

Interactive comment on “Effects of land use changes and conservation measures on land degradation under a Mediterranean climate” by Y. Mohawesh et al.

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General comments:

A thorough investigation of the effects of land use change on soil properties and their influence on land degradation in a Mediterranean climate. Although the methods adopted are standard, the environment within which the study takes place is fragile and therefore the detailed results obtained help us to understand the importance of conservation of soil properties in preventing land degradation. The methods are clearly described, although some refinement is needed in places as indicated below. The results are analysed comprehensively and appropriate conclusions drawn. Good referencing to

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existing published information and the authors contrast their results against the findings of others. A well structured paper.

Specific comments:

p.120 line 22: The method of mapping the image data needs further clarification. Was this done purely by visual interpretation or was some form of image classification method used?

p.121 line 3: On what basis were these rainfall zones selected or are they arbitrary? Also, state the purpose for zoning here rather than the reader having to find this out by reading further on in the paper.

p.121 line 15: When was the field survey undertaken i.e. was it coincident with the 2008 image acquisition? If not does the difference in ground sample collection date and image date impact on the comparison of the measured soil data with the image data?

Technical corrections:

p.119 line 27: Replace 'at' with 'in'

p.120 line 1: Replace 'at' with 'in'

p.120 line 14: Replace 'soil' with 'soils'

p.120 line 19: Move the word 'occasionally' to the last word in the sentence

p.120 line 24: Insert 'A' before 'similar'

p.120 line 26-28: Delete sentence beginning 'The classification..' as this is implicit in what has already been said.

p.121 line 15: Replace 'represents' with 'represented'

p.121 line 17: Replace 'changes' with 'change'

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- p.121 line 19: Replace 'will be' with 'in' and insert 'the' before 'tables'
- p.122 line 8: Insert 'the' before 'presentation'
- p.122 lines 16 - 18: Put percentage figures before the land use types.
- p.123 line 2: Replace 'withdrawn' with 'drawn'
- p.123 line 3: Replace 'difference' with 'differences'
- p.123 line 13: Replace 'fields' with 'field'
- p.124 line 8: Replace 'expenses' with 'expense'
- p.125 line 10: Replace 'wall' with 'walls'
- p.125 line 16: Replace 'wall' with 'walls'
- p.126 line 2: Replace 'changes' with 'change'
- p.126 line 8: Replace 'which had had' with 'with'
- p.126 line 18: Replace 'forests' with 'forest'
- p.127 line 2: Replace '1979' with '1978'
- p.127 line 12: Replace '1979' with '1978'
- p.127 line 15: Replace '1979' with '1978'
- p.129 line 21: Replace 'lands' with 'land'
- p.129 line 24: Insert 'the' before 'surface'
- p.129 line 26: Replace 'conversions' with 'conversion'
- p.130 line 1: Insert 'a' before 'long'
- p.130 line 23: Replace 'resulted' with 'was seen'
- p.130 line 24: Replace 'long' with 'significant' and insert 'period' before 'needs'

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- p.131 line 1: Replace 'terrace' with 'terraces'
- p.131 line 19: Delete 'the'
- p.133 lines 22-27: These two references are in the wrong place in the reference list.
- p.137 & 138 tables 1 & 2: Replace letter suffixes for significance levels with a single star for 0.01 and two stars for 0.05
- p.145 figure 2: Remove the black background around the image detail, adjust the position of the north arrow so that it does not conflict with the mapped information, a legend is needed and the scale bar and north arrow should have the same style as that used in figure 1.

Interactive comment on Solid Earth Discuss., 7, 115, 2015.

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