis of drivers and policy implications of carbon dioxide emissions of industrial energy consumption in an underdeveloped city: the case of Nanchang, China

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Original Article

Analysis of drivers and policy implications of carbon dioxide emissions of industrial energy consumption in an underdeveloped city: the case of Nanchang, China

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Abstract: Currently, little attention has been paid to reducing the carbon dioxide (CO_2) emissions of underdeveloped cities to combat climate change, especially in central China. Taking Nanchang as a case study, we computed this city's CO_2 emissions (CE) from industrial energy consumption and analyzed the corresponding drivers using the logarithmic mean Divisia index (LMDI). The results showed that economic output was mainly responsible for the CE growth followed by population with average annual contribution rates of 26.00% and 2.27%, respectively. In contrast, energy intensity presented the most clear mitigation effect followed by industrial structure, the mitigating effect of energy mix was the least impactful, and the average annual contributions were -

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