Review of: "Yield Forecasting Model for Maize Using Satellite Multispectral Imagery Driven Vegetation Indices"

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Potential competing interests: No potential competing interests to declare.

Major revision is recommended.

The author conducted this study to generate a relationship between NDVI and yield for forecasting the maize yield. There are several major problems in the study which are listed below:

1. On page no. 3, it is written: “using high-resolution Landsat 8 Operational Land Imager (OLI) and Sentinel 2A Multi-Spectral Instrument (MSI) surface reflectance data”. Landsat and Sentinel 2 data are not high resolution; they are coarse resolution. Kindly either correct it or present some evidence for this statement.
2. NDVI is used in the study, while there are other good indicators that can map crops more accurately than NDVI. Either include other indicators or tell the advantage of using NDVI only.
3. Kindly mention the novelty of your study and the problem statement clearly. The novelty of the study cannot be seen.
4. Figure 1 is not in proper resolution. It has been stretched too much, which loses its visibility.
5. Figure 2 is not proper. The boundaries of the districts are not visible.
6. On page no. 6: The last paragraph is quite confusing; the reader will get confused between the methods used for pre-processing. Kindly write it again and mention the pre-processing steps according to the satellites.
7. On what basis have you selected the single image? It is mentioned that the image is selected based on maximum greenness. What does this greenness mean? Is it related to some selected coordinates or to the whole image?
8. Page no. 7: The last paragraph is again confusing; the reader will not be able to infer your statement.
9. On page 8, the first line mentions to remove the NDVI pixels that have values less than 0.25 and more than 0.95. Kindly check the pixel values as per the maize. The range given by you is a wide range that will not separate the non-agricultural crops.
10. On page 8: “To develop the maize yield estimation model for both fields, the data of maize yield and Landsat 8 (OLI) and Sentinel 2A (MSI) images were used for 2018-2021.” Kindly explore these lines.
11. In the results and discussion, the line spacing is not the same in the manuscript.
12. Figure 3 does not have any locations mapped or boundaries for each NDVI map generated. The legends do not show any ranges. So, figure 3 needs to be drawn again and needs to mention the ranges.
13. All figures presented in the study are not up to the mark. They need to be revised again.
14. There is a lack of a discussion part in the manuscript. The discussion should be written separately and should be written in order to support your study.

15. On page 9, last line: “. On the other hand, for Sentinel 2A data, the NDVI distribution was the maximum during the 2019-2020 season and minimum during the 2019-20 season at Kaharole upazila in Figure 3.” Are the maximum and minimum both the same for 2019-2020?
16. Where are the regression parameters for single years? Is there a specific reason for not mentioning those parameters here?
17. The conclusion needs to be written again after writing the discussion part.