

## Review Form 1.7

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| Journal Name:            | <b>Journal of Geography, Environment and Earth Science International</b>   |
| Manuscript Number:       | <b>Ms_JGEESI_102580</b>  |
| Title of the Manuscript: | <b>Dust outbreaks across East Iran: Application of multi-source remote sensing data (AMSR-E and FengYun3-MWRI) on the effects of soil moisture</b> |
| Type of the Article      | <b>Original Research Article</b>   |

### **General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<https://www.journaljgeesi.com/index.php/JGEESI/editorial-policy> )

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**PART 1: Review Comments**

|   | Reviewer's comment   | Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here) |
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| <p><b>Compulsory</b> REVISION comments</p> <ol style="list-style-type: none"> <li>1. <b>Is the manuscript important for scientific community?</b><br/>(Please write few sentences on this manuscript)</li> <li>2. <b>Is the title of the article suitable?</b><br/>(If not please suggest an alternative title)</li> <li>3. <b>Is the abstract of the article comprehensive?</b></li> <li>4. <b>Are subsections and structure of the manuscript appropriate?</b></li> <li>5. <b>Do you think the manuscript is scientifically correct?</b></li> <li>6. <b>Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</b></li> </ol> <p><b>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</b></p> | <p><b>The topic is interesting, the area of Sistan is widely known with a large number of published works, but the overall paper in its present form cannot be considered as an important contribution to science and strong revisions are needed throughout the paper.</b></p> <p><b>Title is OK.</b></p> <p><b>Abstract needs some language revisions, but in general terms reflects the whole material well.</b></p> <p><b>Structure of the manuscript has many flaws. In the Introduction, there is no reference to the study region, dust storms, wind erosion, etc over Sistan and lacks of relevant literatures.</b></p> <p><b>As the whole m/s, abstract needs strong revision. Writing of the manuscript needs further improvements in order to meet the scientific standards. The results and discussion parts are too poor, without in depth analysis, discussions and physical explanations of the results.</b></p> <p><b>The references are poor, especially for this region. In the following, authors may see recommended literature and many references therein.</b></p>   |   |
| <p><b>Minor</b> REVISION comments</p> <ol style="list-style-type: none"> <li>1. <b>Is language/English quality of the article suitable for scholarly communications?</b></li> </ol>   | <p>This is a main drawback of the paper. Whole manuscript has many flaws in English language, both in grammar and in syntax. Authors should carefully revise line by line the m/s and an experienced scientist to take the responsibility of an extensive revision in the style of writing, clarification and better explanation of several statements and more detailed discussions of the results. Current results should be also connected with the literature regarding the dust activity in east Iran, which is especially rich.</p>  |   |
| <p><b>Optional/General</b> comments</p>   | <p>Whole m/s needs strong revision and re-writing in many parts by an experienced researcher in organizing, presenting and discussing of scientific results. This is the basic comment that I can have here, since I have not used these satellite and soil moisture data before, in order to be familiar with the techniques. On the other hand, the lack of literature, at least over Sistan Basin, is obvious throughout the paper. So, authors are encouraged to read previous papers for ideas about writing and organization of research works and to provide references for Sistan Basin and related issues of climatology, drought, soil erosion, dust storms, etc...</p> <p>Further, the Introduction section should include discussions about aridity, soil moisture, land coverage, dust activity, wind erosion, synoptic meteorology, etc of the study region. The literature, especially over Sistan, is rich.</p> <p>Description of the Sistan Basin lacks of references. It's incredible that authors did not use even one reference for the study region, even for dust activity, levar winds, hamoun lakes and drought, dusty days, etc...</p> <p>The section 2.2. is too general, except of the last paragraph and provides statements that are not directly applicable to the current case. Authors should emphasize and discuss in detail only those data and data sources that are used in this research.</p> <p>Table 1 includes several stations northern than Sistan, so what's the study region? Does is include Khorasan Razavi? This is should be also discussed in the ms and in study region.</p> <p>Although some revisions are needed, in general, satellite sensors and data are well described (and in detail) in the manuscript. However, end of section 2.3.6 has many flaws in English language and should be totally revised.</p> <p>The model used for the preparation of Fig. 5 (dust density maps) is not described at all. Is it model,</p> |   |

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|  | <p>or synthesis of MODIS data? It's not clear at all, the importance of Figs. 5 and 6. There is no discussion about areas with high density in dust particles, etc... Also, there is no description for the dust status in Sistan. So, why did you include these figs?</p> <p>In general, the results section is very poorly discussed and all the figures are rather poorly described. There is no connection with literature and previous studies in the region and at any case, the results and discussion parts should be definitely enriched. Authors should also refer the importance of each figure and how it contributes to the scope of the paper.</p> <p>Recommended literature for this paper:<br/> <a href="https://doi.org/10.1016/j.catena.2018.03.011">https://doi.org/10.1016/j.catena.2018.03.011</a>.<br/> <a href="https://doi.org/10.1016/j.ecolind.2020.107325">https://doi.org/10.1016/j.ecolind.2020.107325</a><br/> <a href="https://doi.org/10.1016/j.atmosres.2021.105711">https://doi.org/10.1016/j.atmosres.2021.105711</a><br/> <a href="https://doi.org/10.1007/s12517-023-11338-9">https://doi.org/10.1007/s12517-023-11338-9</a></p> |  |
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**PART 2:**

|   | <b>Reviewer's comment</b>  | <b>Author's comment</b> (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here) |
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| <b>Are there ethical issues in this manuscript?</b> | <i>(If yes, Kindly please write down the ethical issues here in details)</i> |  |

**Reviewer Details:**

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|----------------------------------|---|
| Name:                            | <b>Dimitris G. Kaskaoutis</b>   |
| Department, University & Country | <b>Institute for Environmental Research and Sustainable Development, National Observatory of Athens, Greece</b> |