

# **PROJECT REPORT**

## **1. INTRODUCTION**

### **1.1 Overview**

This report delves into the captivating realm of India's agricultural cultivation, providing a comprehensive visual exploration of key aspects and trends in the agricultural sector. Through the visual representations, readers can gain valuable insights into crop production, seasonal variations, regional distribution, and overall production trends. These visualizations enable intuitive analysis, allowing stakeholders to uncover patterns, identify areas of growth or concern, and make data-driven decisions.

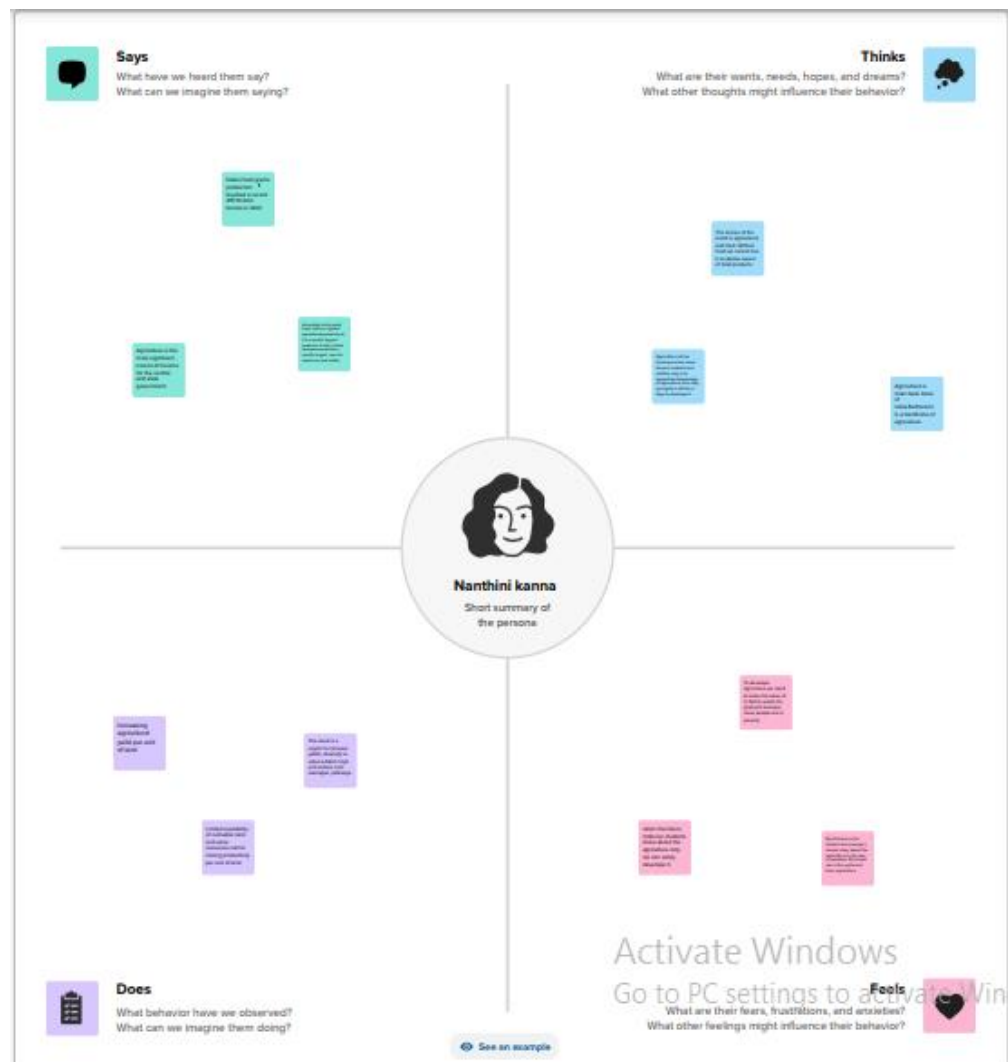
By harnessing the power of Tableau, this report not only presents the data in a visually appealing manner but also provides an interactive experience for readers to explore the intricacies of India's agricultural cultivation. To Extract the Insights from the data and put the data in the form of visualizations, Dashboards and Story we employed Tableau tool.

### **1.2 Purpose**

The economic contribution of agriculture to India's GDP is steadily declining with the country's broad-based economic growth. Still, agriculture is demographically the broadest economic sector and plays a significant role in the overall socio-economic fabric of India.

# 2. PROBLEMS DEFINITION & DESIGN THINKING

## 2.1 Empathy Map



## 2.2 Ideation & Brainstorming



## 3. DATASET

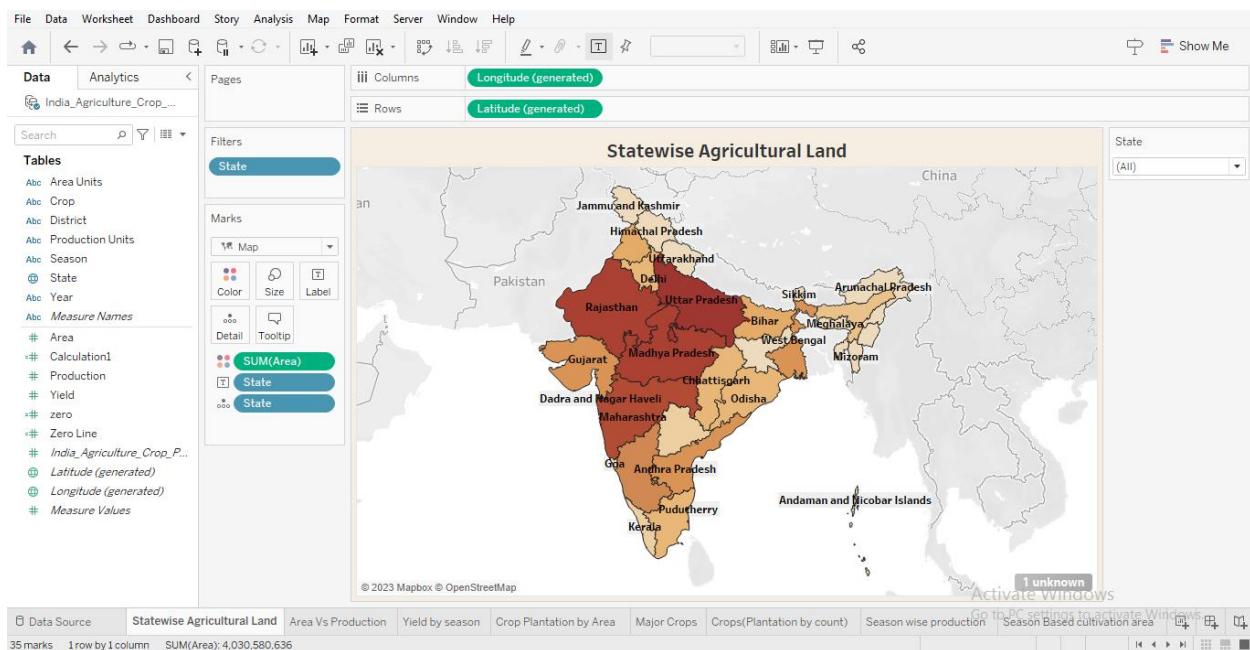
### 3.1 Indian Agricultural Crop Production

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A1	State														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	State	District	Crop	Year	Season	Area	Area Units	Production	Production	Yield					
2	Andaman and Nicobar Islands	NICOBARS	Arecanut	2001-02	Kharif	1254 Hectare		2061 Tonnes		1.643541					
3	Andaman and Nicobar Islands	NICOBARS	Arecanut	2002-03	Whole Year	1258 Hectare		2083 Tonnes		1.655803					
4	Andaman and Nicobar Islands	NICOBARS	Arecanut	2003-04	Whole Year	1261 Hectare		1525 Tonnes		1.209358					
5	Andaman and Nicobar Islands	NORTH AND MIDDLE ANDAMAN	Arecanut	2001-02	Kharif	3100 Hectare		5239 Tonnes		1.69					
6	Andaman and Nicobar Islands	SOUTH ANDAMANS	Arecanut	2002-03	Whole Year	3105 Hectare		5267 Tonnes		1.696296					
7	Andaman and Nicobar Islands	SOUTH ANDAMANS	Arecanut	2003-04	Whole Year	3118 Hectare		5182 Tonnes		1.661963					
8	Andaman and Nicobar Islands	NICOBARS	Banana	2002-03	Whole Year	213 Hectare		1278 Tonnes		6					
9	Andaman and Nicobar Islands	NICOBARS	Banana	2003-04	Whole Year	266 Hectare		1763 Tonnes		6.62782					
10	Andaman and Nicobar Islands	SOUTH ANDAMANS	Banana	2002-03	Whole Year	1524 Hectare		10882 Tonnes		7.14042					
11	Andaman and Nicobar Islands	SOUTH ANDAMANS	Banana	2003-04	Whole Year	1530 Hectare		11558 Tonnes		7.554248					
12	Andaman and Nicobar Islands	NICOBARS	Black pepper	2002-03	Whole Year	63 Hectare		13.5 Tonnes		0.214286					
13	Andaman and Nicobar Islands	NICOBARS	Black pepper	2003-04	Whole Year	75.5 Hectare		15.86 Tonnes		0.210066					
14	Andaman and Nicobar Islands	SOUTH ANDAMANS	Black pepper	2002-03	Whole Year	487 Hectare		102.5 Tonnes		0.210472					
15	Andaman and Nicobar Islands	SOUTH ANDAMANS	Black pepper	2003-04	Whole Year	497 Hectare		104.37 Tonnes		0.21					
16	Andaman and Nicobar Islands	NICOBARS	Cashewnut	2001-02	Whole Year	719 Hectare		192 Tonnes		0.267038					
17	Andaman and Nicobar Islands	NICOBARS	Cashewnut	2002-03	Whole Year	719 Hectare		208 Tonnes		0.289291					
18	Andaman and Nicobar Islands	NICOBARS	Cashewnut	2003-04	Whole Year	717 Hectare		208.5 Tonnes		0.290795					
19	Andaman and Nicobar Islands	NORTH AND MIDDLE ANDAMAN	Cashewnut	2001-02	Whole Year	81 Hectare		33 Tonnes		0.407407					
20	Andaman and Nicobar Islands	SOUTH ANDAMANS	Cashewnut	2002-03	Whole Year	81 Hectare		24 Tonnes		0.296296					
21	Andaman and Nicobar Islands	SOUTH ANDAMANS	Cashewnut	2003-04	Whole Year	116.5 Hectare		26.14 Tonnes		0.224378					
22	Andaman and Nicobar Islands	NICOBARS	Coconut	2001-02	Whole Year	18190 Hectare		64430000 Nuts		3542.056					
23	Andaman and Nicobar Islands	NICOBARS	Coconut	2002-03	Whole Year	18240 Hectare		67490000 Nuts		3700.11					
24	Andaman and Nicobar Islands	NICOBARS	Coconut	2003-04	Whole Year	18284.74 Hectare		68580000 Nuts		3750.669					
25	Andaman and Nicobar Islands	NORTH AND MIDDLE ANDAMAN	Coconut	2001-02	Whole Year	7015 Hectare		25250000 Nuts		3599.43					

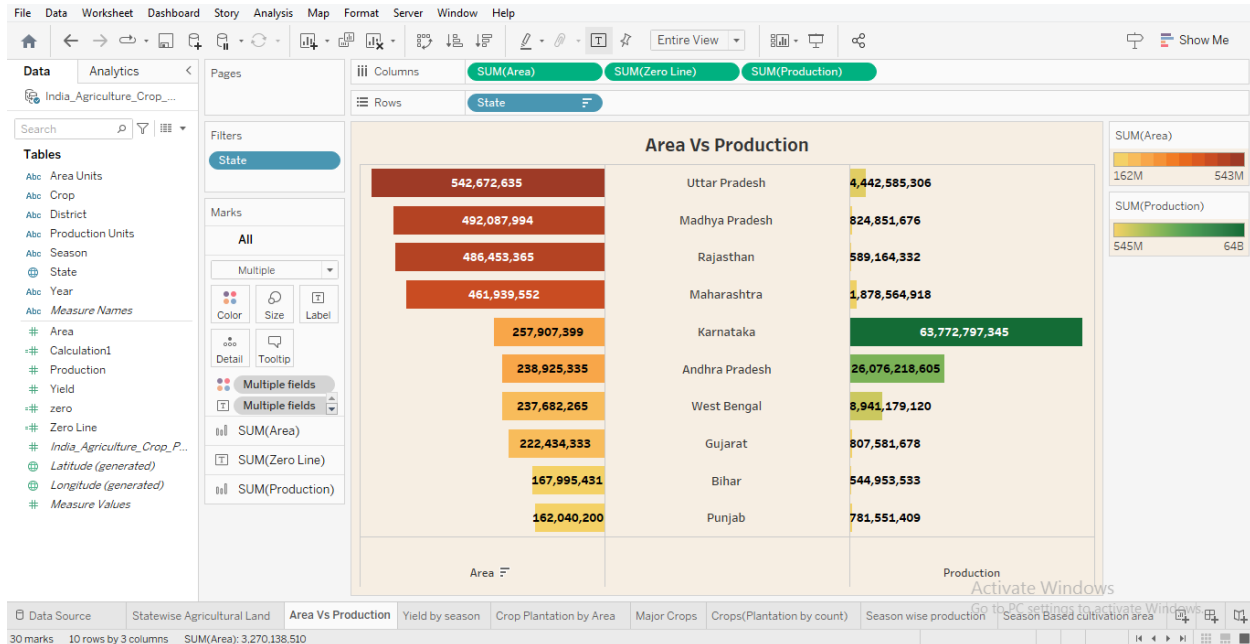
Andaman and Nicobar Islands										
A	B	C	D	E	F	G	H	I	J	K
26	Andaman and Nicobar Islands	SOUTH ANDAMANS	Coconut	2002-03	Whole Year	7060 Hectare	26830000 Nuts	3800.283		
27	Andaman and Nicobar Islands	SOUTH ANDAMANS	Coconut	2003-04	Whole Year	7110 Hectare	26660000 Nuts	3749.648		
28	Andaman and Nicobar Islands	NICOBARS	Dry chillies	2002-03	Whole Year	413 Hectare	28.8 Tonnes	0.069734		
29	Andaman and Nicobar Islands	NICOBARS	Dry chillies	2003-04	Whole Year	60 Hectare	102 Tonnes	1.7		
30	Andaman and Nicobar Islands	SOUTH ANDAMANS	Dry chillies	2002-03	Whole Year	239 Hectare	20.9 Tonnes	0.087448		
31	Andaman and Nicobar Islands	SOUTH ANDAMANS	Dry chillies	2003-04	Whole Year	340 Hectare	578 Tonnes	1.7		
32	Andaman and Nicobar Islands	NICOBARS	Ginger	2001-02	Whole Year	46 Hectare	100 Tonnes	2.173913		
33	Andaman and Nicobar Islands	NICOBARS	Ginger	2002-03	Whole Year	47.3 Hectare	133 Tonnes	2.811839		
34	Andaman and Nicobar Islands	NICOBARS	Ginger	2003-04	Whole Year	102 Hectare	326.4 Tonnes	3.2		
35	Andaman and Nicobar Islands	NORTH AND MIDDLE ANDAMAN	Ginger	2001-02	Whole Year	344 Hectare	1124 Tonnes	3.267442		
36	Andaman and Nicobar Islands	SOUTH ANDAMANS	Ginger	2002-03	Whole Year	352 Hectare	1145 Tonnes	3.252841		
37	Andaman and Nicobar Islands	SOUTH ANDAMANS	Ginger	2003-04	Whole Year	406 Hectare	1299.2 Tonnes	3.2		
38	Andaman and Nicobar Islands	NICOBARS	Other Kharif pul	2001-02	Kharif	2 Hectare	1 Tonnes	0.5		
39	Andaman and Nicobar Islands	NORTH AND MIDDLE ANDAMAN	Other Kharif pul	2001-02	Kharif	418 Hectare	199 Tonnes	0.476077		
40	Andaman and Nicobar Islands	NICOBARS	other oilseeds	2003-04	Whole Year	4.2 Hectare	0.3 Tonnes	0.071429		
41	Andaman and Nicobar Islands	SOUTH ANDAMANS	other oilseeds	2002-03	Whole Year	85.1 Hectare	40.31 Tonnes	0.473678		
42	Andaman and Nicobar Islands	SOUTH ANDAMANS	other oilseeds	2003-04	Whole Year	82.09 Hectare	35.51 Tonnes	0.432574		
43	Andaman and Nicobar Islands	NICOBARS	Rice	2001-02	Kharif	83 Hectare	300 Tonnes	3.614458		
44	Andaman and Nicobar Islands	NICOBARS	Rice	2002-03	Kharif	189.2 Hectare	510.84 Tonnes	2.7		
45	Andaman and Nicobar Islands	NICOBARS	Rice	2003-04	Kharif	52 Hectare	90.17 Tonnes	1.734038		
46	Andaman and Nicobar Islands	NORTH AND MIDDLE ANDAMAN	Rice	2001-02	Kharif	9718 Hectare	27033 Tonnes	2.781745		
47	Andaman and Nicobar Islands	SOUTH ANDAMANS	Rice	2002-03	Kharif	10695.8 Hectare	31600.82 Tonnes	2.954507		
48	Andaman and Nicobar Islands	SOUTH ANDAMANS	Rice	2003-04	Kharif	10509.37 Hectare	30760.698 Tonnes	2.926978		
49	Andaman and Nicobar Islands	NICOBARS	Sugarcane	2001-02	Whole Year	1 Hectare	1 Tonnes	1		
50	Andaman and Nicobar Islands	NICOBARS	Sugarcane	2002-03	Whole Year	5 Hectare	40 Tonnes	8		

## 4. VISUALIZATIONS

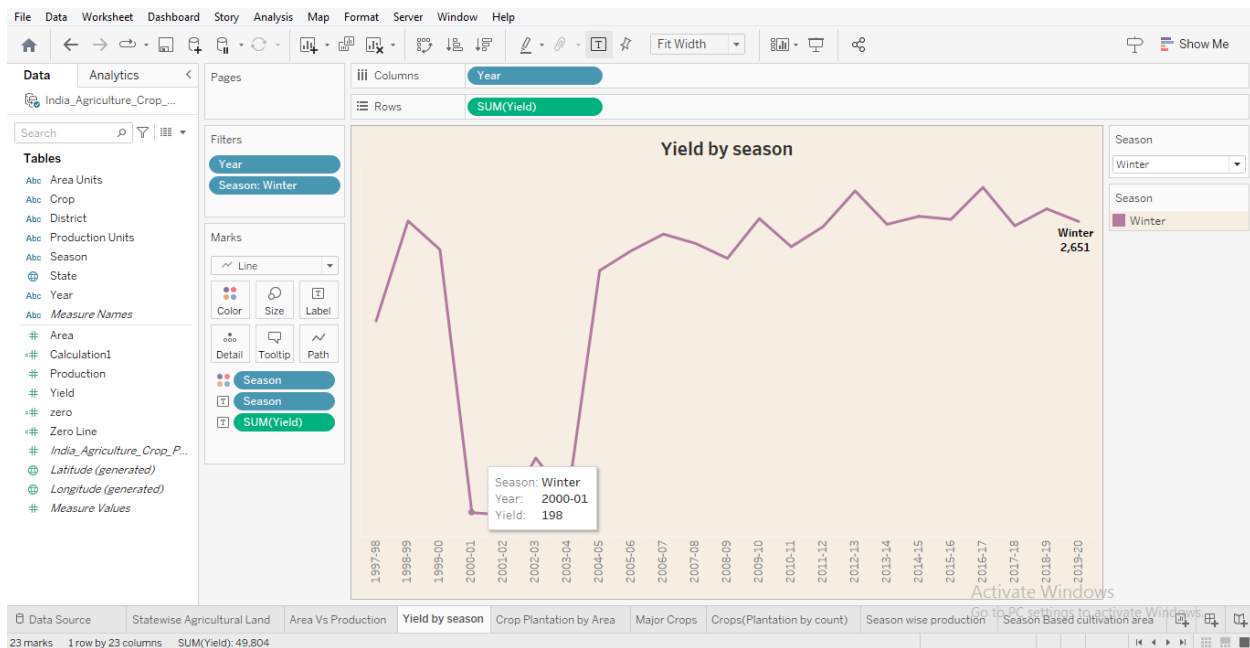
### 4.1 State wise Agricultural Land



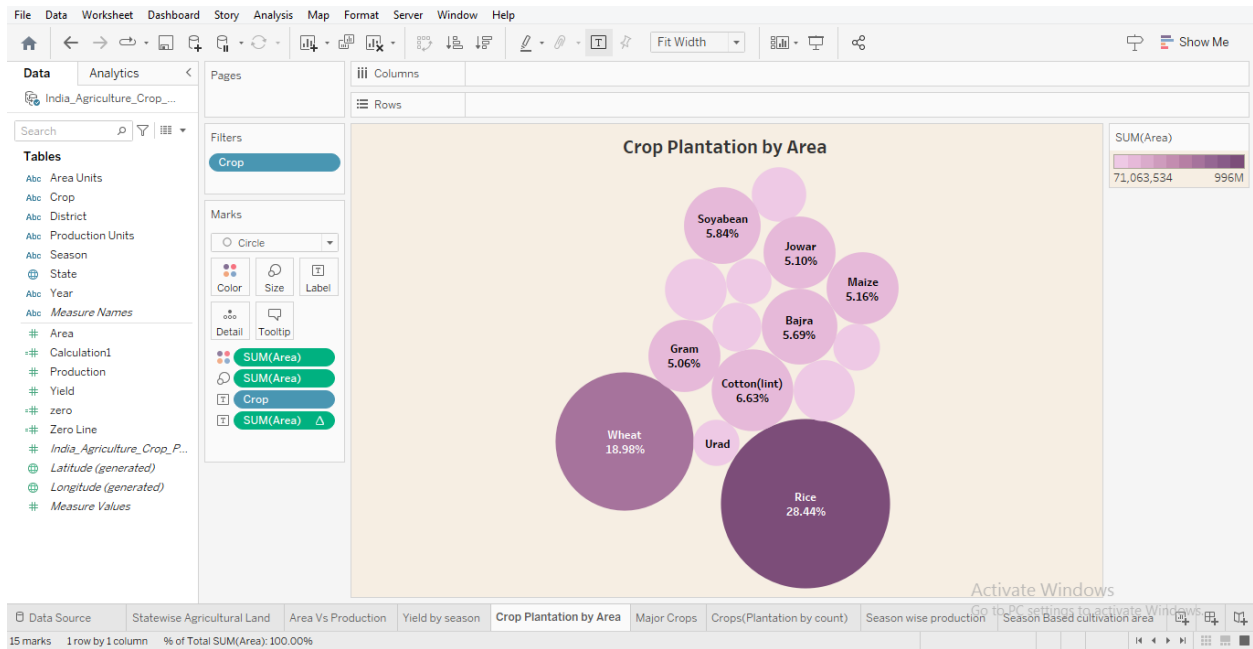
## 4.2 Area Vs Production



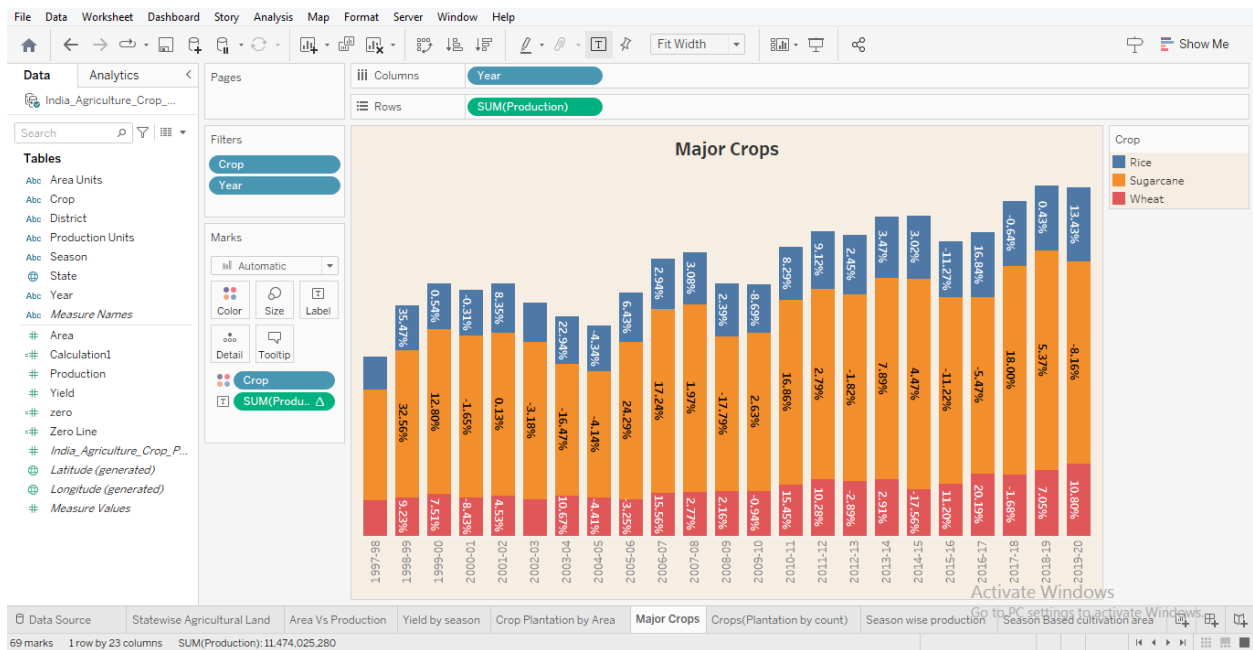
## 4.3 Yield by season



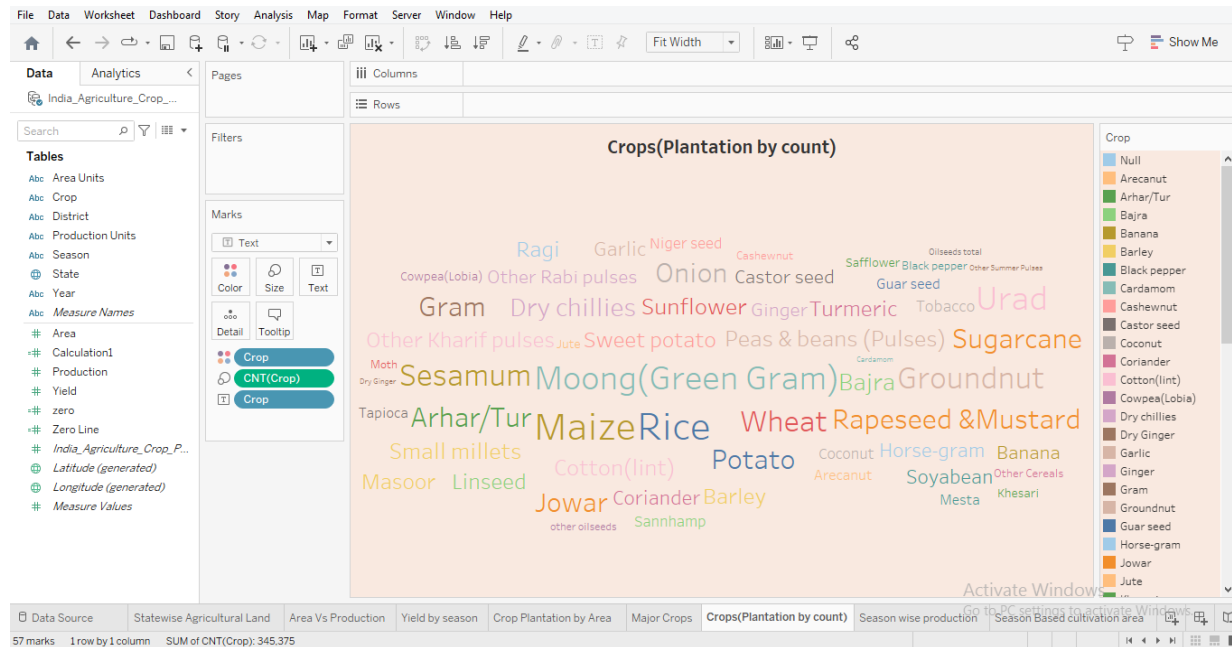
## 4.4 Crop Plantation by Area



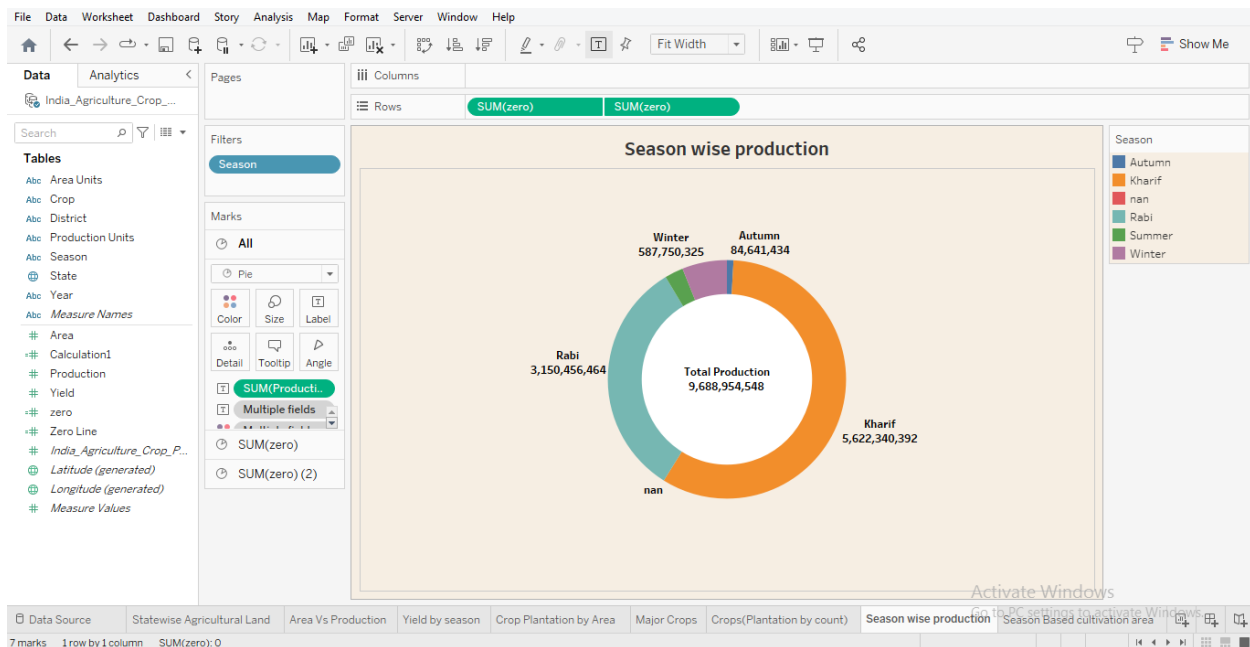
## 4.5 Major Crops



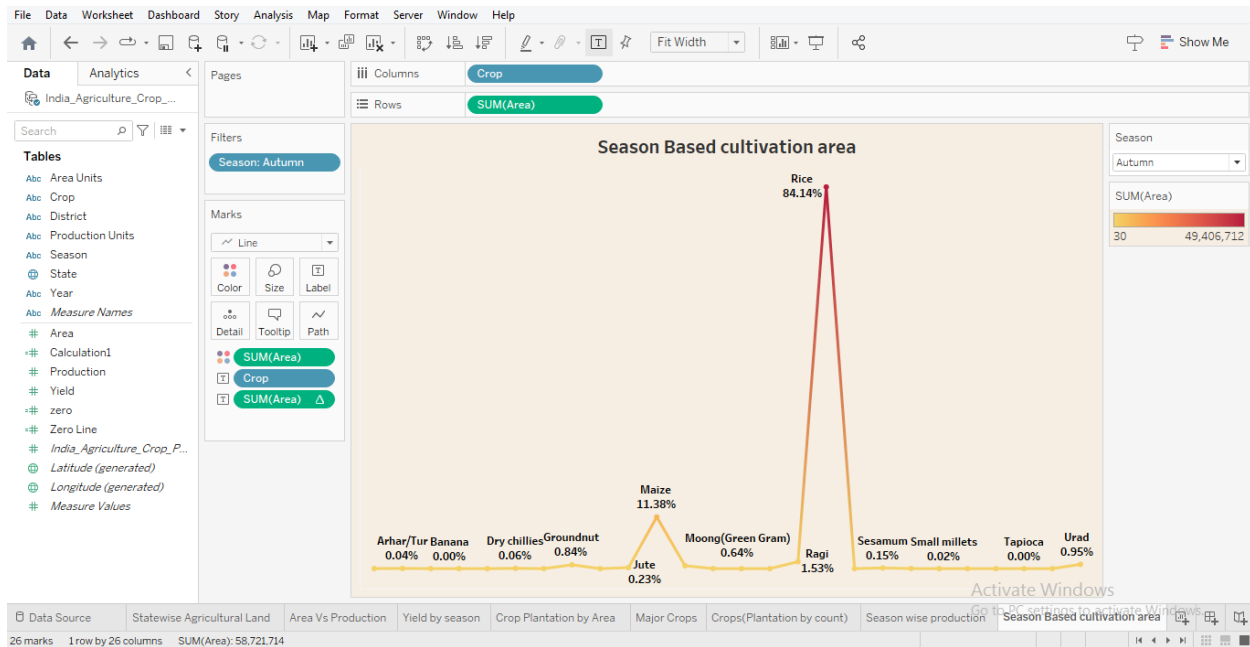
## 4.6 Crops (Plantation by count)



## 4.7 Season wise production

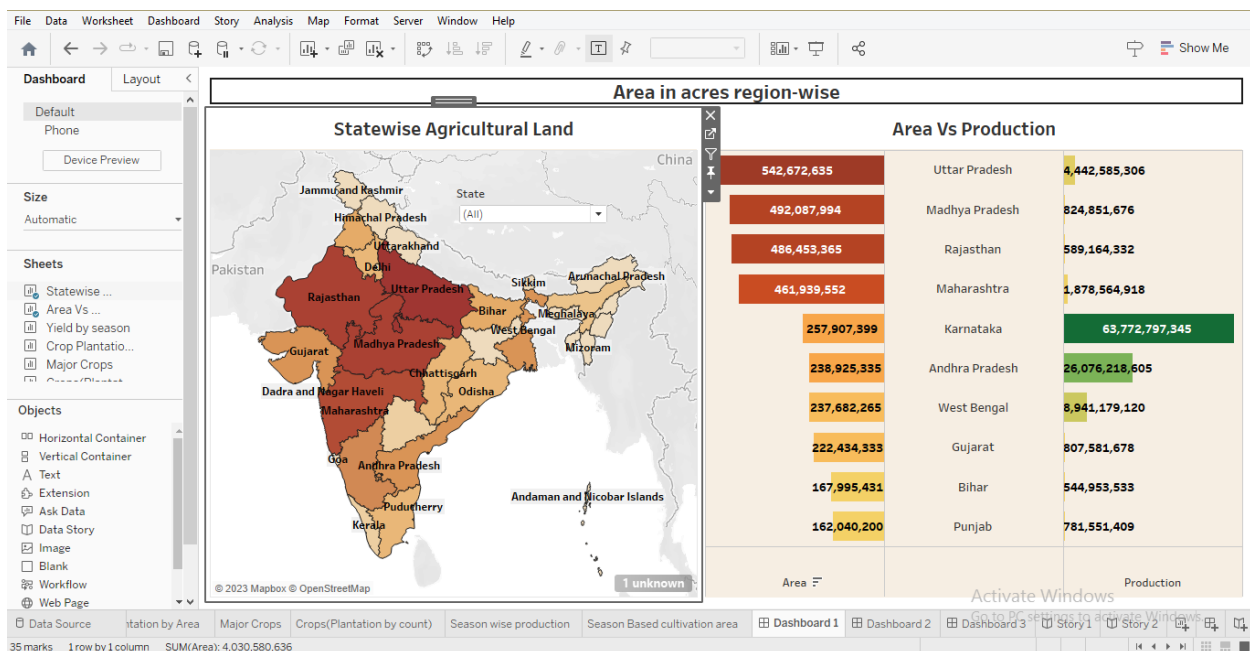


## 4.8 Season Based cultivation area

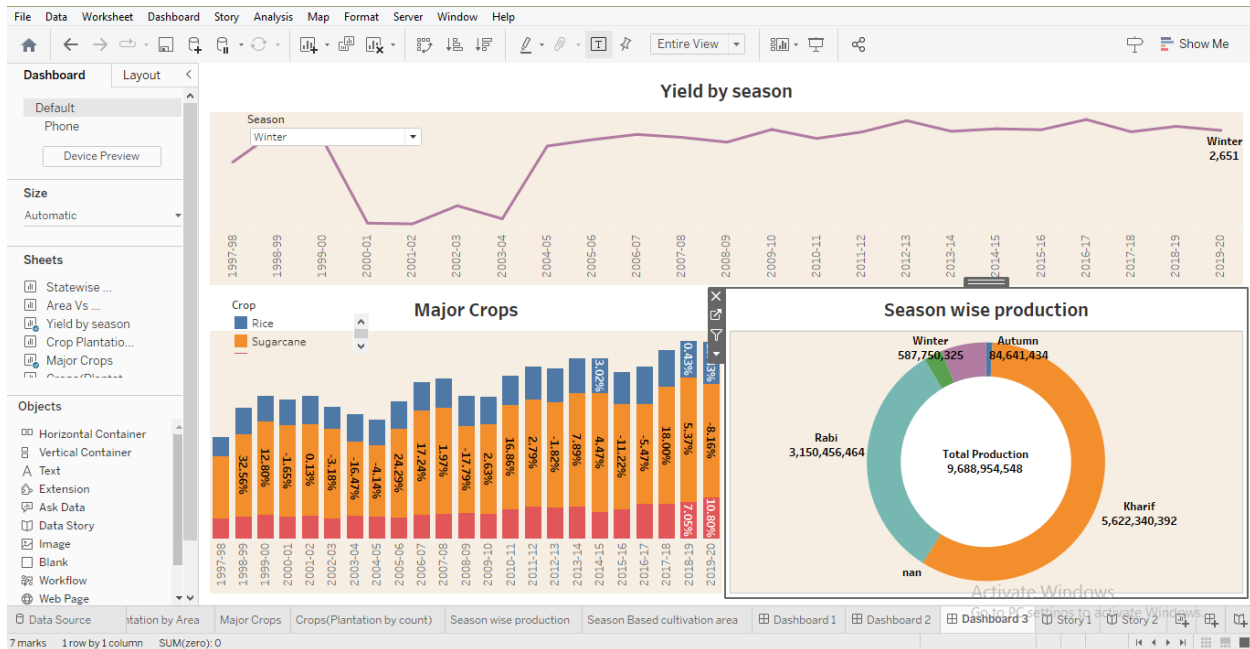
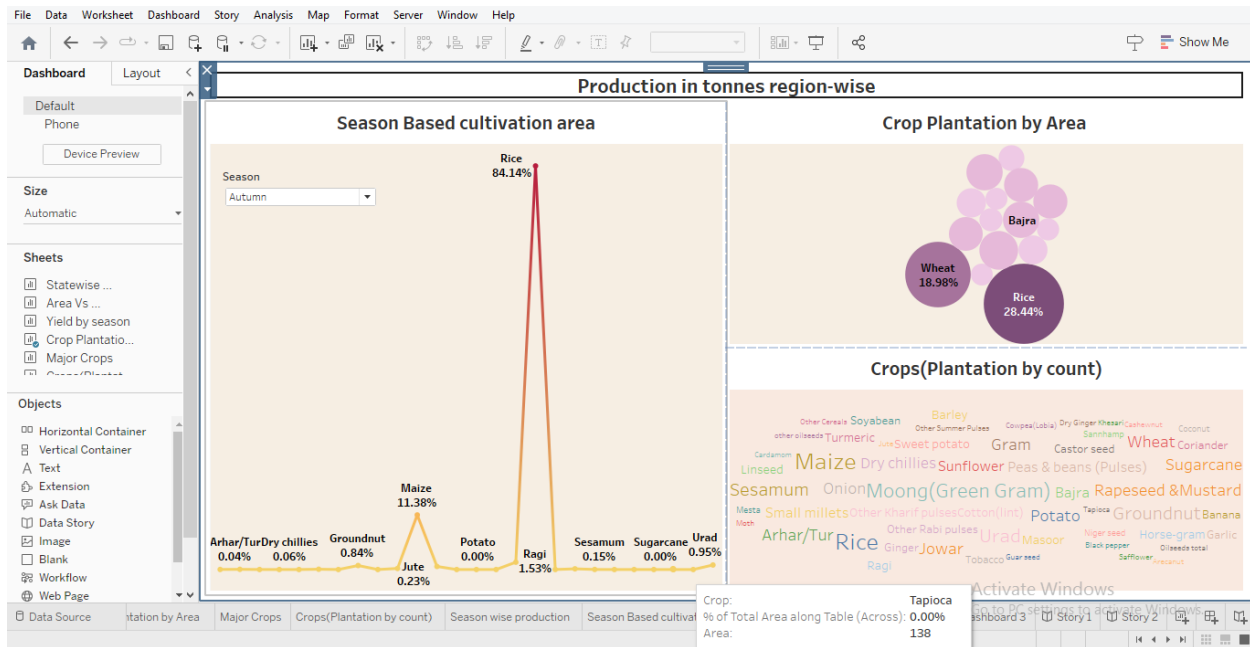


## 5. RESULT

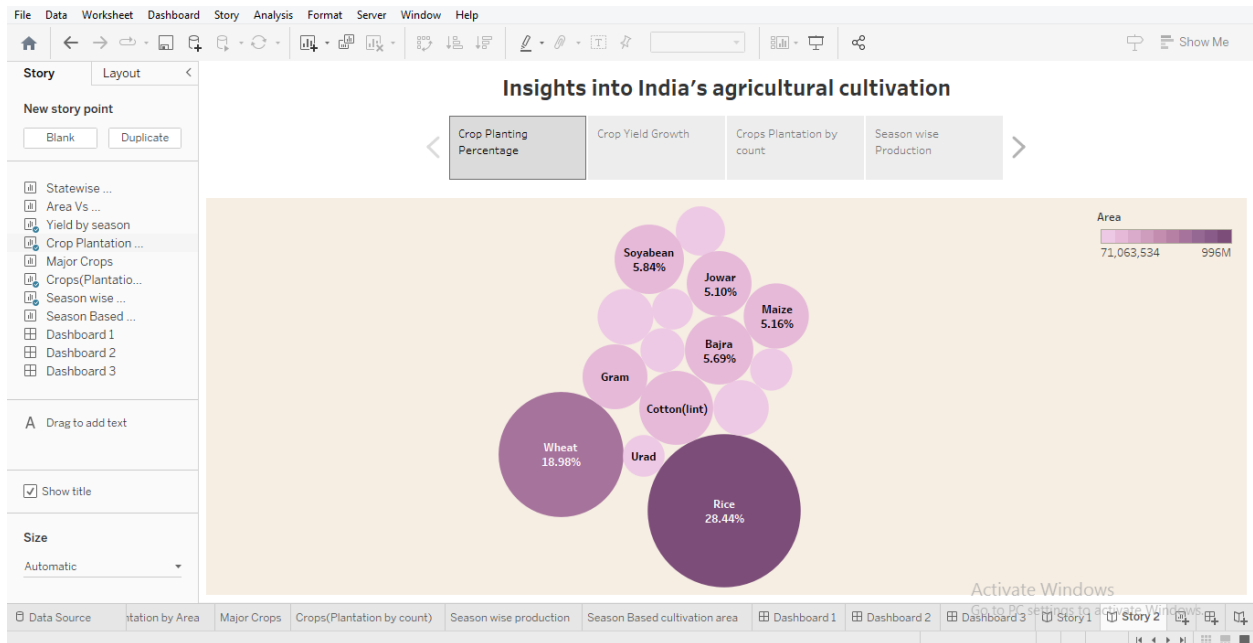
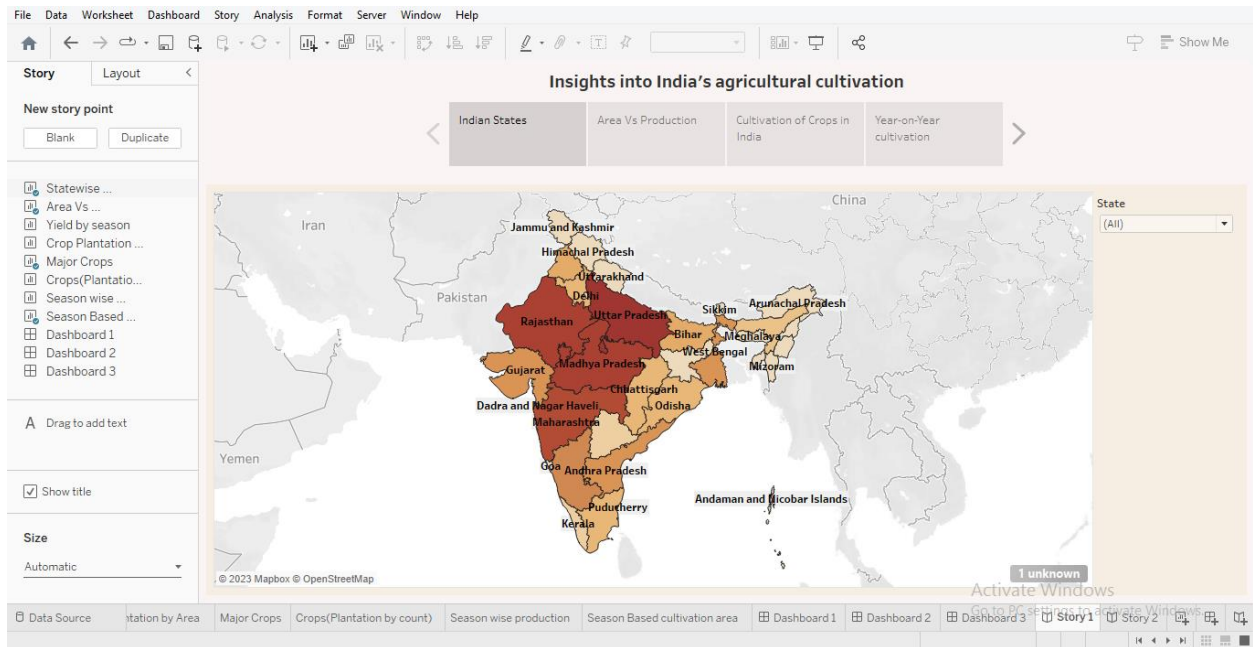
### 5.1 Dashboard





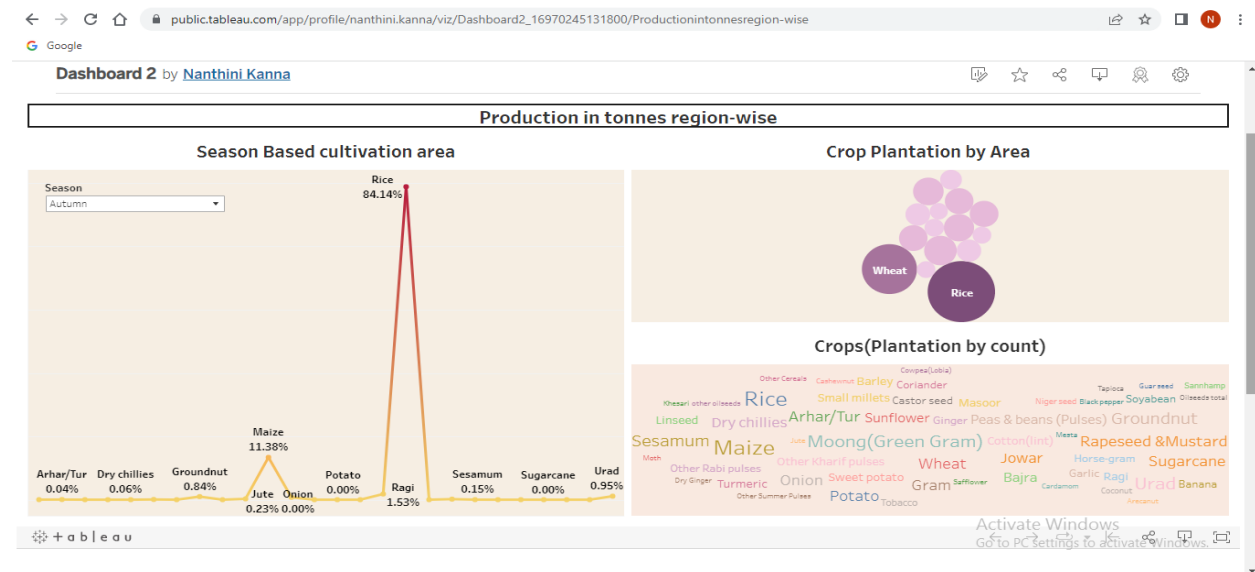
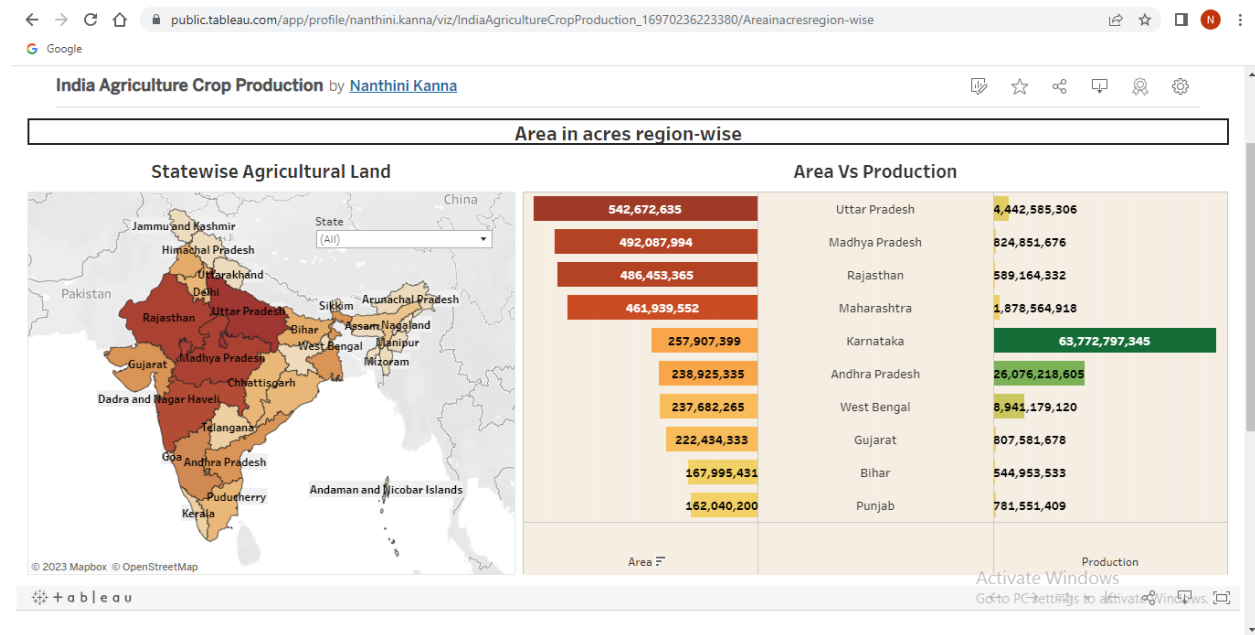


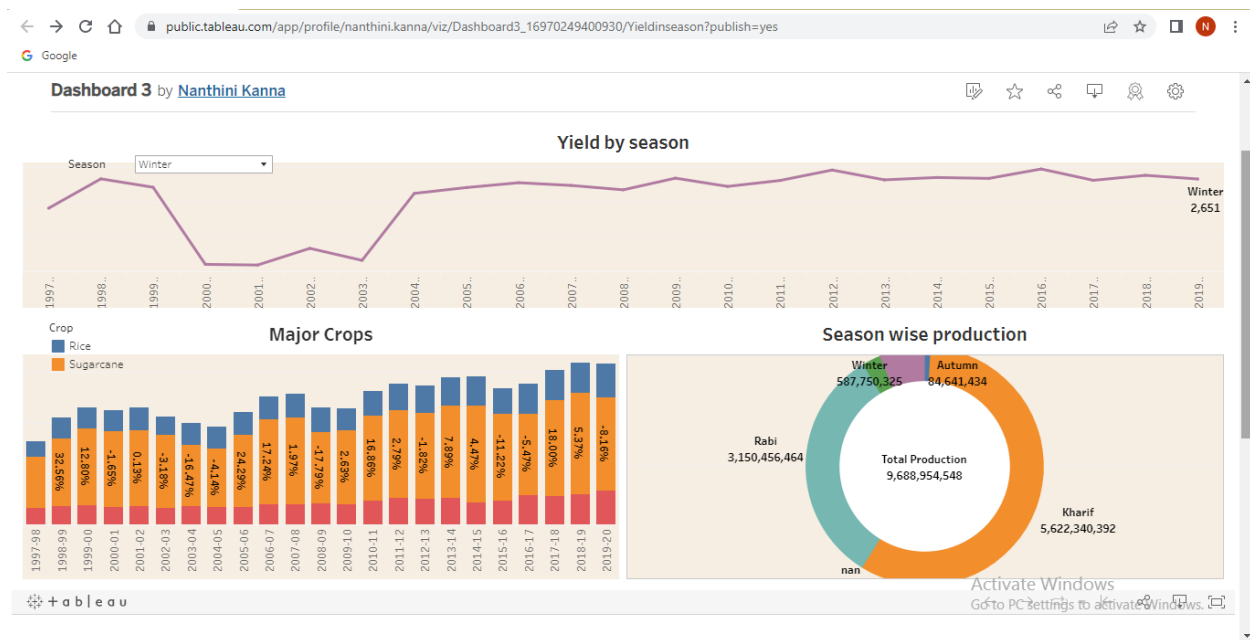
## 5.2 Story



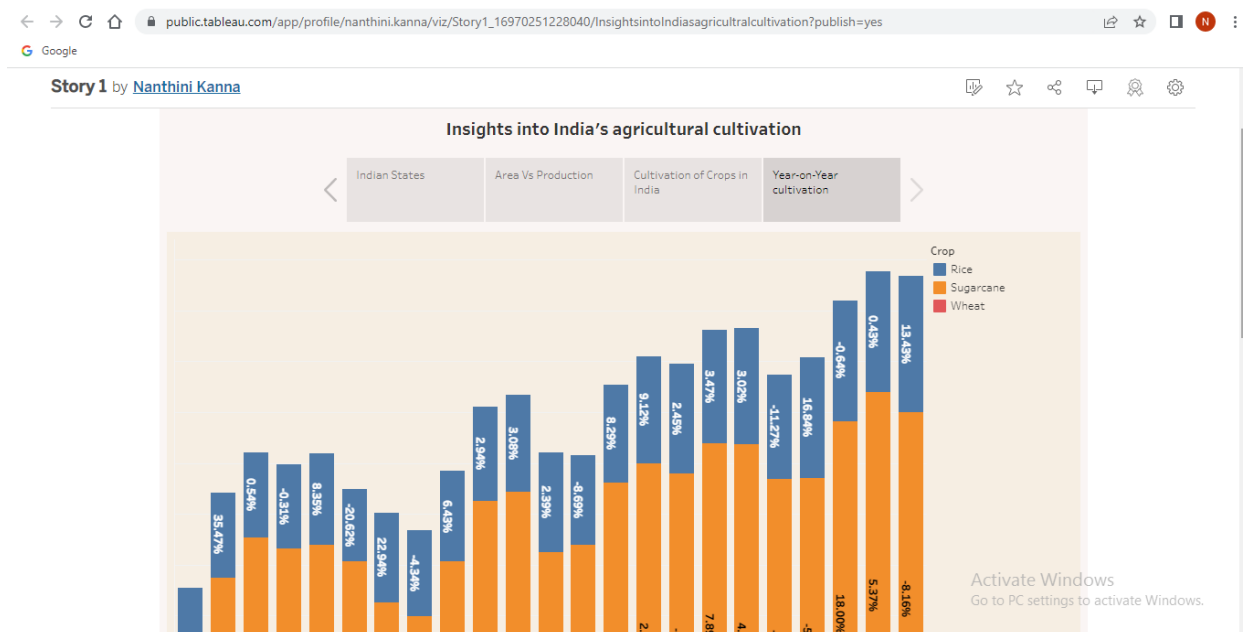
# 6. PUBLICATIONS IN TABLEAU PUBLIC

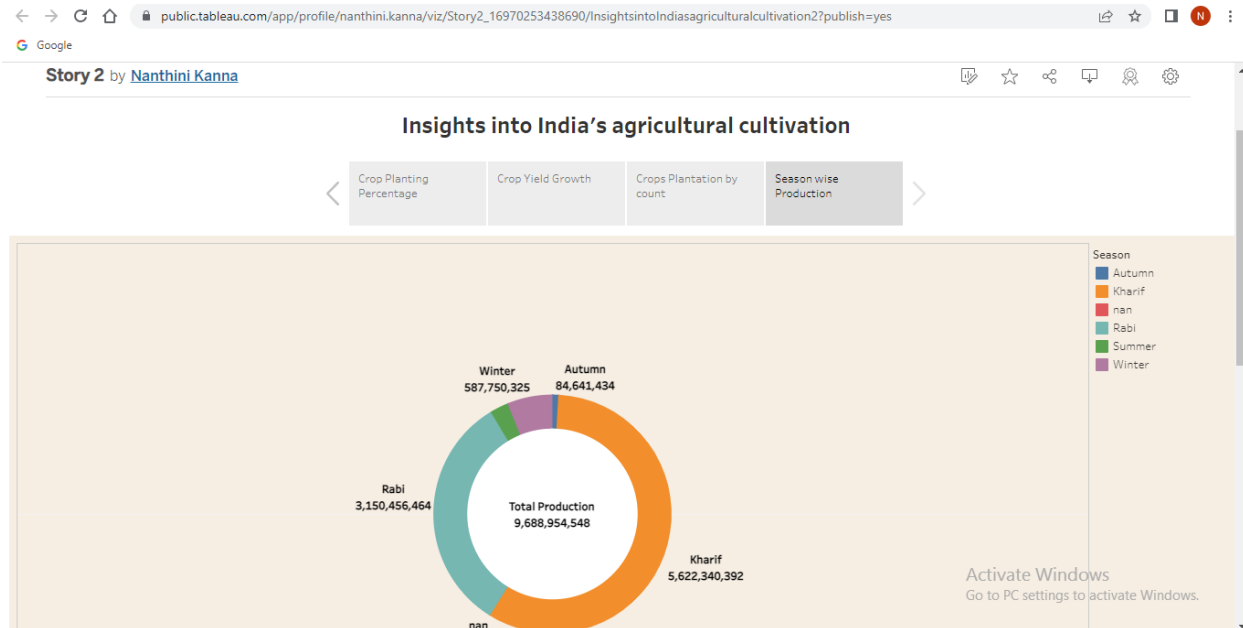
## 6.1 Publication of Dashboard





## 6.2 Publication of Story





## 7. ADVANTAGES & DISADVANTAGES

### 7.1 Advantages

- ❖ Agriculture provides employment opportunities to rural agricultural and non-agricultural labourers.
- ❖ It plays a significant role in international trade and import and export activities.
- ❖ Agriculture supplies raw materials to various agro-based industries like sugar, jute, cotton textile industries.
- ❖ Food processing industries are similarly dependent on agriculture. Therefore the development of these industries entirely is dependent on agriculture.

- ❖ There is overall increase in yield of crops mainly due to maintaining physical- chemical properties of soil.

## **7.2 Disadvantages**

- ❖ Inadequate and uneven distribution of rain fall.
- ❖ General, the rainfall is low and highly variable which results in uncertain crop yields.
- ❖ Besides its uncertainty, the distribution of rainfall during the crop period is uneven, receiving high amount of rain.

## **8. APPLICATIONS**

- ❖ The history of agriculture in India dates back to the Neolithic period.
- ❖ India ranks second worldwide in farm outputs.
- ❖ As per the Indian economic survey 2020 -21, agriculture employed more than 50% of the Indian workforce and contributed 20.2% to the country's GDP.
- ❖ Agriculture technology or Agri technology is also known as agritech.
- ❖ It is efficient in mapping, monitoring, and managing farming decisions precisely.
- ❖ Agriculture solutions come in various formats such as satellite imagery, sensors, agriculture machines, and software solutions.

## **9. CONCLUSION**

The Indian economy is an agro-economy and depends highly on the agricultural sector. Despite just supporting the Indian Economy, the agricultural sector also supports the industrial sector and international trade in imports and exports.

## **10. FUTURE SCOPE**

Agriculture sector have an enormous scope in India as of the future reference because agriculture sector is the largest sector with 49% of country's population works in Agriculture sector by occupation. India is also a developing country with about 16% of its GDP is contributed by this sector.