

Effect of Economic Growth on Greenhouse Emission

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Abstract

This study employs the panel cointegration and Pooled Mean Group technique to examine the effects of economic growth on greenhouse emissions using the panel data from the period of 1970 to 2014 for five Southern African Development Community groups of countries. The Pooled Mean Group demonstrated mixed results in the study's regressions, monotonic relationship was found between carbon dioxide and economic growth. The existence of relationship between economic growth and energy consumption was found to be significant at the 1% level. These results are in line with the EKC hypothesis, which assumes that as the income level increases the society will start to be environmentally friendly and the technology advancement will decrease the emission of pollutants. In addition, to confirm the causal relationship between variables, the study used the Granger causality test, with the results from this test revealing mainly bi-directional relationship between all the chosen variables. These results are important for policy makers.

Keywords: Economic growth, Environmental Kuznets Curve, Energy Consumption, Carbon Dioxide, Pooled Mean Group.

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