

## Review Form 1.6

Journal Name:	<a href="#">Asian Journal of Research in Agriculture and Forestry</a>
Manuscript Number:	<b>Ms_AJRAF_88412</b>
Title of the Manuscript:	<b>Estimation of Carbon Sequestration in a Forest: A case study of Bhawal National Park, Gazipur</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.journalijecc.com/index.php/IJECC/editorial-policy> )

### 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)
<b>Compulsory</b> REVISION comments	<p>1.The research content has some application and reference significance, but carbon estimation by biomass is a common research method in academia, and the overall article seems to lack of Novelty.</p> <p>2. Please explain whether the rootstock ratio of 0.26 mentioned in the paper is applicable to Bhawal National Park, Ghazipur, <math>BGTB = AGB \times 0.26</math>, whether AGB is AGTB and whether there is any writing error.</p> <p>3.The article is about the amount of carbon sequestered in the forest, and all the tree species in the sample plots were sampled, so there should be other types of trees besides Sal trees, but only Sal trees are shown in the results. If the majority of the trees are Sal trees, then the types and percentages of the 240 trees should be shown to fully explain the results.</p> <p>4. The biomass calculation itself includes tree height and diameter at breast height, which are inherently correlated, so what is the significance of the correlation analysis in 3.5? What does it tell us about the problem? It is not explained in the article.</p> <p>5.There is only a conclusion part in the article, which lacks certain discussion and reflection. The overall analysis process of the article is less, basically the presentation of panel data.</p>	<p>Thank you very much for your precious comments on the submitted manuscript, certainly that will help me to improve it. However, I have done this project in partial fulfilment of the requirements for the degree of Masters in Environmental Sciences and Management for 4 credit hours. Also, it was completed during the pandemic, so there were some limitations to choose the project and methodologies.</p> <ol style="list-style-type: none"> <li>Yes, carbon estimation is a common research method in academia. There are so many tested methods to assess the sequestered carbon but I chose a more complicated method than the simplest one like the FAO default method. Here only novelty is tried to connect the carbon estimation significance with forest management to tackle global warming and climate change and need to develop more allometric model for the species-specific localized trees.</li> <li>The Bhawal National Park, Gazipur, Bangladesh forest is subtropical moist forest which is characterised by high rainfall (&gt;1,700 mm annually), even distribution of solar radiation throughout the year, constant high temperatures (mean monthly temperature. &gt;24 °C), and lack of frost (Grainger 1993). In the moist forest root-to-shoot ratio rarely exceeds 0.25 (S.J. Van Bloem, ... A.E. Lugo, in <i>Encyclopedia of Forest Sciences</i>, 2004) but for the dry forest it may range from 0.4 to 1.0. There are many forest researchers in Asia who used it as 0.26 to deal with sal forest, therefore I used it with reference. I recognized that there was a typing error in the equation, and I corrected as <math>BGTB=AGTB \times 0.26</math>.</li> <li>Yes, I counted and measured all trees in the sample plots (except herb and shrub). However, the other tree species number was minor and statistically insignificant, I found Arjun (<i>Terminalia arjuna</i>)- 1, Bohera (<i>Terminalia belirica</i>)-1, Acacia (<i>Acacia auriculiformis</i>)-1, among the 9 plots and rests were Sal (<i>shorea robusta</i>) -237. Also, the Arjun, Bohera and Acacia DBH were 49, 51 and 71 cm; and tree height were 22.6, 20.3 and 19.8 meter respectively whereas average (of 240 trees) DBH was 57.33 cm and average tree height was 21.75 meter. Although I explained it in the result section.</li> <li>Absolutely right, it is inherently correlated although I did it because of an issue of cross check and to reflect skills to analyse data. I added some words in the result section about its significance.</li> <li>I revised the conclusion part to add more information regarding this study findings.</li> </ol>
<b>Minor</b> REVISION comments	1.Can the approximate locations of the plots P1, P2, P3be shown in the map, not just the coordinate locations. It is suggested to add a map for illustration.	<ol style="list-style-type: none"> <li>The original research paper has the location map indicating the sample plots, however, to make it short I didn't use in the publication. According to your suggestion, I added the map.</li> </ol>
<b>Optional/General</b> comments		

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PART 2:

	<b>Reviewer's comment</b>	<b>Author's comment</b> <i>(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)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	No, there is no ethical issue