



EGUsphere, referee comment RC1  
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## **Comment on egusphere-2022-528**

Anonymous Referee #1

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Referee comment on "Brief Communication: Inclusiveness in designing early warning system for flood resilience" by Tahmina Yasmin et al., EGU Sphere,  
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### **General comments**

This paper provides a good overview of the components of early warning systems, identifies some gaps and provides recommendations how early warning systems can become more inclusive. The paper would benefit from clearly defining how inclusion/inclusiveness is interpreted in the context of this research. The paper advocates community engagement along each step, but it does not disaggregate the community and discuss how the unique capacities and needs of different (marginalised) groups such as women, girls, children, persons with disabilities, elderly and illiterate, need to be considered, engaged and utilised to make it more inclusive. This aspect should be recognised throughout the paper and especially within the SMART approach.

### **Specific comments**

The abstract would benefit from succinctly explaining the gap around inclusion in EWS and providing more details on how START fills the gap.

In Section 2, suggest drawing on literature/ experience around 'local knowledge' capacities of the communities and how a truly inclusive or co-produced EWS will utilise this knowledge e.g. Hermans et al. 2022 (link: [https://pure.iiasa.ac.at/id/eprint/18112/1/Hermans2022\\_Article\\_ExploringTheIntegrationOfLocal.pdf](https://pure.iiasa.ac.at/id/eprint/18112/1/Hermans2022_Article_ExploringTheIntegrationOfLocal.pdf)). Furthermore, the paper does not draw on Community-based EWS literature and practical experiences, for example Macherera and Chimbari, 2016 (Link: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6014131/>) . Additionally, suggest explaining 'knowledge co-generation' already in section 2 seeing as this is the foundation for the framework.

In Section 3.1/2, suggest including some discussion/reference around impact-based forecasting (IBF) which focuses on generating information on what the weather will 'do' (by fusing exposure and vulnerability information with hazard forecast info) instead of what the weather will 'be' (traditional forecast). You can find guidelines from WMO ([https://library.wmo.int/?lvl=notice\\_display&id=21994#.YvN5LnbMKUK](https://library.wmo.int/?lvl=notice_display&id=21994#.YvN5LnbMKUK)) and the Met Office/ Climate Centre (link: <https://www.anticipation-hub.org/download/file-58>). IBF strongly advocates for partnership and multi-stakeholder engagement.

Section 3.3 could draw on experiences of understanding communities' preferences for different warning communication technologies, and designing the format of the message to ensure it is understandable and actionable by different groups in the community. See for example Cumiskey et al. 2015 (link: <https://www.emerald.com/insight/content/doi/10.1108/IJDRBE-08-2014-0062/full/html>)

Figure 1 does provide a good overview of the different stages in an EWS but it is missing details on how each component can be inclusive apart from broadly showing that the community should be engaged in each step. The pictures within the diagram could refer to specific inclusive approaches/ activities e.g. activities like engaging women or schools in water level data collection, involving them in the risk assessments design of early action plans, working with local leaders, disseminating warnings in multiple ways to reach different groups. Some of these approaches are mentioned in the text for the SMART approach but I'm still missing a clear overview of all the tools/ guide on how to actually realise the 'co-production of actionable knowledge'.

The title of Figure 2 specifies inclusiveness in disaster risk management not early warning systems. Many components of the figure are not well explained in the short text. In my opinion for the purposes of this paper, it would be more useful to expand the details of the SMART approach and focus on inclusiveness for EWS rather than half of the figure being about the top-down approach with the overall goal for redefining adaptation and resilience rather than inclusive EWS.

An option could be to merge the SMART component of Figure 2 into an expanded Figure 1. This way one could just focus what the SMART approach tangibly means for each component/step of the EWS to make it inclusive. Having one useful figure to explain inclusion in EWS and the SMART approach would elevate the value of the paper.

The title of Figure 1 using 'natural disasters' should be changed to 'natural hazards'.

The SMART approach specifies 'response actions' but if these are taken ahead of the impact of the hazard then these should be 'early or anticipatory actions' as implemented by NGOs, Red Cross Red Crescent and UN agencies. Tozier de la Poterie (2021) provides more insights into anticipatory action planning which may be useful for the authors to explore (link: <https://www.tandfonline.com/doi/full/10.1080/17565529.2021.1927659>). There is also growing interest into making anticipatory action programmes within the

humanitarian sector more inclusive. See for example FAO, 2020 (link: <https://www.fao.org/3/cb1072en/cb1072en.pdf>), and there is a dedicated related protection, gender and inclusion resource page on the Anticipation Hub (Link: <https://www.anticipation-hub.org/learn/emerging-topics/protection-gender-and-inclusion-in-anticipatory-action>) which may be of interest to the authors.

## **Technical corrections**

There are several typos and grammatical errors in the paper. I have noted some of these below, but this list is not exhaustive and suggest that the authors thoroughly check the paper for errors to improve the readability of the paper.

Title – use either ‘an early warning system’ or ‘early warning systems’

Abstract: Communities-at-risks – remove ‘s’ after risk

Introduction: Live and property (page 2 line 70) – add ‘s’ to live

Page 2 line 75 – historically underfunding to ‘underfunded’

Page 2 line - line 83 ‘an’ early warning alert system, line 85 ‘with the’ local.... 89/90 – add ‘a’ flood early warning system, line 91 title – suggestion ‘current approaches facilitating’

Page 3 – line 103 add ‘ships’ to working relation

Page 5 – A SMART ‘way forward; 253 ‘involving with’ change to ‘engaged in’