

## Energy Use, Emissions, Economic Growth and Trade: Evidence from Mauritius

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**Abstract :** This paper investigates the relationship among energy, emissions and economic growth in Mauritius in the presence of trade activities, with capital and labour as other control variables. Using annual data from 1960 to 2011, it is found that the variables are non-stationary and cointegrated. The relationship among the various variables are thus examined in a dynamic VECM framework. Our empirical results comply with the growth hypothesis. Output elasticities of 0.17, 0.25 and 0.43 show that increases in energy consumption cause increases in economic growth, capital accumulation and trade in the long run. We also found that CO<sub>2</sub> negatively affects output, but has no significant effect on trade. Findings for the long-run generally tend to tally with those in the short-run. Interestingly we found that energy consumption has a significant impact on CO<sub>2</sub> emissions. Our results tend to suggest that implementing energy conservation strategies to mitigate the negative impact of CO<sub>2</sub> emissions can dent economic growth, and that promoting cleaner energy production could be a better alternative for Mauritius.

**Keywords :** energy, emissions, economic growth, export, VECM

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