

## Interactive comment on "Ecological soil quality affected by land use and management on semi-arid Crete" by J. P. van Leeuwen et al.

## Anonymous Referee #1

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The manuscript is focused on the effect of land use change on soil proprieties. The manuscript need major revision (i.e the introduction and discussion can be improved) before to be accepted. In discussion and conclusion miss the description of the novelty of this work in comparison to previous papers.

Pag 189 line 25 : add references Page 190 Line 1-5. Move this part in MM , or describe in general the land use classes in Crete. The introduction is confused: Many paragraphs of introduction are related to MM; Moreover the first part is general and does not focus on the state of art of the issue of the present manuscript.

See the following papers to improve the introduction with update research in Mediterranean environment. (Fernández-Romero et al., Land degradation and development

C100

2014; Zavala et al Land degradation and D. 2012; Novara et al., Catena 2012; Galati et al., Land degrad. 2015)

Line 2 page 191. Add also the contribution of microorganism of litter incorporation into the soil (see Novara et al. Solid Earth)

MM The first sentence is repeated in Introduction (delete here or in the introduction) Lines 12-14 Page 191. This part is not MM Lines 20 -22 Page 191. This part is not MM Page 192: Don't repeat the description of the site. It was done in the table 1, therefore delete this information from MM chapter.

Page 192 "Samples were taken in May 2010" All samples? Soil sample? Line 26 Page 192 Add reference

The numbers in the axis of figure 1 are too small. Pag 197 lines4-7 Delete this part

The difference in Soc content among different land uses can be related to difference in altitude (discuss this point in discussion chapter; see Alberti et al. 2011) The conclusion talks about the choice of ecological indicators. This issue is not explained in the introduction.

Interactive comment on SOIL Discuss., 2, 187, 2015.