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Examining Differences in Carbon Dioxide Emissions Across Countries

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Poster Presentation P38

**EXAMINING DIFFERENCES IN CARBON DIOXIDE EMISSIONS
ACROSS COUNTRIES**

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Global climate change is a vital issue facing the planet today, posing significant risks both to humans and the natural environment. This dangerous phenomenon is largely caused by the release of carbon dioxide into the atmosphere, resulting from such activities as energy production and vehicle travel. This paper examines the factors leading to differences in carbon dioxide emissions among countries, beginning with an analysis of the influence of income on carbon dioxide production. A cross-sectional regression indicates that an inverted-U relationship exists between GDP per capita and carbon dioxide emissions, but that the turning point at which pollution begins to decrease occurs at a very high level of income not yet achieved by any country. The paper goes on to explore factors other than income that are likely to affect carbon dioxide emissions, including political openness, energy intensity, and coal consumption. It is found that these variables play a fairly significant role in determining emissions across countries.