

Review of: "Weathering changes – livelihood adaptation to weather shocks in rural India by disadvantaged social groups"

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The paper contributes to the literature on climate change and migration by considering the migration practices of families from disadvantaged social groups in India, when they face climate-related challenges. This is an empirical paper that uses data from two waves of India Human Development Survey, 2004-05 and 2011-12, along with gridded weather data from the Climate Research Unit (CRU).

It is indeed a well-written paper!

The authors can consider the following suggestions to revise the paper

- The author could consider revising the title since the title does not fit the rest of the text. There is an indirect linkage between 'livelihood adaptation' and migration, but it could be misleading and hence, a potential risk when the paper goes to the journals.
- Readers who are unfamiliar with the Indian context or Indian datasets are likely to miss out on some of the major points that are mentioned in the paper. For instance, it would be good to mention the years in the abstract - two consecutive years of IHDS data - but what are the years? Gridded weather data from CRU - what are the years? It would be good to avoid acronyms, like CRU, in the abstract as well.
- It is a bit of a challenge to understand the specific type of migration that the author is referring to. The abstract mentions "*adapt through migration to climate-related shocks*"; is the author referring to internal short-term migration or long-term migration? The paper later discusses the types of migration but it would still remain unclear at the onset.
- The line in the abstract - '*improve the probability of migration*' is unclear. What does it mean? Increase migration?
- The main research objective is specified as - *we focus on the adaptation to climate change among disadvantaged social groups in India*. It would be good to mention that adaptation is only observed in terms of out-migrating from the source village. Otherwise, this can lead to confusion and a higher expectation in terms of different form of adaptation from the referees.
- The third paragraph of the introduction, about social groups in India, could definitely add a few references. The fourth paragraph could reduce two points that are likely to distract the readers. First, the link with the test score performance is distracting as nowhere it comes back in the rest of the paper. Second, it would perhaps be better to remove the study

by Carleton (2017) about climate change and suicide rates. It makes the readers believe that something similar will be discussed subsequently, but is not in the rest of the paper. The fifth paragraph mentions “*results corroborate studies in other contexts*” - which contexts are these - does the author mean developing-country contexts? It would be good to be more specific.

- The paragraph about migration in the introduction mentions all types of migration, which can create confusion in the minds of the reader as to which specific form of migration the author is interested in, in the paper. For instance, the paragraph following the explanation of different types of migration and the recent trends is - “*But the poor have other obstacles. Poverty makes households risk-averse to such enterprises*”. Which enterprises? Inter-state / Intrastate / short-term / long-term migration?
- The author claims that in India, migrants are less likely to be members of Scheduled Groups, where subsequent studies have found that it is the scheduled groups that undertake short-term seasonal migration. Thus, it would be very important to be specific while talking about the type of migration. The citation on Iversen et al (2014) - “*shows SCs do better in villages*” - better in terms of what? It remains unclear.
- Section on research questions:
 - A minor suggestion is to keep the primary research questions close to one another, preferably one after the other in the text. At present, it is spread across a few paragraphs, and thus a bit difficult to keep track of. Once the research questions are specified, they can then be expanded over the next paragraphs, which is done well in the paper.
 - The author introduces the term slow-onset climate change in this section. It would be helpful if they could expand the term further when the term is introduced.
 - The first research question starts with a grammatical error: (whether) does slow-onset climate change lead to migration in rural India? Does the author mean, an increase/ decrease/ change in migration? It would be good to be more specific. The second research question has an additional “also” (there are also other typos in the text that need to be fixed).
 - It would be good to refer to papers to defend the choice of SPEI6 and SPEI18. Also, it would be good to introduce the acronyms in the text before they are shown in the graphs.
- There is a table with SPEI, Moisture Category. It would be good to specify the source of the table.
- It would be good if the author could defend the choice of using climate variables based on 60 months preceding the household survey.
- The model specification examines the changes in the number of migrants in the family, but it would be interesting to observe whether that itself is determined by the household size. For instance, the possibility of increase is more likely for bigger families than smaller families. Also, does social network check for within-group network or cross-group? As a sensitivity, both of them can be checked.
- For DDD, it would be good to show that the parallel trend assumptions were holding before the model is estimated.

Overall, it was an interesting read and I think the work is timely and has a good potential. Wishing the author a good journey ahead with this paper!

