



地理学报(英文版) 2005年第15卷第1期

C02 emissions and their bearing on China's economic development: the long view

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Greenhouse-gas (GHG) emissions in China have aroused much interest, and not least in recent evidence of their reduction. Our intent is to place that reduction in a larger context, that of the process of industrialization. A lengthy time perspective is combined with a cross-sectional approach-China plus five other countries-and addressed through two general models. The findings are salutary. First, they suggest that a diversified economic structure is consistent with diminished intensity in energy use. Secondly, and the obverse of the first, they imply that a diversified energy structure promotes reductions in CO2 emissions. Finally, one is led inevitably to the conclusion that, together, the findings point to a path for countries to transform their economies while at the same time undertaking to drastically moderate their energy use, switching from a pattern of heavy carbon emissions to one in which lighter carbon emissions prevail. The implications of such findings for environmental management are enormous.

Paper (PDF)

关键词: China; structural change; energy use; CO2 emissions; industrialization