

### Review Form 3

Journal Name:	<a href="#">International Journal of Environment and Climate Change</a>
Manuscript Number:	Ms_IJECC_129710
Title of the Manuscript:	Exploring River's Flood Dynamics: Integrating HEC-RAS 1-D Modelling and Geospatial Techniques for the Karjan River in Gujarat's Narmada Basin
Type of the Article	Original Research Article

#### **General guidelines for the 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 guidelines for the Peer Review process, reviewers are requested to visit this link:

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#### **Important Policies Regarding Peer Review**

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#### **PART 1: Comments**

	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
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.	In the context of climate change and the consequent occurrence of frequent extreme climatic events, exploring a river's flood dynamics is certainly important. Integrating HEC-RAS 1-D modelling and geospatial techniques for the Karjan River is an interesting study and must be useful to the scientific community as well as river managers. The method outlined in this paper must be useful in the preparation of Tier I EAP and its validation across different platforms.	
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.	Yes	
Is the manuscript scientifically, correct? Please write here.	Yes. But the manuscript must specifically mention in its conclusion about the limitation of this study. As the vertical resolution of Alos Palsar Dem is limited to 2.3 to 2.5 metres as in the case of SRTM DEM, the methodology elucidated here can be applied only for generating the Tier I EAP. Comparing the results with actual cross sections taken at site is required for a precise modelling. This limitation must be clearly mentioned.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	In the initial discussion on floods, you may cite some more papers on Kerala Floods 2018. Refer to the following and cite them. 1. Padikkal, S., Rema, K.P. and Gopi, G., 2020. Frequented Extreme Climatic Events in Kerala-Evolving Sustainable Management Paradigm. <i>Journal of the Indian Society of Coastal</i>	

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	<p><i>Agricultural Research</i>, 38(2), pp.140-146.</p> <p>2. Joshy, K.A., Chandran, S.R. and Padikkal, S., 2022. Role of flood control dams in managing extreme climatic events: A case study of Kerala's periyar basin. <i>INCOLD Journal (A Half Yearly Technical Journal of Indian Committee on Large Dams)</i>, 11(1), pp.48-52.</p> <p>3. Padikkal, S., Chandran, S.R. and Joshy, K.A., 2021, September. Impact of 2018 Deluge–Need to Evolve Kerala Water Resources Information System for Long Term Mitigation. In <i>Conference GSI</i> (pp. 144-150).</p>	
<b>Is the language/English quality of the article suitable for scholarly communications?</b>	Yes	
<b>Optional/General</b> comments	<b>The above mentioned minor revisions would make this paper more readable and more useful the scientific community.</b>	

**PART 2:**

	<b><u>Reviewer's comment</u></b>	<b><u>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)</u></b>
<b><u>Are there ethical issues in this manuscript?</u></b>	<b><u>(If yes, Kindly please write down the ethical issues here in details)</u></b>	

**Reviewer Details:**

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<b><u>Department, University &amp; Country</u></b>	<b>India</b>