

## ***Interactive comment on “Group decision-making approach for flood vulnerability identification using the fuzzy VIKOR method” by G. Lee et al.***

**Anonymous Referee #1**

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Page 1, line 6 et seq.: "fuzzified data" - ugh!

Page 2, lines 18–19: what about uncertainty caused by changing conditions?

Page 8: It may well be that in Korea, vulnerability to floods is partly an artefact of fragmentation of responsibility. This has been demonstrated to be the case in some other countries.

Page 9, line 22: I wonder what you did with cultural, institutional and environmental vulnerability? If you left them out, you should at least state that this is an incomplete analysis of the problem.

Table 1 does not seem to have sorted out the distinction between hazard and vul-

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nerability, or the interaction between the two. Why is there no ranking of vulnerability factors? This seems to be a classic inductive analysis, with all the defects of that technique.

This paper seems to be about numerical analysis for the sake of numerical analysis. Vulnerability is a process, not a set of numbers. To adopt a blank, unselective inductive approach is hardly to illuminate the meaning of variations in vulnerability. If the phenomenon is to be reduced, it must be understood. Merely coming up with sets of numbers and percentages does not help that process, and it lays the authors of the study open to the accusation "garbage in, garbage out". I am not impressed by the use of experts. They seem to have contributed remarkably little to the understanding of the phenomenon. Hence, the authors have refined the techniques of comparing and ranking and assimilating large, heterogeneous data bases, but the paper has remarkably little to say about vulnerability to floods.

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