

Interactive comment on “Using ordered weight averaging (OWA) for multicriteria soil fertility evaluation by GIS (case study: southeastern Iran)” by Marzieh Mokarram and Majid Hojati

Anonymous Referee #2

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This paper presented an OWA based spatial soil fertility assessment. Six scenarios were generated when considering the level of the risk and trade-off. The study is meaningful for the soil fertility evaluation work of the study area. But the novelty of the paper is not very significant. There are some other suggestions or comments I need to propose as follows:

- (1) What is kind of “risk” the authors mentioned in this paper?
- (2) Page 6, line 117. “. . .located at longitude of N 29° 31′ - 29° 38′ and latitude of E 52° 49′ to 52° 57′”. Please check whether it is “longitude” or “latitude”.
- (3) In each part of the paper, the criteria: K, P, Cu, Fe, Mn, OC and Zn should have the

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same sequence of writing, such as in Table 2, in line 127 and in line 143.

- (4) Page 8, line 137. “krining” or “Kriging”? Please check it.
- (5) Please check the grammar of the sentence in line 151-152: “In order to homogenize each parameter for weightedness by OWA method for preparing the final soil fertility fuzzy method was used.”
- (6) In Table 3, all the values of the row “rank” are 1st, 2nd, 3rd, . . . , 7th. Is it possible to simplify the table?
- (7) Which sub-figure in Figure 6 is figure 6(1), Figure 6(2), etc? Please also give the figure name of all sub-figures.
- (8) Page 17, line 192. “So, only the parts of west and southwest of the study area were suitable for soil fertility.” Please check that “the parts of west” or “the parts of east” in this sentence.
- (9) In Figure 7, each class of all the sub-figures should have the same color. Please also give the figure name and serial number of all sub-figures.
- (10) In Table 4, the classification method is Equal Interval. Is it reasonable to use this method? Please explain it.
- (11) Figure 8 and Table 5 presented the same information that the area of each classes using OWA method for soil fertility. In my point of view, it is appropriate to keep only one of them (Figure 8 or Table 5).
- (12) The conclusion section should summarize the research procedure of this study.

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