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Editors

Urban Growth and Environmental Issues in India

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Chapter 9

Environmental Kuznets Curve: A Revisit in the Case of SAARC

Maniklal Adhikary and Chandrasekhar Hajra

Abstract The Environmental Kuznets Curve is a hypothesized relationship between environmental degradation and economic growth. It states that in the early stages of economic growth environmental degradation and pollution increases, but beyond some level economic growth leads to environmental improvement. We empirically tested the hypothesis for six selected SAARC countries namely Bangladesh, Pakistan, India, Bhutan, Nepal and Sri Lanka using a panel data over a period of 1980–2014. The Composite Environmental Degradation Index (CEDI) has been calculated, and its relationship with per capita income has been tested to find out shape and to compute the turning point(s) of the Environmental Kuznets Curve in the SAARC region as well as in the selected countries of the region.

Keywords Environmental Kuznets Curve · Environmental degradation · Economic growth · Composite environmental degradation index · SAARC

Introduction

In development economics, ideas of economic growth are gradually getting shifted into the ideas of sustainable economic growth. Environmental impact of the growth path is now being studied thoroughly to understand the relation between environmental damages and income growth. The Environmental Kuznets Curve (EKC) provides theoretical support and tools for such studies. Several indicators measuring environmental condition along with income are being studied in EKC literatures. The theory states that in the early phases of economic development, environmental degradation as well as pollution increases, but after certain level of per capita income, the trend starts reversing. Usually at a high per capita income level economic growth takes place with improvement in the environmental conditions. This implies that the income and economic growth relationship takes the shape of an inverted U-shaped

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Impact of Air Pollution on Premature Delivery: An Empirical Cross Section Analysis in the District of Purulia in West Bengal

Maniklal Adhikary & Chandrasekhar Hajra

Introduction

Many environmental pollutants are recognized as risk factors for numerous diseases and pathological as well as physiological responses. These pollutants pose some serious risk on human health, and policies have been instituted to protect the public health across different nations.

Premature delivery or preterm birth is defined as the delivery of a live infant before 37 completed weeks of gestation and is considered as one of the major causes of death for babies throughout globe. When children are born prematurely, they are more likely to suffer from both short-term (e.g. breathing and feeding difficulties) and longer-term complications. As the brain is the last major organ to mature in human development, premature babies can suffer from long-term cognitive problems like cerebral palsy, social and behavioural issues, and learning disabilities, as well as an increased risk of high blood pressure and diabetes later in life. These problems contribute a measurable economic burden on medical, educational, and social service interventions.

It has been estimated that in the year 2018 nearly fifteen million premature babies are born before reaching 37 weeks gestation (WHO, 2018). As per the World Health Organization Report, 2018, this is one of the leading causes of death among children younger than five years old, and can cause lifelong learning disabilities, visual and hearing impediments.

Premature birth occurs for a variety of reasons some happen spontaneously, but some are interventional, whether for medical or non-medical reasons. Most common causes of this are poverty, infection, smoking and substance use, physical activity