PROJECT REPORT TEMPLATE

INDIA'S AGRICULTURE CROP PRODUCTION ANALYSIS

(1997-2021)

INTRODUCTION:

OVERVIEW:

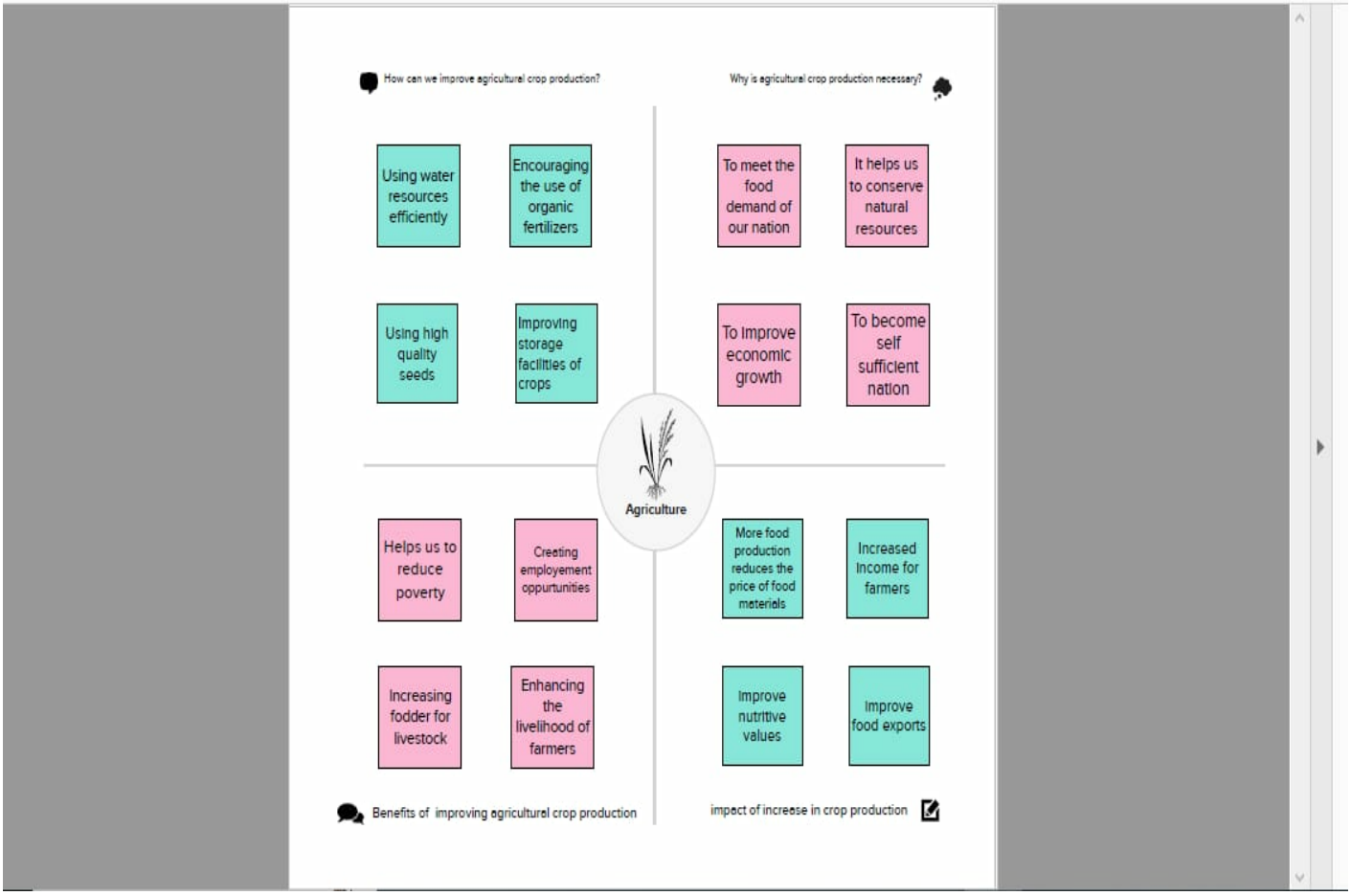
India's agriculture production analysis refers to the examination and evaluation of various aspects related to agriculture in India over a specific period . This analysis typically involves collecting and interpreting data and information related to crop production, live stock, agricultural practices, policies and their impact on the Indian agricultural sector.

PURPOSE:

The analysis of India's agriculture production from 1997-2021 serves a range of purposes from shaping policies to ensuring food security, improving the livelihoods of farmers and addressing environmental sustainability concerns. It is a crucial tool for informed decision- making in the agricultural sector and the broader economy.

2.PROBLEM DEFINITION AND DESIGN THINKING:

2.1 EMPATHY MAP

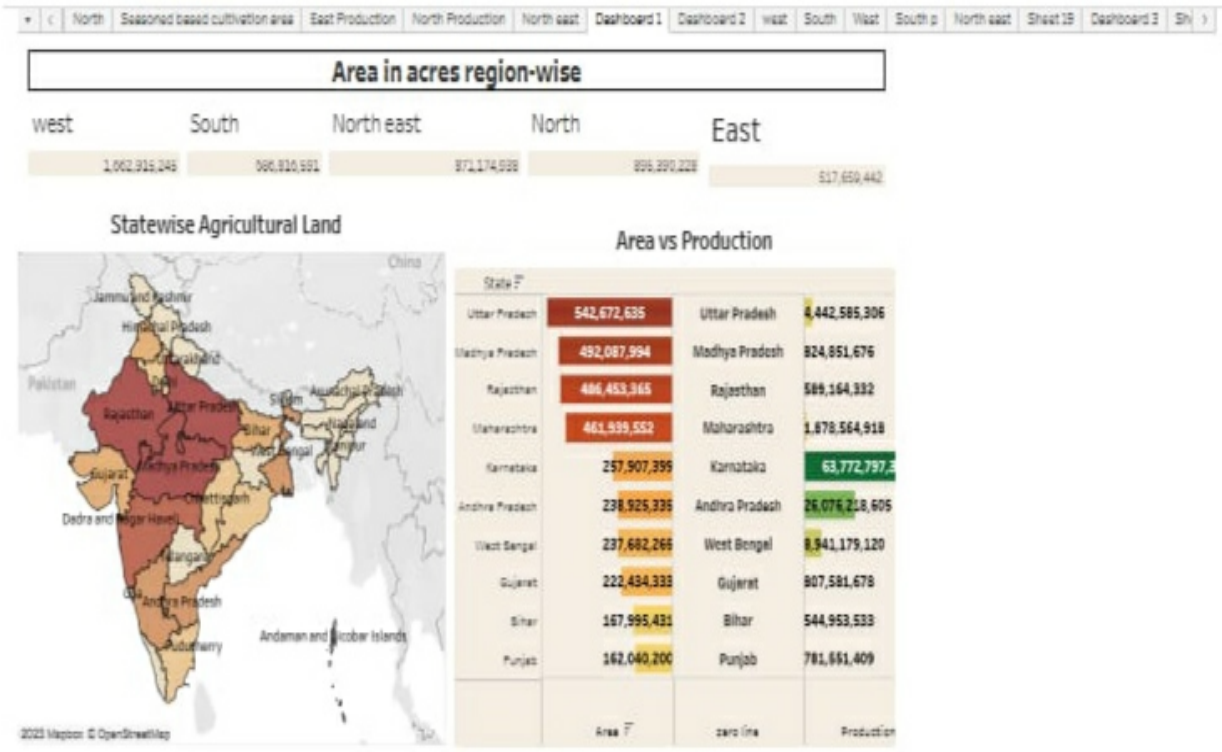


2.2 IDEATION AND BRAINSTORMING:

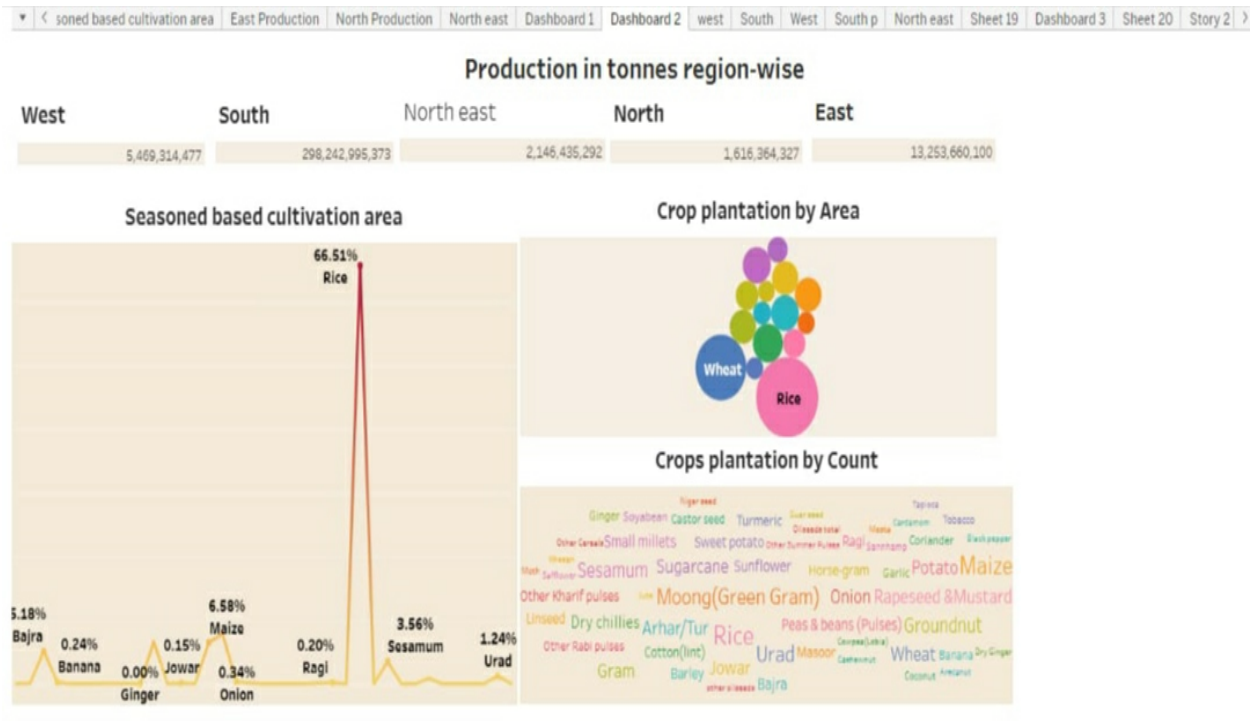
3.RESULT:

We created the data visualization such as dashboard and story using the dataset provided.

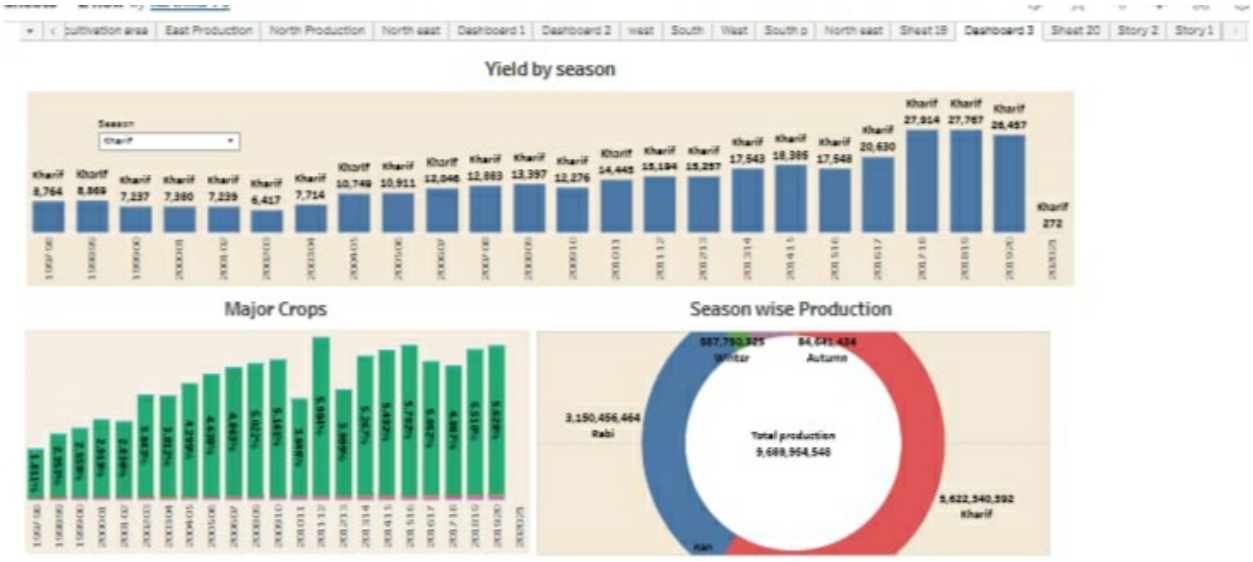
DASHBOARD 1:


North
Seasoned based cultivation area
East Production
North Production
North east
Dashboard 1
Dashboard 2
west
South
West
South p
North east
Sheet 18
Dashboard 3
Area in acres region-wise
west
South
North east
North
East
1,062,916,146
986,916,691
871,174,998
899,390,228
517,659,442
Statewise Agricultural Land
China
Pakistan
Jammu and Kashmir
Himachal Pradesh
Uttarakhand
Rajasthan
Uttar Pradesh
Sikkim
Arunachal Pradesh
Nagaland
Bihar
Manipur
Gujarat
Madhya Pradesh
Chhattisgarh
Dadra and Nagar Haveli
Telangana
Andhra Pradesh
Puducherry
Andaman and Nicobar Islands
2023 Mapbox © OpenStreetMap
Area vs Production
State
Uttar Pradesh 542,672,635 Uttar Pradesh 4,442,585,306
Madhya Pradesh 492,087,994 Madhya Pradesh 824,851,676
Rajasthan 486,453,365 Rajasthan 589,164,332
Maharashtra 461,939,552 Maharashtra 1,878,564,918
Karnataka 257,907,399 Karnataka 63,772,797,
Andhra Pradesh 238,925,339 Andhra Pradesh 26,076,218,605
West Bengal 237,682,266 West Bengal 8,941,179,120
Gujarat 222,434,333 Gujarat 807,581,678
Bihar 167,995,431 Bihar 544,953,533
Punjab 162,040,200 Punjab 781,651,409
Area
zero (na
Production

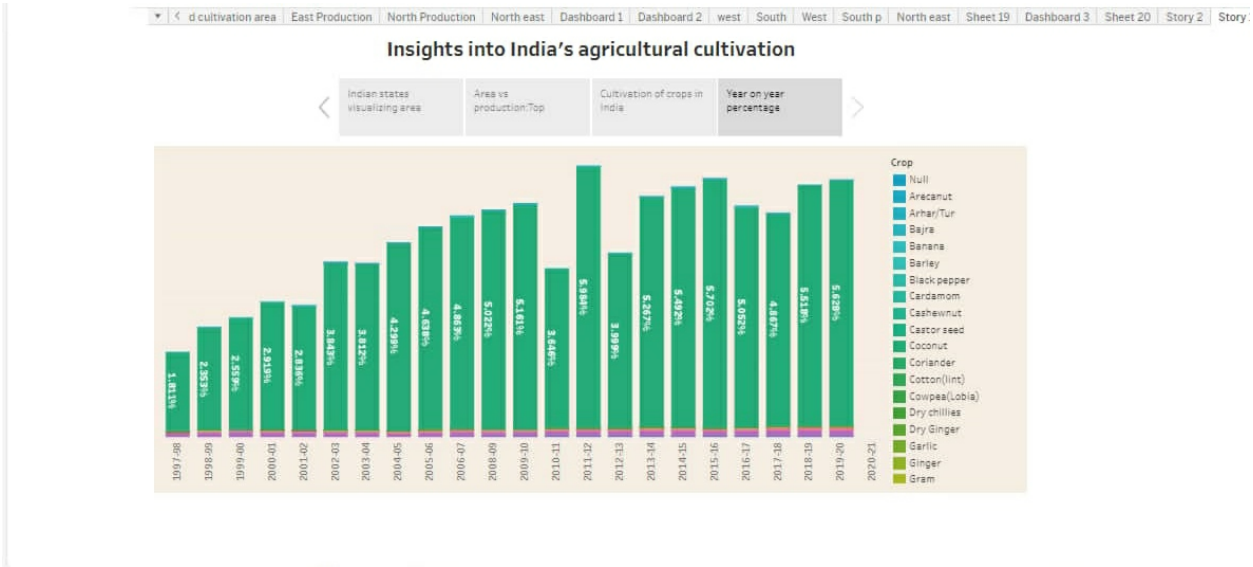
DASHBOARD 2:


soned based cultivation area
East Production
North Production
North east
Dashboard 1
Dashboard 2
west
South
West
South p
North east
Sheet 19
Dashboard 3
Sheet 20
Story 2
Production in tonnes region-wise
West
5,469,314,477
South
298,242,995,373
North east
2,146,435,292
North
1,616,364,327
East
13,253,660,100
Seasoned based cultivation area
66.51%
Rice
6.58%
Maize
3.56%
Sesamum
1.24%
Urad
0.24%
Banana
0.15%
Jowar
0.20%
Ragi
0.34%
Onion
0.00%
Ginger
Crop plantation by Area
Wheat
Rice
Crops plantation by Count
Ginger
Soyabean
Castor seed
Turmeric
Small millets
Sweet potato
Ragi
Coriander
Tobacco
Sesamum
Sugarcane
Sunflower
Horse-gram
Garlic
Potato
Maize
Other Kharif pulses
Moong(Green Gram)
Onion
Rapeseed &Mustard
Linseed
Dry chillies
Arhar/Tur
Rice
Peas & beans (Pulses)
Groundnut
Other Rabi pulses
Cotton(lint)
Urad
Masoor
Wheat
Banana
Gram
Barley
Jowar
Bajra

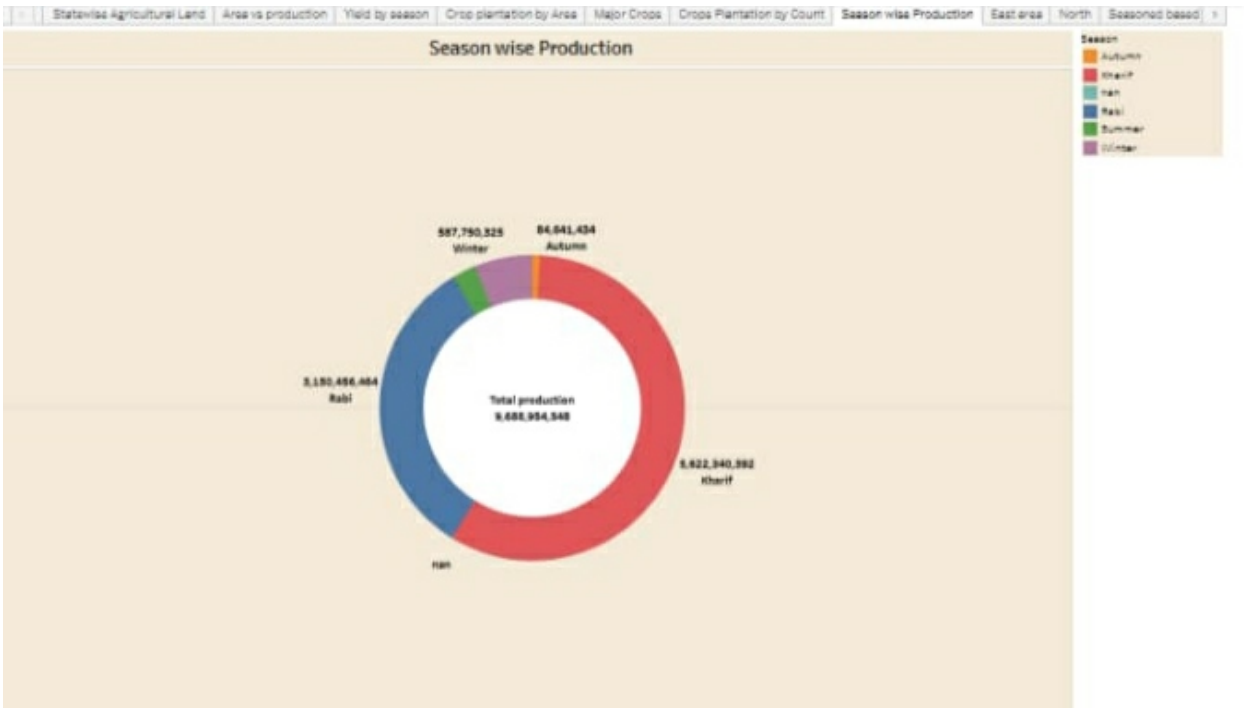
DASHBOARD 3:


Yield by season
Season
Kharif
Major Crops
Season wise Production
3,150,456,464
Rabi
Total production
9,688,964,548
5,622,540,392
Kharif

STORY :1



STORY :2



4.ADVANTAGES AND DISADVANTAGES:

ADVANTAGES:

- **LONG – TERM TRENDS:**

  Examining this extended period allows for the identification of long –term trends which can help policy makers make informed decisions.

- **DATA AVAILABILITY:**

  A wealth of historical data is available, enabling comprehensive analysis.

- **POLICY EVALUATION:**

  It facilitates the evaluation of the effectiveness of various agricultural policies implemented over the years.

- **COMPARATIVE ANALYSIS:**

  Researchers can compare different crops, regions, and time frames to gain valuable insights.

- **CLIMATE CHANGE ASSESSMENT:**

  It enables the assessment of how climate change has impacted Agricultural production overtime.

DISADVANTAGES:

- **DATA QUALITY:**

  Historical data may have inconsistencies and inaccuracies, making analysis less reliable.

- **CHANGING VARIABLES:**

Over this long period, various factors like technology, demographics and global markets have evolved, making it challenging to isolate the impact of specific variables.

- **REGIONAL VARIATIONS:**

  India is diverse and

agricultural production varies significantly by region, making it challenge to generalize findings.

- **COMPLEX INTERACTIONS**:

  Agricultural production is influenced by a complex web of factors, including weather, government policies, infrastructure, and socio-economic conditions, making it hard to establish causation.

- **LIMITED SCOPE:**

An analysis restricted to 1997-2021 may not capture recent developments or future trends, limiting its applicability.

APPLICATION:

Certainly, here are some simple and concise applications of analyzing India's agriculture crop production data from 1997 to 2021.

1. OPTIMIZED FARMING:

Helps farmers make better crop choices and planting decisions.

2.POLICY PLANNING:

Assists policymakers in designing effective agricultural policies.

3.FOOD SECURITY:

Supports strategies to ensure a stable food supply for the nation.

4.MARKET INSIGHTS:

Offers insights for the traders and business in the agriculture sector.

5.CLIMATE ADAPTATION:

Aids in adapting farming practices to changing weather patterns.

CONCLUSION:

Define problem/problem understanding

- Specify the business problem
- Business requirements
- Literature survey

Data collection & extraction

- Connect dataset with tableau
- Collect the dataset

Data preparation

- Prepare the date for visualizations

Data visualizations

- No of unique visualizations

Dashboard

- Responsive and design of dashboard

Story

- No of scenes of story

Performance testing

- Utilization of data filters
- No of visualizations/graphs project demonstration & documentation
- Record explanation video for project end to end solution. By this we conclude our project.

FUTURE SCOPE:

The future scope of India's agriculture crop production analysis is vast and diverse, encompassing everything from sustainable farming practices to cutting-edge technology adoption and policy development. Leveraging historical data can be a cornerstone in addressing the challenges and opportunities in India agriculture in the years to come.

Date analysis can inspire the creation of innovative agricultural technology solutions, including apps and tools that provide farmers with real-time information on weather, market

prices and best practices.