

Dear Ms. Guochun Wu,

We highly appreciate your kind comments and suggestions to our manuscript. Your comments indeed make us have a deeper understanding on the subject of the paper, and the manuscript has been carefully revised according to your comments.

The answers for the questions and comments are as follows.

1. Table 2

In the fifth column, some indicators have only one correlation, and some have two. The readers would be better understood if the authors identified positive and negative correlations for all indicators.

Authors' responses:

Thanks for your valuable comments. We've made two revisions in Table 2 according to your suggestion, that's highlighted in red.

Table 2 The Evaluation Index of Social Vulnerability

Index	Indicator	Description	Source	Positive correlation (+) or negative correlation (-) to vulnerability
Exposure	Geographical location	Proximity to dangerous areas such as steep slope, riverbank, sea-shore, etc.	Pelling 2003, Moss et al. 2001.	Geographical location (+)
	Building	Flimsy constructions unable to withstand hazard impacts.	Wisner et al. 2004	Building fragility (+)
	Public infrastructure	Unavailability of critical public infrastructure.	Moss et al. 2001, Cutter et al. 2003, Vincent 2004	Access to public facilities (-)
Sensitivity	Health/physical ability	Physical ability of an individual or a group of people to withstand hazard impacts.	McCarthy et al. 2001, Pelling 2003, Moss et al. 2001, Hahn et al. 2009	Bad physical condition (+) Good physical condition (-)
	Livelihood stability	Unstable livelihoods not conducive to increasing income, easily leading to poverty.	Marshall et al. 2007	Unstable livelihood (+)
	Debt	Ways of life beyond mere subsistence level and lacks of long-term	Ramprasad 2019	Debt (+)

		investment in disaster reduction.		
	Renters	Lacks of access to costly housings and of sufficient shelter options.	Cutter et al. 2003	Renters (+)
Adaptive capacity	Social inclusion	No participation in local decision-making leading to social marginalization concerning social identity, self-identification, rights, opportunities, participation, etc.	Yang 2015	Social inclusion (-)
	Education	Ability to understand warning information and access to recovery information.	Cutter et al. 2003, Coulibaly et al. 2015	Low education (+) High education (-)
	Family structure	A large number of people under the age of 18 and over 65 depending on more energy and resources to adapt to disasters.	Vincent 2004 Hahn et al. 2009, Coulibaly et al. 2015	With the family member under the age of 18 and/or over 65 (+) Without the family member under the age of 18 and/or over 65 (-)
	Social capital	Access to information and resources, building trust and cohesion to reduce vulnerability.	Mpanje et al. 2018, Hahn et al. 2009	Social capital (-)
	Social insurance	Normal hedge against losses caused by risks, lacking the ability to overcome adverse effects.	Burton et al. 1993, McCarthy et al. 2001, IPCC 2014	Social security (-)
	Social security	Sufficient social welfare to improve living conditions, thereby enhancing disaster resilience, for example pensions or allowance increasing future expectations for the younger and guarantee subsistence of the elderly.	Vincent 2004, Wisner et al. 2004, Adger and Vincent 2005	Social welfare (-)
	Disaster awareness	Lack of disaster awareness and experience which may impair the basic skills needed to protect oneself.	Wisner et al. 2004	Awareness of disaster (-)
	Disaster preparedness	Inadequate disaster preparedness, for example food, water, rope etc., to reduce the ability to respond to disasters.	Wisner et al. 2004	Disaster preparedness (-)

2. 3.3 data collection and analysis

The analysis is based on a questionnaire. There is a lack of a table showing which specific questions make up the variables.

Authors' responses:

Thanks for your valuable comments. Given there are many tables in this paper, no new tables have been added. The questions of displaying each variable have been inserted into Table 4 and mentioned in the article. And the revised parts are marked in red.

In June and July of 2021, the preliminary interviews and the questionnaire surveys were conducted, respectively. First, we designed the questionnaires using the social vulnerability index (see Table 4) and the preliminary interviews with local residents.....

Table 4 The determined and normalized variables

Serial number	Variable	Description of Questions	Max	Min	Mean value	SD
1	Geographical location	Respondent's perception of the safety of his/her living place	1	0	0.4372	0.1982
2	Building	Respondent's evaluation of the safety of his/her housing	1	0	0.4265	0.2103
3	Critical infrastructure	a. Respondent's evaluation of the complete of his/her surrounding disaster prevention facilities (shelters, drainage facilities, embankments) b. Respondent's evaluation of the convenience of his/her surrounding facilities	1	0	0.5245	0.2063
4	Health/Physical ability	Respondent's perception of his/her physical condition	1	0	0.2872	0.2594
5	Livelihood stability	Respondent's perception of the stability of his/her occupation (income)	1	0	0.3863	0.2852
6	Debt	Respondent whether he/she has loans	1	0	0.1957	0.5076
7	Renters	Respondent whether he/she owns or rents the house	1	0	0.4599	0.5402
8	Social inclusion	Respondent's perception of integration into local society	1	0	0.2772	0.1788
9	Education	Respondent's education level	1	0	0.6064	0.2819
10	Family structure	In the respondent's family, the proportion of children to be supported and the elderly to the total family population	1	0	0.3871	0.2877
11	Social capital	a. Respondent's evaluation about whether quickly get help from his/her family, relatives	1	0	0.4526	0.2078

		or friends after he/she has suffered disaster losses				
		b. Respondent's evaluation about whether quickly get help from the community, government or NGOs after he/she suffers from disaster losses				
12	Social insurance	Respondent's evaluation of the sufficient of his/her insurance (such as personal safety insurance, housing insurance, other family property insurance, etc.)	1	0	0.6614	0.3023
13	Social security	Respondent's evaluation of the sufficient of his/her social security (such as medical security, pension, etc.)	1	0	0.4603	0.2578
14	Disaster awareness	a. Respondent's evaluation of his/her disaster knowledge and experience b. Respondent's awareness about disasters in their living place	1	0	0.5004	0.1647
15	Disaster preparedness	a. Respondent's preparedness for disaster prevention and escape b. Respondent's experience about participated in disaster drills	1	0	0.7051	0.2973
