

Name: DR. PARITOSH GHOSH  
Head, Economic  
Red Deer College  
100 College Boulevard  
P.O. Box 5005  
Red Deer AB T4N 5H5  
e-mail: [paritosh.ghosh@rdc.ab.ca](mailto:paritosh.ghosh@rdc.ab.ca)  
Ph: 403-343 4046 (w)  
Fax: 403-357 3655

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Title of the paper: **Decoupling Greenhouse Gas Emissions and Economic Growth:  
A Revisit of the Environmental Kuznets Curve Hypothesis**

Abstract:

Recent empirical research has examined the environmental Kuznets curve (EKC) hypothesis and concluding that decoupling of environmental degradation from economic growth is possible. The Kyoto Protocol attempts to reduce greenhouse gas (GHG) emissions and the United Nations Framework Convention on Climate Change (UNFCCC) advocates that such reduction will not affect economic growth.

Past studies examined various air pollution indicators, such as carbon dioxide, sulphur dioxide, suspended particles, separately and most of them do not investigate any single country situation. This study investigates the EKC hypothesis with UNFCCC's key GHG emissions data which includes all six types of GHGs, the Kyoto Protocol regulates, into one single estimate. Applying cointegration and Granger causality techniques, this study finds no evidence that supports the inverted U-shaped EKC hypothesis for GHG emissions. The results suggest that a country might not be able to decouple greenhouse gas emissions from economic growth without concerted policies and incentives to reduce such emissions.

JEL codes: Q4, Q3, C0