

## ***Interactive comment on “Evaluation of a combined drought indicator and its predictive potential for agricultural droughts in Southern Spain” by María del Pilar Jiménez-Donaire et al.***

### **Anonymous Referee #3**

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#### General comments:

This paper proposes a new combined drought indicator (CDI) integrating rainfall (SPI-3), soil moisture (SMAI) and vegetation dynamics (NDVI). It is shown that this indicator is useful to predict dry periods. Therefore the research carried out in this paper is of scientific and practical interest, and in my opinion it is adequate to NHES journal. The manuscript is in general well structured and presented. The methodology employed and the obtained results are well exposed. It seems to me that the paper could be published as long as the authors answer the following minor concerns that arose from the review process that I made.

C1

#### Specific comments:

I only have a couple of minor specific comments to be answered by the authors. 1. Did the authors make a comparison between the new combined drought indicator (CDI) that they propose and other combined drought indicators? Could the authors include in the paper some comments in this direction? 2. Did the authors apply this new combined drought indicator on geographic areas of different characteristics with respect to the characteristics of the areas in Southern Spain analyzed in the present study? Would it be possible that the evaluation of the CDI indicator should be different?

#### Minor comments:

Page 4, line 9: There are a couple of words not in English. Page 5, line 2: The same comment as I did before. Page 11, line 12: The classification of CDI is not clearly exposed in this section. Page 16, Figure 2: Perhaps it should be more clear (and homogeneous) substituting the “9” that appear at the beginning of the years, by “sep”, as authors did in Figure 6. Furthermore, why the year 2013 is not printed in the figure? Also, in the description of this figure, I suppose that “La Campiña” should appear with capital letters, as in the rest of the document. Page 17, Figure 3: Same comments that I made for Figure 2. Page 19, Figure 5: Same comments that I made for Figure 2. Page 19, in the bottom: I suppose that the meaning of the colors that appear at the bottom of this page should appear inside Figure 6 of page 20. Page 20, Figure 6: In my opinion, this figure needs to be clearer with respect to the CDI indicator, including the meaning of the colors, for a better reader comprehension. Furthermore, it is not clear to me why the value of the agricultural crop damage intensity (blue line) is not printed for the last year. Pages 20-21, Table 3: Could the authors improve the quality of this table?

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C2