

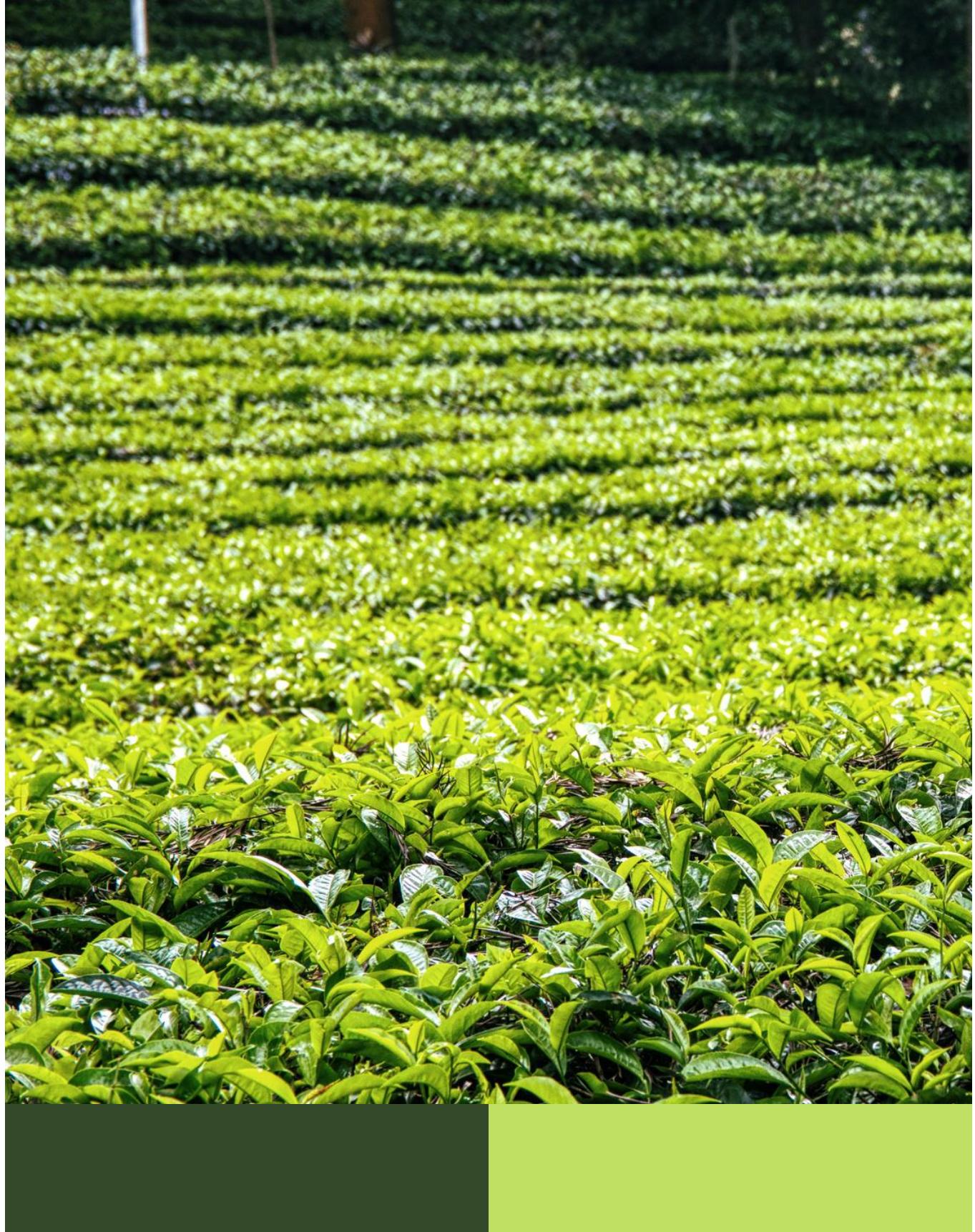
# Agriculture

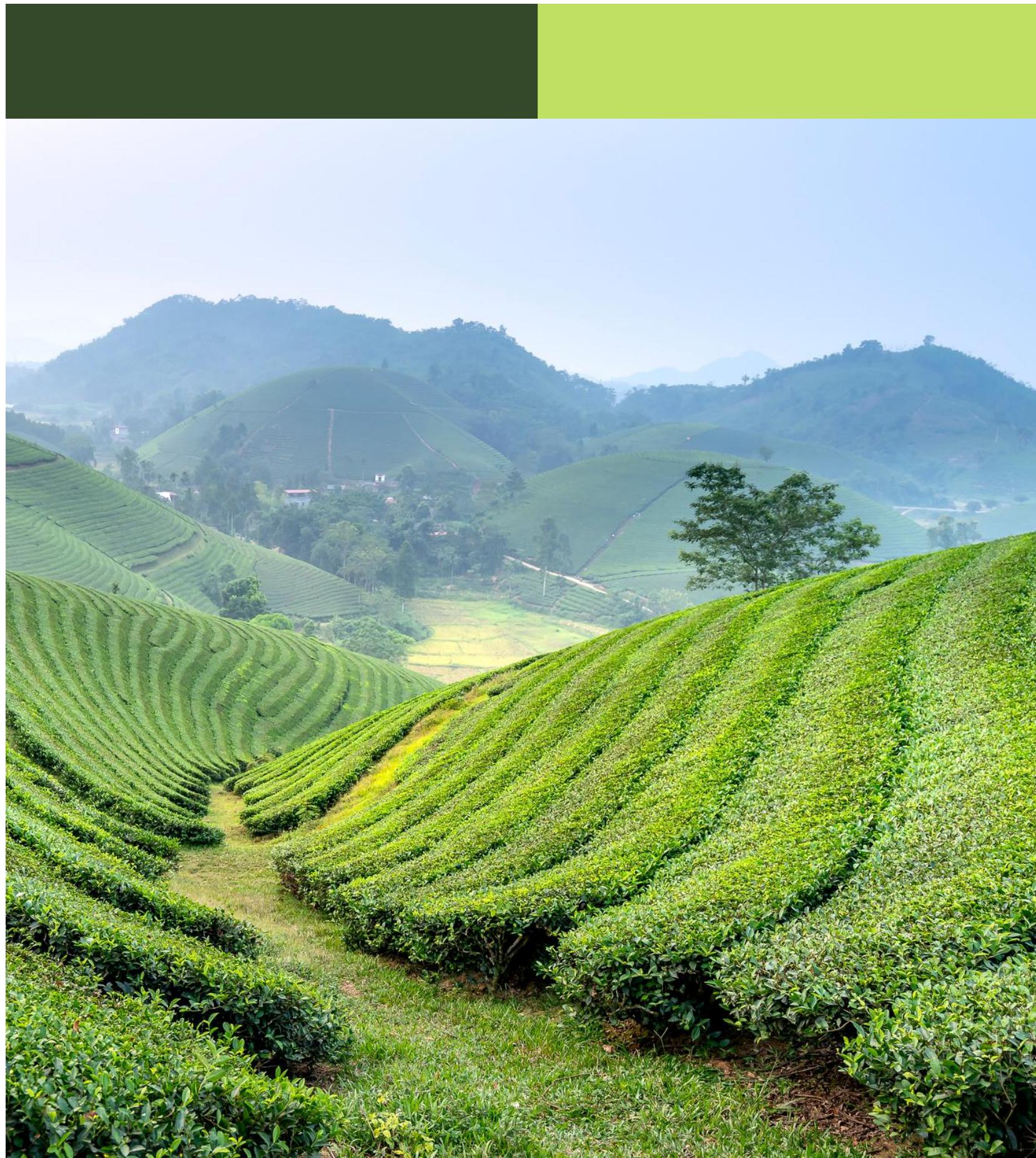
SMART FARMING SENSOR  
DATA FOR YIELD  
PREDICTION



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**SUBMITTED BY**  
**KRISH PATEL**



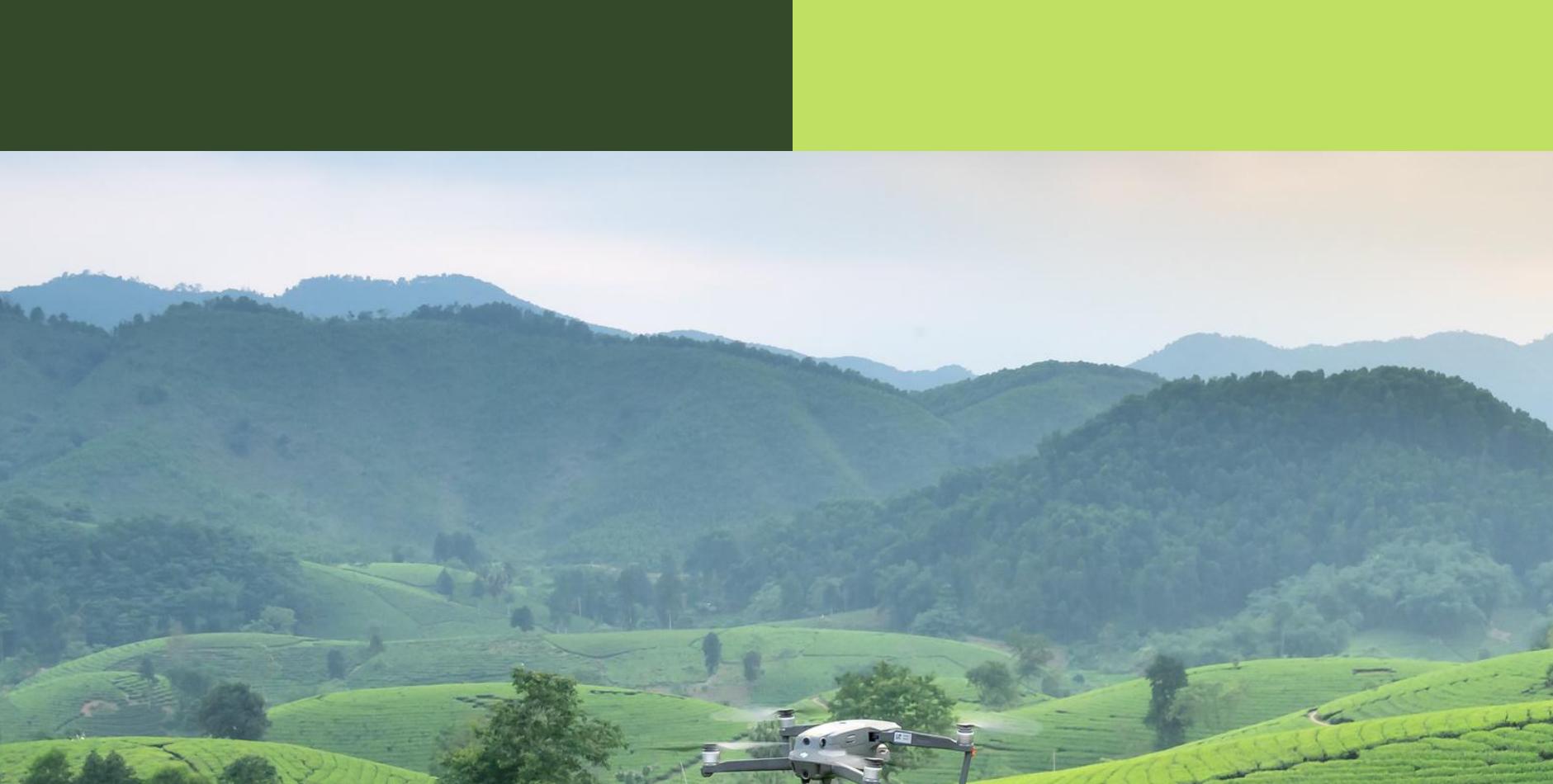


# our vision

This Power BI dashboard is designed to visualize and analyze data from simulated real-world smart farming operations powered by IoT sensors and satellite data, capturing critical environmental and operational variables that influence crop yield across 500 farms located in regions like India, the USA, and Africa.

The goal is to provide actionable insights into crop performance, regional yield comparisons, and the impact of environmental factors such as temperature, rainfall, humidity.

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# our OBJECTIVES



01

## Measure total crop yield performance

This helps assess the overall productivity of the 500 smart farms. It provides a baseline for evaluating farming success at scale.

02

## Identify high-yielding crop types

By comparing crop contributions, we can spot which crops are most efficient. This supports decisions on which crops to prioritize in future seasons.

03

## Compare regional yield variations

Understanding yield differences across regions reveals geographical strengths. It helps tailor farming strategies based on regional performance.

04

## Assess the impact of environmental factors

This highlights how temperature, rainfall, and humidity influence yield. It guides environmental management to boost crop productivity.

# KEY QUESTIONS



01

What is the total yield generated across all 500 smart farms?

02

Which crop type contributes the most to the overall yield, and how is the yield distributed among different crops?

03

How does the average crop yield vary across different regions?

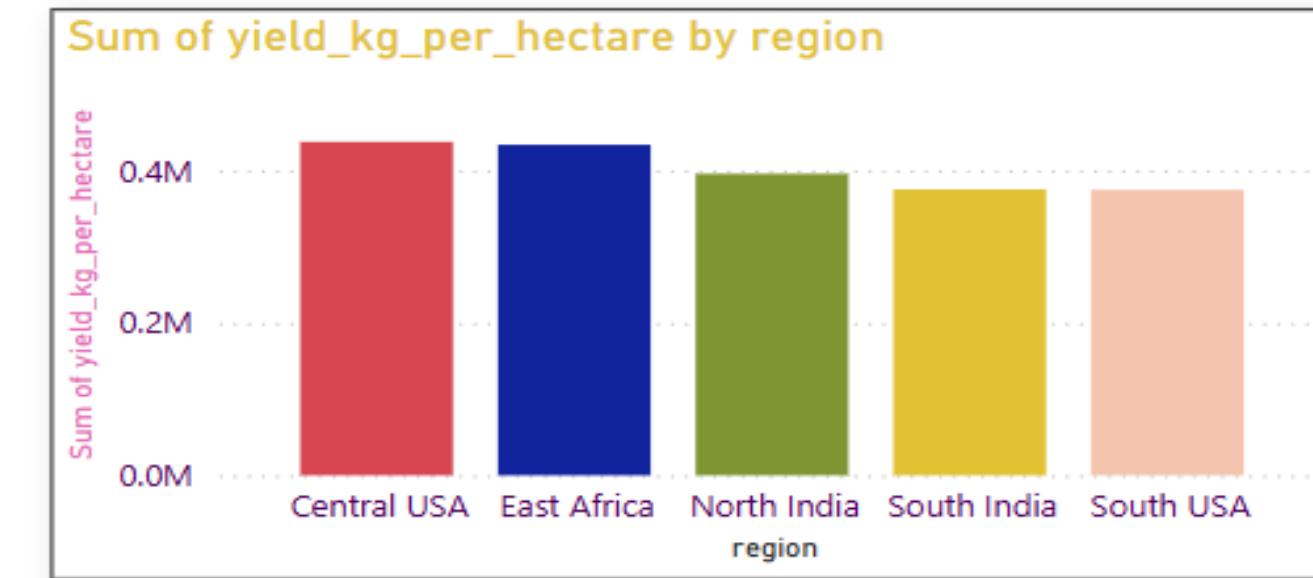
04

How do different environmental factors like temperature, humidity, and rainfall influence crop yield over time?

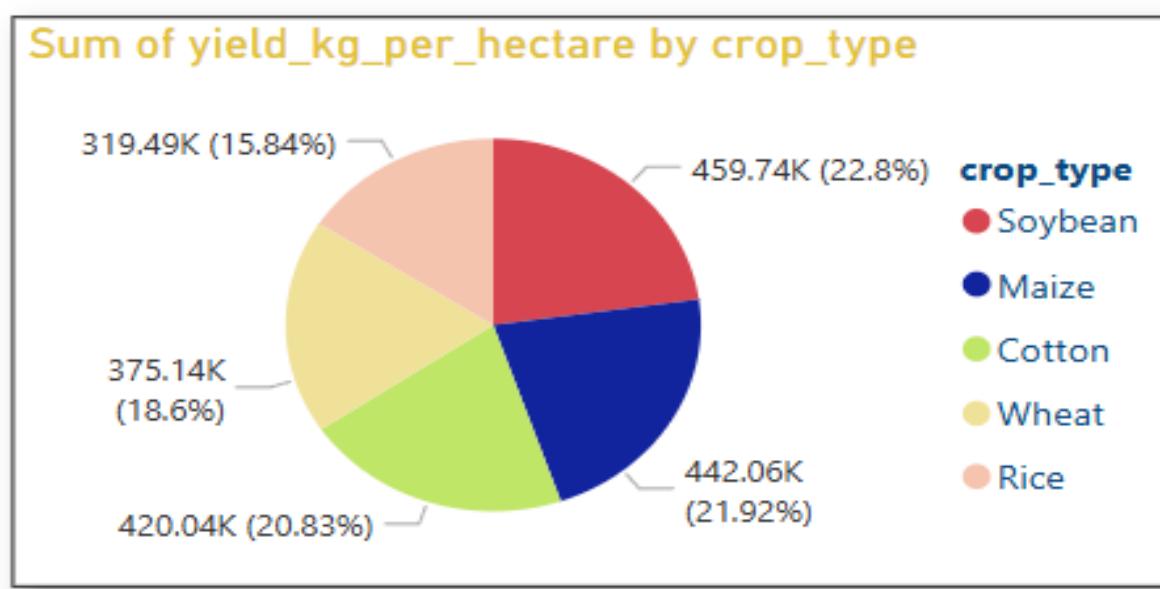
# CROP YIELD AND ENVIRONMENTAL IMPACT ANALYSIS



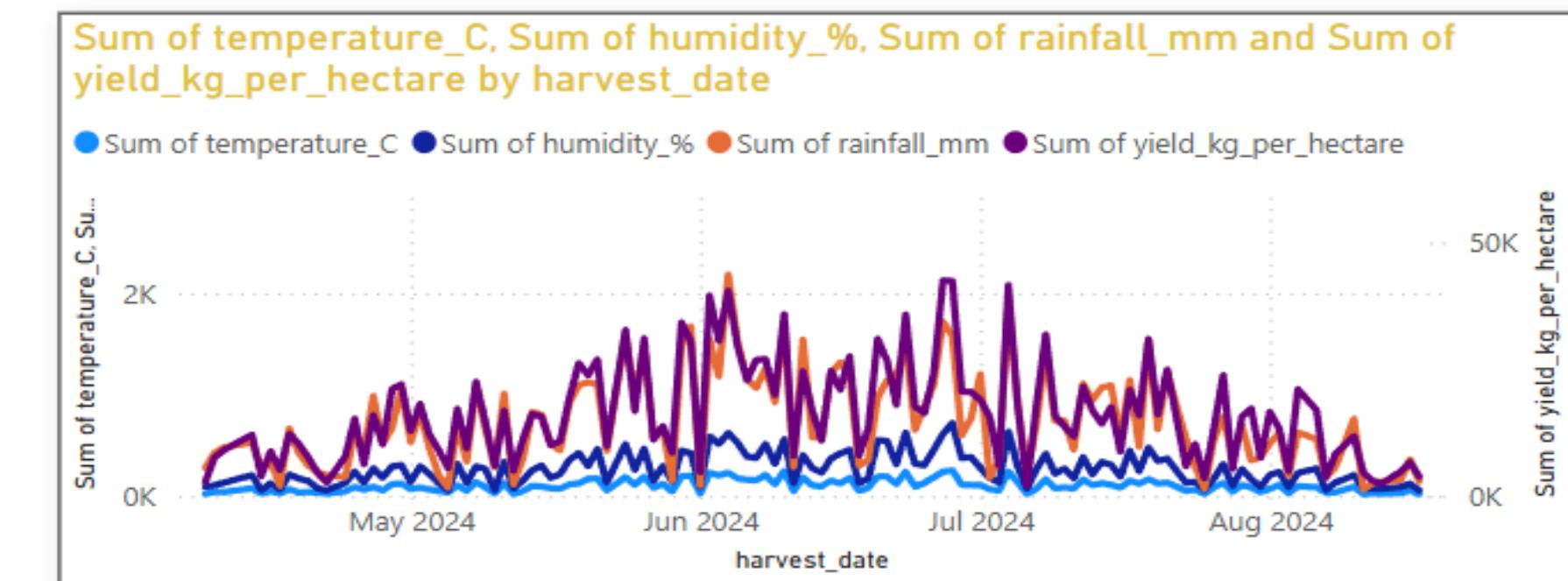
Total Yield Across Farms



Regional Yield Comparison



Yield Distribution by Crop Type



Environmental Factors Impact

# Conclusion



This dashboard highlights key insights from 500 smart farms, showing that Maize and Rice are the top-yielding crops, contributing significantly to the total yield of 2.02M kg/ha. Environmental factors like temperature, rainfall, and humidity strongly impact yield.



A wide-angle photograph of a tea plantation. In the foreground, there's a dense field of young tea plants. Beyond it, the landscape rises into several layers of tea fields, all arranged in distinct, parallel rows. The terrain is hilly, and the tea plantations follow the contours of the hills. The sky is overcast with a light, misty gray. In the top right corner of the text area, there is a small graphic element consisting of three green leaves.

# Thank you