Crop Production Analysis

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Introduction

The Crop Production Analysis project aims to provide a comprehensive overview of the production and area of cultivation of various types of crops.

This analysis includes key metrics such as yearly production, seasonal attributes, state-wise analysis and offering valuable insights into economic landscape and agricultural dynamics.

The Data highlights the dominance of certain states and crops showcasing their impact on the overall market.

Problem Statement

- The Agriculture business domain, as a vital part of the overall supply chain, is expected to highly evolve in the upcoming years via the developments, which are taking place on the side of the Future Internet.
- This paper presents a novel Business-to-Business collaboration platform from the agri-food sector perspective, which aims to facilitate the collaboration of numerous stakeholders belonging to associated business domains, in an effective and flexible manner.
- This dataset provides a huge amount of information on crop production in India ranging from several years. Based on the Information the ultimate goal would be to predict crop production and find important insights highlighting key indicators and metrics that influence crop production.
- · Make views and dashboards first and also make a story out of it.

Process

Data Understanding

 Understood the data and found Key Performance Indicators (KPIs) of the data

Data Cleaning

- Removed unnecessary columns which have no impact in KPIs
- Excel, Power Query

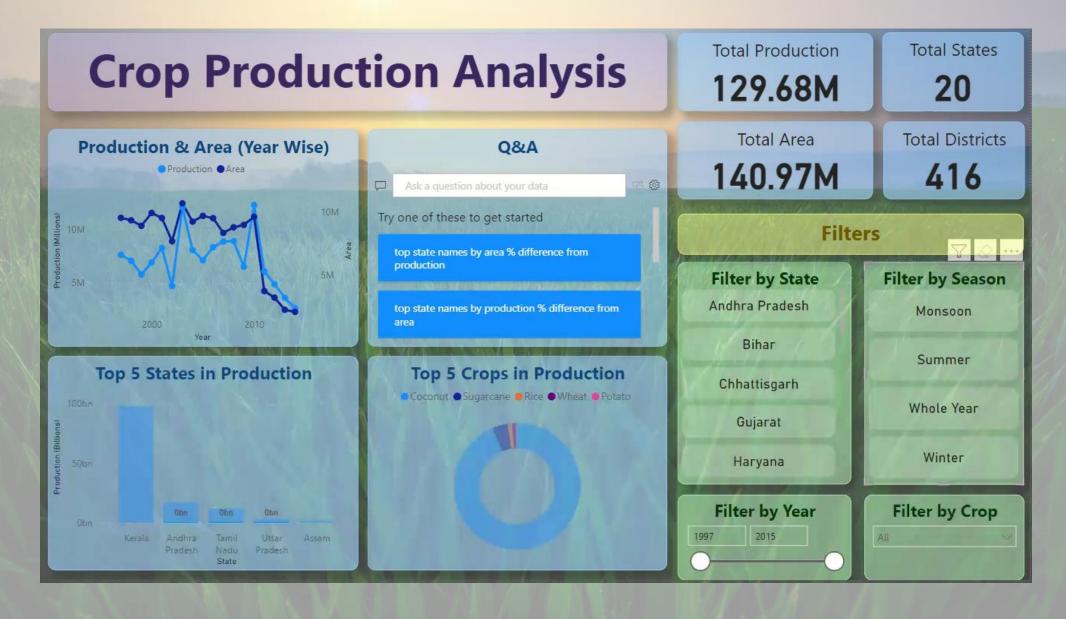
Data Analysis

- Derived dominant categories in each KPI(Area and Production) with various filters
- Derived some key visual insights
- Python, Pandas, Seaborn

Uncovering Insights

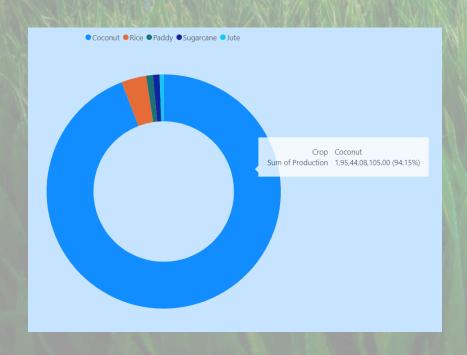
- Created visual
 Dashboards showing the impact of various sectors influencing the KPIs
- Microsoft Power BI

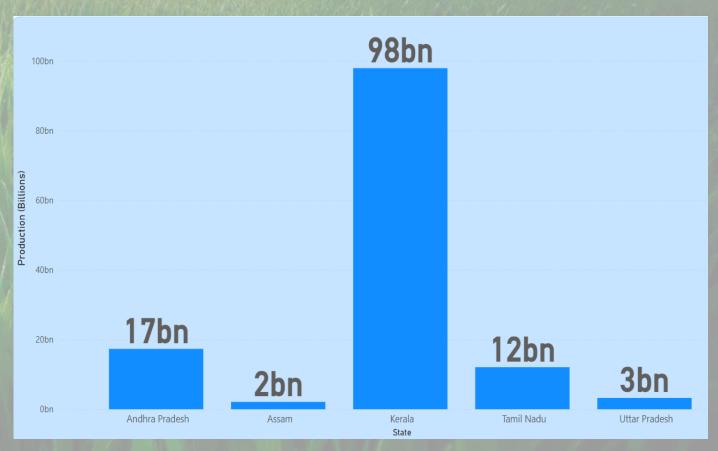
Dashboard



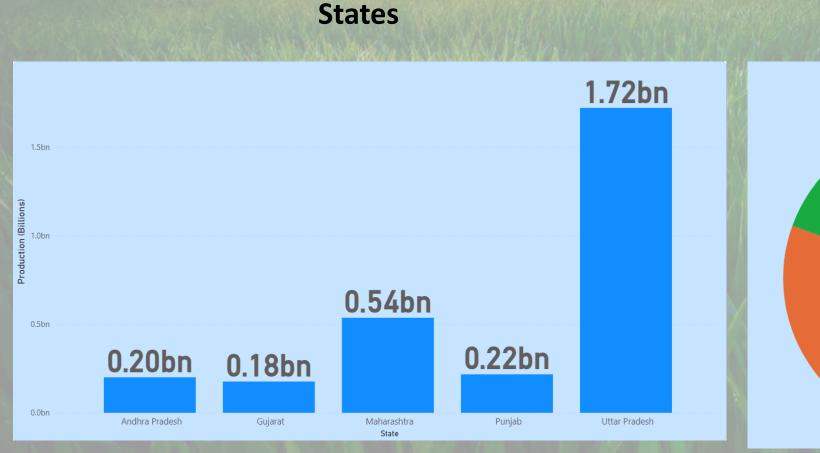
Top 5 States and Crops in Production

- Kerala State is highest in Production followed by Andhra Pradesh, Tamil Nadu, Uttar Pradesh, Assam.
- Coconut is leading crop in these 5 states followed by Rice, Paddy, Sugarcane, Jute

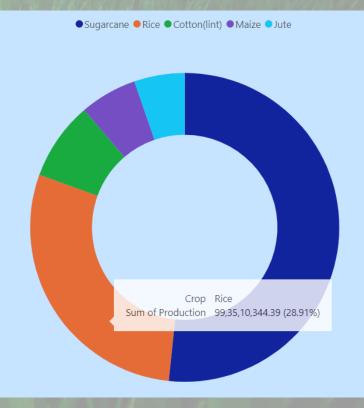




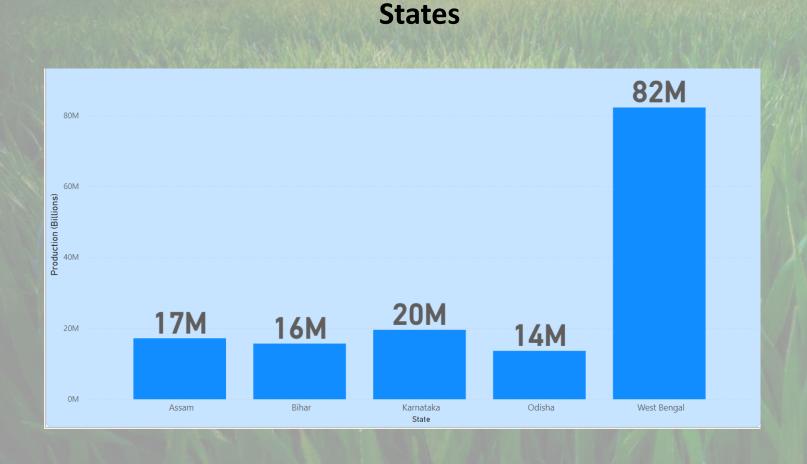
Top 5 States and Crops in Production in Monsoon



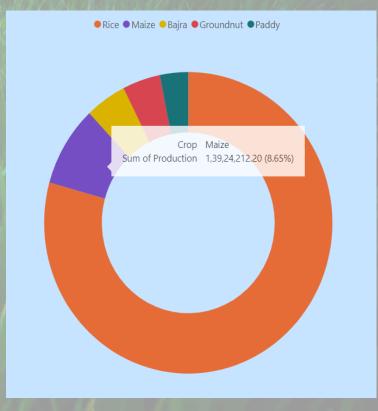
Crops



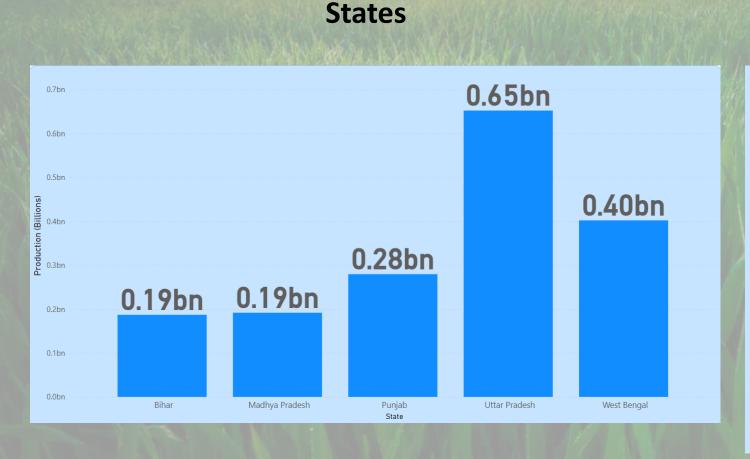
Top 5 States and Crops in Production in Summer



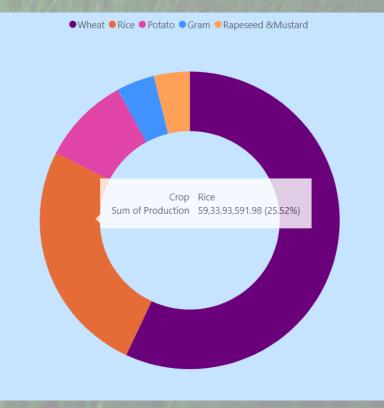
Crops



Top 5 States and Crops in Production in Winter



Crops



Conclusion

- Coconut is the leading producer in India.
- Kerala is the leading Producer for Coconut.
- Sugarcane is the major crop in monsoon leading by Uttar Pradesh.
- Rice is the major crop in Summer leading by West Bengal.
- Wheat is the major crop in Winter leading by Uttar Pradesh.
- Production in the year 2015 is significantly low than other years.
- Power Bl Link: https://app.powerbi.com/groups/me/reports/8bf8a73b-970f-461f-ad10-49e0b443b9f4?ctid=209a70f5-a678-4831-9798-ea1ea04aa9b8&pbi_source=linkShare