

**WORLD-ECONOMY CENTRALITY AND CARBON DIOXIDE EMISSIONS: A NEW LOOK
AT THE POSITION IN THE CAPITALIST WORLD-SYSTEM AND ENVIRONMENTAL
POLLUTION**

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ABSTRACT

With the ever-growing concern of climate change, much attention has been paid to the factors driving carbon dioxide emissions. Previous research in the World-Systems perspective has identified a relationship between carbon dioxide emissions and position in the world-economy. This study intends to build on the previous research by developing a new, more parsimonious indicator of World-System position based on Immanuel Wallerstein's theoretical concepts of incorporation and core-periphery processes. The new World-System indicator is derived from the centrality measure in network analysis based on import data from the International Monetary Fund's Direction of Trade Statistics. Based on the theoretical concepts of core-periphery processes, carbon dioxide emissions are predicted to rise based on the predominance of energy-intensive, high-technology, core processes within the nation. The results tend to demonstrate a strong relationship between carbon dioxide emissions and position in the world-economy, and the new World-System position indicator is more strongly related with carbon dioxide emissions than Gross Domestic Product per capita.