

The drivers of China's regional carbon emission change -a structural decomposition analysis from 1997 to 2007

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Using the three newly published multiregional input-output tables and carbon emission data, we decompose change in carbon emission for eight regions of China between 1997 and 2007 into following partial effects- changes in energy end-use structure, effect of energy efficiency, value-added's share of gross output, changes in sub-industry structure, changes in import substitution of intermediate input, changed final demand structure and level. We found energy efficiency contributed most of CO₂ abatement throughout China while other factors varied greatly in different regions. We suggested government should consider regional disparity and CO₂ flow when formulating policies; energy structure change and efficiency improvement such as energy-saving buildings would also be effective measures.