Nat. Hazards Earth Syst. Sci. Discuss., 2, C2494–C2495, 2014 www.nat-hazards-earth-syst-sci-discuss.net/2/C2494/2014/

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## **NHESSD**

2, C2494-C2495, 2014

Interactive Comment

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

## **Anonymous Referee #2**

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The authors suggested the procedure for assessment of flood vulnerability using fuzzy based VIKOR method on group decision making (GDM). The selected topic in this article is sound and meaningful because the complex problem caused by different stakeholders in flood management should be resolved by a proper procedure or method. Especially they try to reduce the uncertainty caused by subjective judgment from disagreements on this issue using the scientific procedure such as fuzzy based VIKOR in GDM. The method in this study effectively improved the procedure for assessment of flood vulnerability and meaningfully overcame the limitation of the classical vote based GDM procedure. Therefore, the problems tackled with this study are of relevance to NHESSD Journal. Also, the format of this article and language are appropriate. Finally I recommend that this article can be accepted because of sound scientific suggestion

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Interactive Discussion

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and its originality. However, I have a few questions for the improvement of this article.

1. In my knowledgement, there were so many different types of fuzzy membership functions such as triangular, trapezoidal, Gaussian, Generalized bell, sigmoid etc. The author should explain clearly why they use only triangular fuzzy membership function.

2. In spite of sound suggestion of fuzzy based VIKOR, it is necessary that some limitations of this method or procedure should be explained clearly. I recommend that the authors will add the future study for improvement of that limitations in conclusion chapter.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 2, 6141, 2014.

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