

Interactive comment on “Coupling scenarios of urban growth and flood hazard along the Emilia-Romagna coast (Italy)” by I. Sekovski et al.

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Dear Referee,

Thank you for your comments and suggestions. They helped as a lot in revising the paper. We really appreciate it.

The actions based on comments are already present in the paper that is currently on-line in the "interactive discussion". However, we will answer point-by-point to make it more clear.

REFeree: First of all, the most important deficiency is lack of the accuracy assessment for the hazard maps. The prediction of the current situation should be also mod-

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elled/estimated and compared with the observed one. The hazard map is so dramatic for the year 2050 and needs to be support with accuracy assessment.

ANSWER: Since this paper focuses more on developing the frame work that integrates hazard maps and urban growth model outputs, detailed map validation is out of scope of this paper. However, we did considered historic flood extents in the area, which is now explained in the first paragraph of the section

REFeree: The general idea is reasonable and significant in some point of views. However the fiction and presentation of the idea is week. The method especially the hazard section should be revised from the beginning and re-organized...

ANSWER: The hazard section in the methodology (3.2) is now rewritten to major extent in order to clarify the methodology as much as possible.

REFeree: The connection of the urban growth model and hazard assessment should be well integrated.

ANSWER: Additional explanation on how the hazard maps and SLEUTH output maps were integrated was added at the end of the section 3.2

REFeree: A flow diagram would be better in order to make some clarifications on the method

ANSWER: A flow-diagram has been developed and is now Figure 3, placed in the bottom of the document, along with other figures.

REFeree: The color of the prediction maps is not clear. It is better to change the color, especially the urban and the water classes

ANSWER: The water class in the Figure 4 (now Figure 5) has been changed. The flood polygons are also now connected with the Adriatic Sea. However, when we tried to change colors of urban classes, there were some issues which made us to remain with our previous version, i.e. different shades of grey. The problem was the following:

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when different urban classes were changed to colors such as red, yellow, green etc. and flood polygons (blue) were overlaid, the colors of intersecting parts merged into another color (e.g. purple-ish), which, in our opinion, can make this figure look quite confusing.

REFeree: The language of the paper is certainly needs to be checked...

ANSWER: The language has now been checked by a person with professional experience in written English.

Thank you once again and kind regards,

The authors

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