

**Review Form 1.7**

Journal Name:	<b>International Journal of Environment and Climate Change</b>
Manuscript Number:	<b>Ms_IJECC_107545</b>
Title of the Manuscript:	<b>EVALUATION OF BIOPLASTIC DEVELOPED FROM CORN STARCH AND Euphorbia antiquorum LATEX</b>
Type of the Article	<b>Original Research Article</b>

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**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)
<p><b>Compulsory REVISION</b> comments</p> <p>1. <b>Is the manuscript important for scientific community?</b> (Please write few sentences on this manuscript)</p> <p>2. <b>Is the title of the article suitable?</b> (If not please suggest an alternative title)</p> <p>3. <b>Is the abstract of the article comprehensive?</b></p> <p>4. <b>Are subsections and structure of the manuscript appropriate?</b></p> <p>5. <b>Do you think the manuscript is scientifically correct?</b></p> <p>6. <b>Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</b></p> <p><b>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</b></p>	<p><b>Cannot be said</b></p> <p><b>NO</b></p> <p><b>NO</b></p> <p><b>Yes</b></p> <p><b>Cannot be Said</b></p> <p><b>NO</b></p>	
<p><b>Minor REVISION</b> comments</p> <p>1. <b>Is language/English quality of the article suitable for scholarly communications?</b></p>	<p><b>NO</b></p>	
<p><b>Optional/General</b> comments</p>	<p>The research article on the evaluation of bioplastic developed from corn starch and Euphorbia antiquorum latex presents an insightful study. The research article successfully addresses the problem of plastic pollution by exploring the synthesis of bioplastic from natural sources. However, the manuscript could be improved by providing more recent references in the introduction, offering a more detailed discussion of the results in the context of existing literature, and suggesting future research directions in the conclusion.</p> <ul style="list-style-type: none"> <li>• The presentation of the research could be enhanced by including figures or diagrams illustrating the experimental setup and procedures.</li> <li>• While the introduction provides a general overview of the issue of plastic pollution, it lacks recent references to demonstrate the current state of research in the field. Including more recent studies and their findings would strengthen the introduction and provide a more comprehensive background for the study.</li> <li>• The discussion section could benefit from a more detailed analysis of the results in comparison to existing literature. How do the results of this study align with or differ from previous research on similar topics? A more thorough discussion would provide valuable insights and enhance the overall quality of the manuscript.</li> <li>• The conclusion could be improved by suggesting potential avenues for future research.</li> <li>• Addressing these points would strengthen the manuscript and contribute to its overall clarity, depth, and impact.</li> <li>• Addressing these concerns would not only strengthen the credibility of the research but also provide a comprehensive understanding of the implications and applications of the developed bioplastic.</li> </ul>	

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	<p>However, there are some critical questions and concerns that need to be addressed:</p> <ol style="list-style-type: none"> <li>1. What specific conditions were maintained during the biodegradability tests? Were there controls in place to account for external factors influencing the degradation process?</li> <li>2. How were the soil samples prepared for the biodegradability tests, and were the environmental conditions mimicked accurately?</li> <li>3. Were there any external factors, such as temperature variations, that could have influenced the results? If yes, how were these factors controlled?</li> <li>4. While the study highlights the biodegradability of the bioplastic, what about the environmental impact of the production process? Were any harmful chemicals used in the synthesis of these bioplastics?</li> <li>5. How does the production of this bioplastic compare in terms of environmental impact to traditional plastic production?</li> <li>6. The article indicates that Sample A (without PVA) showed higher biodegradability than Sample B. What could be the reasons for this difference? Could it be attributed to the presence of PVA?</li> <li>7. Can you provide a comparative analysis of the mechanical properties (tensile strength, flexibility) of the developed bioplastics in contrast to traditional plastics?</li> <li>8. Is the production of these bioplastics scalable for industrial applications? What are the challenges in scaling up production?</li> <li>9. Has there been any analysis or discussion regarding the economic viability of producing these bioplastics on a larger scale?</li> <li>10. What safety measures were taken during the synthesis and testing of these bioplastics, especially considering the involvement of chemicals?</li> <li>11. Were there any studies conducted regarding the potential health hazards associated with the breakdown products of these bioplastics during degradation?</li> <li>12. While the bioplastic's biodegradability is highlighted, what about its long-term stability? Is there a risk of premature degradation in certain environmental conditions?</li> <li>13. What are the future research avenues identified based on the findings of this study? Are there plans to further optimize the composition for enhanced properties?</li> <li>14. Is there ongoing research on finding alternative, more sustainable sources for the production of bioplastics?</li> </ol>	
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**PART 2:**

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

**Reviewer Details:**

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