

## ***Interactive comment on “Investigation of the relationship between electrical conductivity (EC) of water and soil, and landform classes using fuzzy model and GIS” by M. Mokarram and D. Sathyamoorthy***

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This paper complements several ongoing studies of the authors about soil fertility in Iran. This study, together with some recent submitted papers, focuses one of the most important centres for agriculture in this country. Consequently, a better understanding of the factors influencing soil fertility in this region may provide important guidelines to improve agriculture production for the entire country.

I have started reviewing the manuscript until the results section. Until here, I had some minor comments and suggestions, which you will find below. But when I reached the

C1

Result and Discussion section I found it very difficult to follow. It is very poor and mainly consists of figures, without accurate descriptions of their meaning. Moreover, and this is the weakest part of the manuscript, results are not discussed and compared with other similar studies and regions on Earth. This section needs to be rewritten and reorganized. Please, interpret and discuss your data, not just present it. What is new and different with respect to previous studies? Are similar/different approaches with similar/different results been implemented in other areas with similar environmental settings? Please support your results comparing your data with other similar studies around the world.

Figures and tables are enough and of good quality.

Title The Study area is not included and should be since this is a study case focusing on one specific area.

Abstract l. 25 as a geomorphologist, it is not clear to me what “classes of landforms” means

Keywords: one keyword should be related to the study area

Introduction l. 40-42 unclear, please rephrase l. 43-44 Repeating what was said before l. 44-46 too forced, please split the two ideas into two different sentences l. 51-53 this is a scientific paper, please be direct and do not mention this kind of general information. People that will read your findings already know what GIS possibilities are. Avoid unnecessary information. l. 56 “more and more”??? l. 59-60 and 60-62. Merge these two sentences. l. 68 and 71 avoid same constructions in consecutive sections l. 71 “also” appears two times in the same sentence

2. Case study The Study area should include further information for the reader who is not familiar with the area (geology, water availability, human population/distribution, etc). l. 86 what about precipitation? I guess it is important for agriculture purposes. l. 87 monthly or absolute values? I guess it is monthly, mention it l. 92 is there any

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important city/village in the study area which should be included in the map? l. 96  
human conditions? Mention them. Is the area under great human pressure? l. 97  
space before "one" l. 97-98, this sentence is uncomplete. I would say, OK, and what?  
Please rephrase it.

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