

An Empirical Analysis of the Impact of Economic Growth & International Trade on Environmental Degradation Proxied by CO₂ Emissions in India: 1980-81 to 2010-11

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Abstract:

This paper attempts to examine the impact of economic growth and international trade on the degradation of environmental quality proxied by CO₂ emissions for the Indian economy during 1980-81 to 2010-11. Offlate, there has been a lot of focus on the effects of increased economic growth on environmental degradation due to an increase in the accumulation of pollution. Carbon dioxide emissions, as a proxy of total environmental pollution, has grown dramatically in the past century because of human activities, mainly by the use of coal and fossil fuels as well as changes in land use that are directly linked with economic growth and development. The causal relationship between economic development and different indicators of environmental quality has been extensively explored in the recent years by the Environmental Kuznets Curve (EKC) models globally, regionally or country wise by several authors. In addition, several researchers have argued that the simplest form of the EKC does not account for trade patterns. This paper seeks to examine the impact of international trade on sustainable development within the Environmental Kuznets Curve's (EKC's) hypothetical framework for the Indian economy. The authors in the study have tested the pollution heaven hypothesis (PHH) or factor endowment hypothesis (FEH) of trade for the Indian economy. In order to estimate the EKC model they have used Autoregressive Distributed Lag (ARDL) approach in a Vector Autoregression (VAR) framework. Before estimating the ARDL model the authors have checked for the stationarity of the variables. They have used the Augmented Dickey-fuller (ADF) unit root test, Phillips-Perron unit root test & DF-GLS detrending unit root test. From the study it is found that all the series are stationary after first difference

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