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Interactive comment on "Statistical model for economic damage from pluvial flood in Japan using rainfall data and socio-economic parameters" *by* R. Bhattarai et al.

R. Bhattarai et al.

raj.basista@gmail.com

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âĂć With due respect of the reviewer's comments, we would like to mention that the present study focuses on entire Japan with sub-grid scale parameterization. In this study, the whole Japan was divided into 0.1ËŽ grid (Approx. 10 km) in which all inputs represent the micro scale phenomena in macro scale. Yes, it is true that GDP is a flow variable, but data of real property distribution in a country are not realized to date. Also the present model was developed in view of its application in global scale in which GDP could be a very useful indicator for asset value. There are number of examples which have used GDP as an asset value in their damage assessment model for example

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Chan et al. (1998), Jongman et al. (2012), Ward et al. (2013), Winsemius et al. (2013) etc. We have clearly stated the use of GDP and its applicability in the manuscript in section 2.1.4 [Page: 6085, LN: 4-11]. We are very happy that the reviewer admits the applicability of the method in developing countries. The model was basically designed to apply in global scale not only in present climatic condition but also in future. It is due to the fact of availability of very large database both precipitation and damage, we were able to develop the model from Japanese database with a capability to apply in rest of the world with different socio-economic and climatic conditions. Model development in a country having large dataset like in Japan, validate the model with available data and apply validated model in other countries with less or no date set could be a good strategy for a model development.

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