Nat. Hazards Earth Syst. Sci. Discuss.,
https://doi.org/10.5194/nhess-2017-359-RC2, 2017

Natural Hazards and Earth System Sciences
Discussions

Interactive comment on "Global assessment of land cover changes and rural-urban interface in Portugal" *by* Marj Tonini et al.

Anonymous Referee #2

Received and published: 20 December 2017

Global assessment of land cover changes and rural-urban interface in Portugal by M. Tonini, J. Parente, M. Pereira

General comments

This paper intends to present a quantitative global study on evolution of both land cover/land use changes and wildland /rural urban interface in Portugal from 1990 to 2012, to analyze spatial distribution, and to characterize burned areas within the wildland /rural urban interface during the same period of time.

The study focuses on an interesting field of research, which has increasingly gained attention in recent years and it could represent a first step for more accurate analyses in order to better understand relationships among socio-economic factors, land use

Printer-friendly version

Discussion paper

changes and fire occurrence.

The topic is appropriate for readers of the Journal and the potential research outcomes may have operational value for Mediterranean Countries. The overall presentation is well structured, the methods are appropriate, discussion of results is interesting. However, the MS has some weak points and consequently it needs to be improved.

My recommendation is that the manuscript could be accepted for publication by the journal Natural Hazard and Earth System Sciences with some revision outlined below.

Specific comments

The MS would benefit from an English language revision, some sentence are not clear and should be rephrased.

The authors should select and better clarify objectives. In fact, it is not clear if the main aim of this study was to assess the impact of land use changes on burned areas, to provide a global assessment of land cover changes, or to assess the evolution of RUI.

Page 1, lines 28-30: Three important points of view are condensed in a single short sentence. The authors should either give some details on different aspects of fire problem or to delete the whole sentence, it does not seem essential for introducing paper topics.

Page 3, lines 6-9: I was not able to find coherence in this sentence, i.e. why is “spatial extension of the WUI” determined by the factors above-mentioned?

Page 3, lines 21-23: Authors should explain if WUI and RUI terms have different meanings and, in this case, why they chose RUI.

Please check citation style.

On the whole the authors should give some more details on methodology.

Table 1: Authors showed in table 1 first and second level classes of CLC but in the

4.2 section they discussed results relative to Corine Land Cover third level. I suggest adding CLC 3rd level in table 1.

Page 5, line 24: I suggest adding a figure where an example of RUI map at local scale is shown. This could help reader to better understand which land cover classes were included in RUI and how RUI was mapped.

Page 6, line 4: explain in the text what AA means.

Page 6, line 8-9: "predominating in the inner northern region and especially in the southern half of the country" the meaning of this sentence is not clear, please rephrase.

Page 6 line 10, and page 7 figure 5 and 6: in order to avoid confusion in reading the results reported in figures 5 and 6, I suggest adding in "Data and methodology" section a description of approach authors followed for calculating area gained or lost and net percentage changes.

Page 6, Figure 4: could authors improve resolution of this figure?

Page 9, lines 7-8: what total do authors refer?

Page 9 lines 10: authors should give some further details in the text. Reader has to look for CLC classes and codes in table 1, to calculate the sum and to compare it with the other burned areas.

Page 9 lines 11-12: I was not able to find a logical connection between this sentence and the previous one. Please explain better your thought.

Figure 8: it is not clear what percentage authors refer to.

Page 13, lines 1-3: authors should explain how the factors listed in this paragraph have affected RUI changes.

Page 13, lines 34-39: conclusions reported in this paragraph are not arising from results of this study. It would be better to move this paragraph to introduction or discus-

sion section.

Page 13, line 43: “identify which regions need to be prioritized in term of . . ..” I do not think that this issue was addressed in this study.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2017-359, 2017.

Printer-friendly version

Discussion paper