Manuscript. Number.: HELIYON-D-24-25047R1

Title: Modelling and Estimation of Above Ground Biomass and Carbon Stock of Pinus Roxburghii Dominated Forest Using Sentinel-2 Imagery in Shreenagar Hill, Nepal

Journal: Heliyon

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Thank you for submitting your manuscript to Heliyon. We have completed the review of your manuscript and a summary is appended below. The reviewers recommend major revisions are required before publication can be considered. If you are able to address all reviewer comments in full, I invite you to resubmit your manuscript. We ask that you respond to each reviewer comment by either outlining how the criticism was addressed in the revised manuscript or by providing a rebuttal to the criticism.

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We also request you to ensure the following about data availability.

While first submitting your manuscript, you were asked two questions regarding data availability. The questions and your responses to them are as follows,

**Additional Information**

1. Sagar Bashyal, M.Sc. Forestry in General Forestry

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| --- | --- |
| **Question** | **Response** |
| Please explain:  as follow-up to "Please select why. Please note that this statement will be available alongside your article upon publication." | Inside "Attach Files" Tab, Data has been attached in "Data in Brief" Section.  If any of the other data are required then authors are ready to provide that. |
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Please add these responses to the ‘Data availability statement’ section of your manuscript. If your manuscript doesn’t contain a ‘Data availability statement’ section, please add one right before the ‘References’ section and then include these responses therein.

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Your revision due date is Aug 20, 2024.

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I look forward to receiving your revised manuscript.

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Kind regards,

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The study does not provide an adequate sample size to support its conclusions. The limited number of samples undermines the reliability and generalizability of the findings. Used 70/30 split in the experiment. Given the small sample size, 26 samples, reporting k-fold (say k=10) cross-validation is essential to demonstate the generalizability of the approach.  
  
The methodology section lacks sufficient detail and clarity. Key aspects of the experimental design, data collection, and analysis procedures are not well explained, making it difficult to assess the validity and reproducibility of the results.

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