

Review of: "The Consequences of Political and Economic Choices: Exploring Disaster Vulnerability with the Structure, Resource, and Behaviour Change model (SRAB)"

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Potential competing interests: No potential competing interests to declare.

This paper reports the findings of an empirical case study in which an analytical framework on vulnerability progression is applied to a case of salinization in a commune in Vietnam.

The study has an ambitious objective, as the authors aim to link national level structural changes to increased local level disaster vulnerability. The study combines a diversity of datasets, from the local to the national level, using various data collection methods. It is well-written and rich in information.

Despite this impressive start, I am not convinced by the methodological approach of the study. The authors combine three different aspects of the issue: 1) an analysis of decades of national level agricultural policies, 2) an overview of the development of regional hydraulic infrastructure in 1970-present and 3) data on recent household-level behaviour in a small commune. These serve respectively to represent Structure, Resources and Behaviour in their SRAB model of vulnerability. I have some serious problems with this. First of all, these datasets cover different temporal and spatial units. Second, it went too far in operationalizing the highly complex system that is studied, e.g. by simply reducing resource management to water-control infrastructure. This leads to oversimplification and erroneous linkages between the data. For instance, the SRAB model conceptualizes that behaviour has a direct influence on structural changes. Translated to the empirical data, that would imply small farm household behaviour in recent years will affect the national level agricultural policies. The institutional context (especially in Vietnam!) is way more complicated than this. Overall, this makes me doubt the causal inferences that are made in this paper.

In addition, I disagree with the contribution that the authors claim this study makes to the body of knowledge on this topic. The authors rightly point to the explanatory power of the past for understanding current challenges and future policy responses. However, they present this as if it were a novel idea. For example, the introduction mentions that previous studies have identified several causes (including hydropower dams, cropping systems, land subsidence) but that previous studies have not linked this to "the historical evolution of disaster vulnerability and current farming behaviours." (p. 4). This is certainly not the case. I can list several studies that have explicitly linked past developments, policies, and practices to present-day issues. I suggest the authors to, for instance, consult the work of Luu et al. (2022) which links the historical development of 'living with floods' in the Vietnamese Mekong Delta to agricultural practice and challenges in present-day water management and governance. As a result, the conclusion largely repeats what was already known: the vulnerability

to disasters in the Vietnamese Mekong Delta and the magnifying effects of both the triple rice cultivation and the development of water-control infrastructure. The same goes for the observation that political objectives for agriculture triggered increased agricultural production by means of different cropping strategies (triple harvest) and providing resources (production means, money, water infrastructure) to facilitate this.

This does not mean that I see no value in the paper. What I find highly interesting in the results is the initial hesitation of the farmers to engage in the triple cropping system and the factors that drove them to do it anyway. The interview data provide an interesting, in-depth insight in the drivers for their 'surrender' to the triple cropping practice, which indeed include government policy, water-control infrastructure, and a kind of FOMO (Fear of Missing Out when neighbouring farmers started a crop 3). I would like to encourage to authors to make this the key focus of their paper: what brings farmers to the point that they – against all knowledge – adopt a risky practice that will increase their disaster vulnerability? And, was it worth the risk? Most farmers grew a third crop for 20 years, with one disastrous year. Aren't they still better off than when they had grown 2 crops during all these years? Summarizing, in my opinion, the added value in the paper is not in describing the macro-level developments as explanation for increased salinization vulnerability (as these were already known) but the micro-level behaviour change of the studied commune and the consequences at this level. This would require some serious restructuring of the paper and shifting the emphasis in the analysis, hence the medium rating of the paper.

Additional comments:

- P.3: why lump cities and provinces? (“...affected 52 of Vietnam’s 63 provinces and cities,...”) These are hard to compare, as these cities will be located in one of the affected provinces too. The message that a significant part of society is affected, would be clear too by mentioning just the size of the affected area, the number of cities affected or the share of the economy damaged by the salinity as is done in the next sentences.
- How large is Tan Hung commune? The case study description mentions the number of affected households as a percentage of the district’s total affected householders. However, it would be relevant to know the size of the community in the commune too.
- In terms of structure, it would be more logical to incorporate the current section on “Current farming system and vulnerability to natural risks” (p. 16-17) into the description of the case and the research area (‘Research setting’, p. 9-11), because it explains why this commune is selected as a case study.
- The S-RAB model presented in the theoretical section is interesting but deserves more attention and elaboration.
- The selection criteria of households are discussed in detail and make sense. The authors also report on the frequency of each characteristic in the dataset. However, there is no information about the larger population: how large is the group of non-poor compared to the (near-)poor in the commune and within the group of affected households? And what is the ratio of the diverse ethnic groups in the commune and within the group of affected households? I can imagine there are no exact figures, but an estimation would be helpful to see whether the interviewed household profiles are representative for the population. (although I acknowledge that it does not necessarily need to be representative though, as the authors explained they want to do a qualitative inquiry where covering all different household profiles is more important than representation of the overall population)

- The authors describe the selection of interview respondents and report on which documents they analysed. They did not clearly describe though how the interview data and document analysis were integrated or linked to the analytical S-RAB framework.