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.

The study found that the use of high-resolution satellite images, particularly from Sentinel 2A, led to more accurate predictions of maize yields compared to Landsat 8. The absolute mean error of prediction was approximately 10.15% for Landsat 8 and 8.82% for Sentinel 2A, indicating the superior performance of Sentinel 2A in yield prediction. The research also highlighted the potential of using NDVI data extracted from Sentinel 2A high-resolution satellite images for successful and accurate maize yield prediction in the study area. This suggests that high-resolution satellite imagery can be an effective tool for early prediction of maize yield, thereby enhancing agricultural decision-making processes in the region. Furthermore, the study contributes to the growing body of research on the use of remote sensing technology for agricultural yield prediction. It expands the understanding of how satellite multispectral imagery and vegetation indices can be leveraged to forecast crop yields, providing valuable insights for similar applications in other regions and for other crops. The findings of this research have the potential to be applied to other agricultural areas, enabling more efficient and accurate yield forecasting, which is crucial for optimizing agricultural practices and ensuring food security 1, 3. Overall, the results of this research demonstrate the effectiveness of utilizing satellite multispectral imagery and vegetation indices for maize yield prediction, with implications for improving agricultural decision-making and productivity in Bangladesh and potentially in other agricultural regions as well.