

CAUSALITY BETWEEN ECONOMIC GROWTH, ENERGY CONSUMPTION AND GREEN HOUSE GAS EMISSIONS IN BANGLADESH: A TODA-YAMAMOTO APPROACH

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Abstract

In effective designing and implementation of energy and environmental policies in line of Kyoto targets for protecting global warming it is very vital to examine the presumed links between GHGs, mainly carbon dioxide (CO₂) emissions, energy consumption and economic growth. This paper investigates the causal relationship between economic growth, energy consumption and CO₂ emissions, applying Toda and Yamamoto 'Granger no-causality approach' in multivariate vector autoregressive (VAR) setting in Bangladesh over 1965-2007 period. Results find the bidirectional causality between energy consumption and economic growth; and unidirectional causality from CO₂ emissions to economic growth. But causal relationship between energy consumption and CO₂ emissions is not found significant. This suggests that Bangladesh do not need to sacrifice economic growth or reduce its energy consumption or both in order to reduce pollutant emissions, but economic growth is found to be affected by CO₂ emissions. Results also suggest that growing energy use has to maintain for sustainable economic growth.

Keywords : Economic Growth, Energy Consumption, Green House Gas, Causality.

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