

Review Form 3

Journal Name:	International Journal of Environment and Climate Change
Manuscript Number:	Ms_IJECC_128117
Title of the Manuscript:	Green House Gas Emissions and Effects: A Multivariate Investigation
Type of the Article	

General guidelines for the Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guidelines for the Peer Review process, reviewers are requested to visit this link:

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PART 1: Comments

	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	The manuscript "Greenhouse Gas Emissions and Effects: A Multivariate Investigation" holds significant value for the scientific community, particularly in the domains of environmental and economic policy research. It addresses a critical gap by exploring the impact of greenhouse gas (GHG) emissions not only on gross domestic product (GDP) but also on the death rate, thereby linking environmental changes directly to human health outcomes. This dual perspective provides a more comprehensive understanding of the societal consequences of GHG emissions. By employing robust statistical methods, such as multiple regression and canonical correlation, the study offers actionable insights for policymakers aiming to balance economic growth with public health and environmental sustainability. Its findings underscore the urgency of reducing emissions to mitigate their multifaceted impacts, making it a valuable contribution to the ongoing discourse on climate change and its implications.	
Is the title of the article suitable? (If not please suggest an alternative title)	The title, " Greenhouse Gas Emissions and Effects: A Multivariate Investigation ," is suitable as it reflects the scope of the study and highlights its multivariate analytical approach. However, it could be made more specific to better capture the study's focus on the economic and health impacts of GHG emissions. A more precise alternative could be: "Assessing the Economic and Health Impacts of Greenhouse Gas Emissions: A Multivariate Analysis." This revised title clearly conveys the dual focus on economic (GDP) and health (death rate) outcomes, which enhances its clarity and appeal to readers in relevant fields.	

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<p>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</p>	<p>The abstract of the article is comprehensive in providing an overview of the study's objectives, methodology, and key findings. However, there is room for improvement to enhance clarity and engagement. Below are my suggestions:</p> <p>Additions:</p> <ol style="list-style-type: none"> Explicit Objective Statement: <ul style="list-style-type: none"> Include a more detailed explanation of the studying the death rate alongside GDP as dependent variables to emphasize the unique contribution of the research. For example: "This study uniquely incorporates death rate as a dependent variable, which has not been widely explored in prior research." Policy Implications: <ul style="list-style-type: none"> Highlight the potential policy implications of the findings briefly to show the real-world relevance of the study. Methodology Details: <ul style="list-style-type: none"> Mention the timeframe of the data (1960–2011) and geographic focus (Nigeria) to contextualize the study better. Key Observations: <ul style="list-style-type: none"> Include specific insights, such as the negative relationship between liquid and solid GHG emissions and GDP or the positive impact of solid emissions on death rate, to give readers a clearer understanding of the results. <p>Deletions:</p> <ol style="list-style-type: none"> Technical Jargon: <ul style="list-style-type: none"> Avoid overly technical terms like "canonical correlation" unless they are briefly explained or directly relevant to the summary for a broader audience. Redundancies: <ul style="list-style-type: none"> Remove repeated references to statistical significance unless each adds unique information. <p>Suggested Revised Abstract:</p> <p>This study investigates the impact of greenhouse gas (GHG) emissions on two critical outcomes: gross domestic product (GDP) and death rate (DR), using secondary data from Nigeria spanning 1960–2011. Unlike previous studies, this research incorporates DR as a measure of health impacts alongside GDP, providing a holistic view of GHG emissions' effects. Utilizing multiple linear regression and canonical correlation analyses, the study reveals significant associations between emissions and both dependent variables. Key findings indicate that while gaseous emissions positively influence GDP, liquid and solid emissions negatively affect it. Conversely, solid emissions show a strong positive relationship with DR, highlighting their health risks. These results underscore the dual challenge of balancing economic growth with public health in addressing GHG emissions. The study's insights offer valuable guidance for policymakers aiming to design effective climate mitigation strategies.</p>	
<p>Is the manuscript scientifically, correct? Please write here.</p>	<p>The manuscript appears scientifically correct, with clear objectives, robust methodologies (regression and canonical correlation), and significant findings on the impact of GHG emissions on GDP and death rate. However, some areas require attention:</p> <ol style="list-style-type: none"> Data Scope: The dataset (1960–2011) excludes recent years, limiting its applicability to current contexts. Data reliability and consistency should be clarified. Methodological Assumptions: Assumptions like normality and homoscedasticity for regression models should be explicitly tested and reported. Health Impacts: The link between emissions and death rate is significant but lacks detailed biological or environmental interpretation. Policy Implications: The study should include actionable recommendations for policymakers based on findings. Presentation: Graphs and tables need clearer annotations to better convey key results. <p>While scientifically sound, addressing these points will enhance clarity, validity, and practical relevance.</p>	

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Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	N/A	
Is the language/English quality of the article suitable for scholarly communications?	Yes	
<u>Optional/General</u> comments	would rate the manuscript 8/10 ("Minor Revision"). It is scientifically sound with significant findings but needs minor improvements in references, methodological clarity, and policy implications to enhance its impact.	

PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

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