



ISSN NO. 2320-5407

ISSN(O): 2320-5407 | ISSN(P): 3107-4928

International Journal of Advanced Research

Publisher's Name: Jana Publication and Research LLP

www.journalijar.com

REVIEWER'S REPORT

Manuscript No.: IJAR-57747

Title: Economic Growth, Public Health Expenditure and Air Pollution: A Panel Analysis of Indian States .

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity		✓		
Significance	✓			

Reviewer's ID: JPR-130

Detailed Reviewer's Report

Overall Evaluation

The manuscript titled “*Economic Growth, Public Health Expenditure and Air Pollution: A Panel Analysis of Indian States*” examines the relationship between PM2.5 air pollution, economic growth, industrial productivity, and public health expenditure across Indian states using panel data analysis. The study addresses an important and highly relevant issue concerning sustainable development, environmental degradation, and public health in India. The paper is well-structured, logically organized, and supported with appropriate econometric methodology. The use of panel regression with fixed effects and Driscoll–Kraay standard errors strengthens the empirical quality of the study. The discussion is clear and supported by relevant literature. Overall, the paper contributes meaningfully to environmental economics and public policy research.

Strengths of the Paper

1. Highly Relevant and Contemporary Topic - The study focuses on the growing issue of air pollution and its economic implications in India, which is highly relevant for policymakers, researchers, and environmental economists.

2. Clear Research Objectives and Research Question - The objectives and research question are clearly stated and properly aligned with the analysis conducted in the paper.

REVIEWER'S REPORT

3. Strong Literature Review - The literature review includes both Indian and international studies and successfully establishes the research gap. The discussion of prior empirical findings improves the academic quality of the paper.

4. Appropriate Methodology - The use of panel data covering Indian states from 2014–2025 provides a strong analytical framework. The fixed-effects model with Driscoll–Kraay standard errors is suitable for handling heteroskedasticity, serial correlation, and cross-sectional dependence.

5. Good Variable Selection - The study uses meaningful variables such as:

- PM2.5 concentration,
- NSDP,
- government health expenditure,
- wages,
- rainfall.

These variables are well explained and justified theoretically.

6. Clear Interpretation of Results - The regression results are explained in simple and understandable language. The discussion connecting economic growth and pollution through the Environmental Kuznets Curve (EKC) framework is particularly strong.

7. Policy Relevance - The findings provide important implications for sustainable development, public health investment, and environmental regulation in India.

Areas for Improvement

1. Clarification of Causality - The study identifies associations between variables, but causal relationships are not fully established. The paper may briefly discuss this limitation more clearly in the methodology or conclusion section.

2. More Diagnostic Tests Can Be Included - The paper may include additional panel diagnostic tests such as: Hausman test, multicollinearity analysis, unit root or stationarity tests, cross-sectional dependence tests. This would further strengthen the econometric robustness.

3. Inclusion of Additional Control Variables - Variables such as: population density, energy consumption, urbanization rate, vehicle registrations could improve the explanatory power of the model.

4. Minor Language and Formatting Corrections - A few grammatical and formatting improvements may enhance readability and presentation quality.

5. Better Presentation of Tables - The regression table formatting may be improved for easier interpretation and professional appearance.