INDIA’S AGRICULTURE CROP PRODUCTION

INTRODUCTION

The agricultural sector stands as the cornerstone of India's economy, providing sustenance to a vast population and driving socio-economic development across the nation. With diverse agro-climatic zones and a rich cultural heritage deeply rooted in agriculture, India's agrarian story is one of resilience, innovation, and challenges.This Tableau project delves into the multifaceted world of Indian agriculture, aiming to unearth critical insights, trends, and patterns within this vital sector. By leveraging the power of data visualization, we embark on a journey to dissect the various dimensions of agricultural practices, crop production, market dynamics, and the impact on livelihoods.

PROJECT OVERVIEW

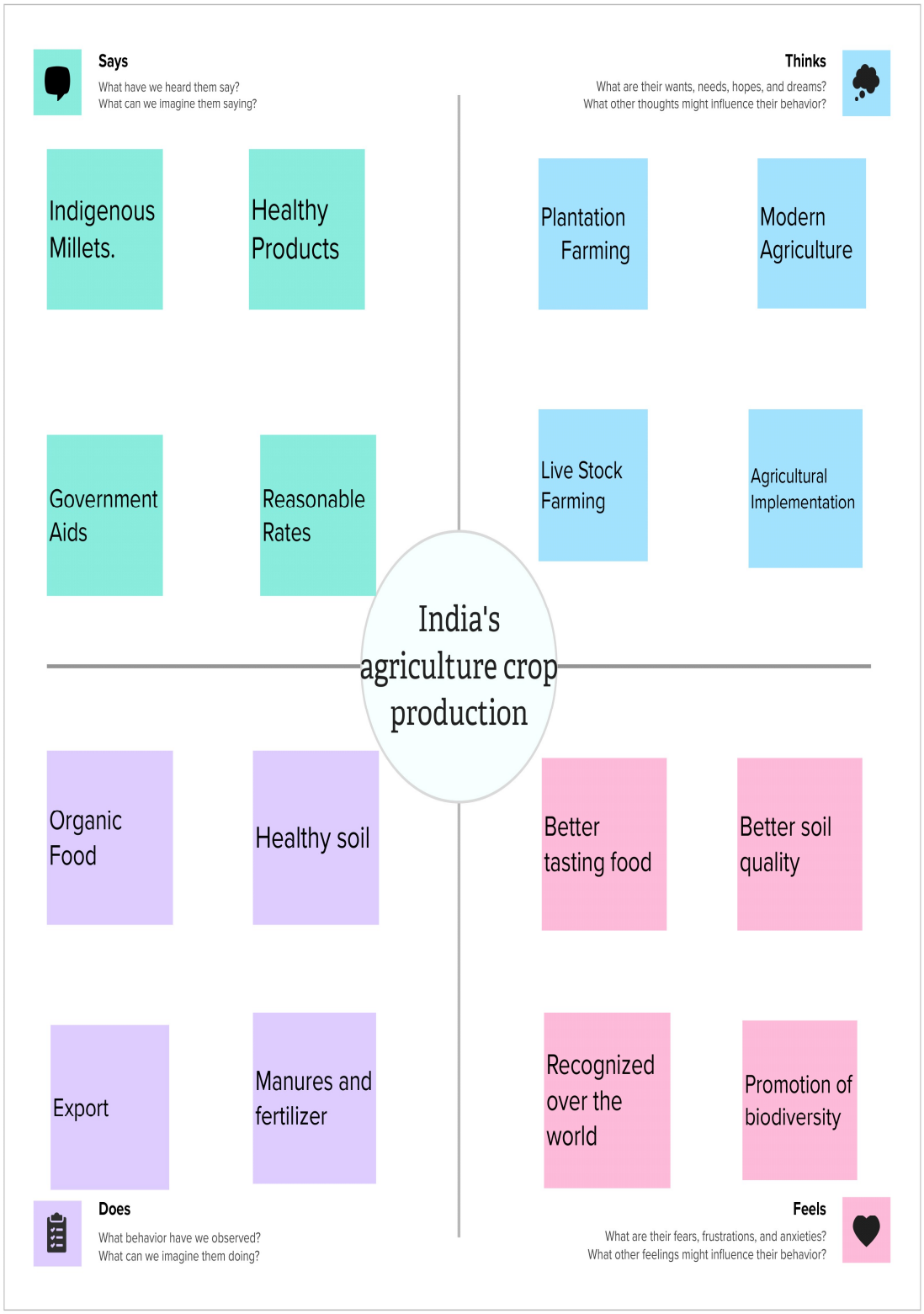
The primary aim of this project is to use data visualization to gain insights into various aspects of India's agricultural sector. Through interactive visual representations, we aim to uncover trends, patterns, and key factors influencing crop production, farming practices, and the overall agricultural economy.This project will focus on key elements such as crop distribution, yield trends, and the

impact of external factors like climate and policy interventions on agricultural outcomes. Additionally, we will explore regional variations and their implications on the livelihoods of farmers across different states.

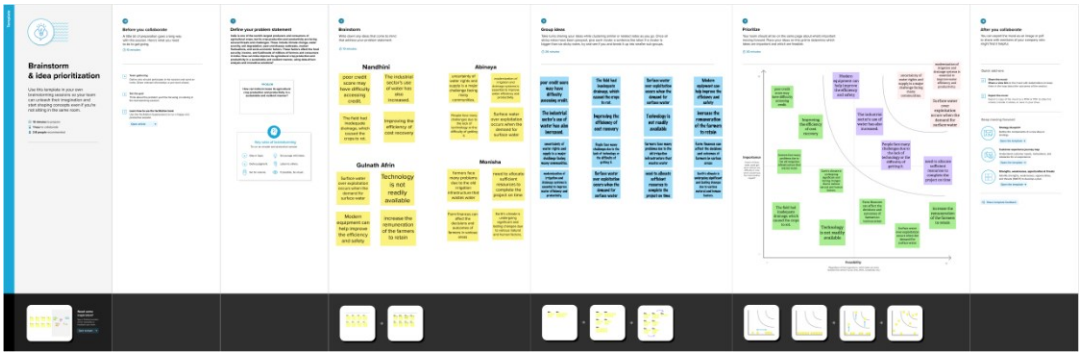
PURPOSE

This project endeavors to utilize data visualizations to glean valuable insights into India's agricultural sector. Through interactive graphics, we seek to uncover trends, regional variations, and policy implications in crop production and farming practices. The goal is to provide valuable insights for policymakers, researchers, and anyone interested in understanding the dynamics of agriculture in India. We will employ various charts, graphs, and maps to effectively convey insights, allowing for easy exploration and understanding of the agricultural data. These sources provide a comprehensive view of India's agricultural landscape, ensuring the reliability and accuracy of our analyses.

EMPATHY MAP


Says
What have we heard them say?
What can we imagine them saying?
Indigenous Millets.
Healthy Products
Government Aids
Reasonable Rates
Thinks
What are their wants, needs, hopes, and dreams?
What other thoughts might influence their behavior?
Plantation Farming
Modern Agriculture
Live Stock Farming
Agricultural Implementation
India's agriculture crop production
Organic Food
Healthy soil
Export
Manures and fertilizer
Better tasting food
Better soil quality
Recognized over the world
Promotion of biodiversity
Does
What behavior have we observed?
What can we imagine them doing?
Feels
What are their fears, frustrations, and anxieties?
What other feelings might influence their behavior?

BRAINSTORM MAP



RESULT

Ultimately, the result of this project is a valuable resource that contributes to the collective knowledge about India's agricultural sector, empowering stakeholders with actionable insights for informed decision-making and policy formulation in the realm of agriculture

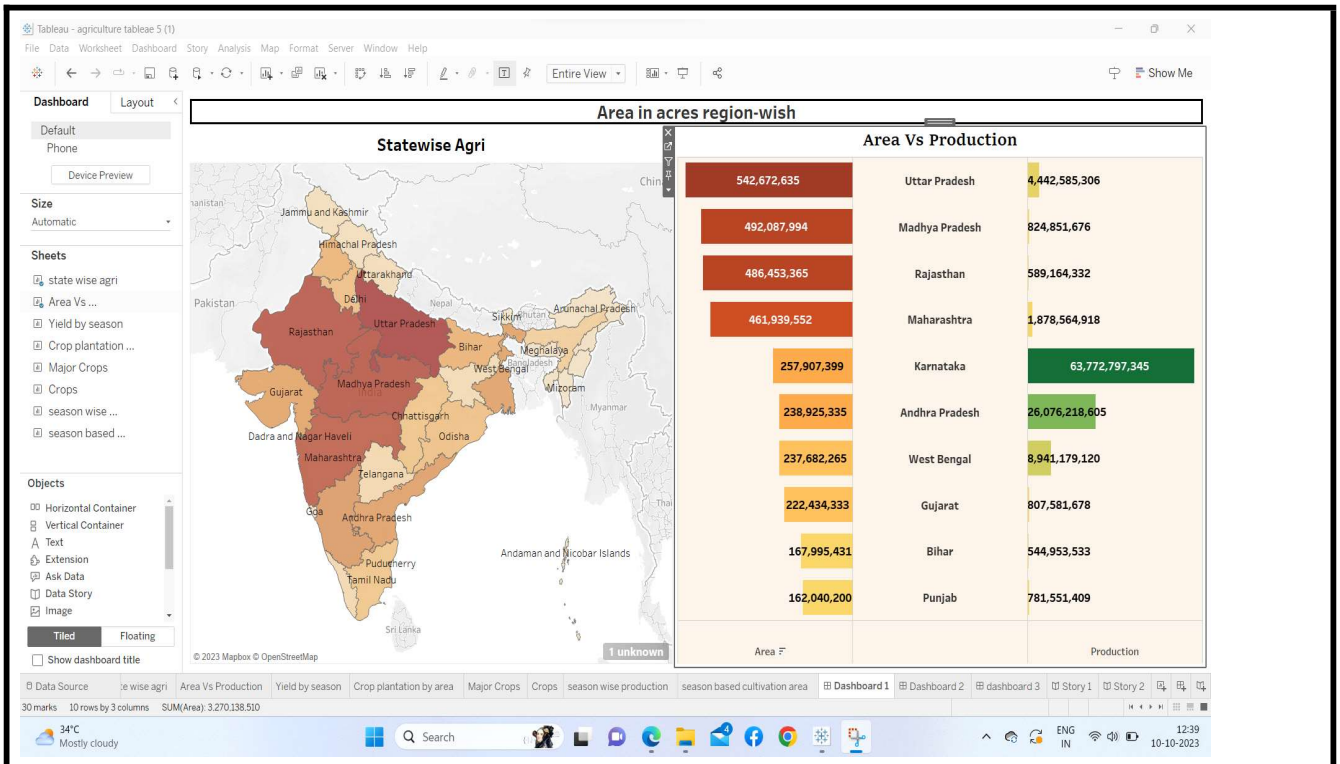
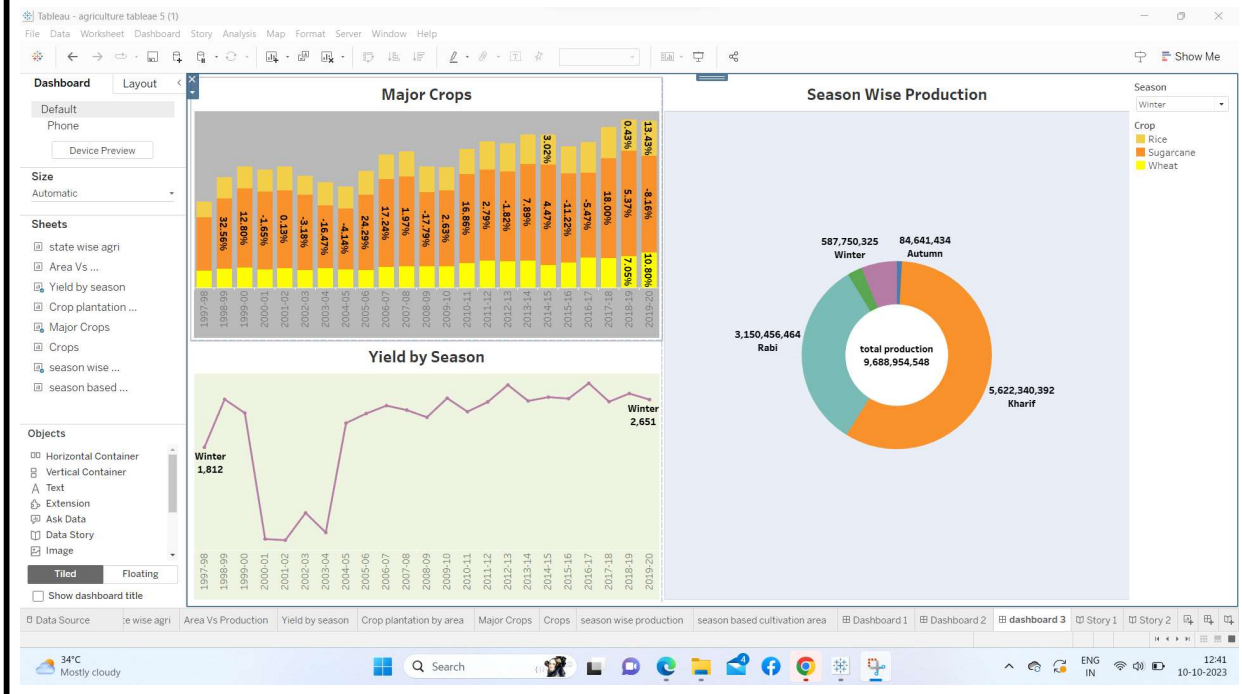


Tableau - agriculture tableae 5 (1)
Area in acres region-wish
Statewise Agri
Area Vs Production
542,672,635
Uttar Pradesh
4,442,585,306
492,087,994
Madhya Pradesh
824,851,676
486,453,365
Rajasthan
589,164,332
461,939,552
Maharashtra
1,878,564,918
257,907,399
Karnataka
63,772,797,345
238,925,335
Andhra Pradesh
26,076,218,605
237,682,265
West Bengal
8,941,179,120
222,434,333
Gujarat
807,581,678
167,995,431
Bihar
544,953,533
162,040,200
Punjab
781,551,409
Area
Production
© 2023 Mapbox © OpenStreetMap
1 unknown


Major Crops
Season Wise Production
Yield by Season
Winter
1,812
Winter
2,651
587,750,325
Winter
84,641,434
Autumn
3,150,456,464
Rabi
5,622,340,392
Kharif
total production
9,688,954,548

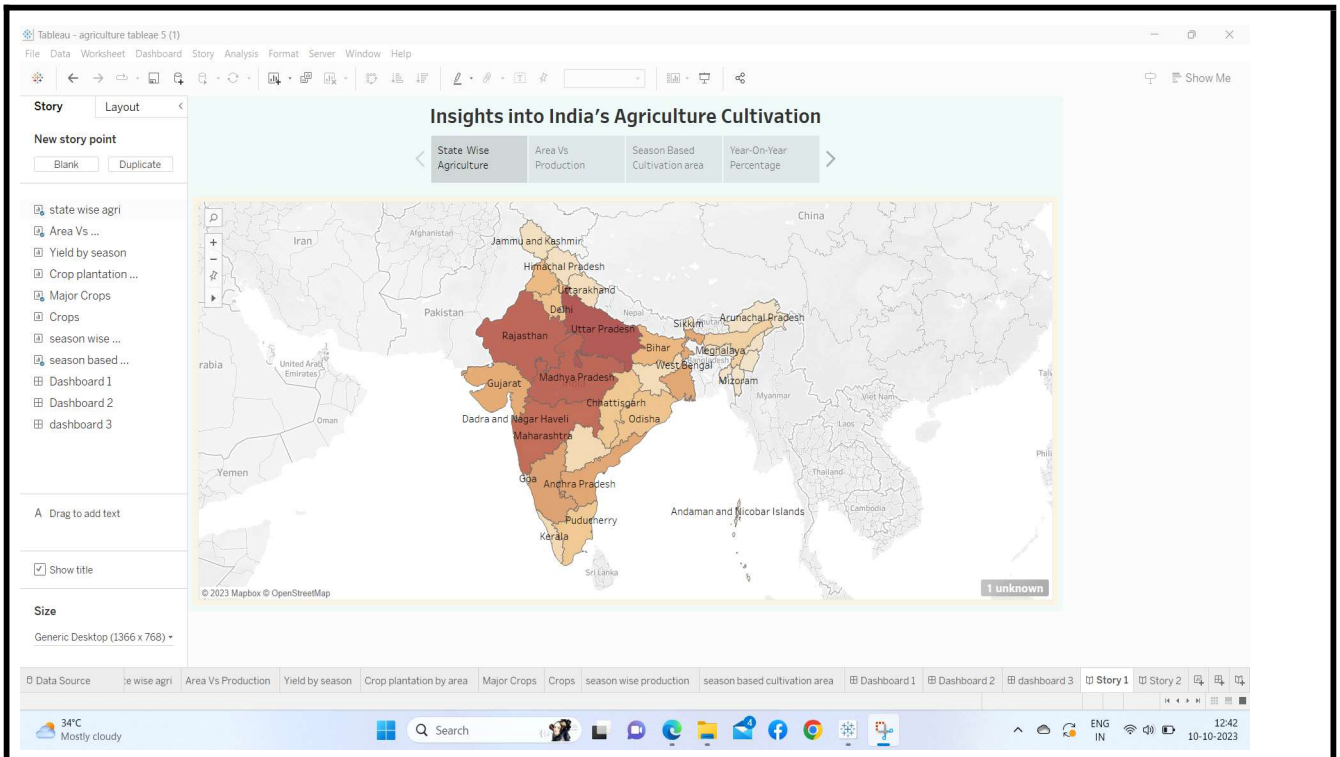


Tableau - agriculture tableae 5 (1)
Insights into India's Agriculture Cultivation
State Wise Agriculture
Area Vs Production
Season Based Cultivation area
Year-On-Year Percentage
Story
Layout
New story point
Blank
Duplicate
state wise agri
Area Vs ...
Yield by season
Crop plantation ...
Major Crops
Crops
season wise ...
season based ...
Dashboard 1
Dashboard 2
dashboard 3
Drag to add text
Show title
Size
Generic Desktop (1366 x 768)
Jammu and Kashmir
Himachal Pradesh
Uttarakhand
Delhi
Rajasthan
Uttar Pradesh
Bihar
Sikkim
Arunachal Pradesh
Meghalaya
West Bengal
Mizoram
Gujarat
Madhya Pradesh
Chhattisgarh
Odisha
Dadra and Nagar Haveli
Maharashtra
Goa
Andhra Pradesh
Puducherry
Kerala
Andaman and Nicobar Islands
© 2023 Mapbox © OpenStreetMap
1 unknown
Data Source
Area Vs Production
Yield by season
Crop plantation by area
Major Crops
Crops
season wise production
season based cultivation area
Dashboard 1
Dashboard 2
dashboard 3
Story 1
Story 2
34°C
Mostly cloudy
Search
ENG
IN
12:42
10-10-2023

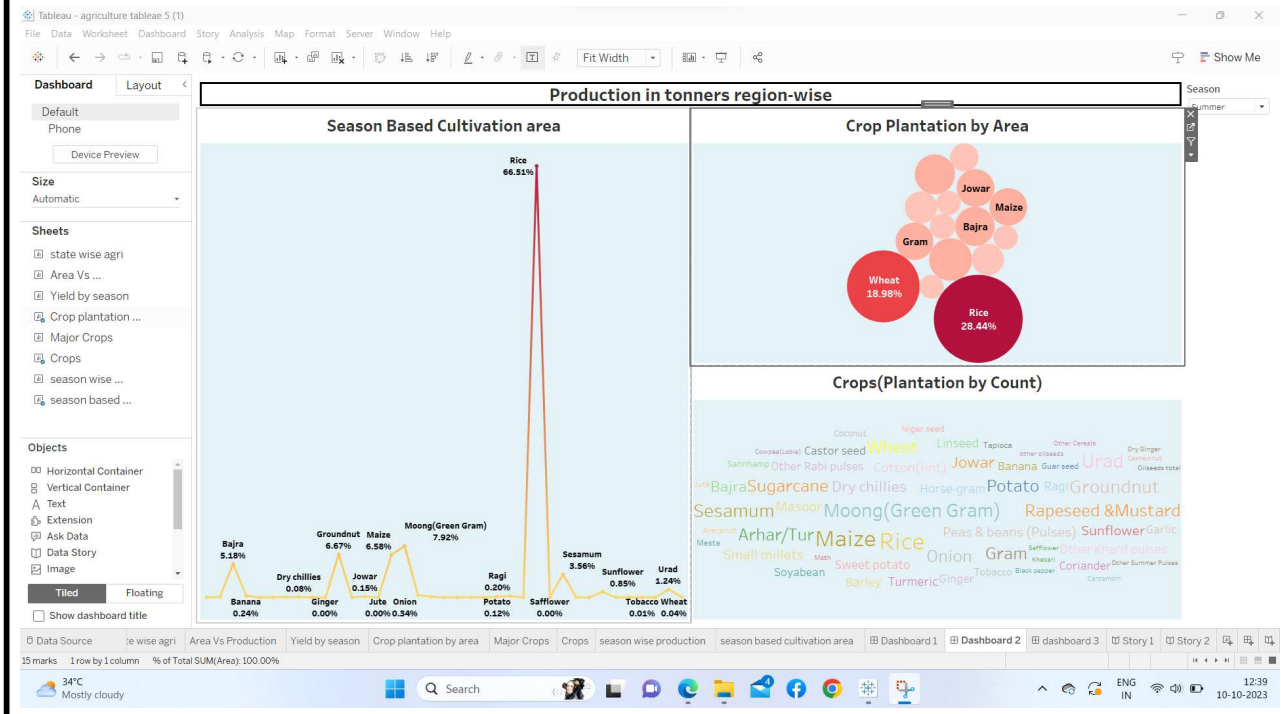
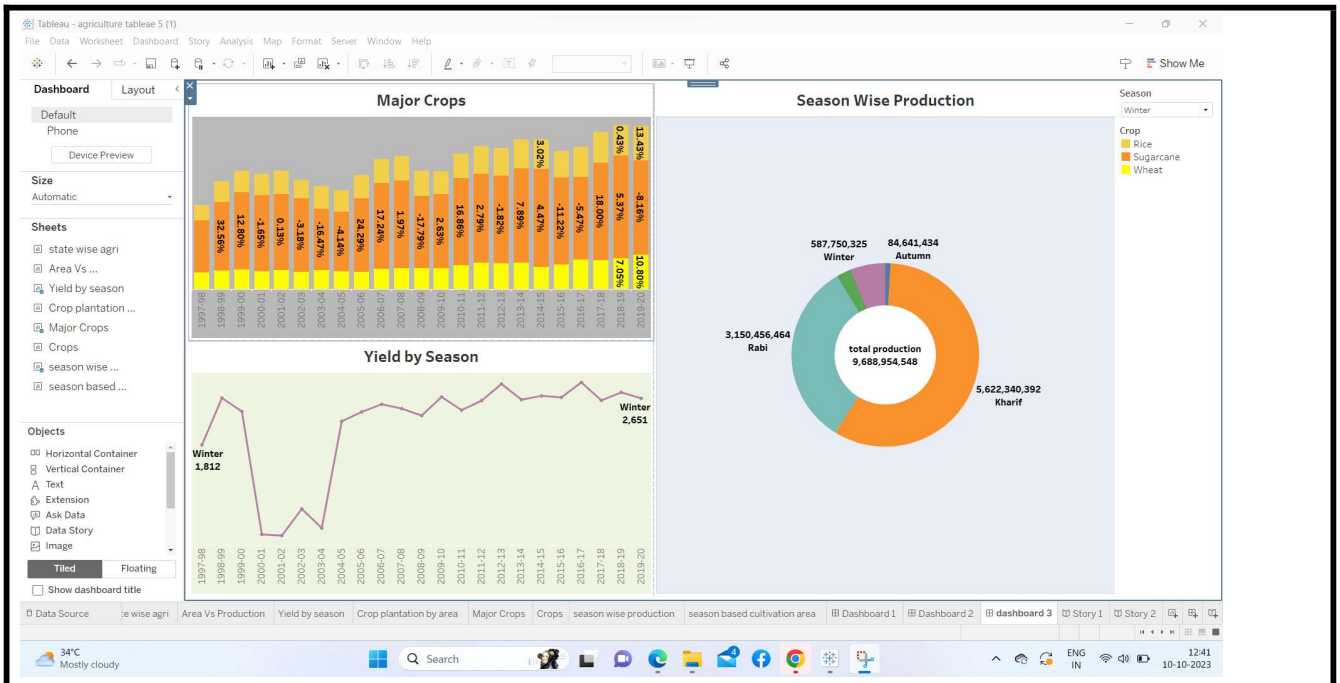
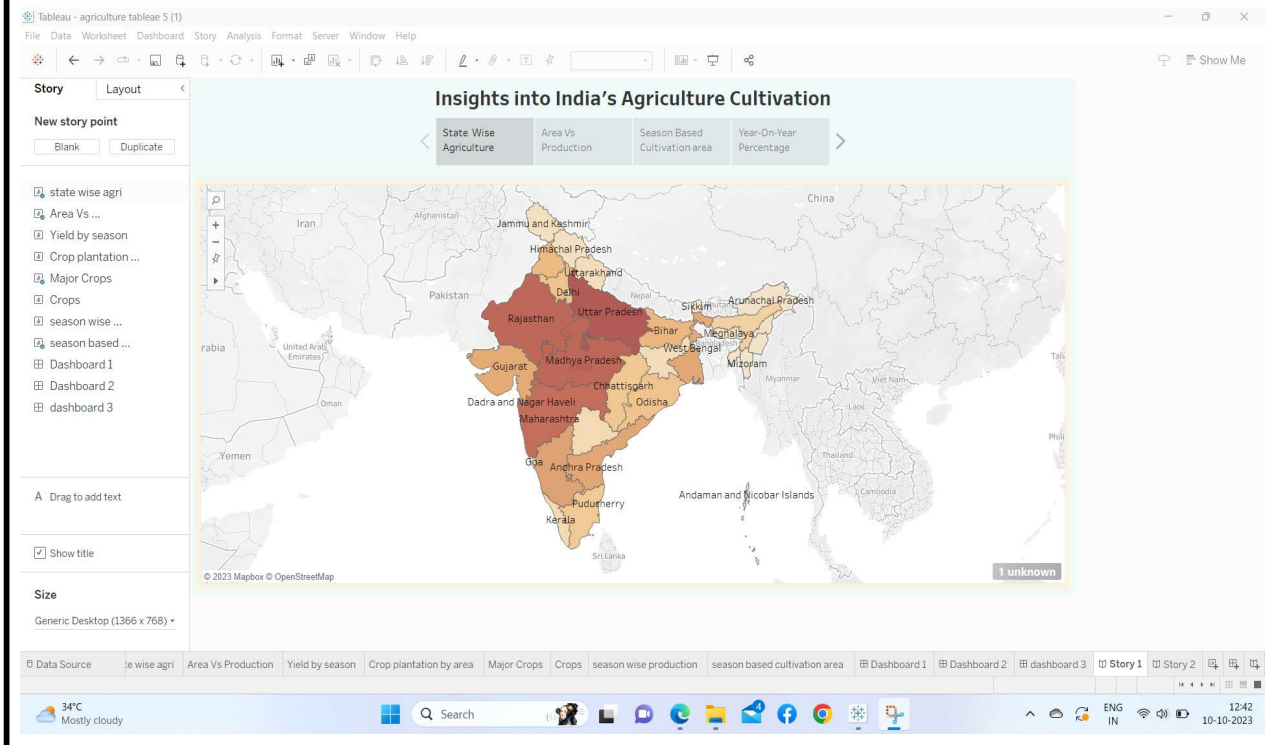


Tableau - agriculture tableae 5 (1)
Fit Width
Show Me
Dashboard
Layout
Default
Phone
Device Preview
Size
Automatic
Sheets
state wise agri
Area Vs ...
Yield by season
Crop plantation ...
Major Crops
Crops
season wise ...
season based ...
Objects
Horizontal Container
Vertical Container
Text
Extension
Ask Data
Data Story
Image
Tiled
Floating
Show dashboard title
Production in tonners region-wise
Season
Summer
Season Based Cultivation area
Rice 66.51%
Bajra 5.18%
Groundnut 6.67%
Maize 6.58%
Moong(Green Gram) 7.92%
Dry chillies 0.08%
Jowar 0.15%
Ragi 0.20%
Sesamum 3.56%
Sunflower 0.85%
Urad 1.24%
Banana 0.24%
Ginger 0.00%
Jute 0.00%
Onion 0.34%
Potato 0.12%
Safflower 0.00%
Tobacco 0.01%
Wheat 0.04%
Crop Plantation by Area
Jowar
Maize
Bajra
Gram
Wheat 18.98%
Rice 28.44%
Crops(Plantation by Count)
Coconut
Niger seed
Castor seed
Wheat
Linseed
Tapioca
Other Cereals
Cowpea(Lubia)
other oilseeds
Dry Ginger
Sannhamp
Other Rabi pulses
Cotton(lint)
Jowar
Banana
Guar seed
Urad
Oilseeds total
Bajra
Sugarcane
Dry chillies
Horse-gram
Potato
Ragi
Groundnut
Sesamum
Masoor
Moong(Green Gram)
Rapeseed &Mustard
Arhar/Tur
Maize
Rice
Peas & beans (Pulses)
Sunflower
Garlic
Small millets
Gram
Other Kharif pulses
Soyabean
Sweet potato
Onion
Coriander
Other Summer Pulses
Barley
Turmeric
Ginger
Tobacco
Black pepper
Cardamom
Data Source
Area Vs Production
Yield by season
Crop plantation by area
Major Crops
Crops
season wise production
season based cultivation area
Dashboard 1
Dashboard 2
dashboard 3
Story 1
Story 2
15 marks
1 row by 1 column
% of Total SUM(Area): 100.00%
34°C
Mostly cloudy
Search
ENG
IN
12:39
10-10-2023


Major Crops
Season Wise Production
Yield by Season
Winter
Rice
Sugarcane
Wheat
587,750,325
Winter
84,641,434
Autumn
3,150,456,464
Rabi
total production
9,688,954,548
5,622,340,392
Kharif
Winter
1,812
Winter
2,651


Insights into India's Agriculture Cultivation
State Wise Agriculture
Area Vs Production
Season Based Cultivation area
Year-On-Year Percentage
Jammu and Kashmir
Himachal Pradesh
Uttarakhand
Delhi
Uttar Pradesh
Rajasthan
Bihar
Sikkim
Arunachal Pradesh
Meghalaya
West Bengal
Mizoram
Gujarat
Madhya Pradesh
Chhattisgarh
Odisha
Dadra and Nagar Haveli
Maharashtra
Goa
Andhra Pradesh
Puducherry
Kerala
Andaman and Nicobar Islands
© 2023 Mapbox © OpenStreetMap
1 unknown

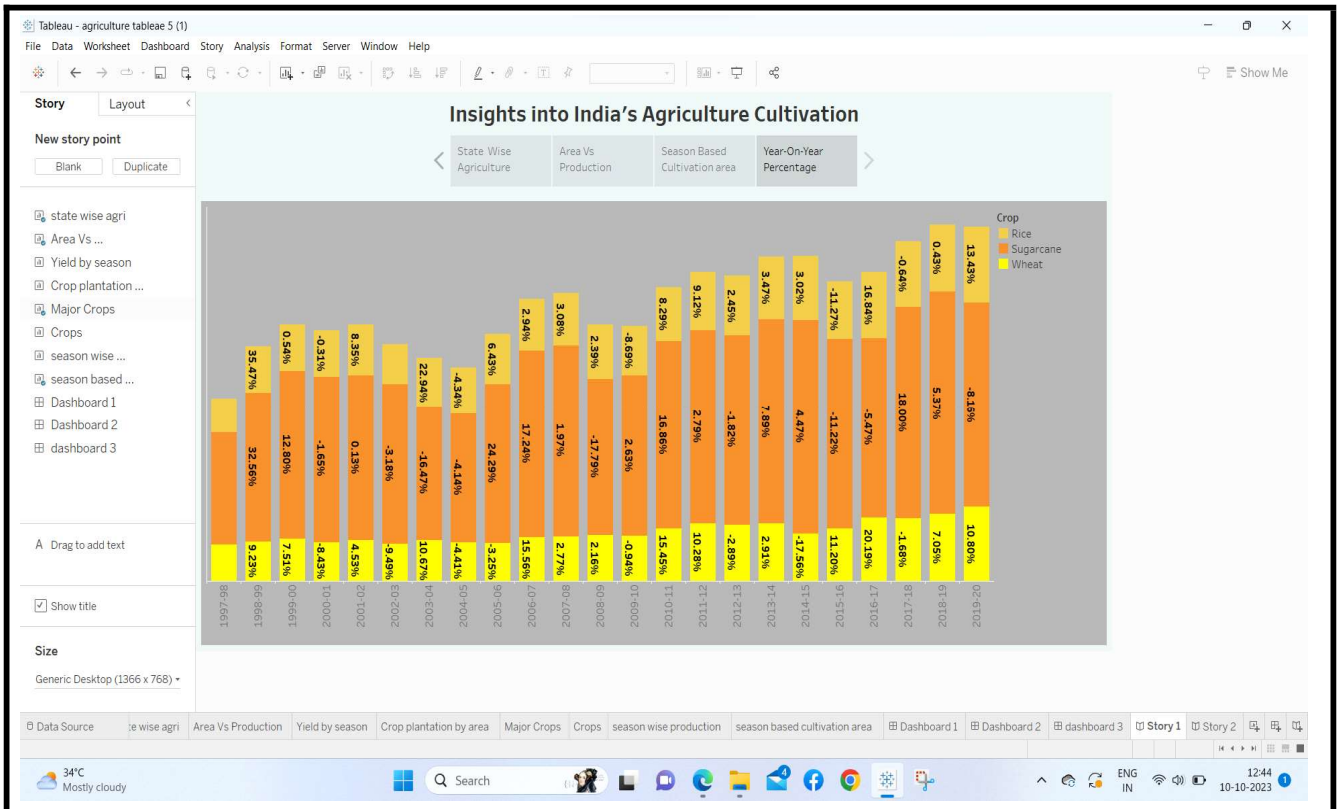


Tableau - agriculture tableae 5 (1)
File Data Worksheet Dashboard Story Analysis Format Server Window Help
Show Me
Story
Layout
New story point
Blank
Duplicate
state wise agri
Area Vs ...
Yield by season
Crop plantation ...
Major Crops
Crops
season wise ...
season based ...
Dashboard 1
Dashboard 2
dashboard 3
Drag to add text
Show title
Size
Generic Desktop (1366 x 768)
Insights into India's Agriculture Cultivation
State Wise Agriculture
Area Vs Production
Season Based Cultivation area
Year-On-Year Percentage
Crop
Rice
Sugarcane
Wheat
1997-98
1998-99
1999-00
2000-01
2001-02
2002-03
2003-04
2004-05
2005-06
2006-07
2007-08
2008-09
2009-10
2010-11
2011-12
2012-13
2013-14
2014-15
2015-16
2016-17
2017-18
2018-19
2019-20
Data Source
Area Vs Production
Yield by season
Crop plantation by area
Major Crops
Crops
season wise production
season based cultivation area
Dashboard 1
Dashboard 2
dashboard 3
Story 1
Story 2
34°C
Mostly cloudy
Search
ENG
IN
12:44
10-10-2023

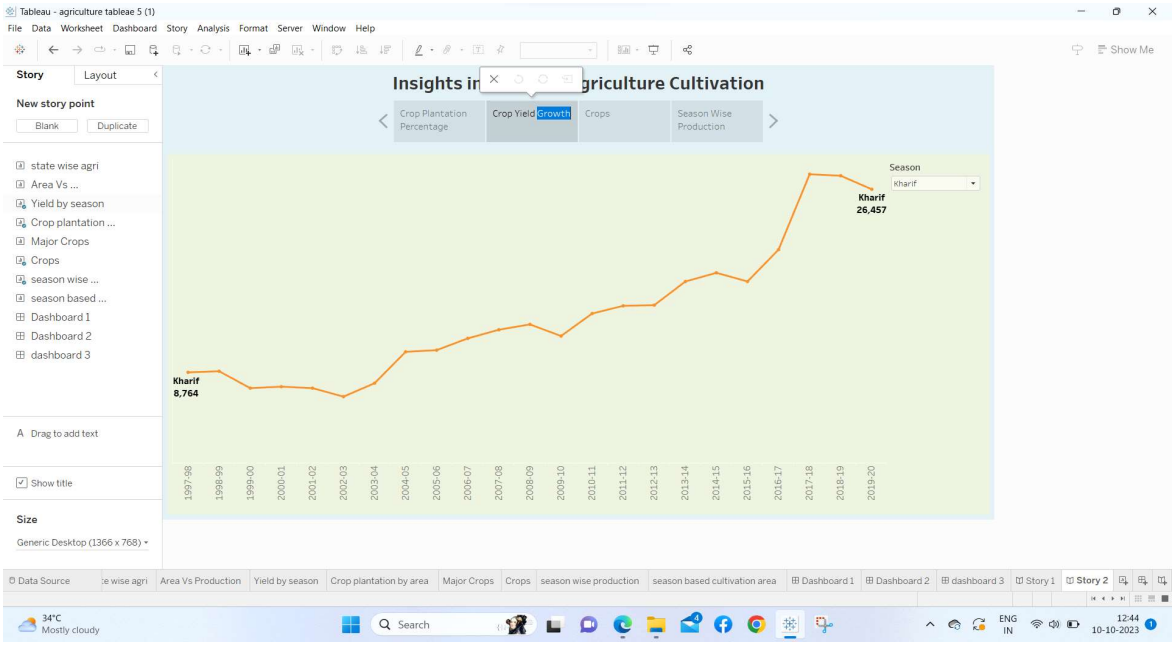


Tableau - agriculture tableae 5 (1)
File Data Worksheet Dashboard Story Analysis Format Server Window Help
Show Me
Story
Layout
New story point
Blank
Duplicate
state wise agri
Area Vs ...
Yield by season
Crop plantation ...
Major Crops
Crops
season wise ...
season based ...
Dashboard 1
Dashboard 2
dashboard 3
Drag to add text
Show title
Size
Generic Desktop (1366 x 768)
Crop Plantation Percentage
Crop Yield Growth
Crops
Season Wise Production
Season
Kharif
Kharif
26,457
Kharif
8,764
1997-98
1998-99
1999-00
2000-01
2001-02
2002-03
2003-04
2004-05
2005-06
2006-07
2007-08
2008-09
2009-10
2010-11
2011-12
2012-13
2013-14
2014-15
2015-16
2016-17
2017-18
2018-19
2019-20
Data Source
Area Vs Production
Yield by season
Crop plantation by area
Major Crops
Crops
season wise production
season based cultivation area
Dashboard 1
Dashboard 2
dashboard 3
Story 1
Story 2
34°C
Mostly cloudy
Search
ENG
IN
12:44
10-10-2023

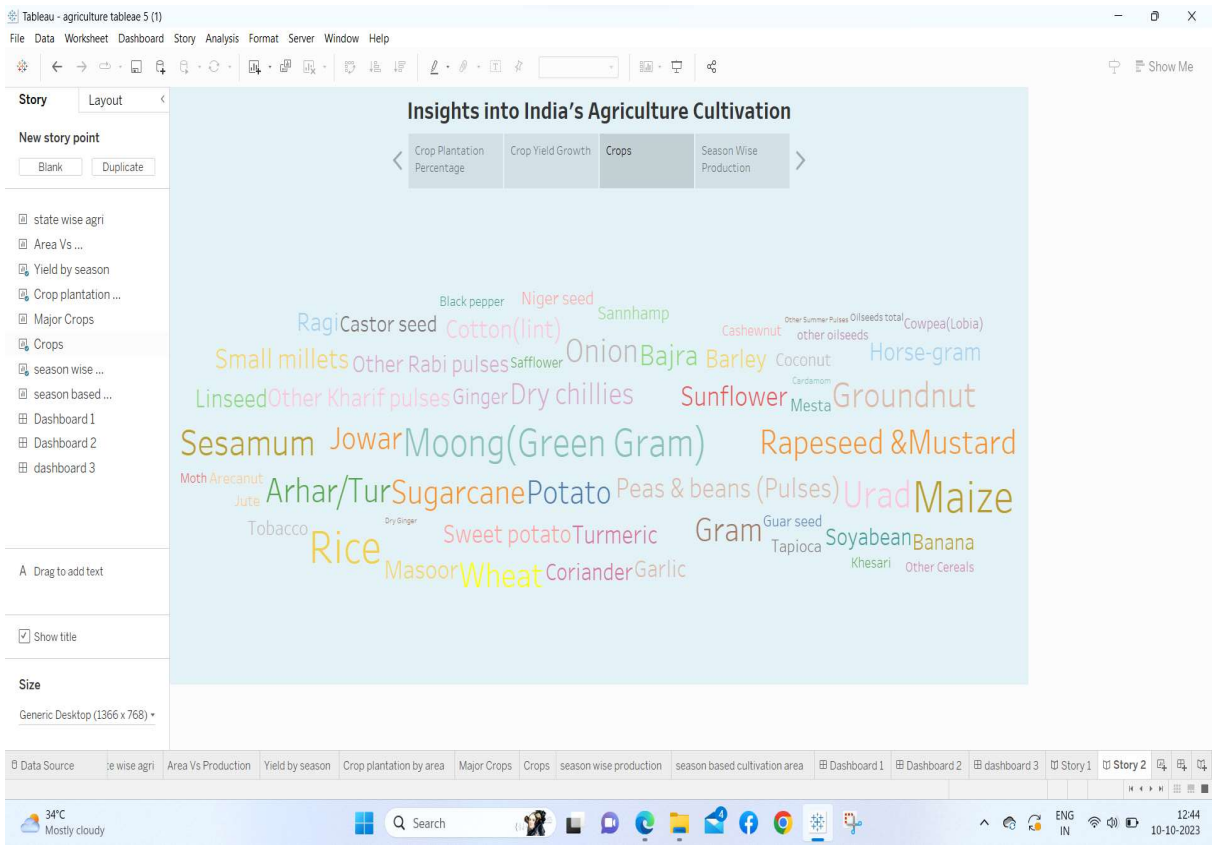


Tableau - agriculture tableae 5 (1)
File Data Worksheet Dashboard Story Analysis Format Server Window Help
Show Me
Story
Layout
New story point
Blank
Duplicate
state wise agri
Area Vs ...
Yield by season
Crop plantation ...
Major Crops
Crops
season wise ...
season based ...
Dashboard 1
Dashboard 2
dashboard 3
Drag to add text
Show title
Size
Generic Desktop (1366 x 768)
Insights into India's Agriculture Cultivation
Crop Plantation Percentage
Crop Yield Growth
Crops
Season Wise Production
Black pepper
Niger seed
Ragi
Castor seed
Cotton(lint)
Sannhamp
Cashewnut
Other Summer Pulses
Oilseeds total
other oilseeds
Cowpea(Lobia)
Small millets
Other Rabi pulses
Safflower
Onion
Bajra
Barley
Coconut
Horse-gram
Linseed
Other Kharif pulses
Ginger
Dry chillies
Cardamom
Sunflower
Mesta
Groundnut
Sesamum
Jowar
Moong(Green Gram)
Rapeseed &Mustard
Moth
Arecanut
Jute
Arhar/Tur
Sugarcane
Potato
Peas & beans (Pulses)
Urad
Maize
Tobacco
Dry Ginger
Rice
Sweet potato
Turmeric
Gram
Guar seed
Tapioca
Soyabean
Banana
Khesari
Other Cereals
Masoor
Wheat
Coriander
Garlic
Data Source
Area Vs Production
Yield by season
Crop plantation by area
Major Crops
Crops
season wise production
season based cultivation area
Dashboard 1
Dashboard 2
dashboard 3
Story 1
Story 2
34°C
Mostly cloudy
Search
ENG
IN
12:44
10-10-2023

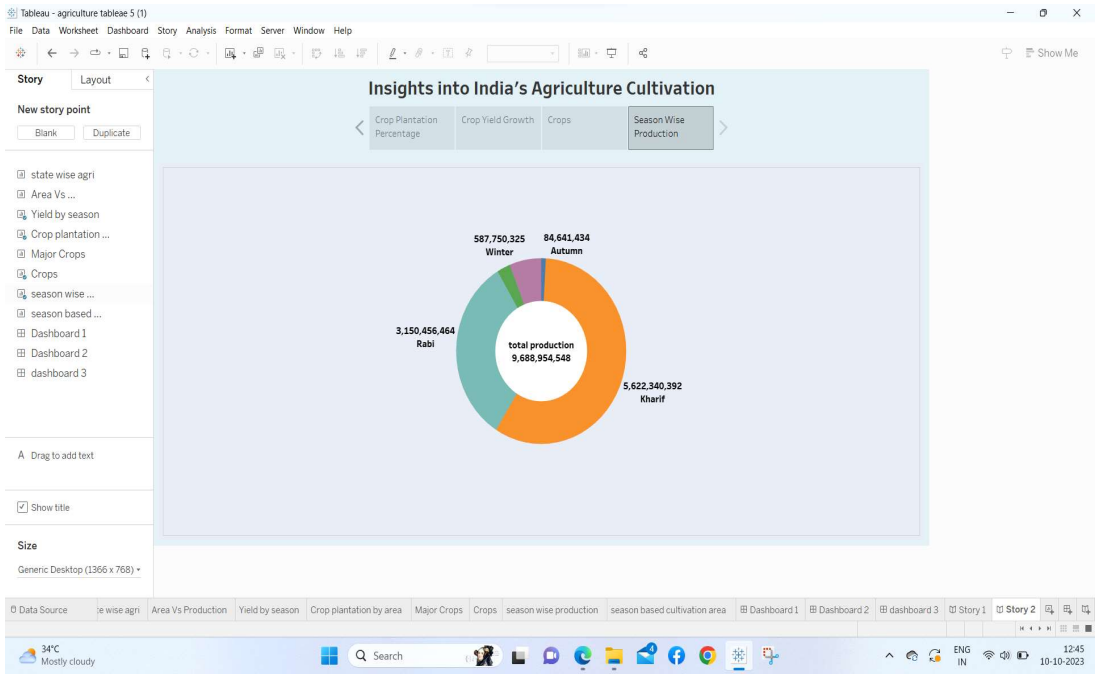


Tableau - agriculture tableae 5 (1)
File Data Worksheet Dashboard Story Analysis Format Server Window Help
Show Me
Story
Layout
New story point
Blank
Duplicate
state wise agri
Area Vs ...
Yield by season
Crop plantation ...
Major Crops
Crops
season wise ...
season based ...
Dashboard 1
Dashboard 2
dashboard 3
Drag to add text
Show title
Size
Generic Desktop (1366 x 768)
Insights into India's Agriculture Cultivation
Crop Plantation Percentage
Crop Yield Growth
Crops
Season Wise Production
587,750,325
Winter
84,641,434
Autumn
3,150,456,464
Rabi
total production
9,688,954,548
5,622,340,392
Kharif
Data Source
Area Vs Production
Yield by season
Crop plantation by area
Major Crops
Crops
season wise production
season based cultivation area
Dashboard 1
Dashboard 2
dashboard 3
Story 1
Story 2
34°C
Mostly cloudy
Search
ENG
IN
12:45
10-10-2023

LINK

https://public.tableau.com/app/profile/nandhini.d4274/viz/agriculturetableae/Dashboard1?publish=yes

https://public.tableau.com/app/profile/nandhini.d4274/viz/agriculturetableae/Dashboard2?publish=yes

https://public.tableau.com/app/profile/nandhini.d4274/viz/agriculturetableae/dashboard3?publish=yes

https://public.tableau.com/app/profile/nandhini.d4274/viz/agriculturetableae/Story1?publish=yes

https://public.tableau.com/app/profile/nandhini.d4274/viz/agriculturetableae/Story2?publish=yes

ADVANTAGES

- Visual Clarity and Interpretability
- Interactive Exploration
- Comprehensive Insights
- Policy Implications
- Educational Tool

DISADVANTAGES

- Data Availability and Quality
- Complexity of Tool
- Limited to Available Data
- Potential for Misinterpretation

- Static Data

APPLICATION

- Policy Formulation and Evaluation
- Crop Planning and Optimization
- Market Analysis and Forecasting
- Climate Resilience and Adaptation
- Resource Allocation and Efficiency

CONCLUSION

Through Tableau, we've gained valuable insights into India's agriculture. This data-driven exploration highlighted key trends, regional variations, and challenges. These insights offer a roadmap for informed decision-making and policy formulation. The project also serves as an educational resource, emphasizing the importance of sustainable practices. Continued efforts are crucial for the prosperity of Indian agriculture.

FUTURE SCOPE

- Advanced Predictive Modeling
- Real-time Data Integration
- Geospatial Analysis
- Socio-economic Impact Assessment

- Integration with IoT and Sensor Data
- Market Demand Forecasting
- Policy Simulation and Scenario Analysis
- Diversification and Crop Rotation Strategies
- Farm-level Profitability Analysis