|  |  |
| --- | --- |
| Journal Name: | [**Journal of Geography, Environment and Earth Science International**](https://journaljgeesi.com/index.php/JGEESI) |
| Manuscript Number: | **Ms\_JGEESI\_133254** |
| Title of the Manuscript: | **Markov Chain Analysis and Incomplete Gamma Probability Function for Rainfall Distribution in the Plain and Hill Zones of Uttarakhand** |
| Type of the Article |  |

**PART 1: Comments**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Reviewer’s comment**   |  |  | | --- | --- | | **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer** | | | **review.** |  | | **Author’s Feedback** *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | * **The paper mentions Weather Cock software but does not describe its methodology in depth. How does it process rainfall data? What statistical models does it use?** * **A brief explanation or citation would add clarity.** |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **yes** |  |
| **Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.** | Adding a sentence on howfarmers and policymakers can use this data (e.g., recommendations for crop selection, sowing schedules, or irrigation planning) would strengthen the practical relevance. |  |
| **Is the manuscript scientifically, correct? Please write here.** | The manuscript applies well-established probability models and presents meaningful agricultural insights. **Minor Issues :**Some sections require more clarity in definitions, probability interpretation, validation, and software methodology. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | The references support the methodology but lack recent and region-specific sources. |  |
| **Is the language/English quality of the article suitable for scholarly communications?** | Mostly suitable for scholarly communication but requires minor grammar corrections, better conciseness, and smoother transitions |  |
| **Optional/General** comments |  |  |

**PART 2:**

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

**Reviewer Details:**

**Praveena Nuthakki, India**