

## ***Interactive comment on “An assessment of domestic rice distribution for transboundary water-food management in Japan through virtual water trade” by Sang-Hyun Lee et al.***

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Dear Editor and reviewers

We appreciate your comments and tried to apply all comments to the revised manuscript. The main comments seemed to be related to the validation of methodology and contribution of this study. First, we validated the methodology using observed data and added a new chapter “3.3 Validation of rice distribution simulation compared to 2016 observation”. Second, we mentioned the application and contribution of this study in this chapter, for example, the importance of local distribution of food in the countries where produce large amount of domestic food products. However, there

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were still limitations of validation in a scale issue and application of international trade issue, thus, we added more explanation of limitations in this study to the new chapter “4. Limitations, but possibilities”. We also added more analysis of regional flows of rice and assessed the impacts of local food security on the regional dependency of rice in “3.2 Analysis of impacts of food security in prefectures on the entire rice distribution through various SSR scenarios” with additional Figure 2. To sum up, we added 1) Validation of methodology using regional data, 2) Limitations and contribution, and 3) Addition analysis of regional dependency of rice flow in revision. Please find the more details in revision notes including in attached Supplement zip file.

All authors including myself have seen and approved this revised manuscript. I am looking forward to your response.

Thanks. Sincerely yours. \_\_\_\_\_ Sang-Hyun Lee

Please also note the supplement to this comment:

<https://www.hydrol-earth-syst-sci-discuss.net/hess-2019-284/hess-2019-284-AC2-supplement.zip>

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2019-284>, 2019.

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