

Dear Reviewer 2:

Thank you very much for taking the time to review our manuscript. Your comments were tremendously helpful in improving the paper. We have responded to all the comments below. We believe that all your concerns have now been addressed.

On behalf of all authors,
Sayaka Yoshikawa

The authors of this manuscript are trying to develop common socioeconomic scenarios with some details (qualitative and quantitative) for Japan. However, as I read the manuscript, most of the information and data were taken from literature and what the authors did was estimation of LULC (and the methodology is taken from the literature (some updates but not sure about the improvement)). Therefore, no scientific contributions were found.

Thank you for your critique which gave us a chance to consider the scope and feature of our paper again.

Projections of climate change impacts on a national level need to consider not only climatic hazard but also exposure and vulnerability of the socio-economic system. However, there is no established method for estimating them because the socio-economic change at a national or even regional level is determined by a variety of context-dependent factors spanning a long period. Therefore, we tried to develop socio-economic scenarios combining the best available data and methods for population and LULC projections based on the Japan SSPs. These scenario data have been used for the impact assessment in several fields. While the national and regional level assessment of impacts needs to be further developed, this paper presents an approach on how to integrate the data and methods, both existing and new, for the impact assessment of climate change to inform policy decisions. We think that this is the scientific contribution of our paper. In addition, the scope and contents of our manuscript meet the GMD requirements for the category "model experiment description papers."

In addition, the authors focused too much on their project, which is unnecessary information for scientific papers (except for the acknowledgment). Therefore, the authors must delete such information.

The scenario set-up for climate change impact and adaptation assessment is an essential basis of the S-18 research project. Therefore, we need to explain the target, objectives and structure of the S-18 research project to inform readers of the relationship between the socio-economic scenarios and the impacts and adaptation assessment.