INDIA'S AGRICULTURAL CROP PRODUCTION ANALYSIS 1997-2021

Student Name	Team	Student NM id
KALIMA SIRIN M	Team Leader	E3DBC53EF30D59A935E4D53E7790E2C6
BHARATHY B	Team Member	DE65DF32D8BB1FD8A61486E07401092A
JEYA LAKSHMI M	Team Member	7BBDD5D1DF832E186694BAE3774DDFB0
NIRMALA A	Team Member	BAC090822B0A99F920F4139EF6F8651D
SIVA SATHYA M	Team Member	47292C4AE74082CA7C44D5D3EB5EE053
VALARMATHI J	Team Member	9112B57A155D304B2A7461D16790F231

Content:

INDIA'S AGRICULTURAL CROP PRODUCTION ANALYSIS 1997-2021

1. INDRODUCTION:

1.1. OVERVIEW:

India's agriulture is composead of many crops, with the foremost food staples being rice and wheat.

Indian farmers also grow pulses, potatoes, sugarcane, oilseeds, and such non-food items as cotton, tea, coffeem rubber, and jute.Despite the overwhiming size of the agricultural sector, however, yield per hecter of crops in India are generally low compared to interntional standards. Improper water management is another problem affecting India's agriculture. At a time of increasing water shortages and environmental crises, for example, the rice crop in India is allowcated disproportionality high amount of water. It is estimated that as much as one-fifth of the total agricultural output is lost due to inefficiencies in hresting, transport, and storaage of Government -subsidized crops. So lets us analysis more about the crop cultivtion, cost invested, seasons for cultivation.

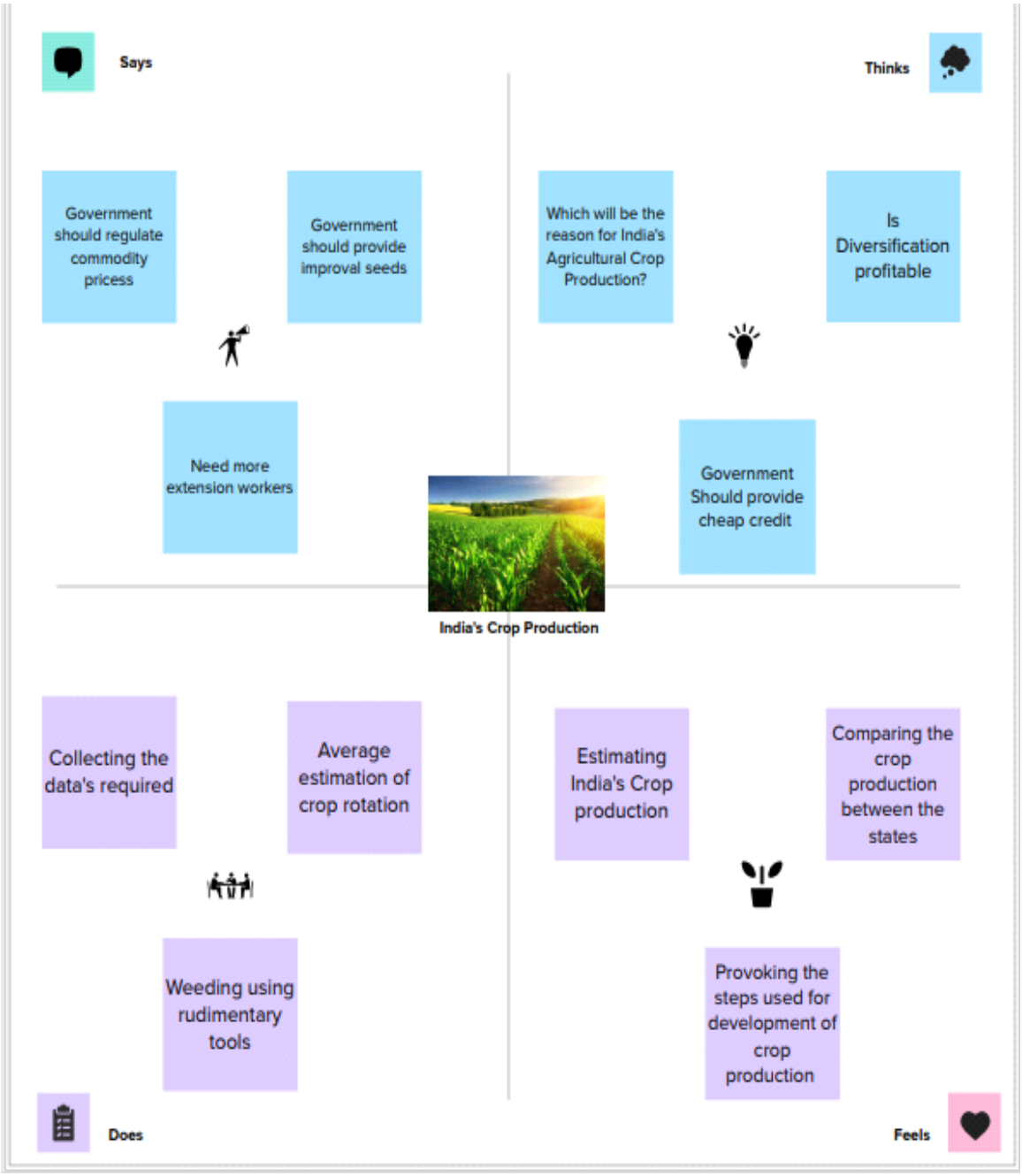
1.2 PURPOSE

This project is used to we can know the agricultural development and exchange and decline..,etc of India. If you do agriculture through this project we can get good result. It possible to know which crop yield more in each season. Through this project we can achieve about the agricultural practises in India.

2. PROBLEM DEFINITION & DESIGN THINKING:

Empathy Map

An empathy map is a template that organizes a user's behaviors and feelings to create a sense of empathy between the user and your team. The empathy map represents a principal user and helps teams understand their motivations, concerns, and experience. Empathy mapping is a simple yet effective workshop that can be conducted with various users in mind, anywhere from stakeholders, individual use cases, or entire teams of people. Many teams, such as design teams, sales, product development, and customer service, can conduct it. Essentially, an empathy mapping exercise is a practice that seeks to get inside the head of the customer as they interact with your product/service. While the main importance of an empathy map is creating empathy between you and the user, some other important facets of using one offer different benefits to your team. Creating an empathy map considers many factors in relation to the customer's overall experience. These could be the problems they handle, how they use the product/service within a larger team, and who experience the brunt of the problem. These details are essential to creating a holistic view of their experience because they illuminate the problem in your team's mind. This is equally as important and helps build an overall understanding of how users interact with your product/service. Empathy mapping is an important tool used in marketing, product development, and user experience design to identify and solve individuals' or target audiences' requirements, motivations, and experiences. Empathy mapping can be applied to various design thinking activities, including user research, brainstorming, and prototyping. It's critical that users, on some level, enjoy using your product/service. They will eventually leave and use something else if they don't enjoy it. As a business manager, this should be avoided at all costs, and the easiest way to avoid turnover is by ensuring a positive customer experience. Empathy maps are the easiest way to break down your customer experience and highlight the areas you can target for improvement. By incorporating surveys and lines of direct feedback, they serve almost as a usability test and a journey map. Not only can you realize where their experience is lacking, but by putting yourself in the user's shoes, you gain a better perspective of how your product functions in general. By understanding this, you can find holes and flaws you didn't know existed and take your product/service to another level. During an empathy mapping session, participants can interact to develop those flaws in an empathy map.


Says
Thinks
Government should regulate commodity pricess
Government should provide improval seeds
Which will be the reason for India's Agricultural Crop Production?
Is Diversification profitable
Need more extension workers
Government Should provide cheap credit
India's Crop Production
Collecting the data's required
Average estimation of crop rotation
Estimating India's Crop production
Comparing the crop production between the states
Weeding using rudimentary tools
Provoking the steps used for development of crop production
Does
Feels

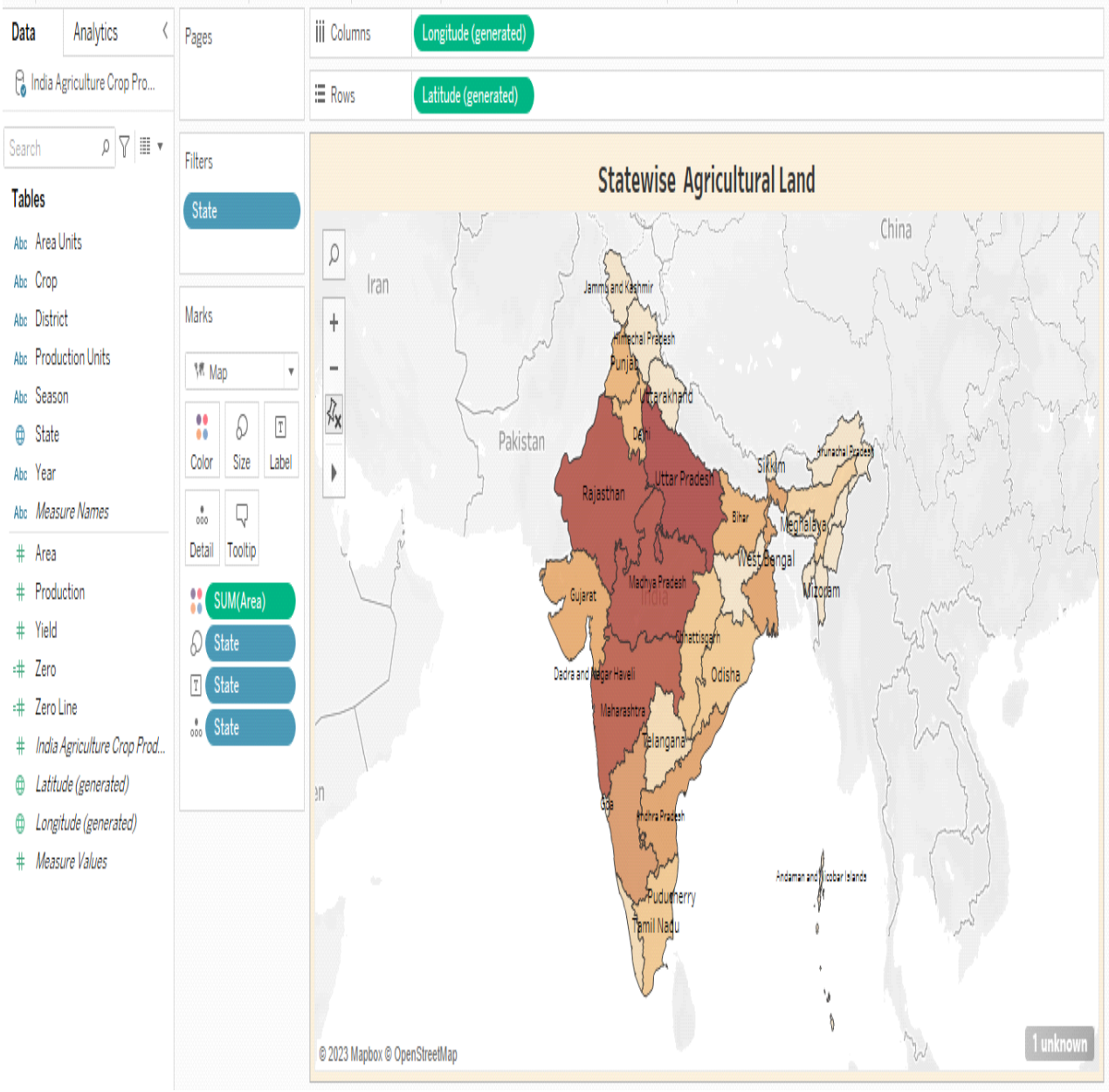
2.2. IDEATION & BRAINSTORMING MAP:

When brainstorming, or attempting to see a particular topic from all angles, linear tools — like lists — aren't always the best solution. In fact, thinking this way can hinder creativity. The solution? A mind map. This organizational structure allows you to explore a central topic on a deep level through associated ideas and concepts which branch off from the center organically. On paper, a mind map resembles a tree, with your central topic at the center of the page. From there, lines (or *branches*) are drawn to sub-topics represented by keywords. From here, you can go another level down with even smaller branches sprouting off into other related areas. With each new level, you move further away from obvious or surface level ideas and thoughts — that's why a mind map can help you *fully* explore a topic, beyond face value.

3. RESULT:

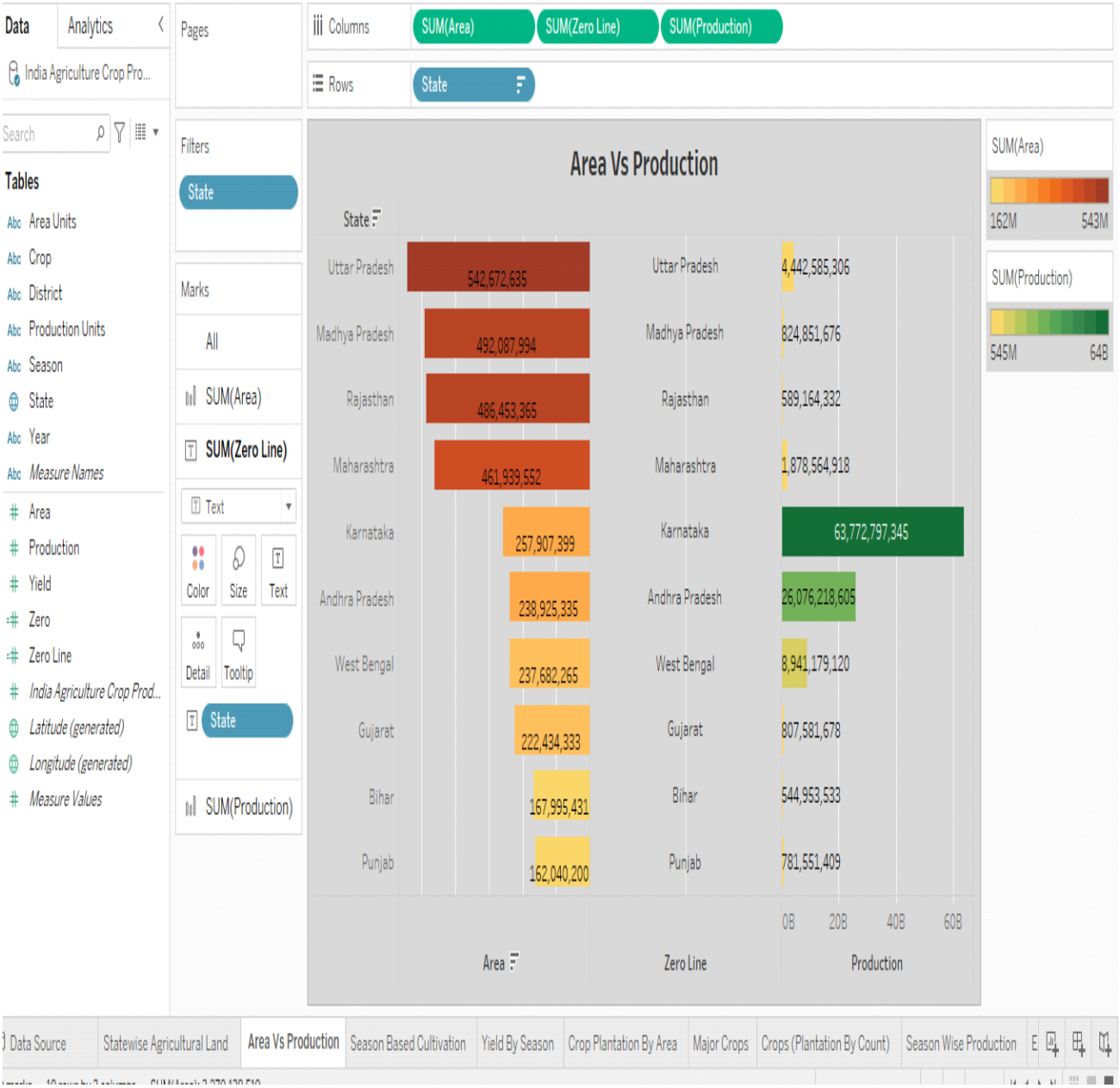
ACTIVITY 1.1.

STATEWISE AGRICULTURAL LAND



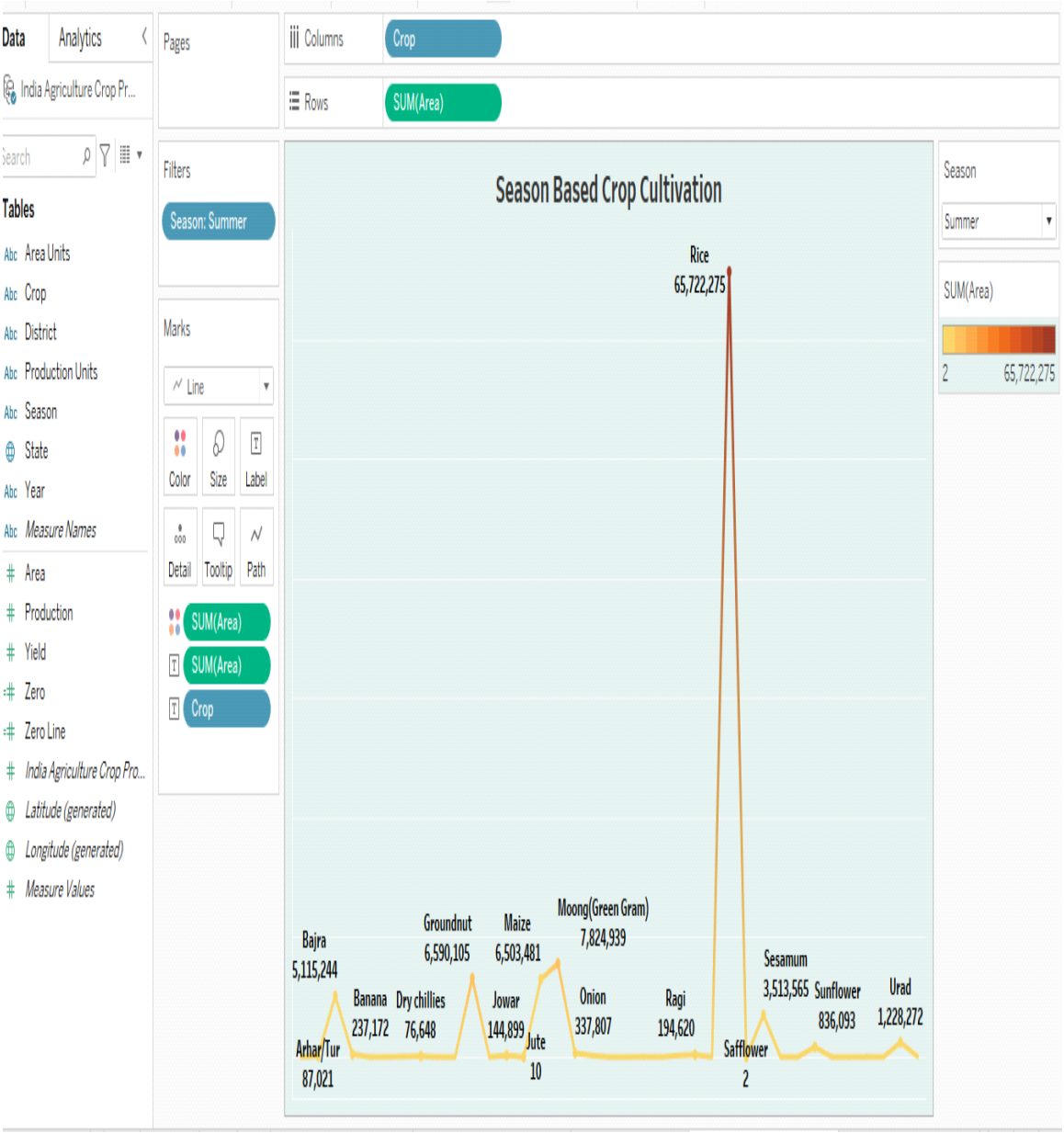
ACTIVITY 1.2.

AREA Vs PRODUCTION



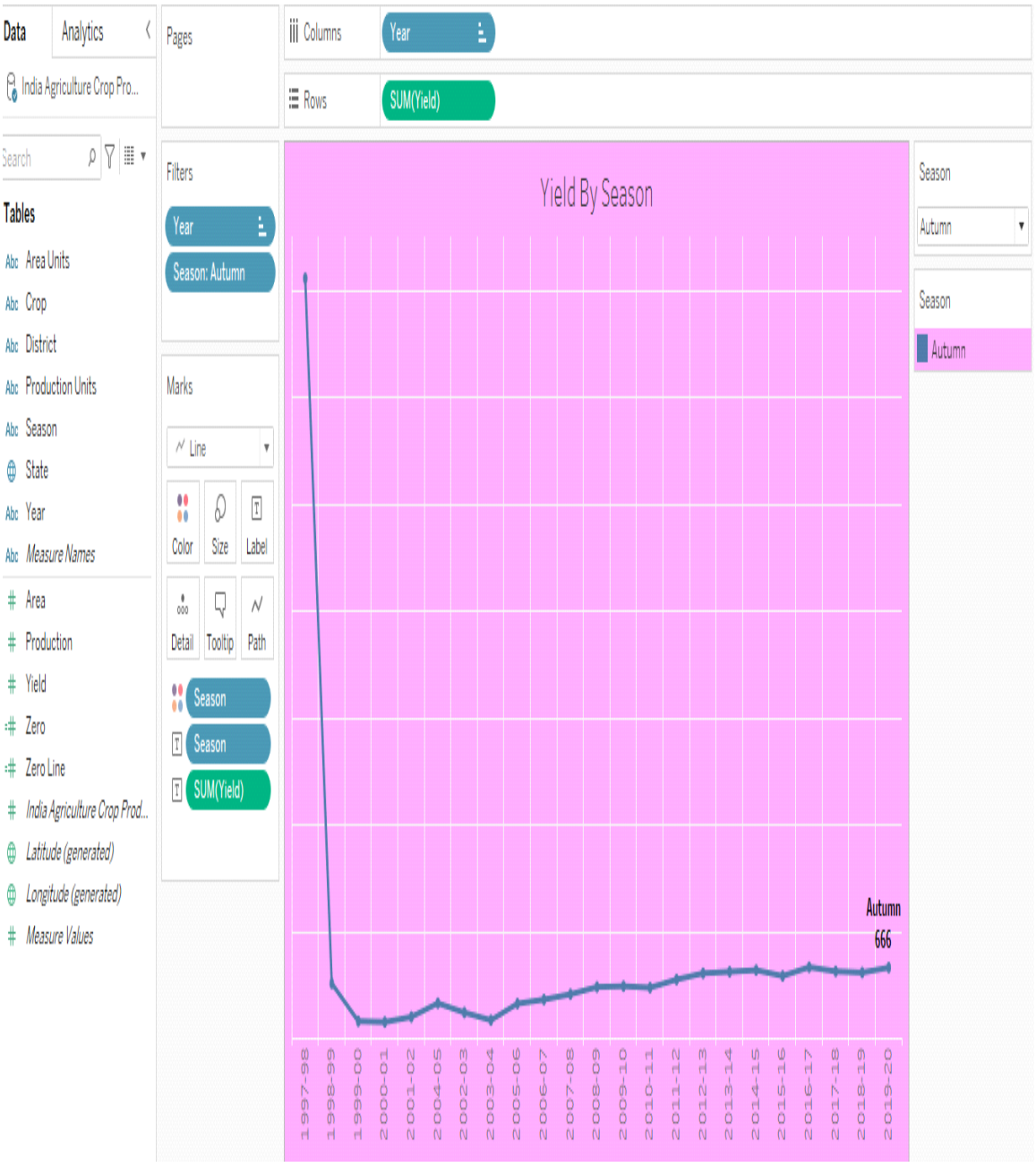
ACTIVITY 1.3

SEASON BASED CULTIVATION



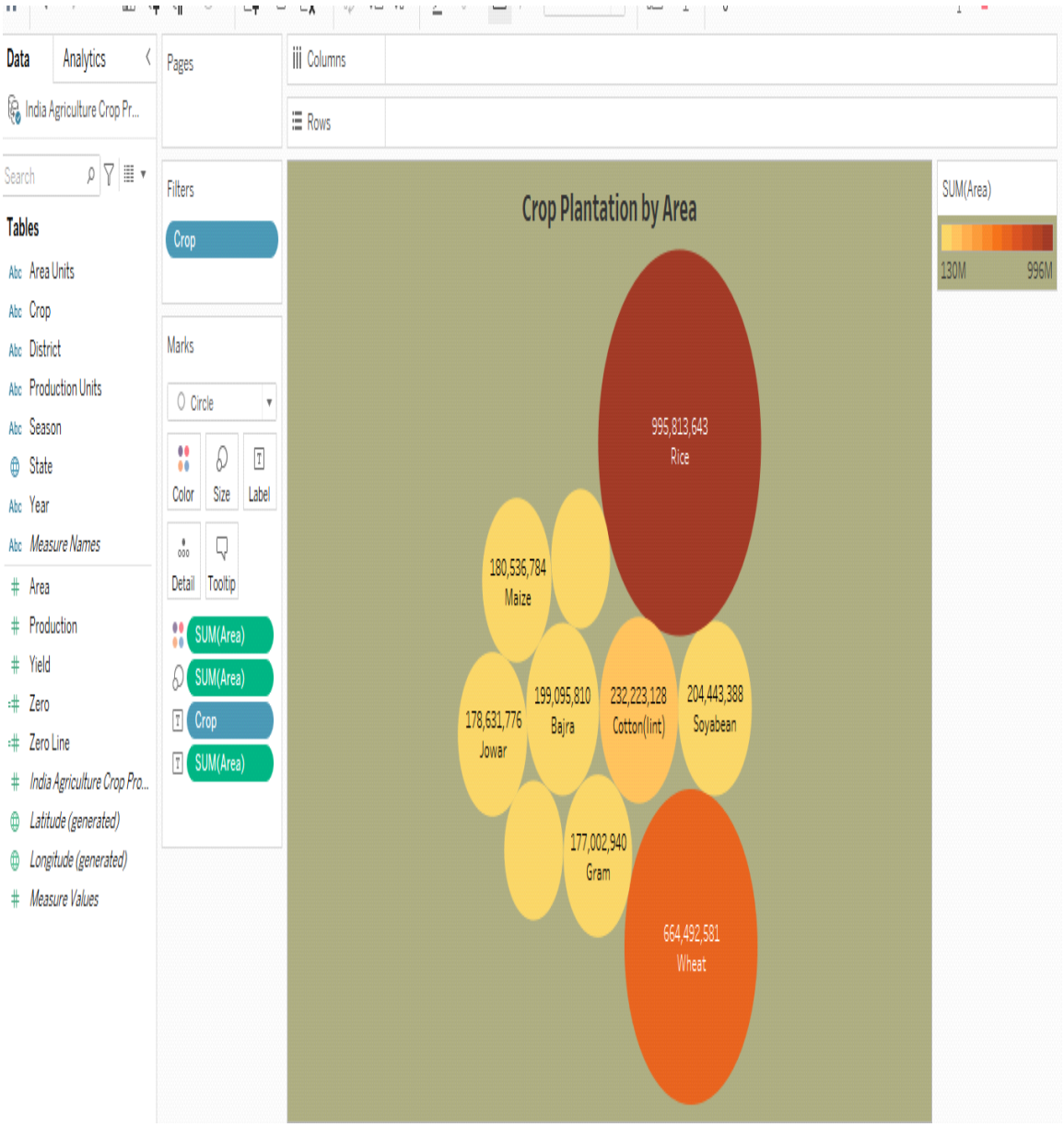
ACTIVITY 1.4.

YIELD BY SEASON



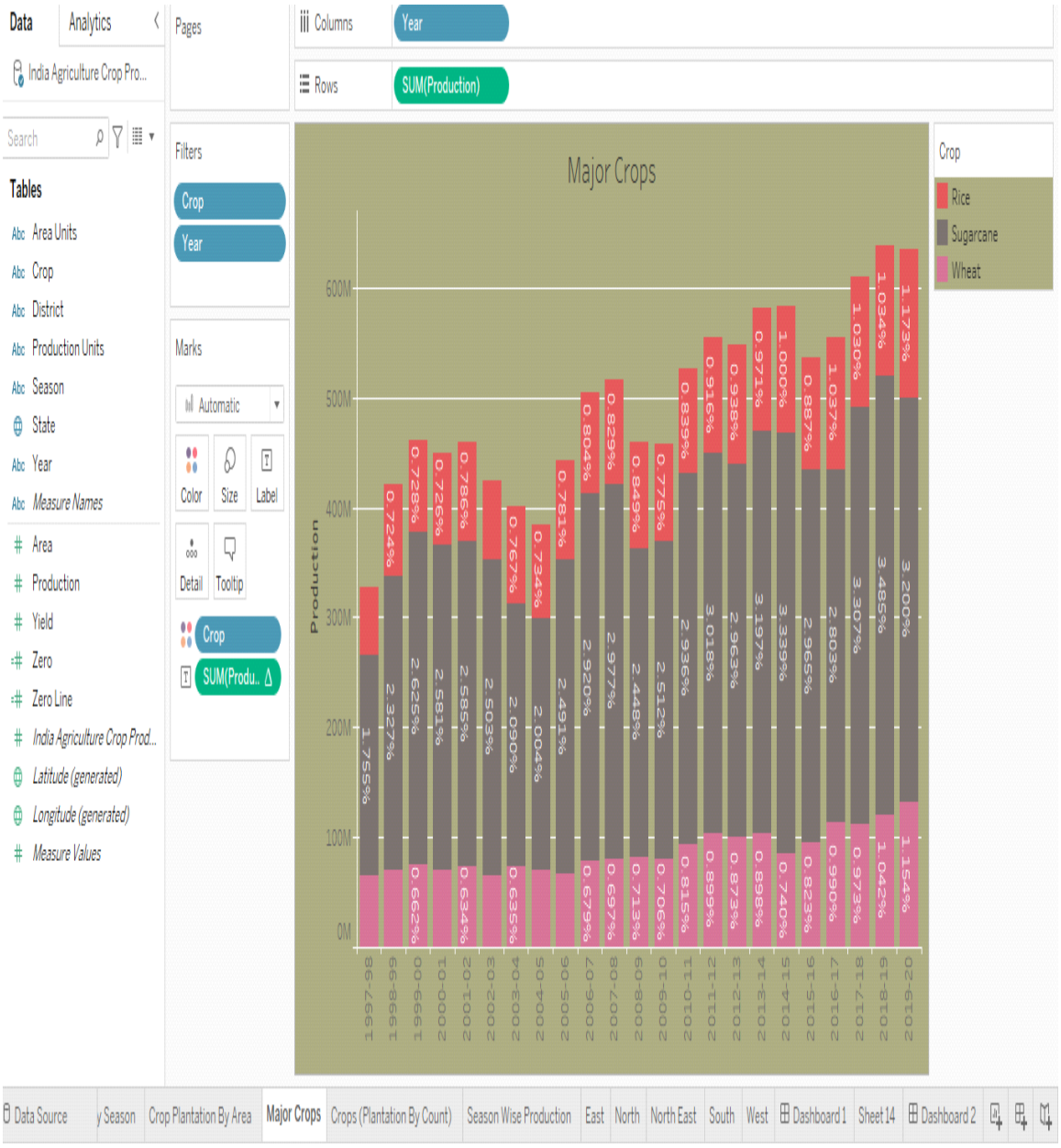
ACTIVITY 1.5.

CROP PLANTATION BY AREA



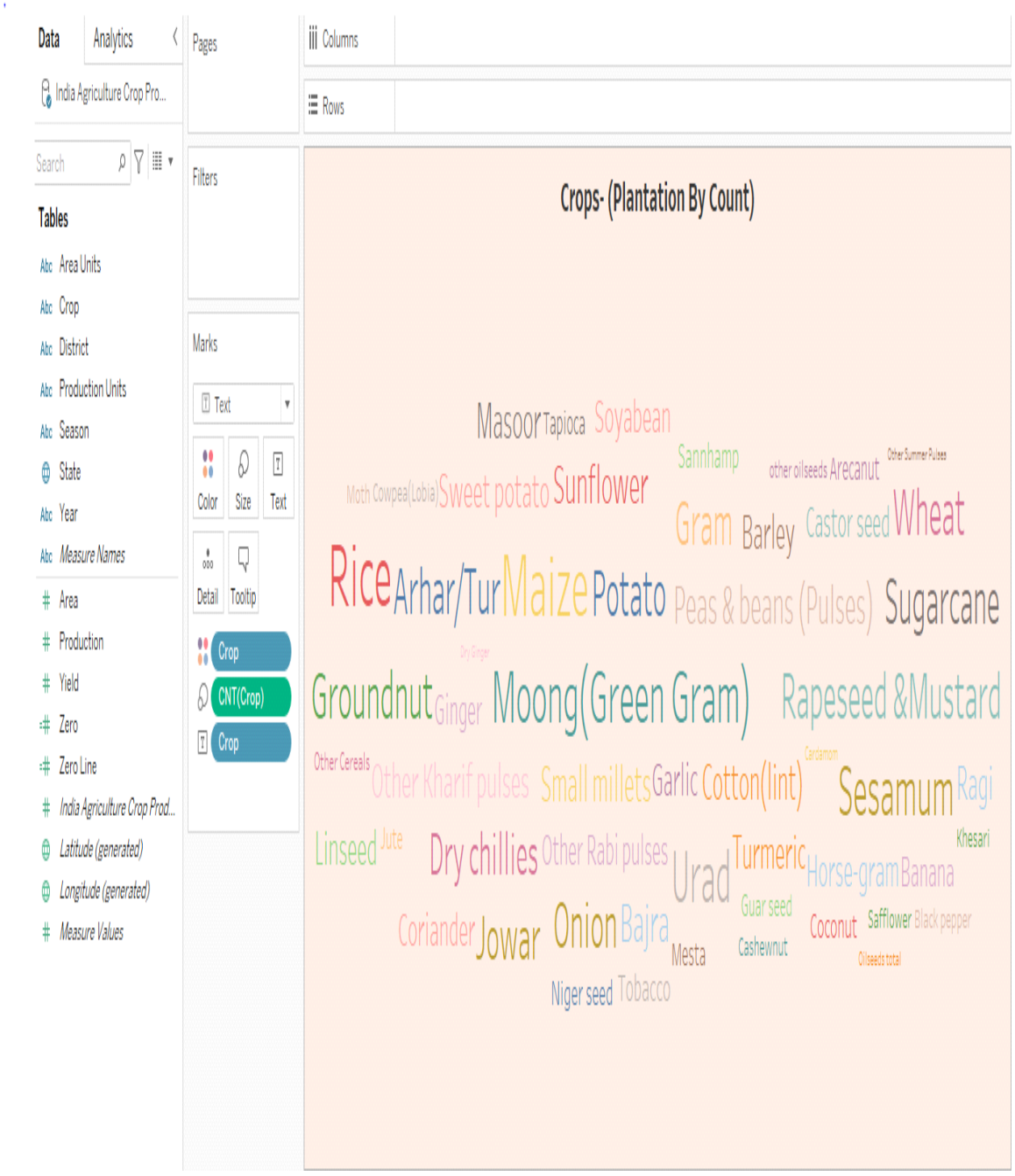
ACTIVITY1.6:

MAJOR CROPS GROWTH YOY



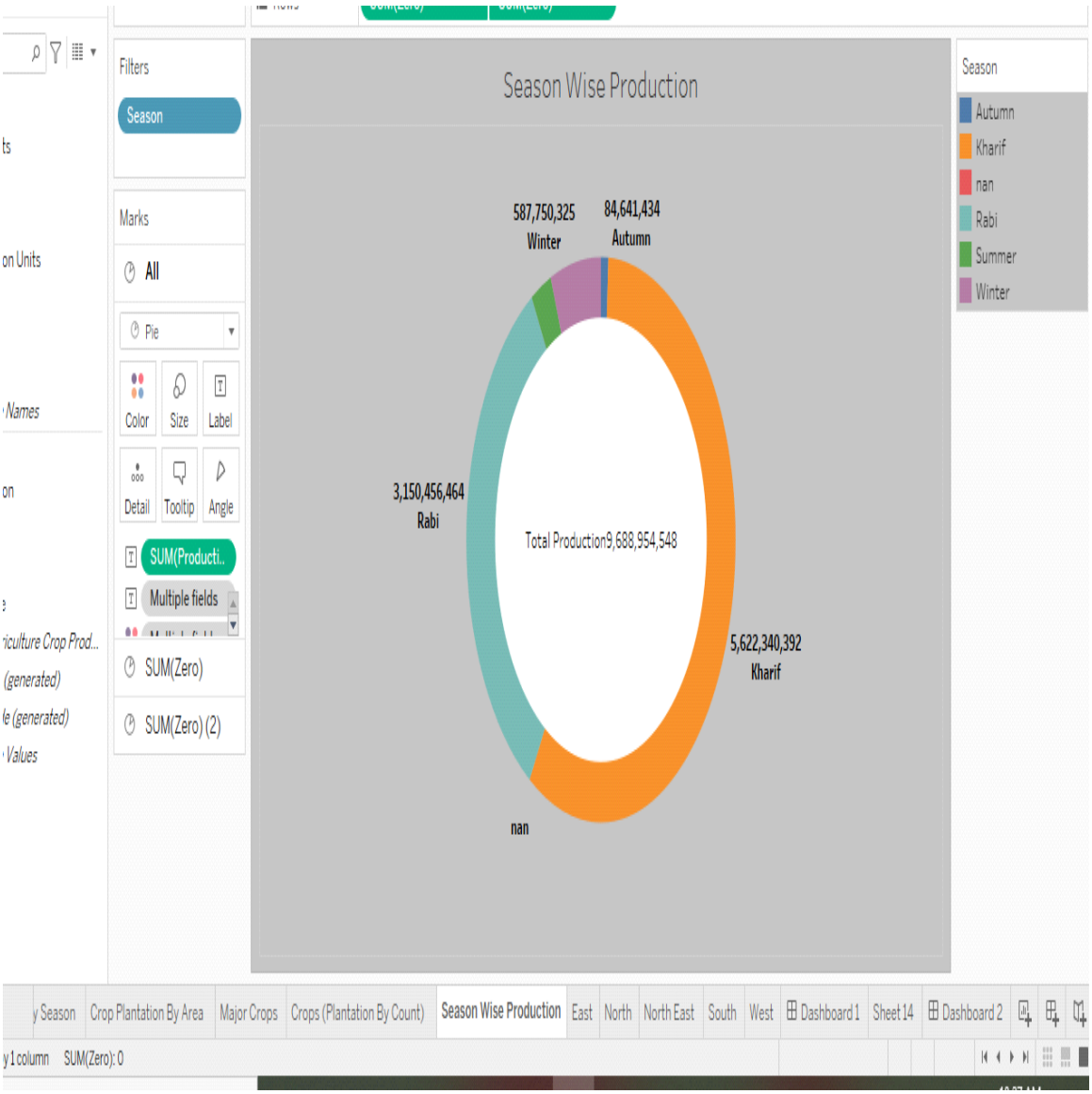
ACTIVITY 1.7:

CROPS(PLANTATION BY COUNT)



ACTIVITY 1.8:

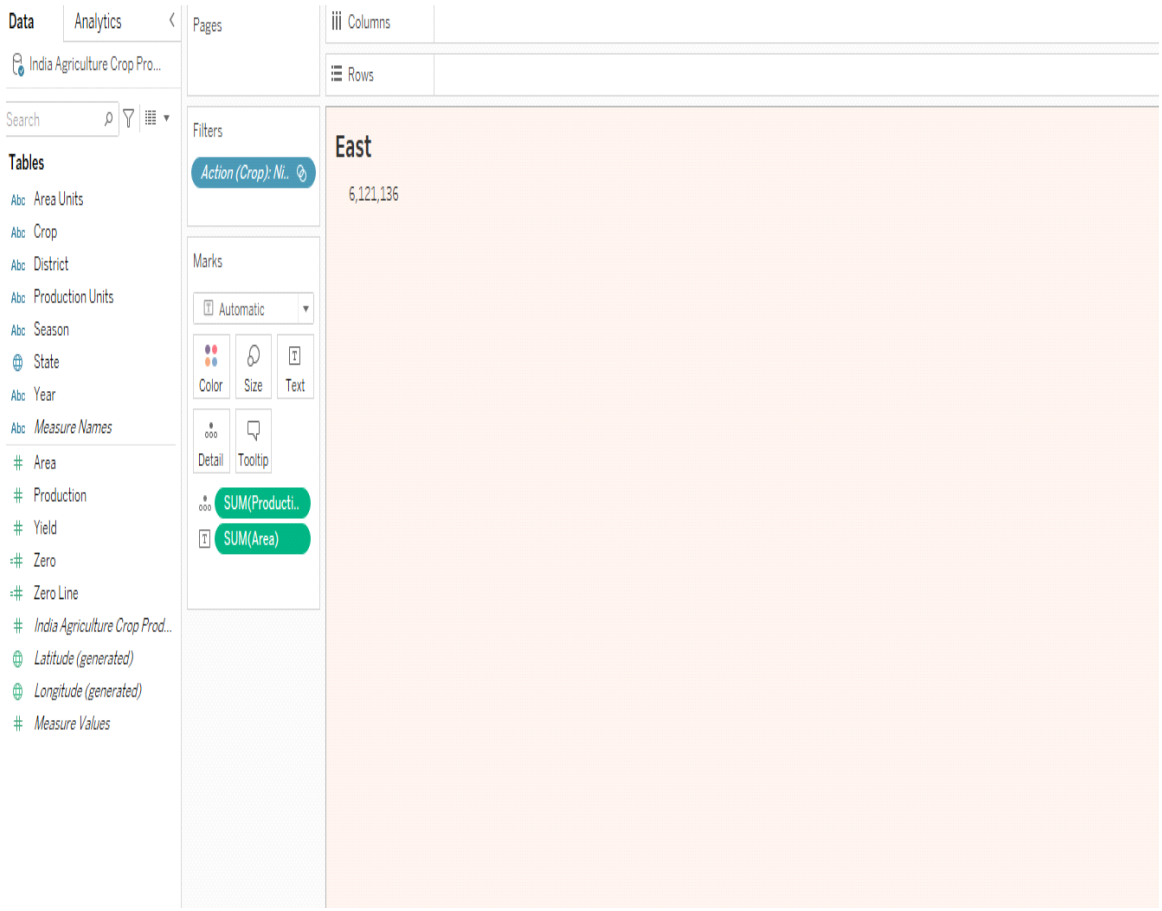
SEASON WISE PRODUCTION



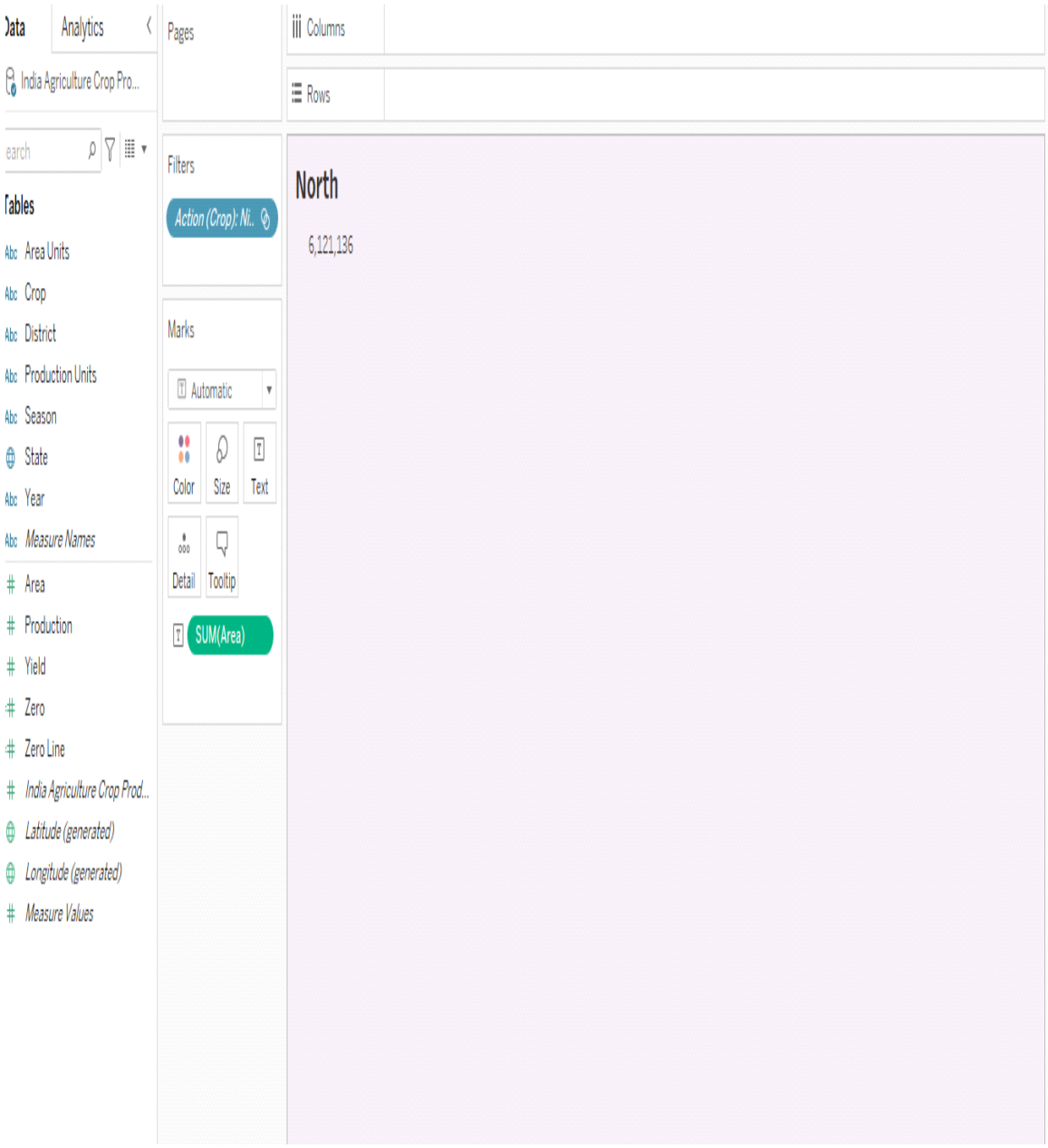
ACTIVITY 1.9:

kpi's

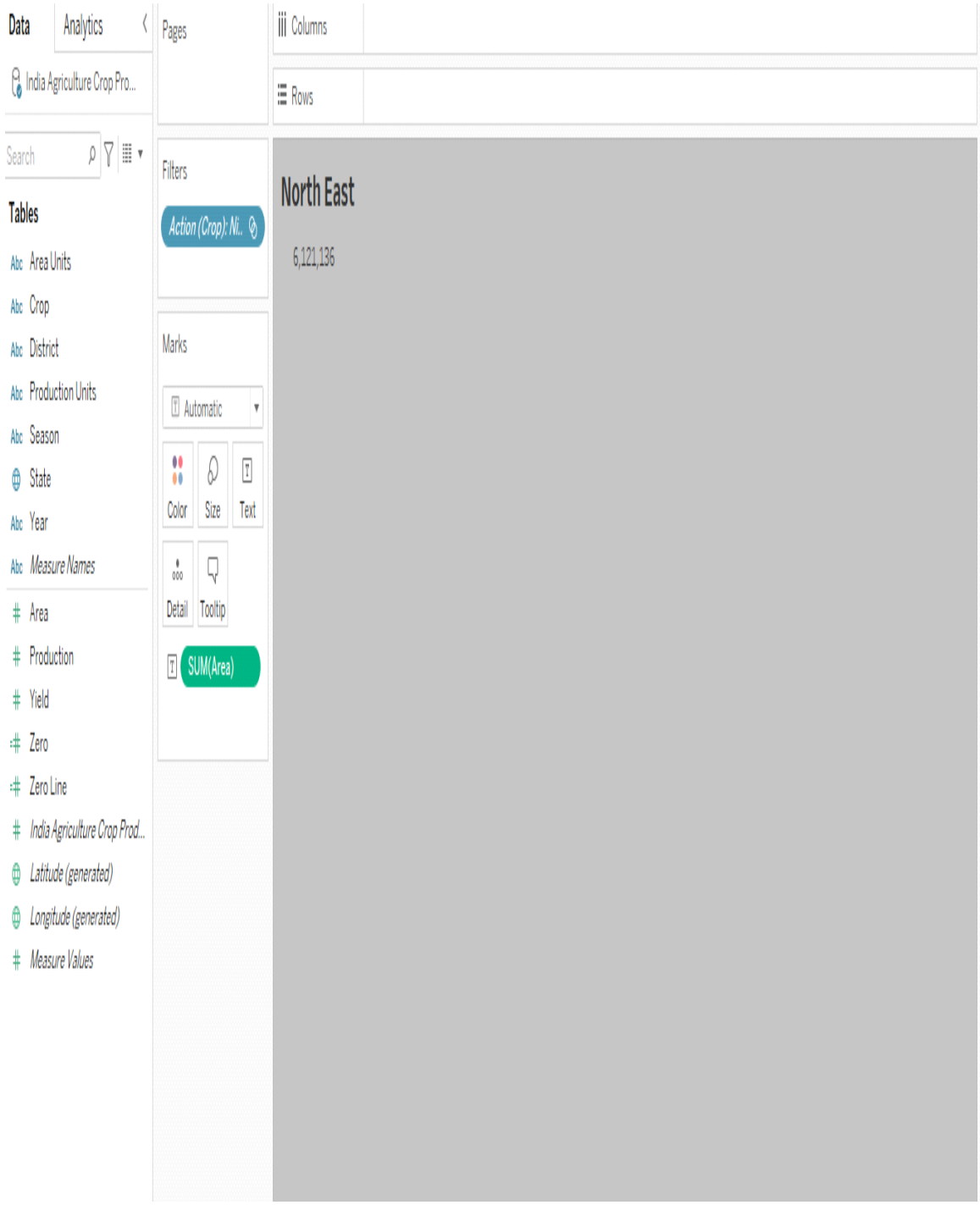
EAST:



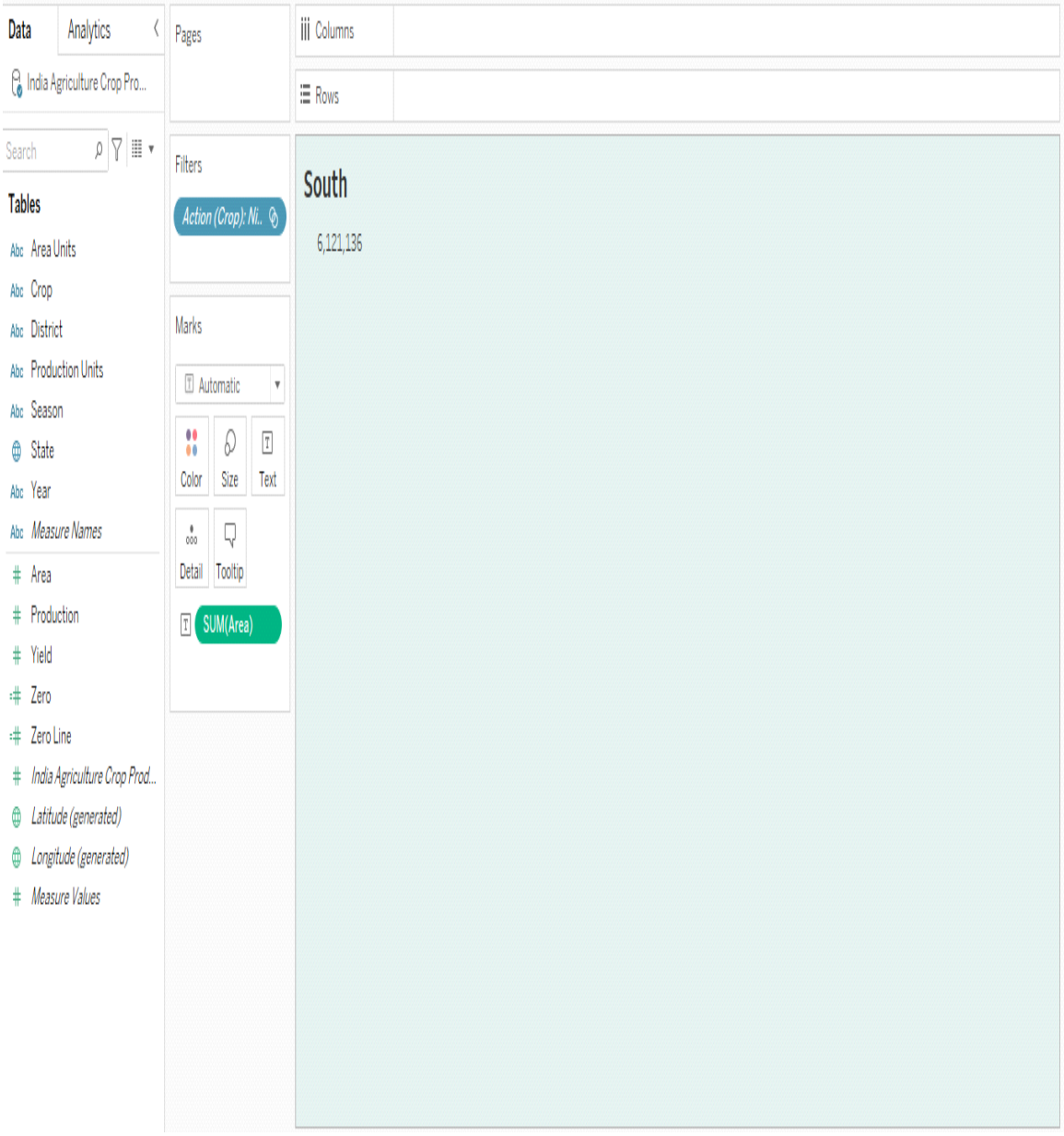
NORTH:


Data
Analytics
India Agriculture Crop Pro...
Tables
Area Units
Crop
District
Production Units
Season
State
Year
Measure Names
Area
Production
Yield
Zero
Zero Line
India Agriculture Crop Prod...
Latitude (generated)
Longitude (generated)
Measure Values
Pages
Columns
Rows
Filters
Action (Crop): Ni..
Marks
Automatic
Color
Size
Text
Detail
Tooltip
SUM(Area)
North
6,121,136

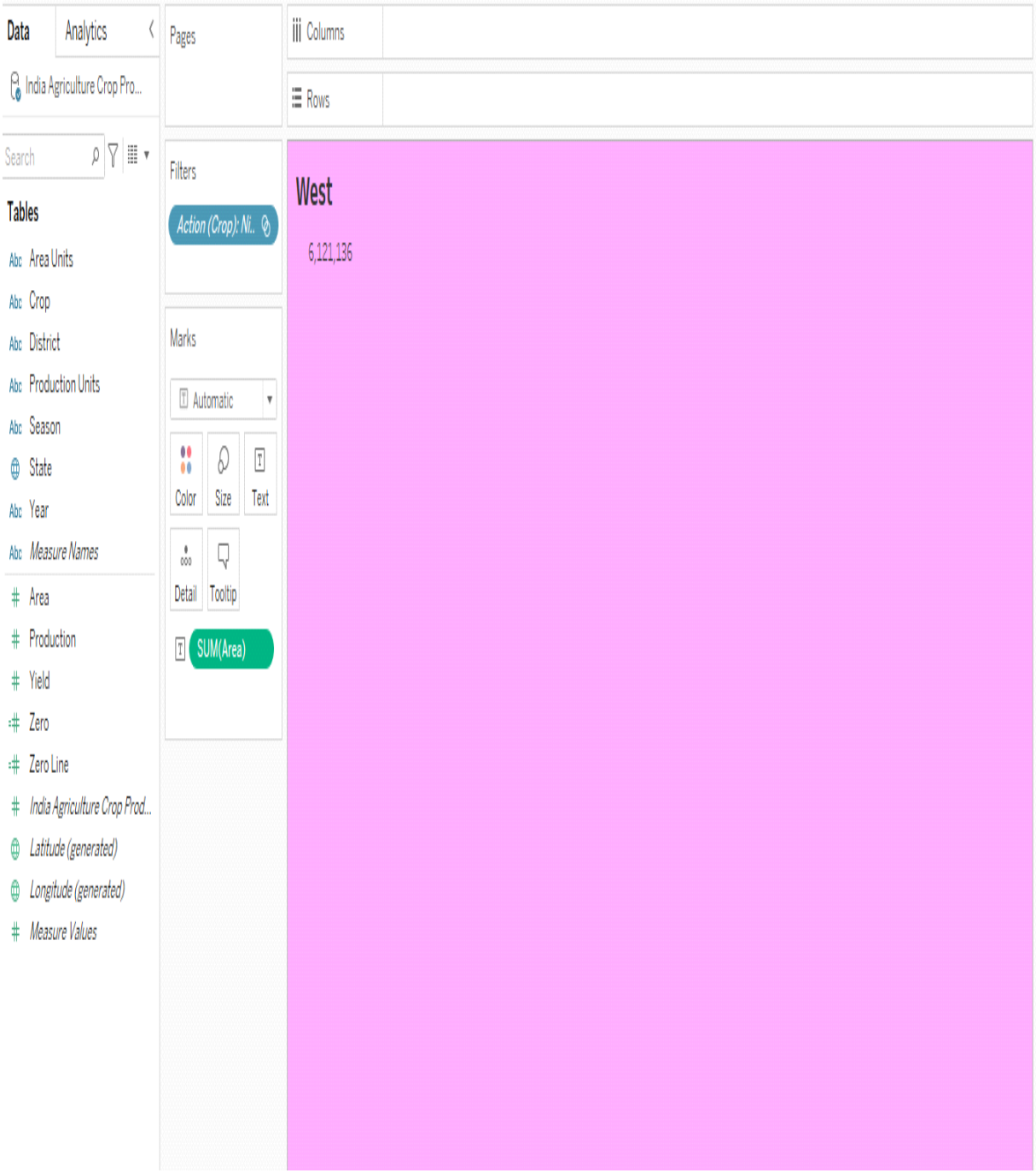
NORTH EAST:


Data
Analytics
India Agriculture Crop Pro...
Search
Tables
Abc Area Units
Abc Crop
Abc District
Abc Production Units
Abc Season
State
Abc Year
Abc Measure Names
Area
Production
Yield
Zero
Zero Line
India Agriculture Crop Prod...
Latitude (generated)
Longitude (generated)
Measure Values
Pages
Columns
Rows
Filters
Action (Crop): Ni..
Marks
Automatic
Color
Size
Text
Detail
Tooltip
SUM(Area)
North East
6,121,136

SOUTH:

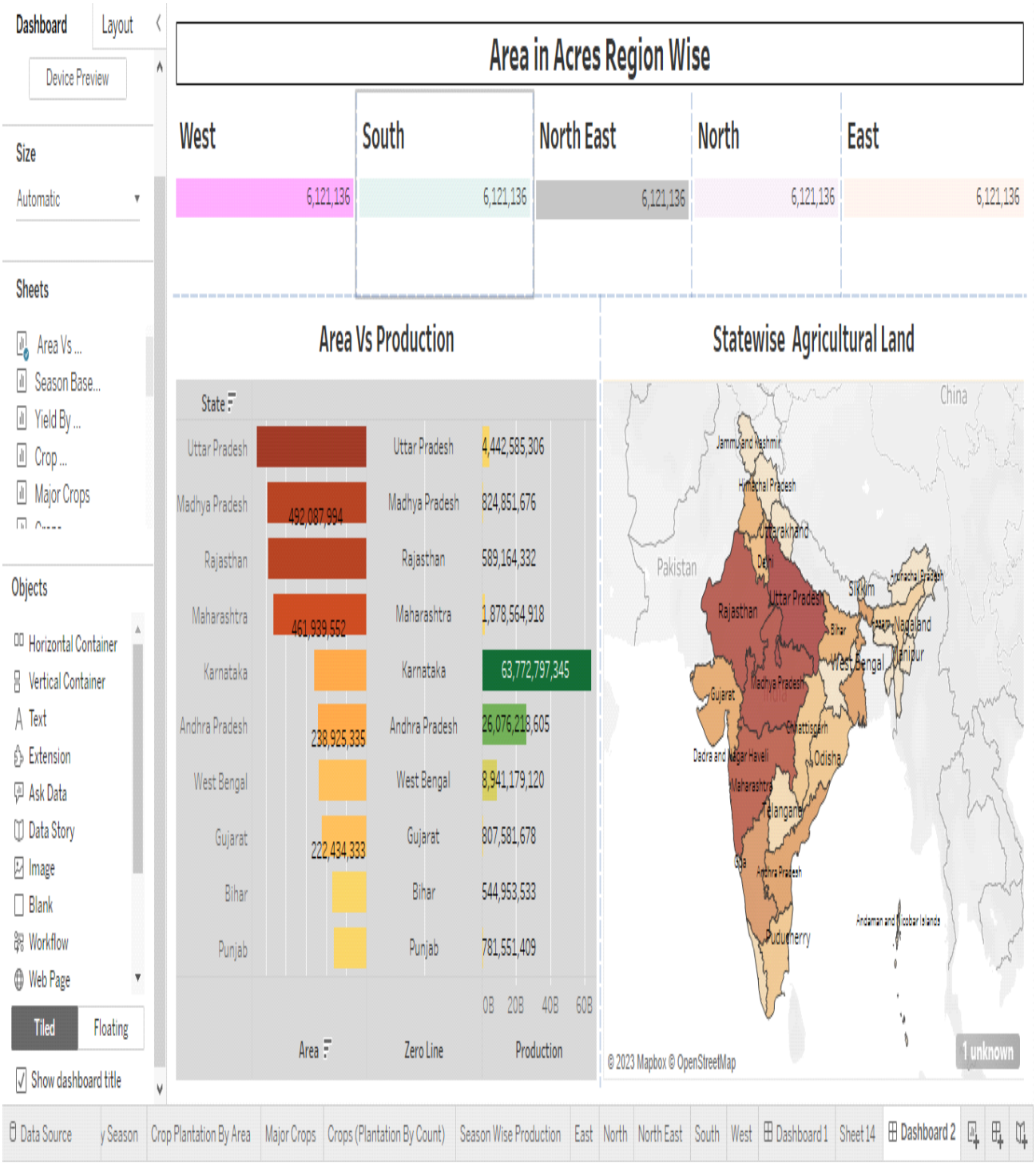

Data
Analytics
India Agriculture Crop Pro...
Search
Tables
Abc Area Units
Abc Crop
Abc District
Abc Production Units
Abc Season
State
Abc Year
Abc Measure Names
Area
Production
Yield
Zero
Zero Line
India Agriculture Crop Prod...
Latitude (generated)
Longitude (generated)
Measure Values
Pages
Filters
Action (Crop): Ni..
Marks
Automatic
Color
Size
Text
Detail
Tooltip
SUM(Area)
Columns
Rows
South
6,121,136

WEST:


Data
Analytics
India Agriculture Crop Pro...
Search
Tables
Abc Area Units
Abc Crop
Abc District
Abc Production Units
Abc Season
State
Abc Year
Abc Measure Names
Area
Production
Yield
Zero
Zero Line
India Agriculture Crop Prod...
Latitude (generated)
Longitude (generated)
Measure Values
Pages
Columns
Rows
Filters
Action (Crop): Ni...
Marks
Automatic
Color
Size
Text
Detail
Tooltip
SUM(Area)
West
6,121,136

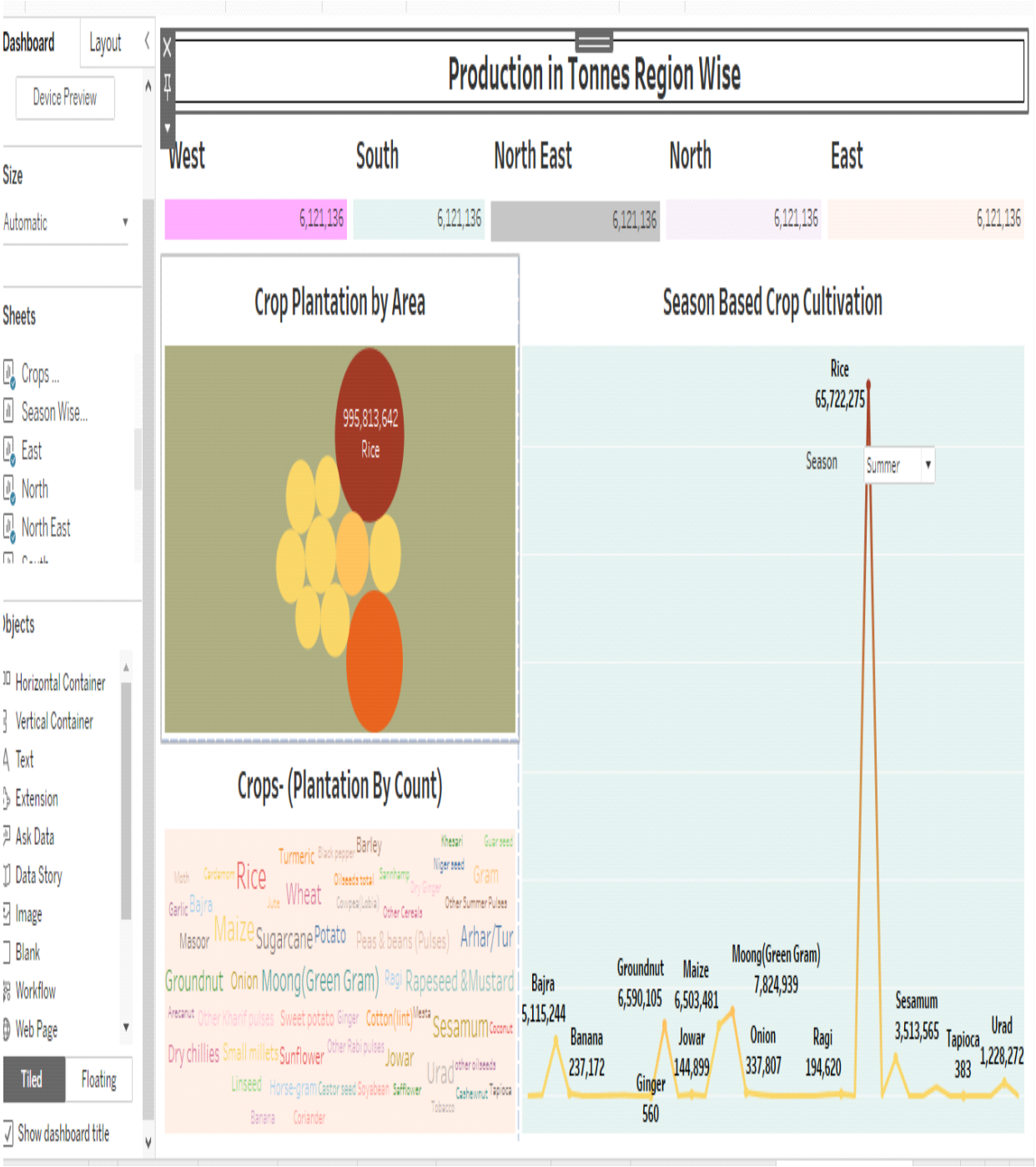
DASHBOARD 1:

AREA IN ACRES REGION-WISE



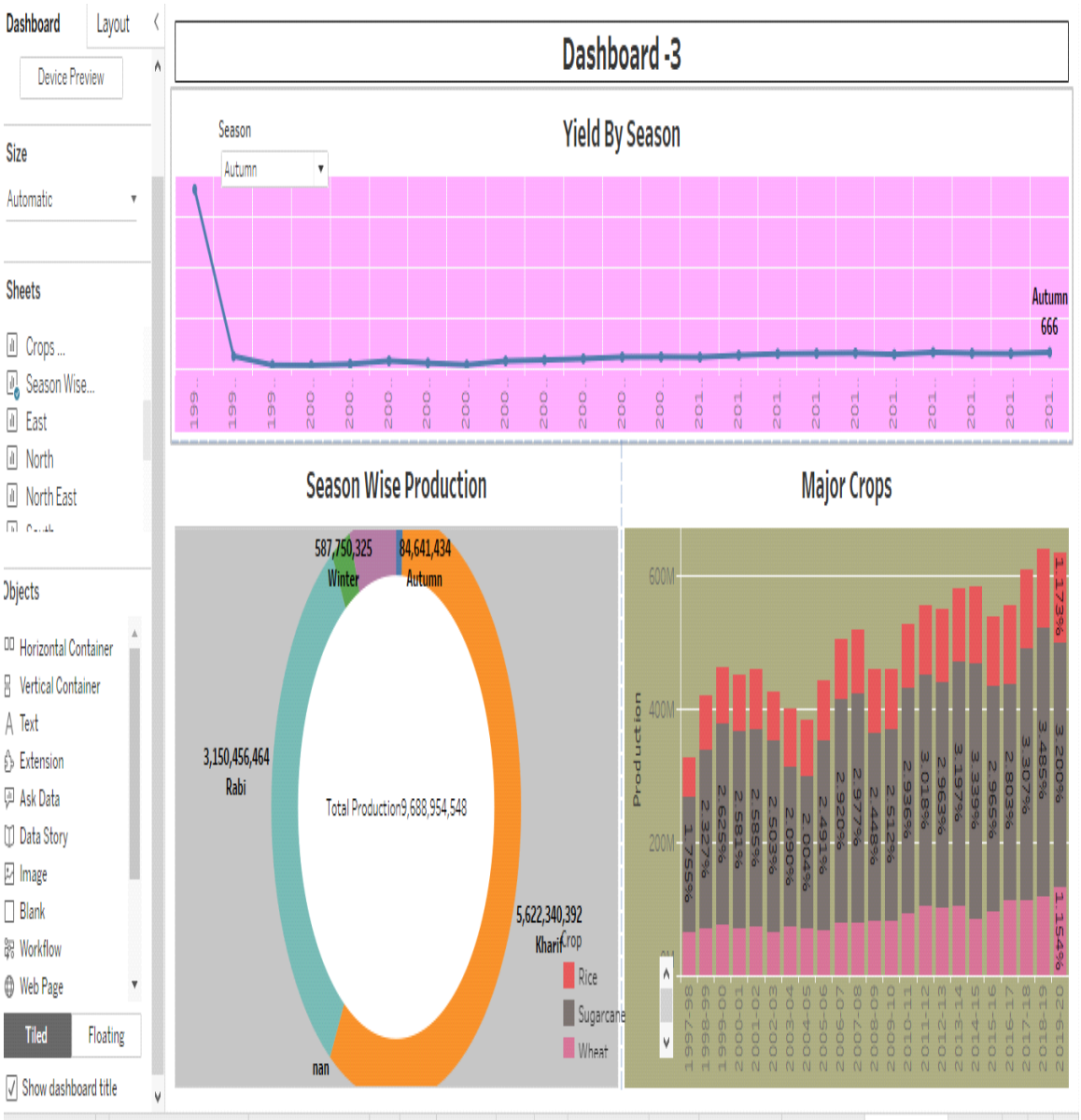
DASHBOARD 2:

PRODUCTION IN TONNES REGION-WISE

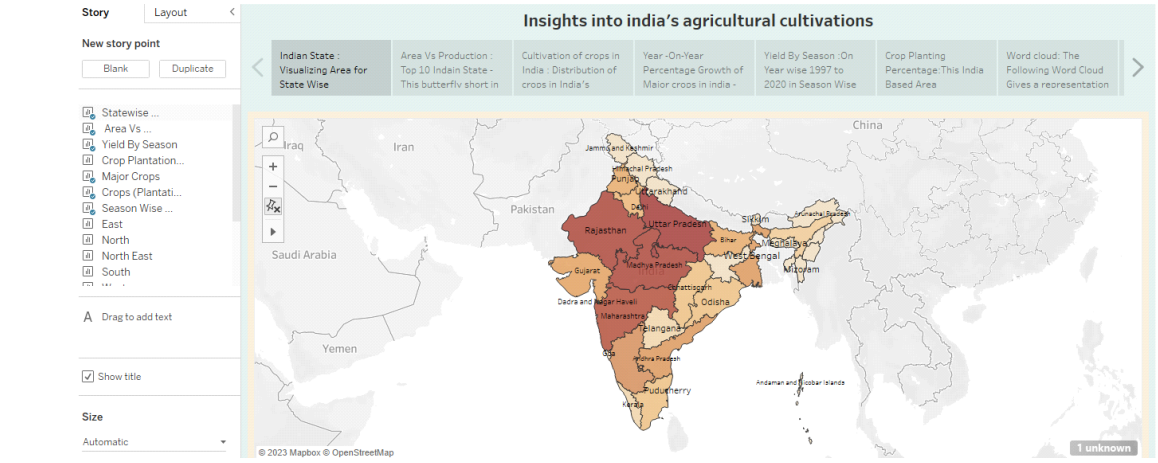


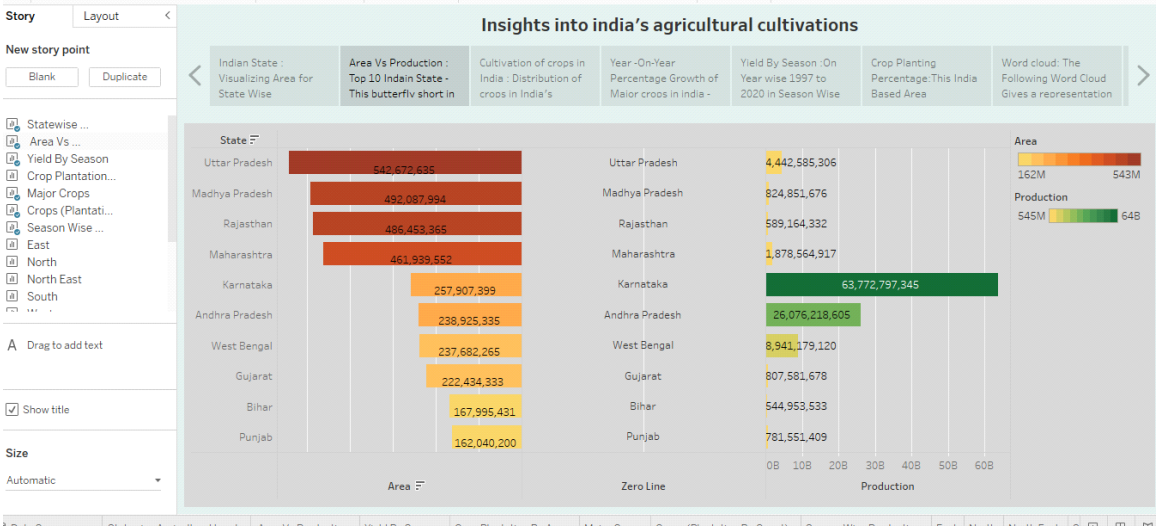
DASHBOARD 3:

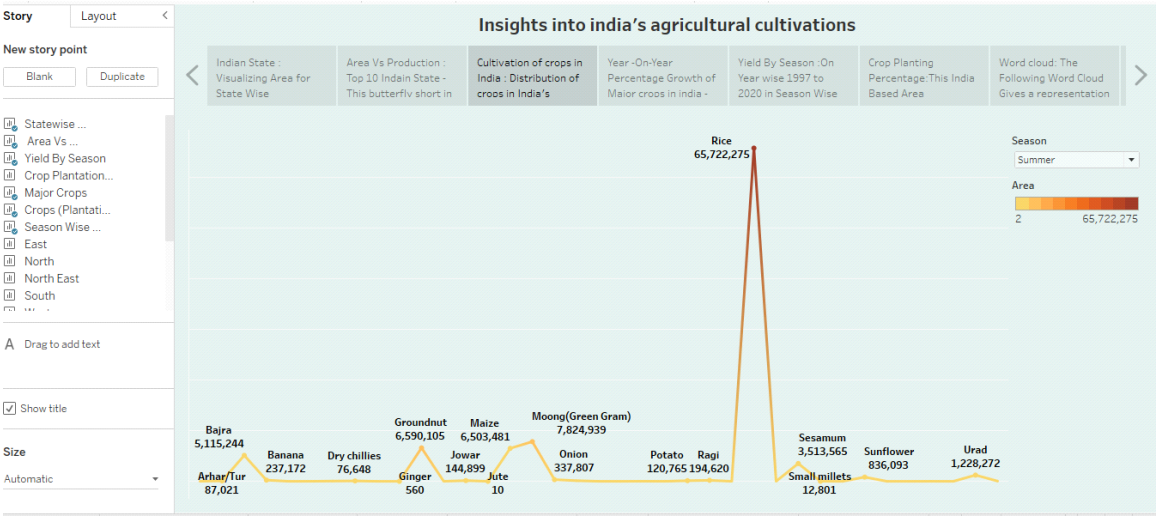
SEASONWISE PRODUCTION ACRES SEASON & CROPS

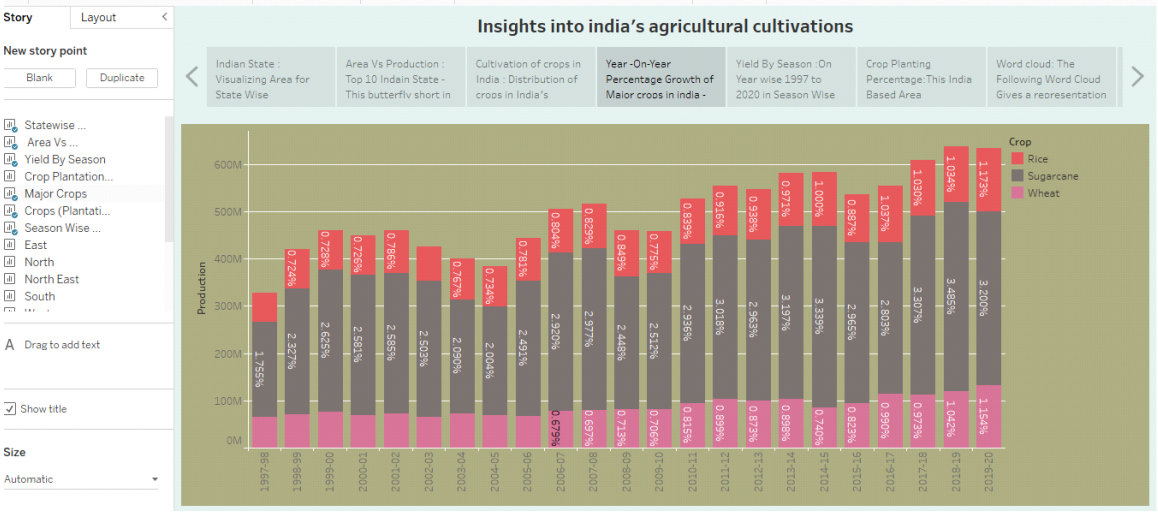


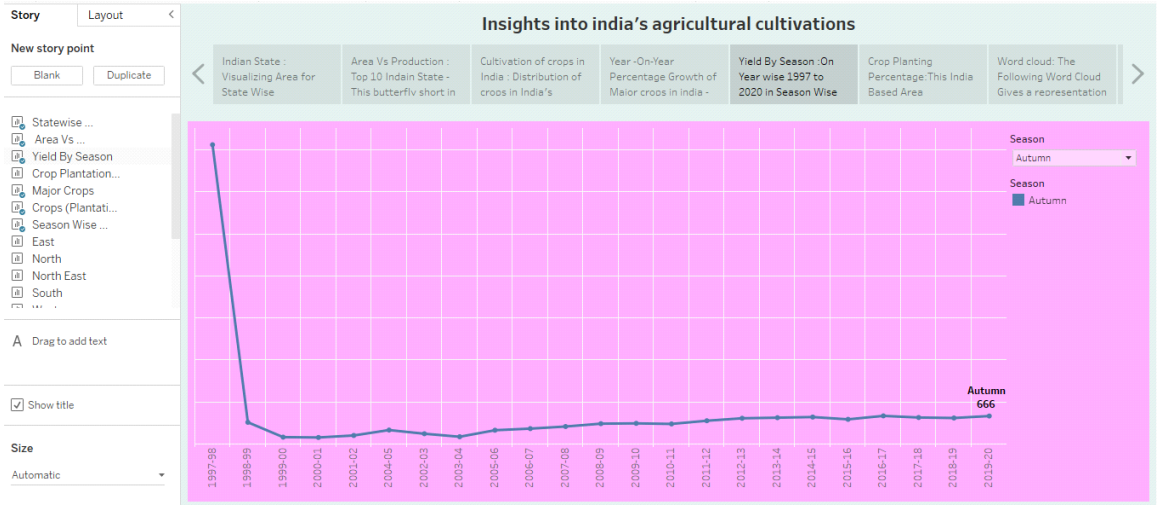
STORY:

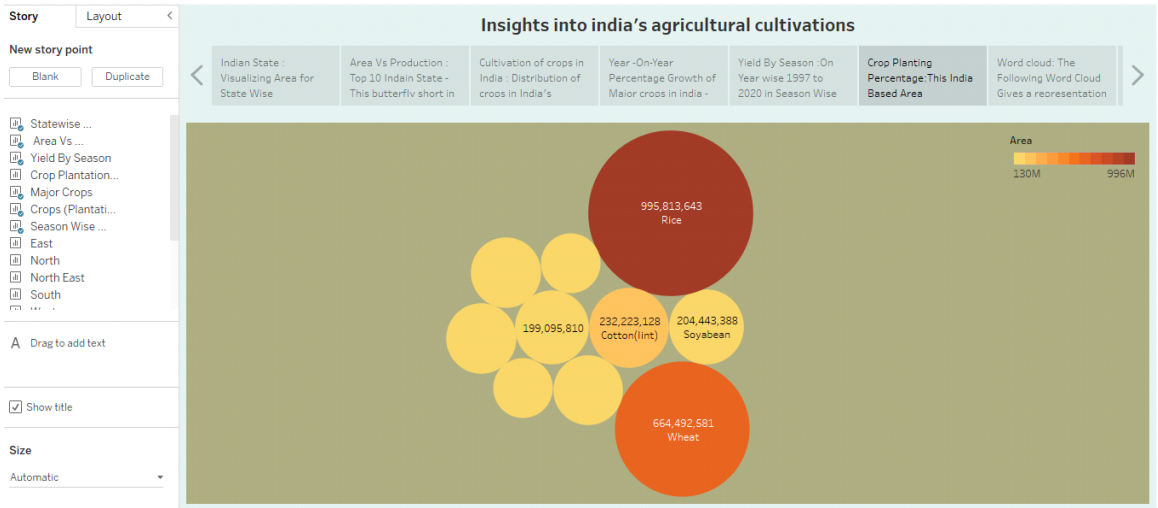

Story
Layout
New story point
Blank
Duplicate
Statewise ...
Area Vs ...
Yield By Season
Crop Plantation...
Major Crops
Crops (Plantati...
Season Wise ...
East
North
North East
South
Drag to add text
Show title
Size
Automatic
Insights into india's agricultural cultivations
Indian State : Visualizing Area for State Wise
Area Vs Production : Top 10 Indain State - This butterfly short in
Cultivation of crops in India : Distribution of crops in India's
Year -On-Year Percentage Growth of Maior crops in india -
Yield By Season :On Year wise 1997 to 2020 in Season Wise
Crop Planting Percentage:This India Based Area
Word cloud: The Following Word Cloud Gives a representation
Iraq
Iran
Pakistan
Saudi Arabia
Yemen
China
Rajasthan
Uttar Pradesh
Gujarat
Madhya Pradesh
Odisha
Maharashtra
Telangana
Andhra Pradesh
Pudutherry
Kerala
Sikkim
Bihar
West Bengal
Mizoram
Andaman and Nicobar Islands
© 2023 Mapbox © OpenStreetMap
1 unknown

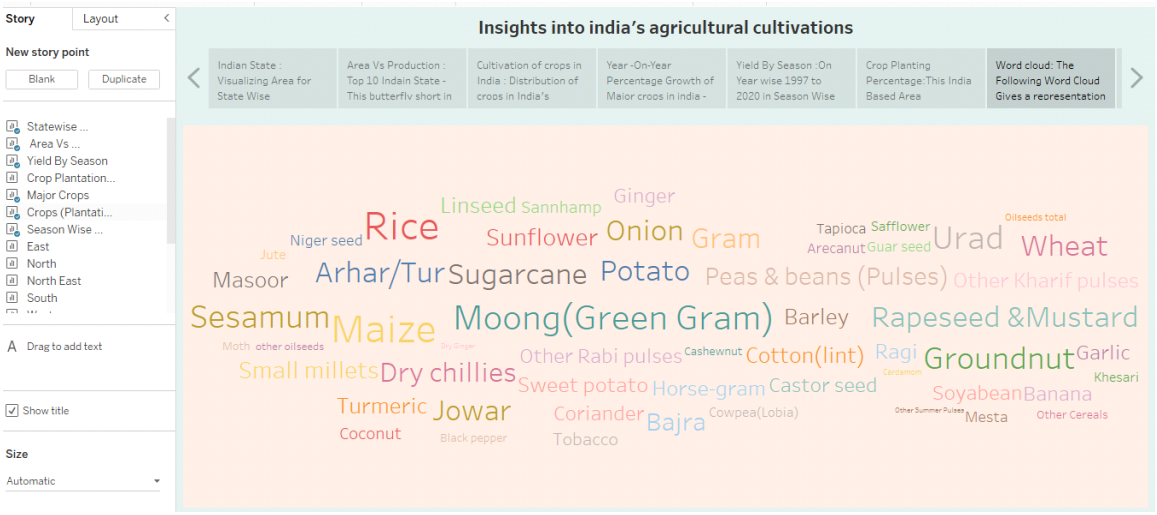

Story
Layout
New story point
Blank
Duplicate
Statewise ...
Area Vs ...
Yield By Season
Crop Plantation...
Major Crops
Crops (Plantati...
Season Wise ...
East
North
North East
South
Drag to add text
Show title
Size
Automatic
Insights into india's agricultural cultivations
Indian State : Visualizing Area for State Wise
Area Vs Production : Top 10 Indain State - This butterfly short in
Cultivation of crops in India : Distribution of crops in India's
Year -On-Year Percentage Growth of Maior crops in india -
Yield By Season :On Year wise 1997 to 2020 in Season Wise
Crop Planting Percentage:This India Based Area
Word cloud: The Following Word Cloud Gives a representation
State
Uttar Pradesh 542,672,635 4,442,585,306
Madhya Pradesh 492,087,994 824,851,676
Rajasthan 486,453,365 589,164,332
Maharashtra 461,939,552 1,878,564,917
Karnataka 257,907,399 63,772,797,345
Andhra Pradesh 238,925,335 26,076,218,605
West Bengal 237,682,265 8,941,179,120
Gujarat 222,434,333 807,581,678
Bihar 167,995,431 544,953,533
Punjab 162,040,200 781,551,409
0B 10B 20B 30B 40B 50B 60B
Area
Zero Line
Production
Area
162M 543M
Production
545M 64B

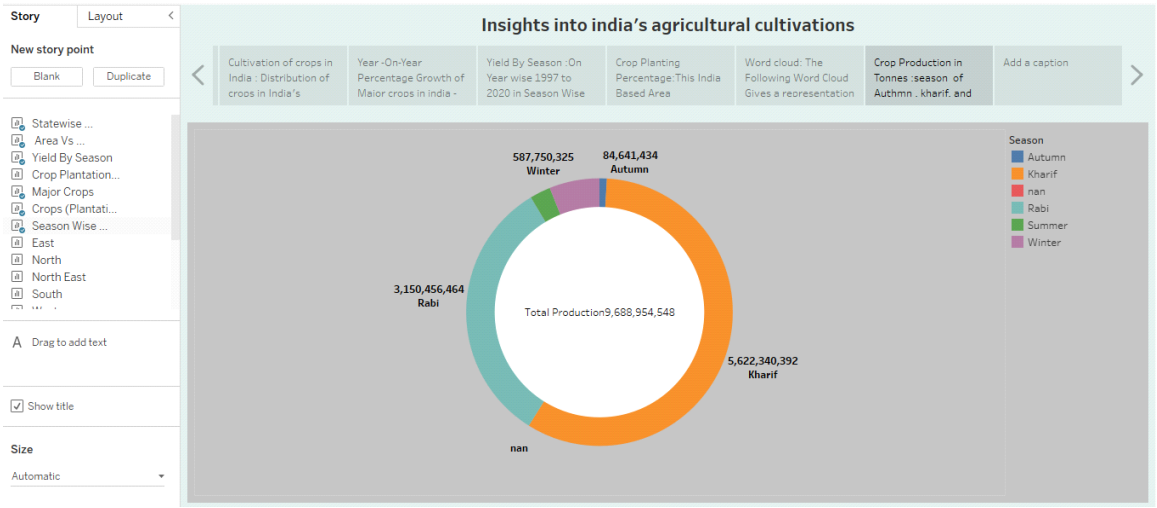

Story
Layout
New story point
Blank
Duplicate
Statewise ...
Area Vs ...
Yield By Season
Crop Plantation...
Major Crops
Crops (Plantati...
Season Wise ...
East
North
North East
South
Drag to add text
Show title
Size
Automatic
Insights into india's agricultural cultivations
Indian State : Visualizing Area for State Wise
Area Vs Production : Top 10 Indain State - This butterfly short in
Cultivation of crops in India : Distribution of crops in India's
Year -On-Year Percentage Growth of Maior crops in india -
Yield By Season :On Year wise 1997 to 2020 in Season Wise
Crop Planting Percentage:This India Based Area
Word cloud: The Following Word Cloud Gives a representation
Rice 65,722,275
Bajra 5,115,244
Arhar/Tur 87,021
Banana 237,172
Dry chillies 76,648
Groundnut 6,590,105
Ginger 560
Maize 6,503,481
Jowar 144,899
Jute 10
Moong(Green Gram) 7,824,939
Onion 337,807
Potato 120,765
Ragi 194,620
Sesamum 3,513,565
Small millets 12,801
Sunflower 836,093
Urad 1,228,272
Season
Summer
Area
2 65,722,275


Story
Layout
New story point
Blank
Duplicate
Statewise ...
Area Vs ...
Yield By Season
Crop Plantation...
Major Crops
Crops (Plantati...
Season Wise ...
East
North
North East
South
Drag to add text
Show title
Size
Automatic
Insights into india's agricultural cultivations
Indian State : Visualizing Area for State Wise
Area Vs Production : Top 10 Indain State - This butterfly short in
Cultivation of crops in India : Distribution of croos in India's
Year -On-Year Percentage Growth of Maior croos in India -
Yield By Season :On Year wise 1997 to 2020 in Season Wise
Crop Planting Percentage:This India Based Area
Word cloud: The Following Word Cloud Gives a reoresentation
Crop
Rice
Sugarcane
Wheat
Production
600M
500M
400M
300M
200M
100M
0M
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


Story
Layout
New story point
Blank
Duplicate
Statewise ...
Area Vs ...
Yield By Season
Crop Plantation...
Major Crops
Crops (Plantati...
Season Wise ...
East
North
North East
South
Drag to add text
Show title
Size
Automatic
Insights into india's agricultural cultivations
Indian State : Visualizing Area for State Wise
Area Vs Production : Top 10 Indain State - This butterfly short in
Cultivation of crops in India : Distribution of croos in India's
Year -On-Year Percentage Growth of Maior croos in india -
Yield By Season :On Year wise 1997 to 2020 in Season Wise
Crop Planting Percentage:This India Based Area
Word cloud: The Following Word Cloud Gives a reoresentation
Season
Autumn
Season
Autumn
Autumn
666
1997-98
1998-99
1999-00
2000-01
2001-02
2004-05
2002-03
2003-04
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


Story
Layout
New story point
Blank
Duplicate
Statewise ...
Area Vs ...
Yield By Season
Crop Plantation...
Major Crops
Crops (Plantati...
Season Wise ...
East
North
North East
South
Drag to add text
Show title
Size
Automatic
Insights into india's agricultural cultivations
Indian State : Visualizing Area for State Wise
Area Vs Production : Top 10 Indain State - This butterfly short in
Cultivation of crops in India : Distribution of croos in India's
Year -On-Year Percentage Growth of Maior croos in india -
Yield By Season :On Year wise 1997 to 2020 in Season Wise
Crop Planting Percentage:This India Based Area
Word cloud: The Following Word Cloud Gives a reoresentation
Area
130M
996M
995,813,643
Rice
199,095,810
232,223,128
Cotton(lint)
204,443,388
Soyabean
664,492,581
Wheat





ADVANTAGES:

1. This project plays an important role in agricutural maintanance.
2. We know the various agricultural plan.
3. Agriculture can get good result through this project.
4. This project plays an important role for future agricultural development.
5. This project inculcates a passion for the future young generations of farmers.
6. This project used to we can learn and know about the agricultural practises in India.

DISADVANTAGES:

1. This project only provides a limited amount of information about agricultural development.
2. It is not possible to know fully which season the crop yield will be good.
3. Learn about low-volume crop varieties.

APPLICATONS:

1. It is possible to know which crop seeds are sown in each season of each year in India and how crops yields rise and fall in each year.

2. Cultivating, characterizing or modefiying soil; producing, growing, improving, producting, treating or modefying crops or forests products; rising, harvesting, improving, producting, livestock, poultry, fish or shellfish and preparation, marketing or treatment of products resulting from the activities.

3. Agricultural applications shall include applications involving the improvement of modifiction of soil, crops, livestock, poultry, fish or shellfish and they resulting products as they relate to human health as well as foods from planets and animals designed or modefied to enhance their health attributes, in each case for nutraceutical applications but not theropatic applications in human.

4. This agricultural project focuses on food production and supplies food to feed a country's growing population.

CONCLUTION:

The Indian agriculture has given so much to society. But it has it's own pros and cons that we cannot overlook. Furthermore, the Government is doing his every bit to health in the growth and development of Indian agriculture. The agricultural sector also support the industrial sector and International trade in imports and exports. Agriculture is an integral part of smart growth. Agriculture is backbone of our countries.

IMPROVING AGRICULTURE, IMPROVE LIVES.

FUTURE SCOPE:

1. It is analysis the future India's agriculture crop production and employment.
2. Hence, the future growth of agriculture appeares to be growing with an upward graph which is backed by technological advance - ments and Government initiatives.
3. There is a need for work on cost-effective technologies with environment production and on conserving our nature re - sourses.
4. It is know the profit and loss.
5. It helps to know which crop will yield better in which season.
6. To predict the future crop yield.

APPENDIX

Empathy Map & Brainstroming Link

https://github.com/asmsu105msu10520211051522205/AGRICULTURAL-CROP-PRODUCTION_NM2023TMID06328

Dashboard – 1 Link

https://public.tableau.com/views/IndiasAgriculturalCropProduction_16963158626100/AreaInAcresRegionWise?:language=en-US&:display_count=n&:origin=viz_share_link

Dashboard – 2 Link

https://public.tableau.com/views/AgriculturalProject2/Productionintonnesregionwise?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link

Dashboard – 3 Link

https://public.tableau.com/views/IndiasAgriculturalCropProduction-3/seasonwiseproductionacresseasoncrops?:language=en-US&:display_count=n&:origin=viz_share_link

Story Link

https://public.tableau.com/views/IndiasAgriculturalCropProduction-Story/insightintoindiasagriculturalcultivations?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link

Video Demonstration Link

https://drive.google.com/file/d/1GEQMc4vnxFOWdbLciJsQBmKlaQq9MyFS/view?usp=sharing