

Review Form 1.7

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| Journal Name: | Journal of Experimental Agriculture International |
| Manuscript Number: | Ms_JEAI_117121 |
| Title of the Manuscript: | A GIS-based Approach to Spatially Explicit Mean Areal Rainfall Estimation |
| Type of the Article | Research Article |

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>Compulsory REVISION comments</p> <p>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p> <p>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p> | <p>1. Yes, the manuscript is important for the scientific community as it offers a GIS-based approach to accurately estimate mean areal rainfall, aiding hydrological modeling and water resource management.</p> <p>2. Yes, the article title seems appropriate to me; however, specifying the area in the title could enhance its contextual relevance.</p> <p>3. Abstract seems appropriate however, it could include brief statements about the significance of these findings and their potential implications for hydrological planning and management within the Krishna District. Adding a sentence about the study's contribution to existing knowledge or its practical applications can make the abstract more informative.</p> <p>4. The current introduction briefly mentions the importance of spatial analysis in understanding hydrological systems but lacks a detailed review of past studies that have applied similar GIS methods in comparable settings. Also, The manuscript would benefit from a clear statement of its research objectives or hypotheses towards the end of the introduction. In methodology section the use of ArcGIS software and three rainfall estimation techniques are mentioned i.e., arithmetic mean, Thiessen polygon, and isohyet methods. However, the justification for choosing these specific methods over others is not well articulated.</p> <p>5. Yes, it is.</p> <p>6. References in the manuscript are up to the year 2020. I suggest incorporating more recent studies to ensure that the research includes the latest developments in the field.</p> | |
| <p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p> | <p>There are a few typographical errors, such as 'Arithemtic mean' instead of 'Arithmetic mean,' along with some grammatical and syntactical issues. Some sentences also require clarification and simplification. Otherwise, it is suitable.</p> | |
| <p>Optional/General comments</p> | | |

PART 2:

| | 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>Are there ethical issues in this manuscript?</p> | <p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p> | |

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Reviewer Details:

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| Name: | Ayesha Siddiqui |
| Department, University & Country | University of Agriculture, Pakistan |