



TEA RESEARCH ASSOCIATION

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To Whom It May Concern

It is with a sense of surety that I write this letter in support of Krishay Sutodia. I have supported Krishay as his mentor for his research from December, 2022 to May, 2023. Krishay's research paper addresses the topic 'Analysis of Climatic Trends in the Past Decade in the South Bank Region of Assam with Special Reference to Tea Production'. During this time, I have been impressed by his precision of thought and tenacity to unpack and analyse information. I firmly believe Krishay's research makes a valuable contribution to the field of climatology and its impact on tea production in the Assam region.

During the time that we have worked together and Krishay has aimed to investigate the climatic trends observed in the South Bank Region of Assam over the past decade and their implications for tea production. Assam is renowned for its tea industry, which plays a significant role in the regional economy. However, recent climate variations, especially due to global warming and climate change, have raised concerns about the long-term sustainability of tea cultivation in the region.

The novelty of Krishay's study lies in its comprehensive analysis of climatic data, including temperature, rainfall, humidity, and other relevant variables, accumulated over a decade. Krishay has been meticulous in examining this extensive dataset, and together we have identified and analyzed key climatic trends and their potential impact on tea production. As a result Krishay's research addresses a crucial knowledge gap by providing insights into the changing climatic patterns specific to the South Bank Region of Assam and their implications for tea cultivation.

The key findings of this study have identified specific climatic parameters that significantly influence tea yield and quality, including optimum temperature ranges, precipitation patterns, and humidity levels. Krishay has observed that rainfall has increased in the southern region as compared to the previous year's which is a positive sign for tea leaves but at the same time, minimum temperatures have dropped during the dormant season and maximum temperatures have elevated above the recommended limit leading to degradation in quality of tea. Additionally, the temperature rise has caused the risk of pests and diseases to increase and the witting of leaves hampering the photosynthesis process. The yield of tea crops is influenced by multiple climatic factors, resulting in varying outcomes for each instead of a sole result. To make trends more evident to locate and easier to understand, they have been combined into a single section 'Analysis and Discussion' and categorised based on the individual factors. In discussion, both Krishay and I were in agreement that this approach provides a comprehensive understanding of their individual impact on tea crop yield.



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I firmly believe that the findings of this research could be significant for policymakers, tea growers, and stakeholders in the Assam region, as it provides a scientific basis for informed decision-making and adaptation strategies in the face of changing climatic conditions using the equation derived through the regression model. This information has potential to help tea estates to set a goal for themselves as to what yield to expect given the climatic conditions. It will also enable practical decision making and efficient analysis of their output.

In conclusion, this study contributes to the broader understanding of the impact of climate change on tea and highlights the need for sustainable practices to ensure the future of tea production in Assam. Krishay's knowledge stems from a deep rooted association with the tea plantations, having spent his formative years in the region. He is deeply sensitive to the culture and community and this makes for an analysis that is in depth and unique.

I am confident that Krishay will have much to contribute at a university that encourages independent learning and I look forward to following his progress with pride.

Should you require any clarifications please do not hesitate to reach out at:
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Best wishes,

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