## The Role of Urban Form in the Relationship between Global Warming and Urban-Rural Income Inequality in China

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**Abstract :** This study investigates the relationship between global warming impacts (temperature and rainfall) and urban-rural income inequality across 195 prefecture-level cities in China. It uniquely examines the role of urban form in mitigating the income gap between urban and rural residents under the influence of climate change, contributing to the existing literature on urban form and inequality through a climate resilience lens. The results reveal several key findings: firstly, both temperature and rainfall positively correlate with income inequality; secondly, compact cities demonstrate efficacy in narrowing the income gap between urban and rural areas when not considering their interaction with climate impact; thirdly, when factoring in the interaction effect, sprawl cities perform better, particularly in extreme weather conditions. These findings offer valuable insights into the complex interplay between urban form, climate change, and income inequality, informing strategies for enhancing climate resilience and reducing income disparities in urban areas.

Keywords: climate change, income inequality, urban and rural, China

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