

The Impact of Economic Growth on Carbon Footprints of High-Income and Non-High-Income Countries: A Comparative Analysis

Authors : Ghunchq Khan

Abstract : The increase in greenhouse gas (GHGs) emissions is a main environmental problem. Diverse human activities and inappropriate economic growth have stimulated a trade-off between economic growth and environmental deterioration all over the world. The impact of economic growth on the environment has received attention as global warming and environmental problems have become more serious. The focus of this study is on carbon footprints (production and consumption) and analyses the impact of GDP per capita on carbon footprints. A balanced panel of 99 countries from 2000 to 2016 is estimated by employing autoregressive distributed lags (ARDL) model - mean group (MG) and pooled mean group (PMG) estimators. The empirical results indicate that GDP per capita has a significant and positive impact in the short run but a negative effect in the long run on the carbon footprint of production in high-income countries by controlling trade openness, industry share, biological capacity, and population density. At the same time, GDP per capita has a significant and positive impact in both the short and long run on the carbon footprint of the production of non-high-income countries. The results also indicate that GDP per capita negatively impacts the carbon footprint of consumption for high-income countries; on the other hand, the carbon footprint of consumption increases as GDP per capita grows in non-high-income countries.

Keywords : ARDL, carbon footprint, economic growth, industry share, trade openness

Conference Title : ICCDRTSGD 2022 : International Conference on Carbon Dioxide Reduction Technologies for Sustainable Growth and Development

Conference Location : New York, United States

Conference Dates : August 08-09, 2022