

CROP PRODUCTION ANALYSIS

IN INDIA

INTRODUCTION

This presentation provides a comprehensive analysis of crop production in India using Power BI. The analysis aims to uncover key trends, metrics, and insights from the provided dataset, which spans several years of crop production data. By examining this data, we aim to identify factors influencing crop production, predict future trends, and provide actionable insights for stakeholders in the agriculture sector. The dashboard includes various visualizations to facilitate understanding and decision-making.

PROBLEM STATEMENT

The agriculture business domain, as a vital part of the overall supply chain, is expected to evolve significantly with the advancements in the Future Internet. This project aims to create a Business-to-Business collaboration platform from the agri-food sector perspective, facilitating effective and flexible collaboration among numerous stakeholders. The dataset provides a substantial amount of information on crop production in India across several years. The ultimate goal is to predict crop production and uncover important insights, highlighting key indicators and metrics that influence crop production. The challenge lies in processing and analysing this large dataset to extract meaningful patterns and actionable insights.

KEY METRICS AND KPIs

KEY METRICS

The key metrics identified in this analysis include Total Production, representing the overall crop yield; Area Harvested, indicating the total area used for crop production; and Average Production, which calculates the average yield per unit area.



KPIs

- Annual Production Trend: Monitoring crop production performance year by year.
- Top Producing Crops: Identifying the crops with the highest production volumes.
- State-wise Production Comparison: Comparing crop production across different states.

DATA PROCESSING AND VISUALIZATION

Visualizations created include:

- Total Crop Production Over Time: A line chart showing crop production over the years.
- Crop Production by State: A pie chart comparing crop production across different states.
- Top Producing Crops: A bar chart identifying crops with the highest production volumes.
- Total Area Harvested by State: A bar chart illustrating the total area harvested in different states.
- Production Trends by Crop: A area chart displaying production trends for various crops.

A filter panel was added with interactive slicers for Year, State, and Crop Type to facilitate dynamic analysis. The resulting dashboard provides a clear and interactive way to explore crop production data and derive meaningful insights.

DASHBOARD

CROP PRODUCTION ANALYSIS

Year State Crop

All All All

141.18bn

Total Production

2.95bn

Total Area Harvested

0.58M

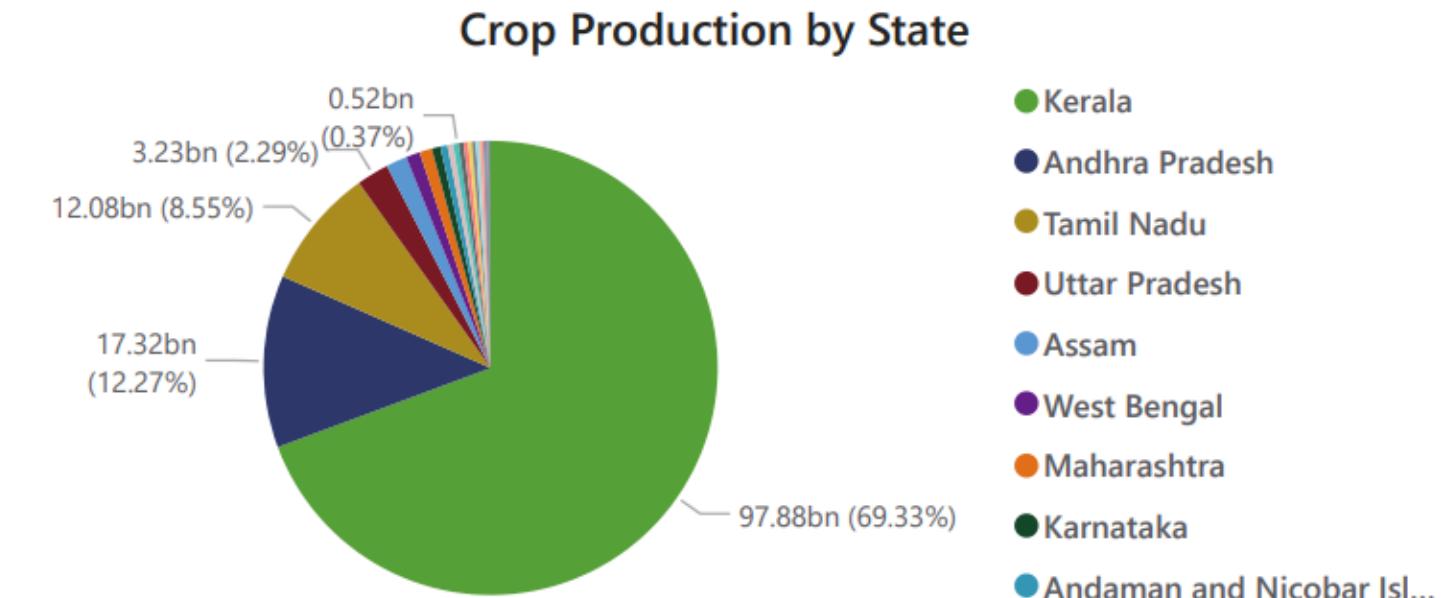
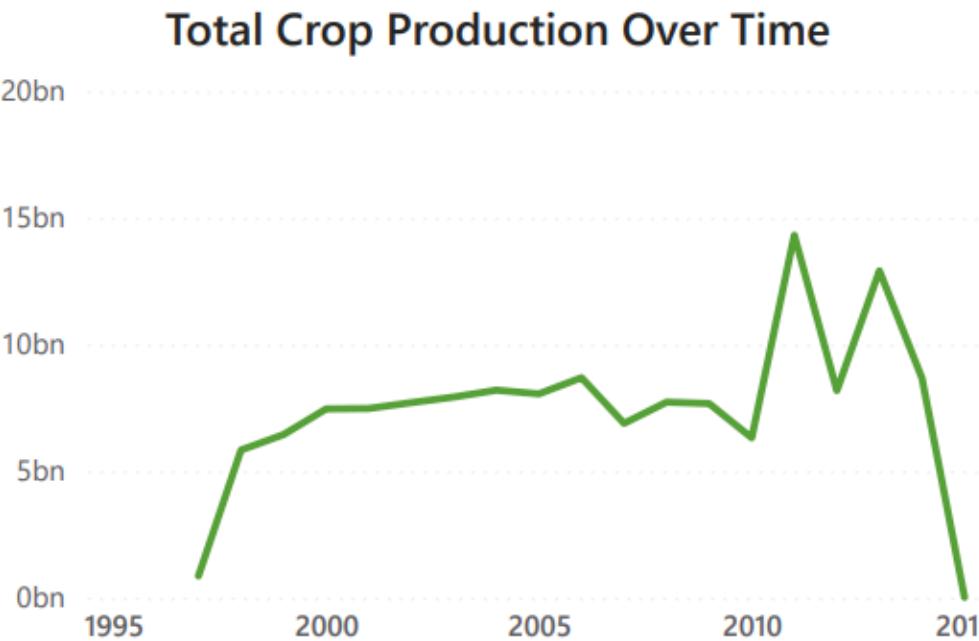
Average Productivity

Coconut

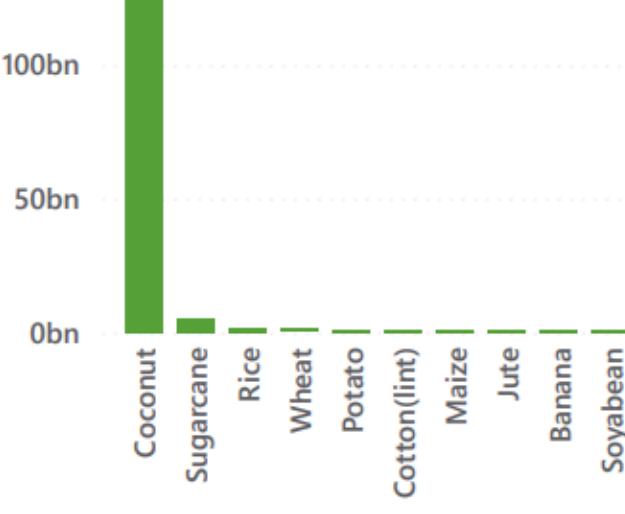
Top Crop

Tamil ...

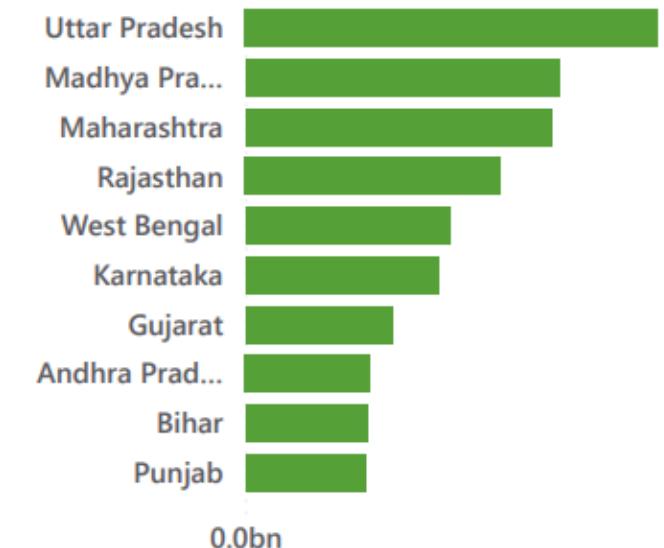
Top State



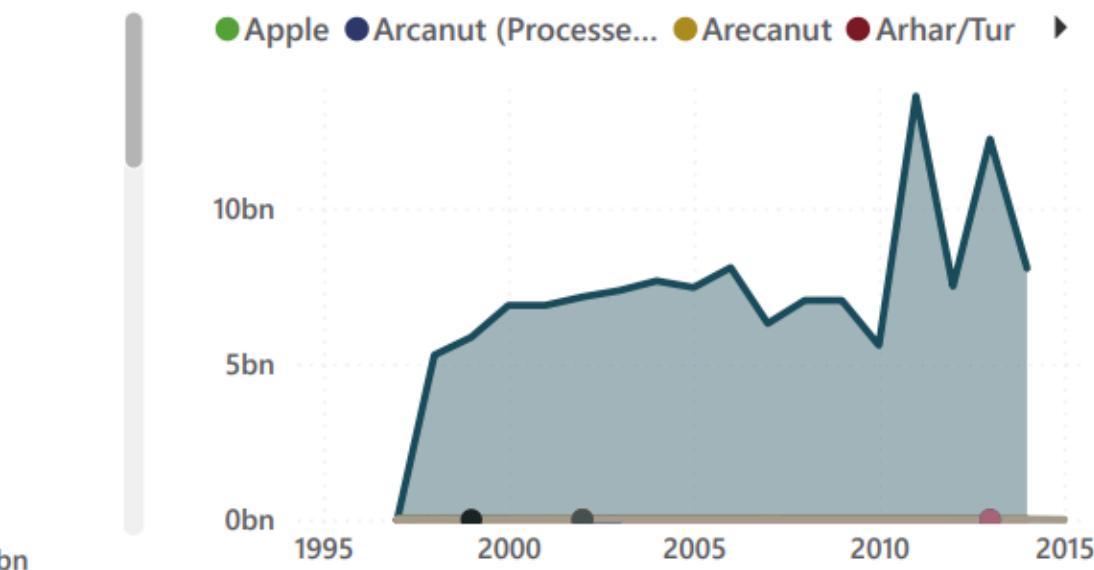
Total Producing Crop



Total Area Harvested by State



Production Trends by Crop





A wide-angle photograph of a tobacco field at dusk or night. The foreground is filled with the dark green, broad leaves of tobacco plants, arranged in a dense, undulating pattern. The background is a dark, hazy sky, suggesting a forested area or a sunset/sunrise scene.

Thank You!