

## **ESTIMATION OF ENVIRONMENTAL KUZNETS CURVE FOR INDIA**

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### **ABSTRACT**

The present study deals with the estimation of Environmental Kuznets Curve (EKC) in India by employing method of least squares using time series data for the period 1990-2009. The study tests the Environmental Kuznets Curve hypothesis using secondary data on GDP per capita, trade openness and CO<sub>2</sub> emissions. The empirical findings of the study support the existence of EKC hypothesis and found inverted 'U' shape quadric relationship between income and environment with turning point at US \$ 13153 PPP per capita while the relationship between environmental degradations and growth of GDP turned out to be 'N' shape when cubic of GDP is introduced in the function. The 'N' shape EKC shows pessimism as the emission starts increasing at high level of GDP per capita. Further, the inclusion of trade openness in the function suggests that trade liberalization increase CO<sub>2</sub> emission in India. The study reveals that the growth of per capita tends to improve the environmental quality. The study suggests that at a broad level of development, per capita emission of CO<sub>2</sub> begin to decline. The acceptance of EKC implies that there is an inevitable level of environmental damage that follows up due to economic development of a country at early stages but with significant improvement at later stage of development. This means that nations can opt for present value of higher future growth and cleaner future environment at the cost of current rate if environmental damage.