Leveraging multinational enterprises to reduce the escalating regional carbon inequality in China

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Multinational enterprises (MNEs) affect inequality as they exert substantial yet unequal economic and environmental effects across different regions. This study estimates the effects of MNEs on Chinaâ€™s regional carbon emission inequality relative to value-added gains by adopting a novel interprovincial input-output model that differentiates MNEs activities across Chinaâ€™s 31 provinces. We find that over 80% of MNEs concentrated in developed coastal provinces over the 2002â€“2012 period and the less developed inland provinces which held less than 30% of the total value-added generated by MNEs emitted more than 50% of the total carbon emissions generated by MNEs. Consequently, MNEs exacerbated Chinaâ€™s escalating regional carbon inequality during this period. By 2017, a transformative shift occurred as MNEs increasingly relocated to inland provinces and augmented investments in clean technology-intensive industries. This transition significantly mitigated carbon inequality. Furthermore, we highlight the potential to leverage knowledge spillover effects from MNEs to substantially reduce carbon emissions by 8.8%â€“27.7% and carbon inequality by 12.5%â€“31.3%. This study provides valuable policy insights at both global and national levels, suggesting the strategic deployment of MNEs to address inequality and climate changeâ€”crucial goals in sustainable development.