Nat. Hazards Earth Syst. Sci. Discuss.,
https://doi.org/10.5194/nhess-2017-365-RC1, 2017

Natural Hazards and Earth System Sciences
Discussions

Interactive comment on "1997 Typhoon Linda Storm Surge and People's Awareness 20 Years Later: Uninvestigated Worst Storm Event in the Mekong Delta" *by* Hiroshi Takagi et al.

Anonymous Referee #1

Received and published: 24 November 2017

The manuscript, although original, seems to be a replication of the one published by the authors on August 22, 2017 in local language entitled "Investigation of awareness of typhoon and storm surge in the Mekong Delta – recollection of 1997 Typhoon Linda" doi: 10.2208/jscejoe.73.I_168, for which, only the abstract is available in English. For this reason, it is very difficult to understand if this is an original publication overall. This is confirmed by the fact that, according to the abstract insights, the authors come up with completely opposite conclusions regarding people's awareness. Apart from this, although the paper could enrich the scientific community on the topic, in its current form, does not meet the criteria of publication. There is an inadequate description of methods, an insufficient explanation of the rational of the study coming from an insuf-

ficient literature review that does not establish the background of the problem studied. Some of the results are poorly described (probably grounded on a poor questionnaire design) as the discussion that sometimes is out of context. There is a failure in emphasizing the impact of the study in a broad disaster management context, environmental and social planning.

Here some general comments:

Rather than investigating the overall awareness, authors analysed the role of memory that could have an influence on people's awareness 20 years later. The title is very effective, but the two different time periods of the survey bias the title timeframe. In addition, the survey has been enlarged to increase sample size, but neglects to consider that the not-exposed people added in the second survey are distorting the results, that therefore cannot be generalized. Some analysis about exposed and no-exposed people should be added in this regard.

The closed questions asked do not provide any qualitative background to justify the effect of memory of Linda and their past decision to evacuate. The knowledge of typhoon storm surge has been investigated with a dichotomous question that does not provide any deeper interpretation about their awareness. The authors did not check if people's perceived knowledge was reflecting the real definition. What is the meaning of adding all these broad questions without a clear framework in mind? Which were the hypotheses the authors wanted to test?

There are no statistics that support the findings. Why not cross-connect the results with each other in an attempt to identify patterns? Only from the footnote of Table 2 is it evident that some statistics have been done.

According to the basic demographics, 10 year-old-classes have been assessed and then discussed in the results as young, adult and old. This mismatch is not clear. In addition, do interviewee occupations have any impact on understanding the results?

Some of the results have been presented for the first time in the discussion (e.g. page 9 lines 17-22; page 10 lines 1-2 and 5-6), that generally appear to be poorly described and concluding to some statements that are not supported at all from the results obtained (e.g. page 7, line 8-9; page 8 lines 12-16). The discussion should provide answers to hypotheses, and if so, to interpret the findings. In addition, set the paper in the context of others work is the key to achieve a complete view of the problem under study. The implications of the findings should be discussed within a realistic framework (e.g. disaster management, socio-political background, awareness, role of trust, evacuation, message delivering, etc.). Additionally, specific discussion chapters seems to be totally out of context (e.g. Sea level rise and land subsidence) and are not connected to each other (e.g. Population increase in MD) that are further poorly described. In addition, the increased population means that there could be an increase in exposure rather than vulnerability. The Low frequency but high impact typhoon hazard chapter needs to be more articulated with the characteristics of Linda rather than recall other events in relation to disaster characterizations. Also, there seems to be some confusion about the disaster terminology evidencing an unclear understanding of the risk perception analysis developed further.

The methodology needs some detailing regarding the TC Landfall Analysis and the Tidal Analysis (see the comments on the file). This concerns even the field survey. Has the questionnaire been pre-tested? What is the literature consulted by the authors for developing the awareness questionnaire? What is the representativeness of the sample interviewed? How people have been recruited and where? Any bias related to the form of recruitment?

Conclusions need to include both the characterization of Linda than the awareness findings, trying to underline the relevance of this study and its socio-political implications. Prove to the reader, and the scientific community, that your findings are noteworthy.

The abstract needs to be enriched with the methodology used.

I suggest revising the choice of keywords (see comments on the file).

Tables and figures need major revision.

There is a collage of pictures without any caption/title/reference to the text on page 14. What the collage was made for?

I think that Figure 2 could be mapped with a GIS software. Google Earth map does not give a comprehensible overview. The spatial reference for the smallest pictures is not visible at all. The resolution is also a critical point. I think it would be useful to understand at which speed the typhoon came across each location evidenced in the map. Besides, all the story telling in the caption should be put in the text and not in the caption, as highlighted in the file attached. Specify in the caption the meaning of the blue line.

Fig. 6 has been never cited in the results. In addition, it is linked with a set of results coming from another study never being published but conducted by the authors. What's the meaning of adding such information? This is not scientifically acceptable.

Fig. 1 to 3 could be improved by lettering each figure and relating them all into the caption.

All the station names in Table 1 appear to be stand-alone without any reference in the text. I think a map could improve the understanding of the table and the analysis.

Some of the results presented in Table 2 do not match the results in the text (e.g. lines 11-12 of page 6).

Other specific comments are made through the file.

Please also note the supplement to this comment:
https://www.nat-hazards-earth-syst-sci-discuss.net/nhess-2017-365/nhess-2017-365-RC1-supplement.pdf

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2017-365, 2017.