

Energy Consumption Disparity in China 1987-2007: An Interregional Decomposition Analysis

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China has relied on energy to stimulate its booming economy. As a spatially large developing country, China has not only significant regional differences in climate and geography, but also great differences in economic development and living styles across regions. This paper uses the structure decomposition approach to show the regional disparities of energy consumption and examine the key drivers behind China's energy consumption from 1987 to 2007. Using three available multi-regional input-output tables (1987, 1997, 2007), this paper decompose energy consumption into four determinants: energy efficiency change, changes in production structure, changes in consumption volume, and changes in consumption structure. This paper summarizes the contributions of each determinant to energy consumption at the regional level. This paper provides insights into how changes in China's economic structure, technology, urbanization and lifestyle changes affect energy consumption. This paper not only presents a new perspective for recent causes of China's interregional disparity of energy consumption but also provides an insight on how to identify the responsibility of energy consumption and GHG emission of each region in China.