

Review Form 3

Journal Name:	Journal of Geography, Environment and Earth Science International
Manuscript Number:	Ms_JGEESI_120614
Title of the Manuscript:	Health implication of volcanic ash and gases released from eruptions at Mount Nyiragongo (DR Congo) and Mount Cameroon volcanoes, Central Africa
Type of the Article	Original

General guideline for 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 guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

Compulsory REVISION 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 few sentences regarding the importance this manuscript for scientific community. Why do you like (or dislike) this manuscript? Minimum 3-4 sentences may be required for this part.	This manuscript is highly significant for the scientific community as it addresses the critical health implications of volcanic activity on local populations, which is an area of growing concern in environmental health research. By providing detailed epidemiological data from diverse regions in Central Africa, it highlights the urgent need for targeted public health interventions and preparedness plans in volcanic regions. The mixed-method approach, incorporating both qualitative and quantitative data, enhances the robustness of the findings, offering a comprehensive understanding of the impact. This study can serve as a crucial reference for future research and policy-making aimed at mitigating health risks associated with volcanic eruptions.	
Is the title of the article suitable? (If not please suggest an alternative title)	The title of the article is suitable as it clearly conveys the focus and scope of the research, which is the health implications of volcanic ash and gases from eruptions at Mount Nyiragongo and Mount Cameroon in Central Africa. However, a slight modification to make it more concise and direct could enhance clarity: "Health Implications of Volcanic Ash and Gases from Eruptions at Mount Nyiragongo and Mount Cameroon, Central Africa"	

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<p>Is the abstract of the article comprehensive? Do you suggest addition (or deletion) of some points in this section? Please write your suggestions here.</p>	<p>The abstract is comprehensive and provides a clear overview of the study's aims, design, methodology, results, and conclusion. However, a few adjustments could improve its clarity and effectiveness:</p> <ol style="list-style-type: none"> 1. Clarify Study Design: Specify the mixed methods used in a more detailed manner. 2. Highlight Key Findings: Emphasize the significant results more clearly. 3. Improve Conclusion: Make the conclusion more concise and impactful. <p>Exemple:</p> <p>Revised Abstract: Aims: To assess the prevalence of respiratory, ocular, and skin diseases in communities exposed to volcanic activity at the flanks of Mount Nyiragongo (MN) and Mount Cameroon (MC). Study Design: This study utilized a mixed-methods approach, incorporating focus group discussions (FGDs), questionnaire surveys, and a review of outpatient department (OPD) registers. Place and Duration of Study: Conducted between 2017 and 2019 in Goma and Karisimbi Municipalities (DR Congo) and the Limbe Health District (Cameroon). Methodology: Two workshops were held in Goma and Batoke with 40 participants each. Supplementary data were collected through questionnaires from 738 participants in Goma and 400 in Limbe. Hospital data on respiratory, ocular, skin, and gastrointestinal diseases were obtained from 11 health facilities in Goma, Karisimbi, Nyiragongo, Sake, and Limbe, covering the years 1997 to 2006. The study focused on the 2002 MN and 1999/2000 MC eruptions. Results: Significant increases in respiratory diseases (asthma and bronchitis) were observed, with over 4000 cases in MN and affecting over 30% of the population in MC. Ocular diseases (conjunctivitis and blindness) saw over 800 cases, impacting more than 25% of the population. Skin diseases (dermatitis) recorded over 600 cases, affecting over 35% of the population. Increased incidences of diarrhoea (79.96%) and gastroenteritis (75.9%) were reported in MN communities. Conclusion: The prevalence of respiratory, ocular, skin, and gastrointestinal diseases varied across health districts, highlighting the need for targeted public health interventions.</p> <p>This version ensures all critical points are covered while making the abstract more concise and focused.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>Yes, the subsections and structure of the manuscript seem appropriate. The key sections should be:</p> <ol style="list-style-type: none"> 1. Introduction: Background, justification, and study aims. 2. Materials and Methods: Study design, study area and duration, data collection methods (FGDs, questionnaires, OPD review), and data analysis. 3. Results: Findings on respiratory, ocular, skin, and gastrointestinal diseases. 4. Discussion: Interpretation of results, comparison with other studies, public health implications. 5. Conclusion: Summary of key findings and recommendations. 6. References: Cited sources. <p>This structure ensures clarity and logical flow.</p>	

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<p>Please write few sentences regarding the scientific correctness of this manuscript. Why do think that this manuscript is scientifically robust and technically sound? Minimum 3-4 sentences may be required for this part.</p>	<p>This manuscript is scientifically robust and technically sound due to its comprehensive mixed-methods approach, combining qualitative data from focus group discussions with quantitative data from questionnaires and hospital records. The study spans a significant timeframe and includes a substantial sample size, enhancing the reliability of the findings. Additionally, the use of multiple data sources and diverse locations provides a thorough examination of the health impacts of volcanic eruptions, ensuring a well-rounded and accurate analysis. The methodology is well-documented, allowing for reproducibility and validation of the results.</p>	
<p>Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p>	<p>Yes.</p>	
<p><u>Minor</u> REVISION comments</p> <p>Is language/English quality of the article suitable for scholarly communications?</p>	<p>The language and English quality of the abstract appear mostly suitable for scholarly communication, but there are a few areas that could be improved for clarity and readability. Suggested edits:</p> <p>Original Sentence: "To assess the prevalence of respiratory, ocular and skin diseases in exposed communities at the flanks of Mount Nyiragongo (MN) and Mount Cameroon (MC)."</p> <p>Revised Sentence: "To assess the prevalence of respiratory, ocular, and skin diseases in communities exposed to volcanic activity at the flanks of Mount Nyiragongo (MN) and Mount Cameroon (MC)."</p> <p>Original Sentence: "This study made use of a mixed study design that involved focus group discussion (FGD) sessions conducted in the form of workshops; questionnaire administration and lastly a review of outpatient department (OPD) registers."</p> <p>Revised Sentence: "This study employed a mixed-methods design, including focus group discussion (FGD) sessions, questionnaire administration, and a review of outpatient department (OPD) registers."</p> <p>Original Sentence: "Information obtained from these workshops were supplemented with questionnaires comprising of 738 participants in Goma health zones and 400 participants in Limbe Health District."</p>	
<p><u>Optional/General</u> comments</p>	<p>Overall, the manuscript is a valuable contribution to the field of environmental health, addressing a significant issue with a well-designed study. Minor revisions to language and data presentation will further enhance its impact and readability.</p>	

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PART 2:

	Reviewer's comment	Author's comment <i>(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)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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