

## Peer Review Report

# Review Report on CLIMATIC HAZARDS: HIGH IMPORTANCE BUT LOW SEVERITY TO COASTAL RURAL FISHING COMMUNITIES

Original Research, Earth Sci. Syst. Soc.

Reviewer: Jonathan Bridge

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### EVALUATION

#### **Q 1** Please summarize the main findings of the study.

The study is based on a mixed methods approach (interviews, focus groups, participatory risk mapping) applied to two fishing communities in Ghana with the objective of determining the perceived importance and severity of climate change in relation to a range of other socio-economic stressors. The results identify some structural differences in risk perceptions between the communities and among the communities (between different groups) and generally place 'climatic hazards' as relatively high importance, but relatively low severity, compared with other 'socio-economic' stressors.

#### **Q 2** Please highlight the limitations and strengths.

##### Strengths

The paper is very well written, structured and presented. The methods are well supported and the study design, comparing two communities with a combination of specific similarities and differences; disaggregating demographic groups; and triangulating survey results with interviews and risk mapping, is rational and well founded. The topic is timely and important – understanding how climate impacts intersect with a broad range of socio-economic (and other) risks to health, livelihood, society and environment is critical to all of the SDGs and to the effective implementation of global net zero / carbon mitigation and climate resilience activities. In this respect the paper makes a useful contribution.

##### Limitations

I am somewhat concerned about the conceptualisation (or the lack of clear presentation / discussion of this conceptualisation) of what constitutes and/or differentiates the terms 'climatic', 'climate change', 'climate-change related', 'non-climatic', and 'hazards' vs 'stressors'. The most concerning here is the conflation of 'climatic hazards' – which essentially are specified as a set of weather and hydrological processes/extremes – with 'climate change', which it is increasingly recognised will apply disruptive change on both natural and socio-economic systems impacting these and other communities worldwide.

There is also insufficient mention or discussion of the context of environmental conditions in West Africa, including interannual variability in physical factors such as rainfall, storminess due to large scale cycles such as ENSO, NAO, Indian Ocean Dipole, etc. A brief literature search indicates a significant body of work available to set in context some of the communities' experiences of climate on their livelihoods, in relation to recent/historic climate records.

#### **Q 3** Please comment on the methods, results and data interpretation. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns.

The methods used are not my central area of expertise. However, they are clearly described, the results are well presented and the interpretations, notwithstanding the conceptual issues outlined in my previous comments, are sound.

#### **Q 4** Check List

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Is the English language of sufficient quality?

Yes.

Is the quality of the figures and tables satisfactory?

Yes.

Does the reference list cover the relevant literature adequately and in an unbiased manner?

Yes.

Are the statistical methods valid and correctly applied? (e.g. sample size, choice of test)

Yes.

If relevant, are the methods sufficiently documented to allow replication studies?

Yes.

Are the data underlying the study available in either the article, supplement, or deposited in a repository? (Sequence/expression data, protein/molecule characterizations, annotations, and taxonomy data are required to be deposited in public repositories prior to publication)

Yes.

Does the study adhere to ethical standards including ethics committee approval and consent procedure?

Yes.

If relevant, have standard biosecurity and institutional safety procedures been adhered to?

Not Applicable.

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**Q 5** Please provide your detailed review report to the editor and authors (including any comments on the Q4 Check List):

Introduction section (lines 31–88) is presented as a single long paragraph which is hard to read. Otherwise the work is presented to a high standard.

In summary, my feeling is that this study provides interesting empirical evidence of how low-income coastal communities perceive natural environmental risks relative to socio-economic risks, and that the results may provide useful insight into how messaging on SDGs and climate resilience/adaptation may be framed for maximum political/social impact in these settings. However, as currently framed, this nuance is rather lost by the lack of precision in the use of terms, and context in the use of climatological knowledge-base.

It would be very useful to incorporate discussion of these issues in the paper to more robustly set the findings in context.

**QUALITY ASSESSMENT**

<b>Q 6</b> Originality	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Q 7</b> Rigor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Q 8</b> Significance to the field	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Q 9</b> Interest to a general audience	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Q 10</b> Quality of the writing	<input checked="" type="checkbox"/>				
<b>Q 11</b> Overall quality of the study	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>