

Requested review: [gc-2021-31.pdf](#)

Development of forecast information for institutional decision-makers: landslides in India and cyclones in Mozambique

Based on two case studies, this paper identifies key learning in translating scientific forecasts into useful information focused on the process of developing forecast bulletins for decision-making.

The paper documents important experiential learning, primarily from the perspective of 'producers', underscoring the need for what have been increasingly recognised as key component of co-producing relevant risk information. While the findings may not be particularly novel for those who have taken part in similar resilience-building research consortia, the authors rightly highlight the need for greater practical guidance on how to develop user-relevant bulletins. Particularly valuable are reflections on the differences between producers and users with regard to content and inclusion of impact and advisory information within forecast bulletins, as well as issues surrounding piloting of risk information amongst resource-constrained at-risk populations.

Abstract

It could be extremely useful for the discussion to further highlight in the abstract the paper's important learning with regard to piloting of new risk information in resource-constrained environments.

References

References to relevant existing literature and resources could be strengthened to ensure the discussion builds on rather than repeats emerging learning on risk communication.

General comments:

It would be preferable to use the term 'user' rather than 'end user' and 'product' rather than 'end product'. It is increasingly recognised that development of relevant risk information requires ongoing dialogue and exchange of knowledge between 'producer' and 'user'. Rather than being seen as recipients of a finalised 'end of value chain' service, the active role of users in the ongoing process recognises this two-way process.

Section 2.1 and 2.2: These sections could be usefully reversed. Development or co-development coming before content, with content dependent on the specific user and decision-making context.

Section 5: Results

Given the extensive methodology employed, it could be useful to strengthen the results sections with key supporting quotes or testimony and, if feasible, some boxes of cross case study comparison summarising key similarities and differences.

Comments by section and/or line

Section 2.1: It would be good to recognise the context and cultural specificity of presentation and visualisation preferences.

Recognising cognitive challenges in communicating climate information: while recognising the differences in uncertainties in weather and climate information over timeframes, it may be useful here to reference work of Harold et al. (2019) Approaches to communicating climatic uncertainties with decision-makers; Harold et al. (2017). Enhancing the accessibility of climate change data visuals: Recommendations to the IPCC and guidance for researchers.

Section 2.2: Development section.

Dependent on what is meant by guidance, there are relevant resources intended to provide overall framing of weather and climate services that are not referenced, for example Carter et al. Manual: Coproduction of African weather and climate services. Likewise there is key additional literature that the discussion builds on, including for example, Patt and Gwata, 2002, Effective seasonal climate forecast application; Lemos et al, 2012, Narrowing the climate information gap.

The background literature section does not address, or insufficiently refers to, other key factors in the process of co-developing relevant risk information, including bulletins. As noted in the literature identified, these encompass, amongst others: equity (Vincent et al, Nature Climate Change 2020), timeliness, perceived and evaluated skill of risk information, inclusive communication reach and resources to act on the risk information provided (Patt and Gwata, 2002; Carter et al, 2019).

Section 3: Background

Line 188 and further through the paper: Challenges in piloting new risk products, initiated in research focused projects and which do not always encompass the safety net mechanisms for acting on trialled products. Given the increasing focus on action research, this is a key issue and would be good to further highlight.

Line 206-7: Be good to clarify: ‘An analysis of the usefulness and use of the bulletins users is beyond the scope of this project’: when the paper does refer to user feedback, for example lines 294-99. Without user feedback on usefulness, the paper would find it difficult to identify ‘best’ practice.

Section 5.2.4

The content here is extremely valuable, highlighting discussion on bulletin content and differences between producers and users.

Line 474: Critical skills: be good to include contextual knowledge, as noted in line 486.

Section 5.5 does not mention language challenges within the co-production process across countries.

Section 5.6: Interesting that no mention was made by key informants recognising the need to strengthen users’ understanding of the extent and limits of scientific capacities, and to ensure this is included as a component of risk communication work (while noting reference to this is included in lines 602 and 631). Likewise no mention of the potential for participatory

evaluation of risk information, including user feedback on observations to inform model development.

Line 582: Training is mentioned in regard to ‘sustainability’, but the article includes limited discussion on integrating the required technical capacities within national institutions to ensure continuation of project-initiated services.

Section 6.1: extremely valuable reflection.

Line 671: need to recognise there are differences of opinion as to how the intermediary functions may best be sustained, i.e. rather than relying on an external agency, developing core intermediary functions within key ‘producer’ or ‘user’ institutions.

Section 6.3: Meeting user needs, the challenges in balancing scientific constraints and user needs is not new. Likewise the need for transparent communication of scientific confidence and certainties is a key principle in the Carter et al, Coproduction manual.