



AGRI

# **Exhaustive Analysis of Indian Agriculture Sector**

# About Analysis of Indian Agriculture Sector

India's agriculture sector is vital, employing a large part of the population and contributing significantly to the economy. It includes growing crops like rice, wheat, fruits, and vegetables, and depends a lot on monsoon rains. Modern efforts focus on improving irrigation, using technology, and making farming more sustainable to increase food production and reduce risks.



# "Data-Driven Insights for Optimizing Agricultural Productivity in India"

## Problem Statement:

Develop a solution that uses data analysis to improve agricultural productivity in India by identifying top crops, states, and districts by production, examining seasonal and yearly production trends, predicting future crop yields, and assessing eligibility for Minimum Support Price (MSP) for specific crops in the coming year.



# Dataset Overview

# Dataset

- Rows : more than 28000 , Columns: 8
  - RowID: A unique number for each record.
  - State\_Name: The name of the state where the crop was grown.
  - District\_Name: The specific district within the state.
  - Crop\_Year: The year the crop data was recorded.( 2005 -2023)
  - Season: The season (e.g., Kharif, Rabi) during which the crop was grown.
  - Crop: The type of crop (e.g., rice, wheat).
  - Area: The land area used to grow the crop.
  - Production: The total amount of crop produced.

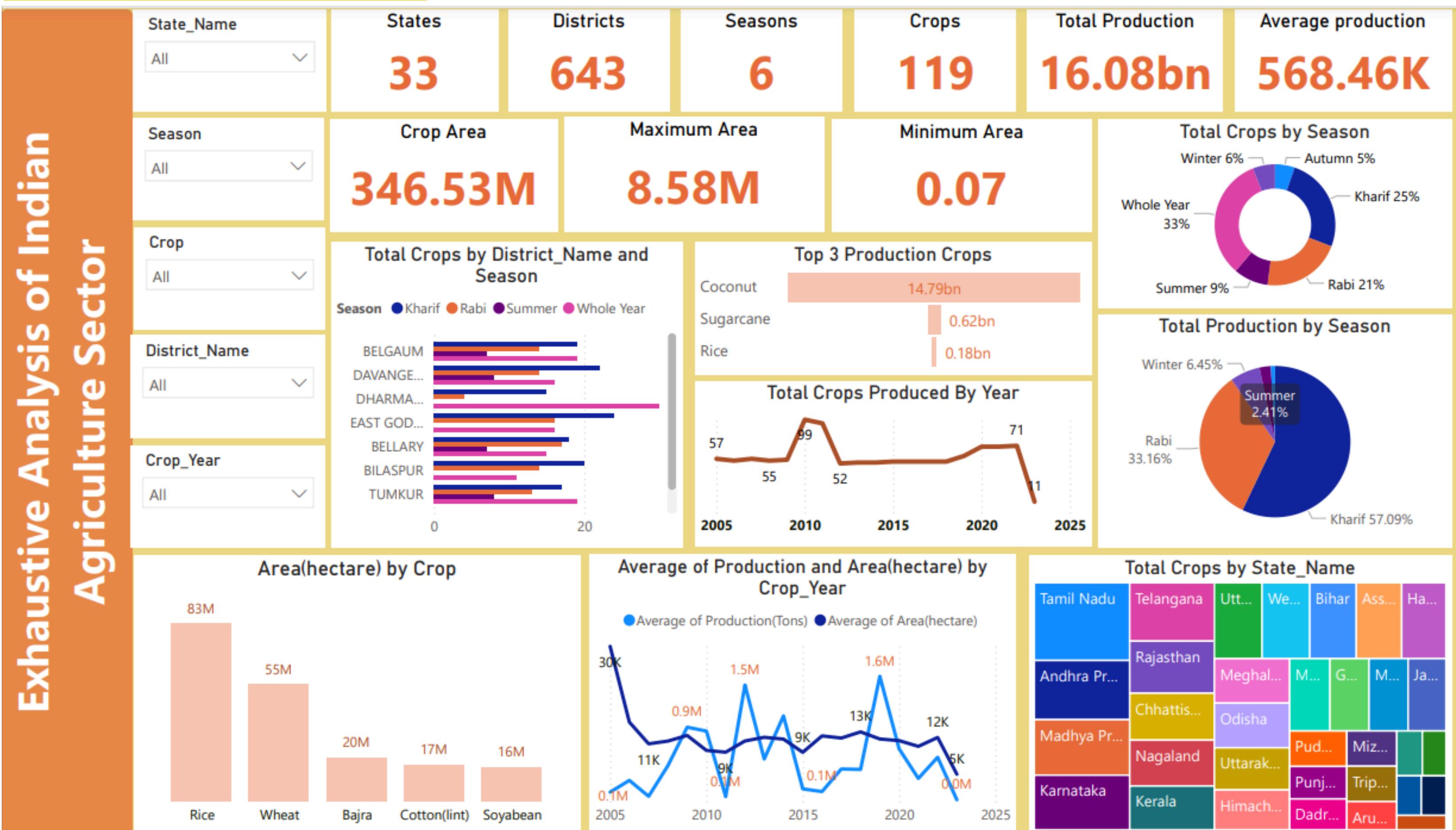
RowID	State_Nan	District_Na	Crop_Year	Season	Crop	Area	Production
0	Bihar	NALANDA	2005	Rabi	Wheat	81934	160425
1	Assam	KARBI ANG	2019	Whole Yea	Onion	257	514
2	Gujarat	ANAND	2020	Summer	Maize	100	100
3	Karnataka	UTTAR KAI	2013	Rabi	Groundnut	2872	4572
4	Uttar Prad	JAUNPUR	2016	Rabi	Onion	110	1290
5	Assam	MARIGAOI	2014	Rabi	Rapeseed	6535	2719
6	Odisha	SONEPUR	2006	Winter	Rapeseed	91	6
7	Rajasthan	DHOLPUR	2017	Whole Yea	Garlic	1	1
8	Karnataka	BELGAUM	2018	Whole Yea	Coconut	336	3212
9	Bihar	MUNGER	2020	Summer	Moong(Gre	125	78
10	Chhattisga	JANJGIR-C	2013	Kharif	Other Khar	223	107
11	Assam	KARBI ANG	2019	Rabi	Rapeseed	19337	8652
12	Uttar Prad	SHRAVAST	2005	Kharif	Groundnut	72	58
13	Gujarat	PATAN	2019	Kharif	Moong(Gre	9100	3300
14	Tamil Nad	KARUR	2008	Whole Yea	Sweet pot	20	309
15	Uttar Prad	KASGANJ	2019	Rabi	Tobacco	5247	28554
16	Haryana	MAHENDR	2006	Rabi	Wheat	45074	186000
17	Assam	DHEMAJI	2017	Whole Yea	Turmeric	321	211
18	Assam	BAKSA	2015	Kharif	Small mille	284	127
19	Kerala	PATHANAM	2008	Whole Yea	Sugarcane	224	10950
20	Chhattisga	JANJGIR-C	2018	Rabi	Linseed	2497	658
21	Chhattisga	DHAMTAR	2020	Whole Yea	Banana	46	1520
22	Karnataka	BELLARY	2016	Rabi	Maize	3418	7487
23	Assam	TINSUKIA	2020	Autumn	Rice	5806	7964
24	Uttar Prad	RAE BAREI	2016	Kharif	Maize	11	13

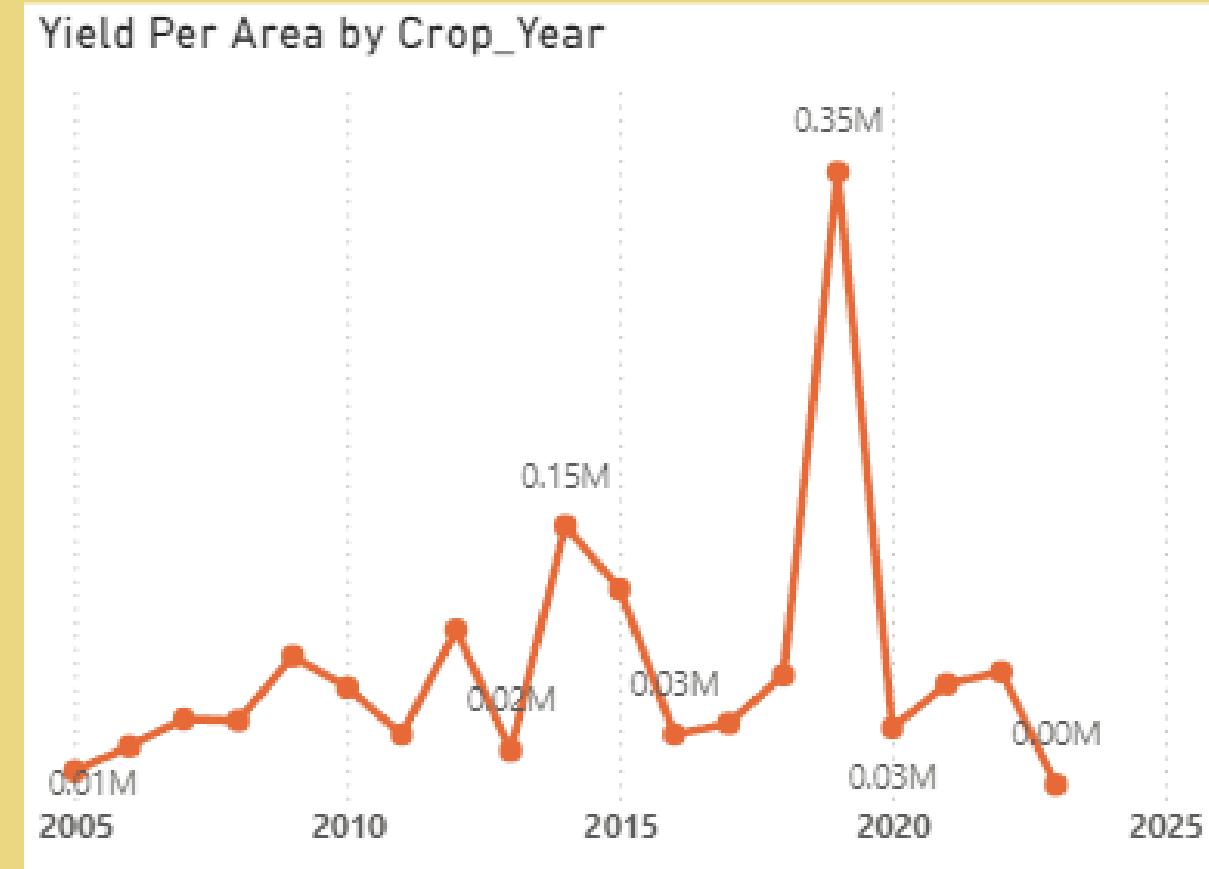
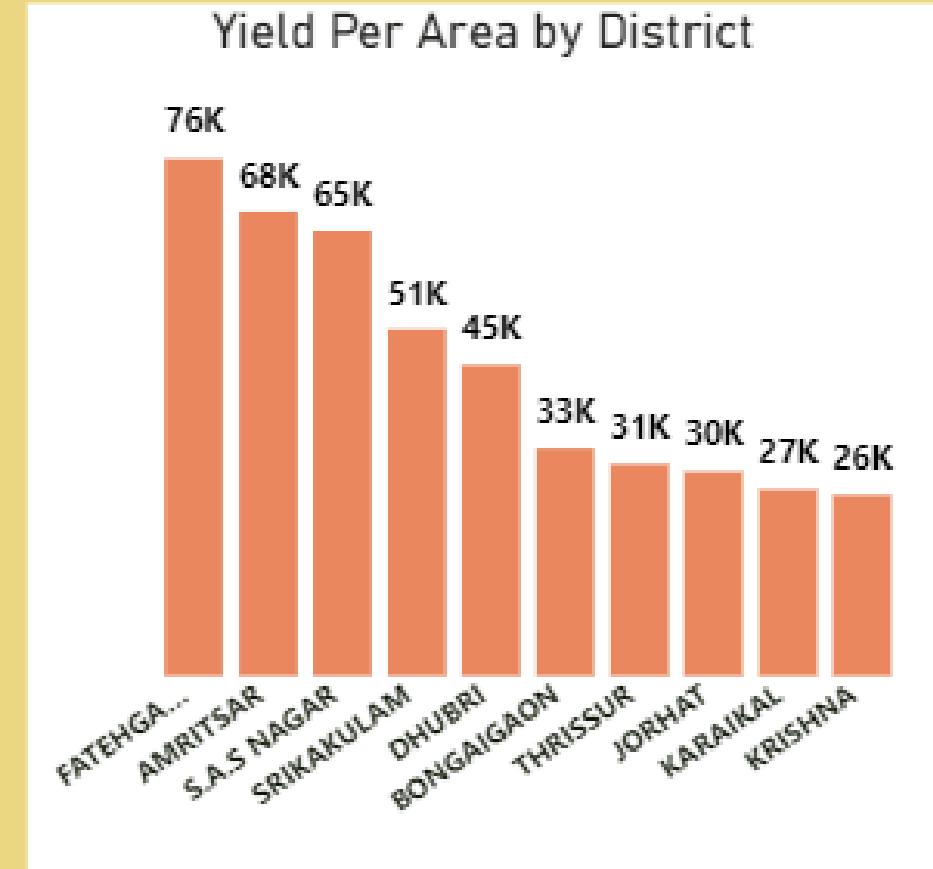
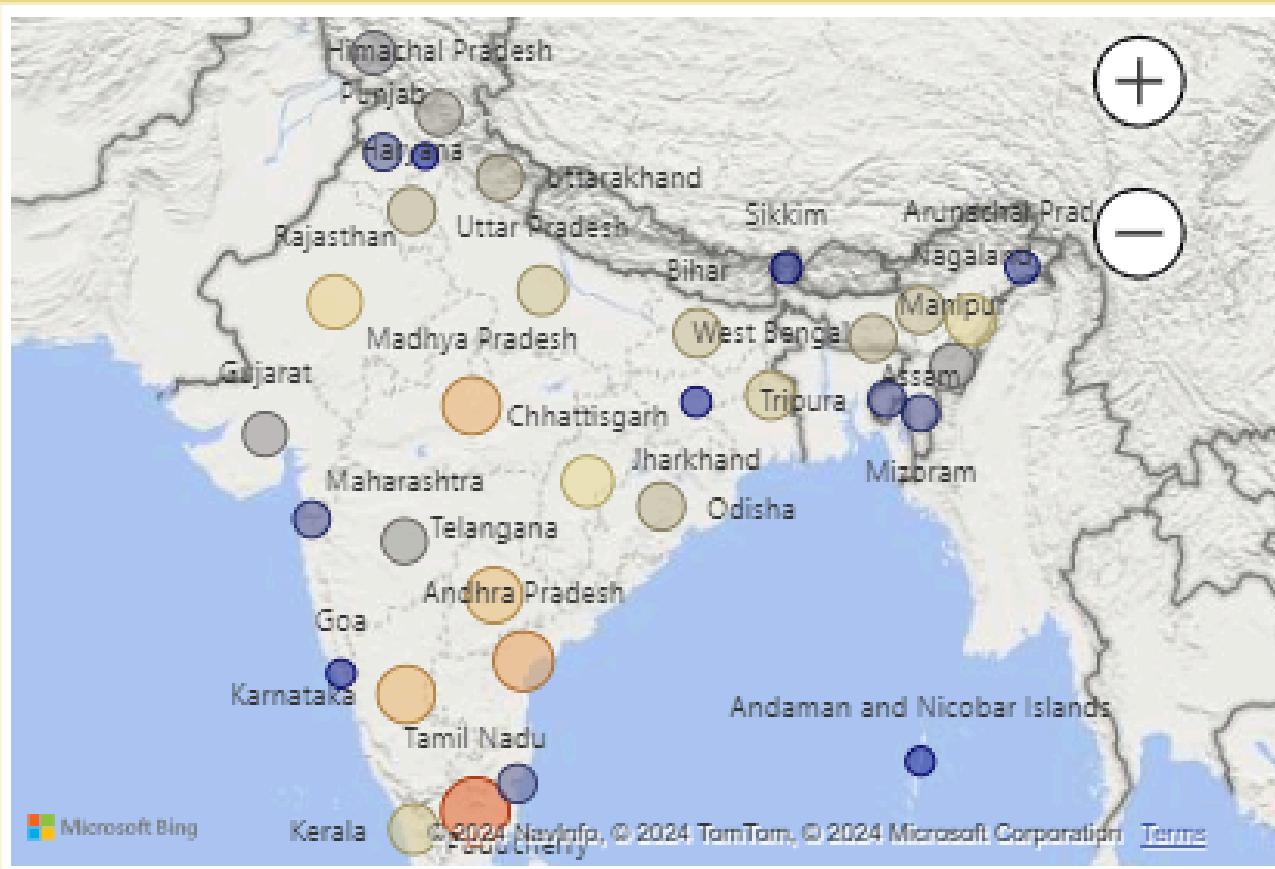
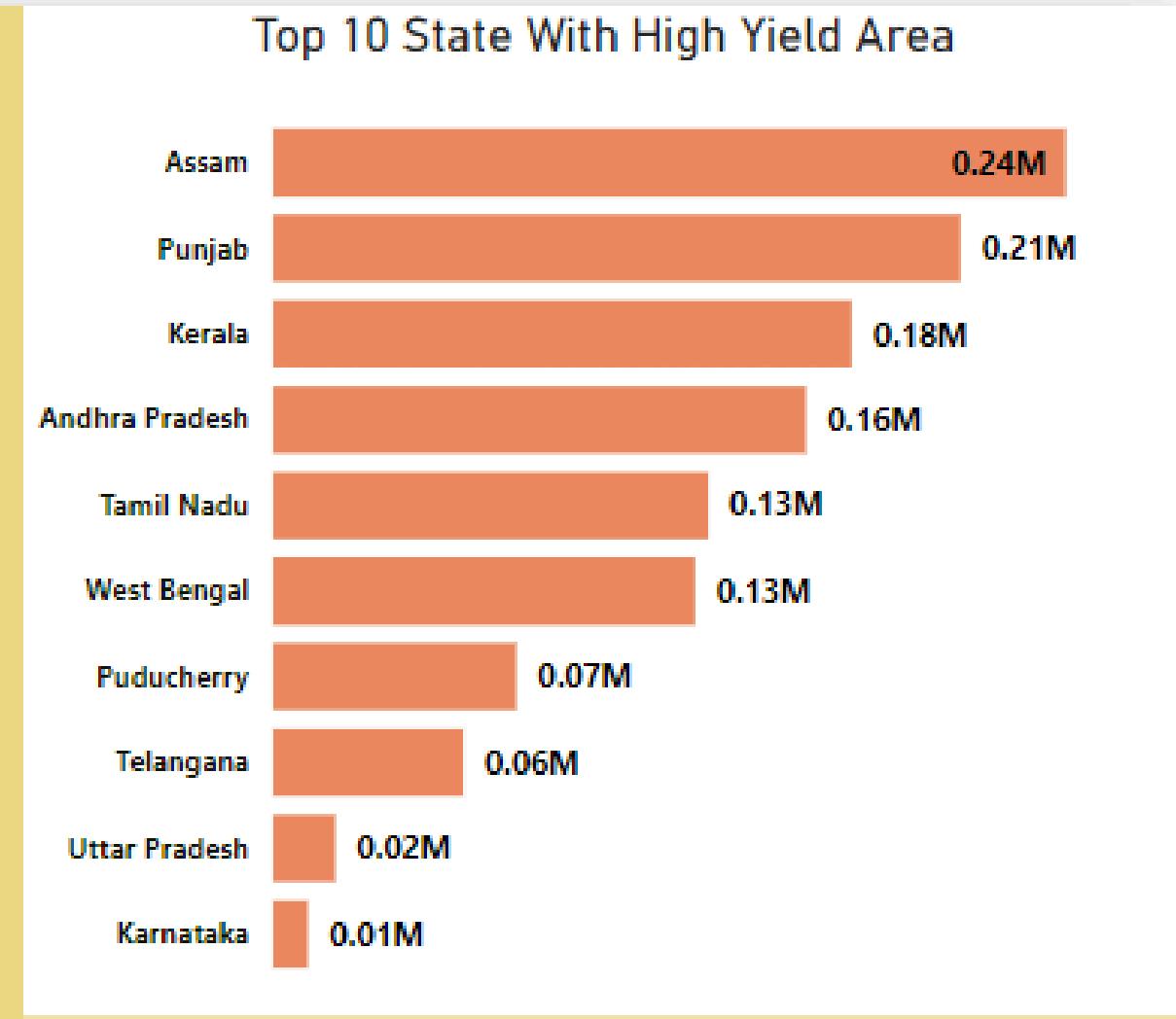
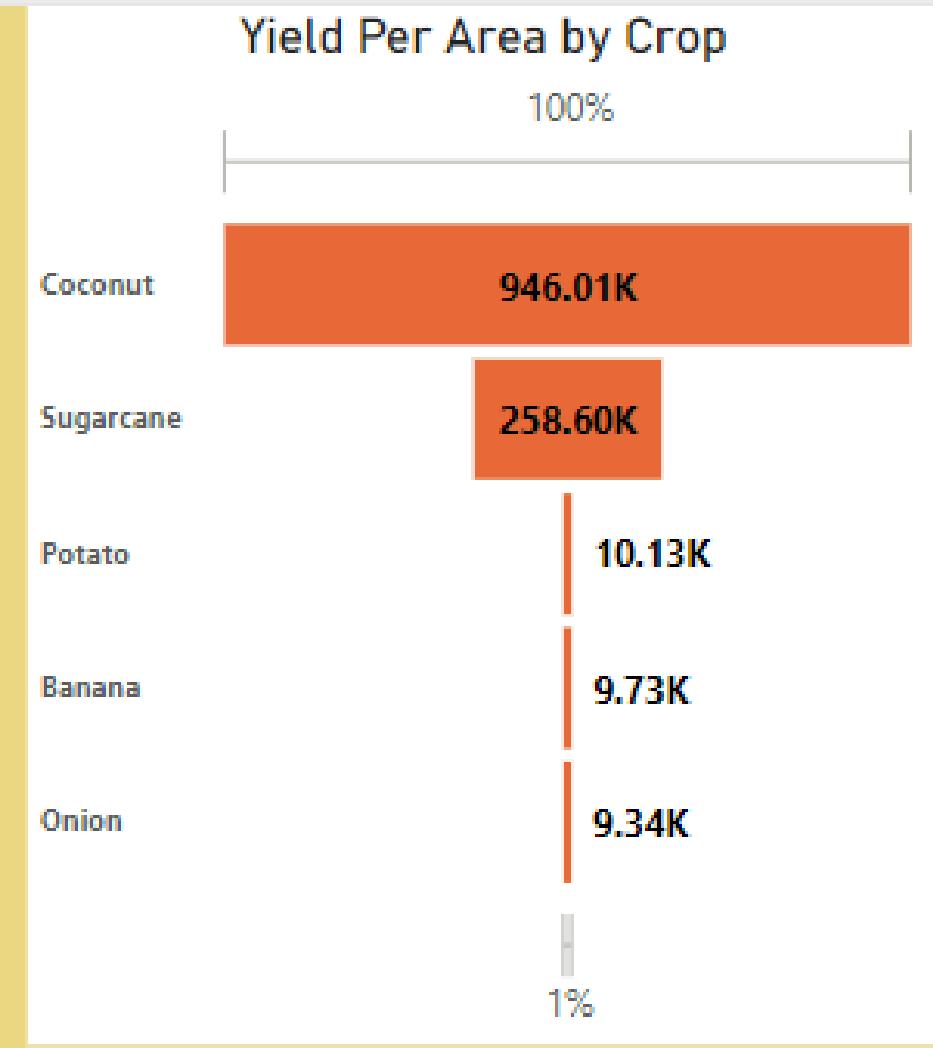
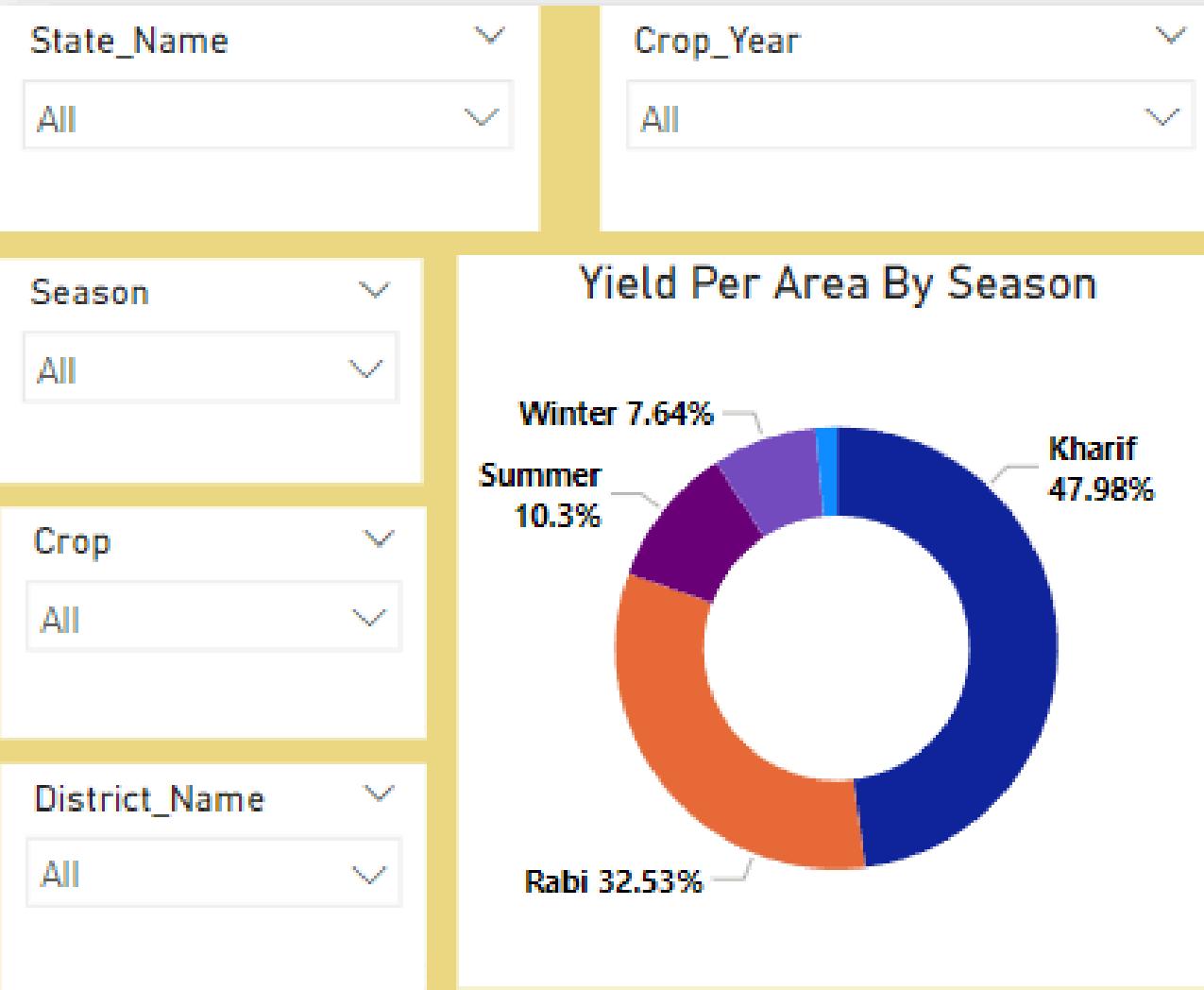
# Questions

- Identifying Top 5 Crops by Production
- Identifying Top 3 States by Production
- Identifying Top 3 Districts by Production
- Identifying Production by different Seasons
- Year wise Production
- Predicting Production for one future year
- Possibility of Minimum Support Price for the given Crop for the given year . Create single problem statement .
- Identifying crops by season
- Average Production and Area Utilized in each year .
- soon.....



# Dashboard





# Conclusion:

- Data analysis can guide farmers to make better choices about which crops to grow and how to use resources effectively.
- It helps predict crop yields and manage agricultural planning.
- By understanding production patterns and MSP eligibility, farmers can improve their income and make more informed decisions.





# Thank You

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