NAAN MUDHALVAN

Project Based Experiential Learning

UNVEILING MARKET INSIGHTS: ANALYSING SPENDING
BEHAVIOUR AND IDENTIFYING OPPORTUNITIES FOR
GROWTH

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INDIA'S AGRICULTURAL CROP PRODUCTION ANALYSIS (1997-2021)

Submitted by

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PROJECT REPORT
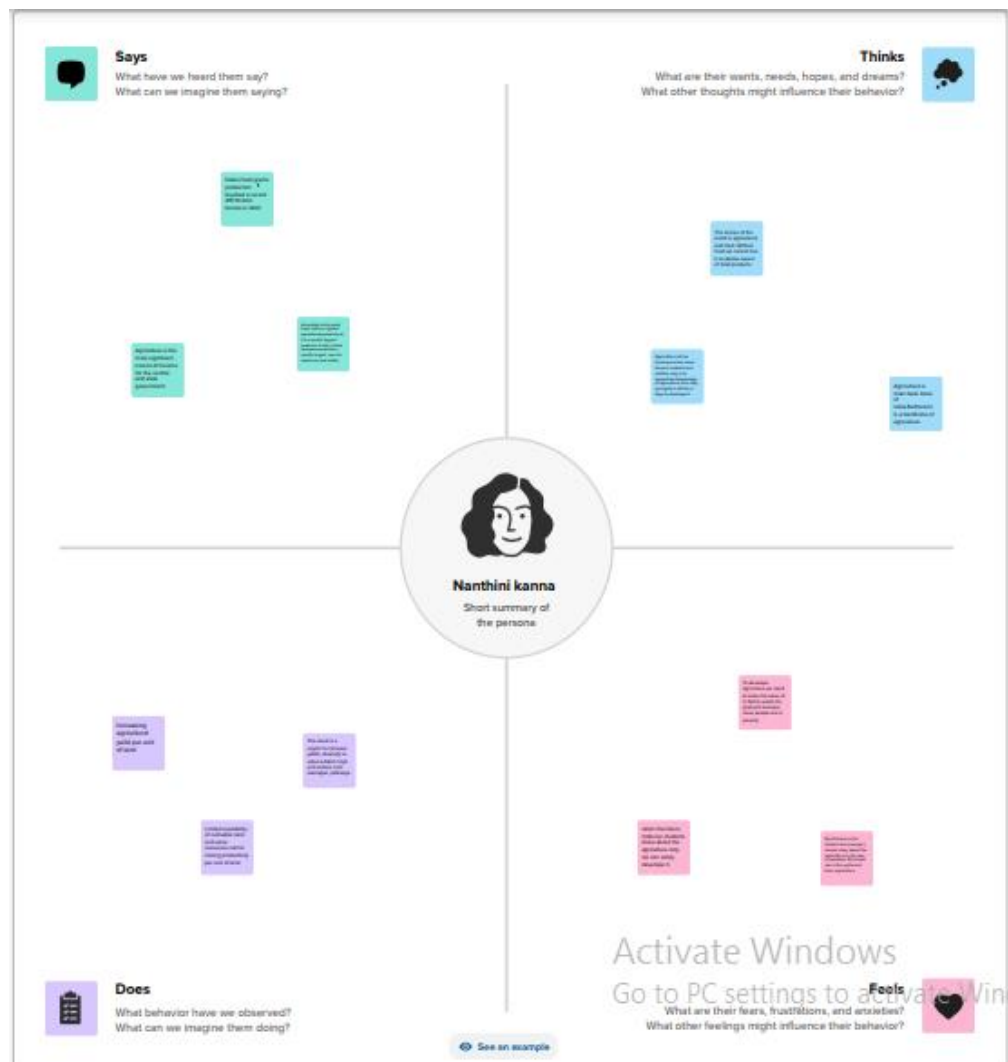
1. INTRODUCTION

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

|	A	B	C	D	E	F	G	H	I	J
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

4. VISUALIZATIONS
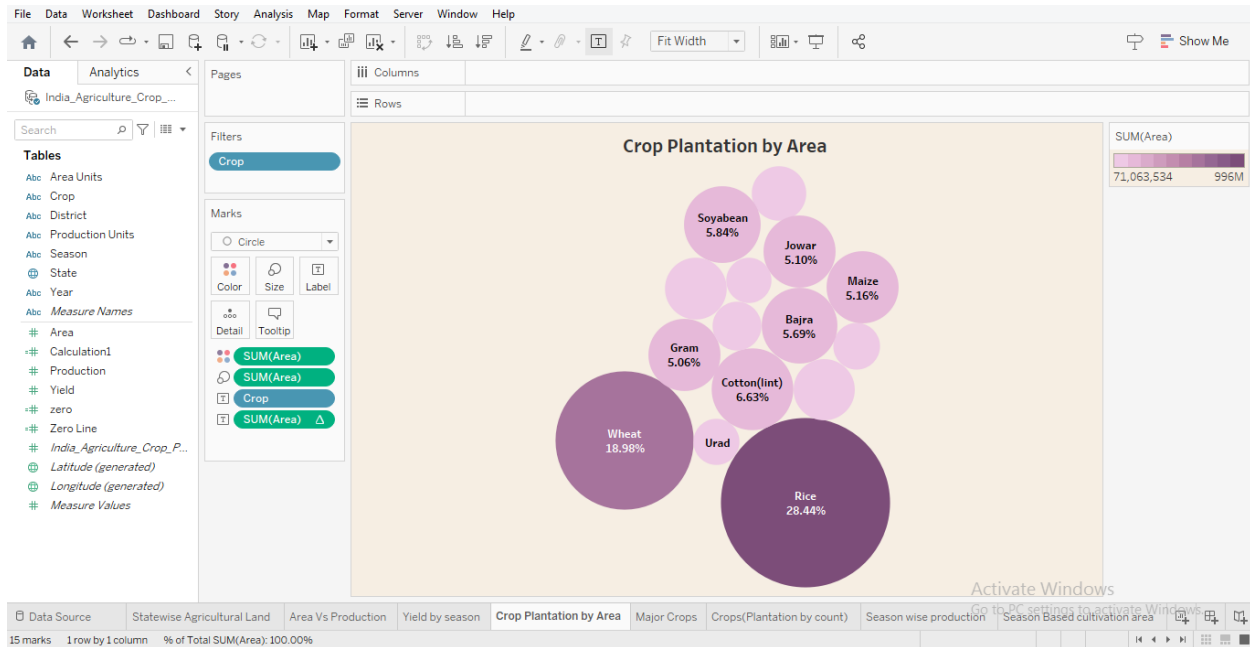
4.1 State wise Agricultural Land
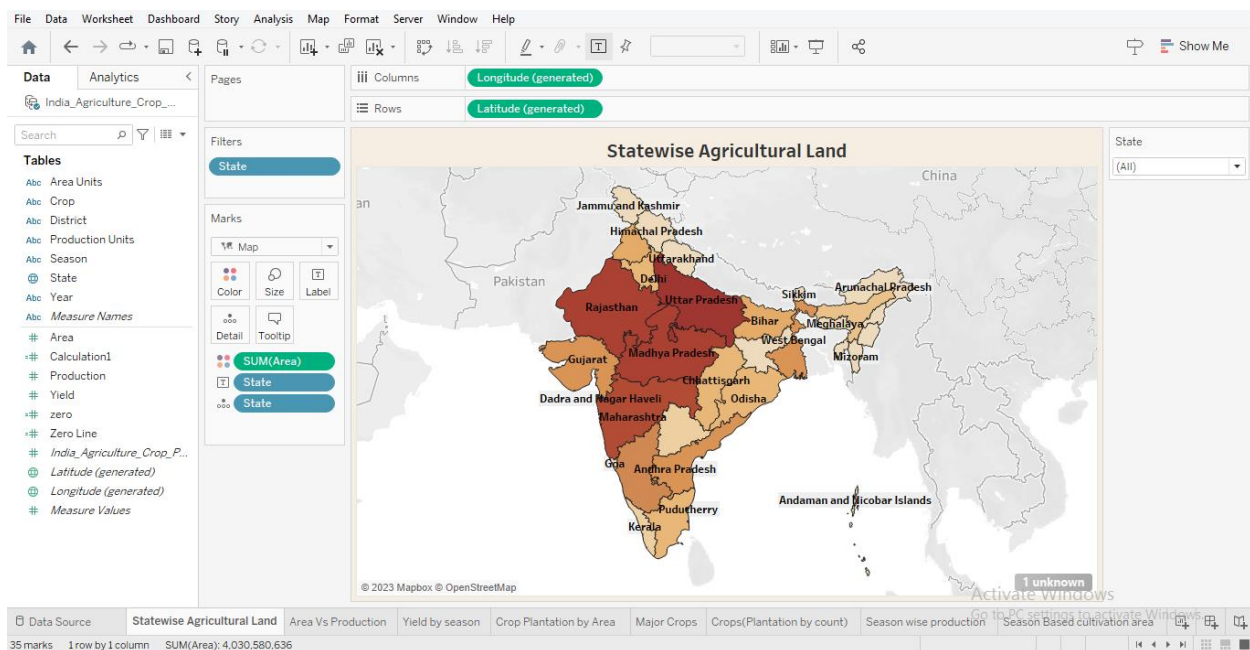
4.2 Area Vs Production
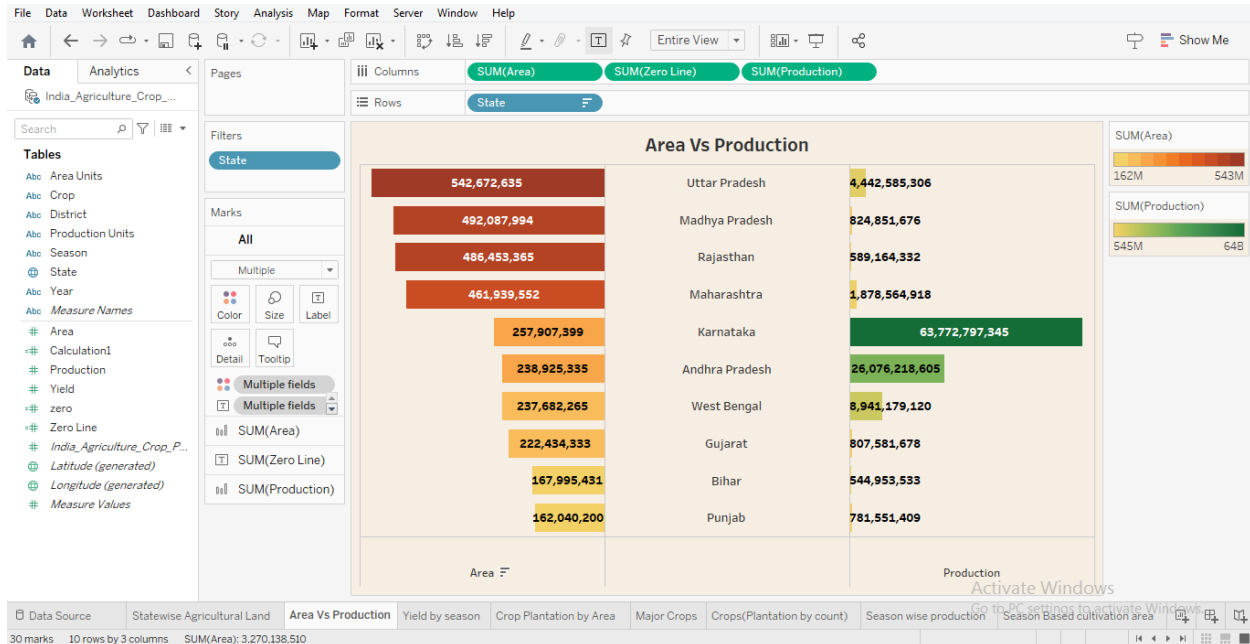
4.3 Yield by season
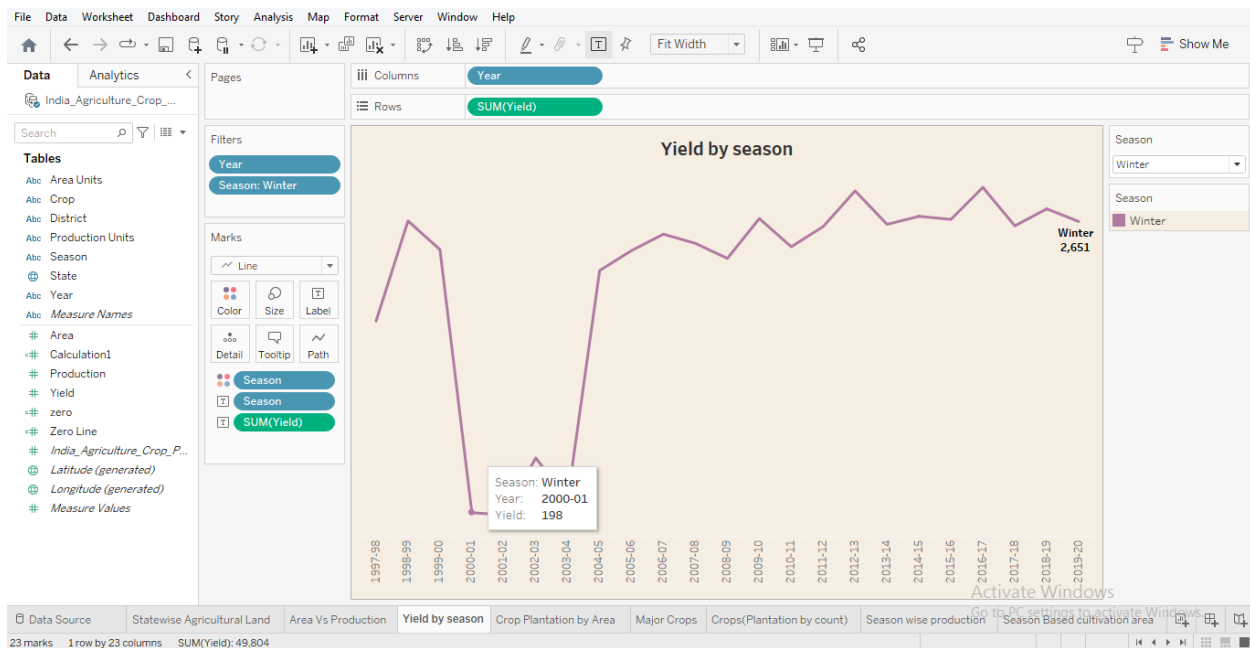
4.4 Crop Plantation by Area

4.5 Major Crops
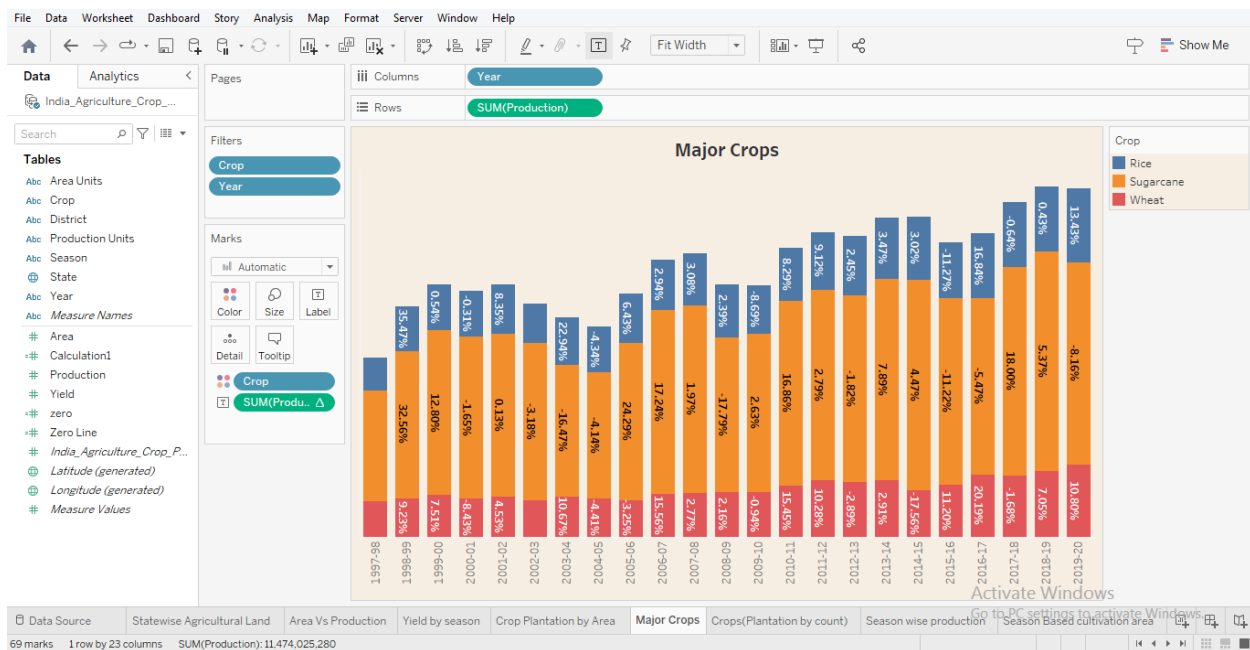
4.6 Crops (Plantation by count)
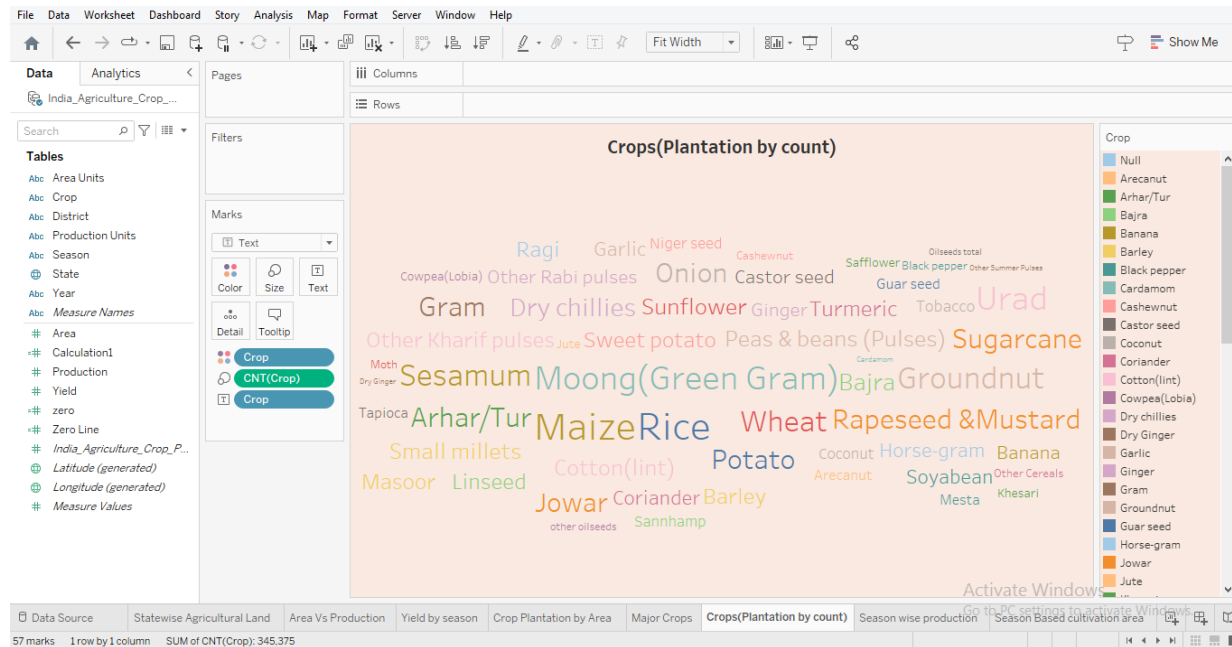
4.7 Season wise production

4.8 Season Based cultivation area

5. RESULT

5.1 Dashboard

Production in tonnes region-wise

Season Based cultivation area

Crop Plantation by Area

Crops(Plantation by count)

Yield by season

Major Crops

Season wise production

5.2 Story
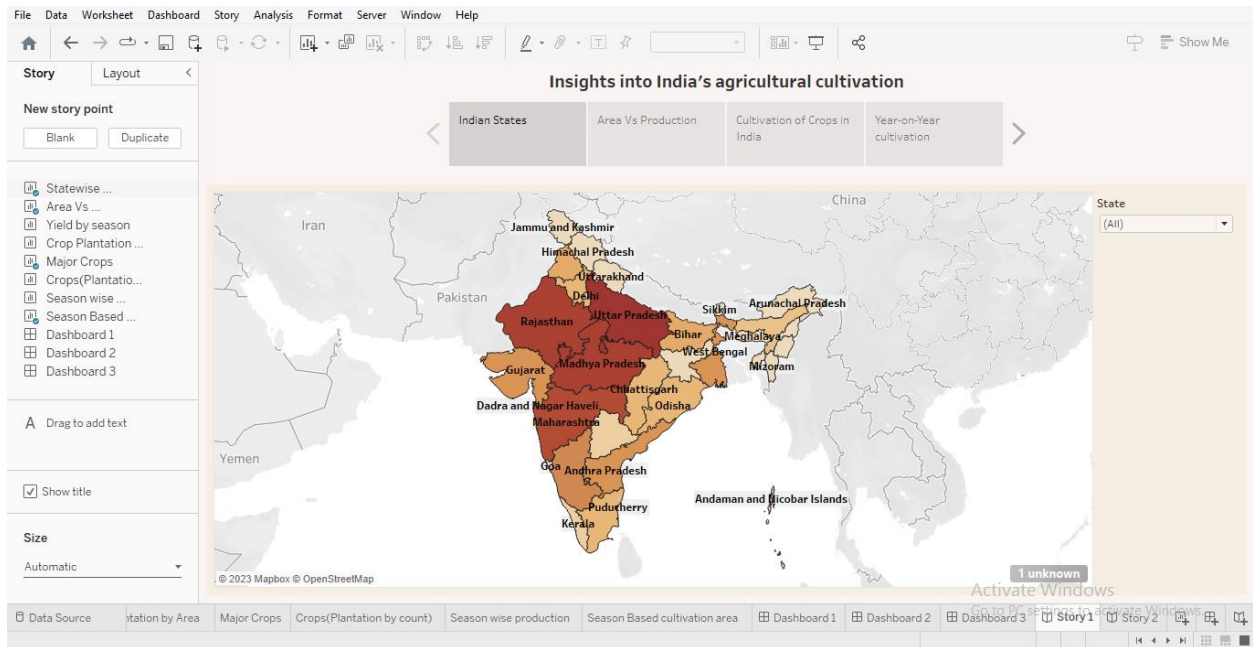
6. PUBLICATIONS IN TABLEAU PUBLIC

6.1 Publication of Dashboard

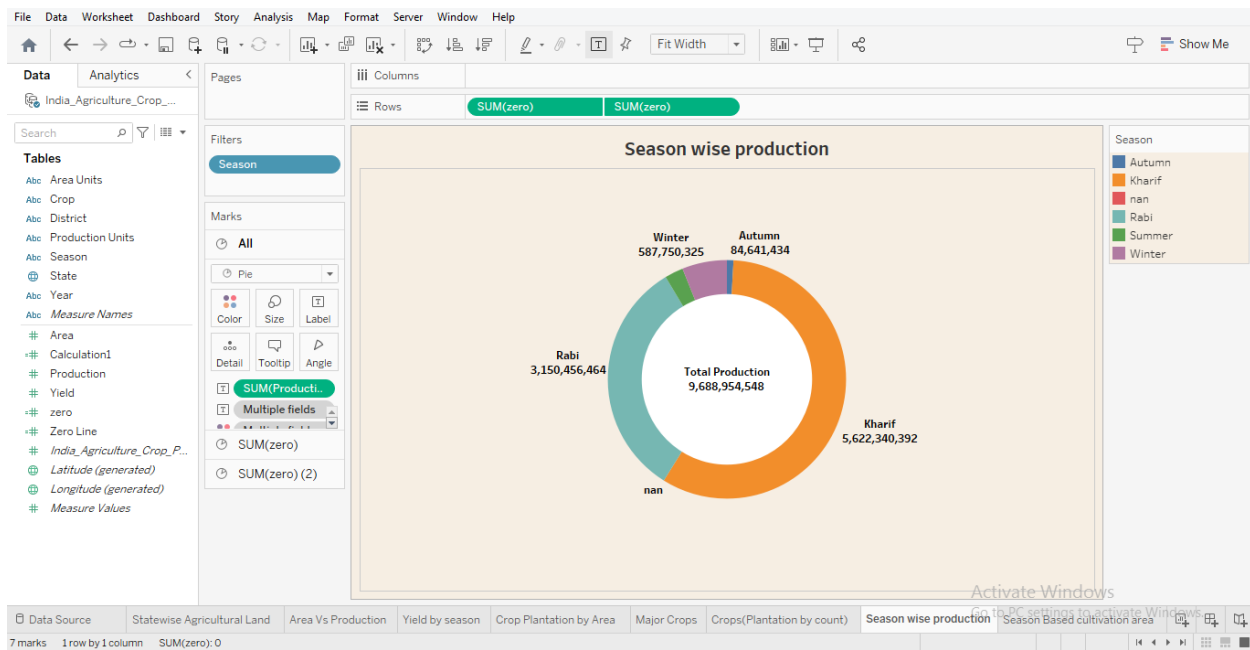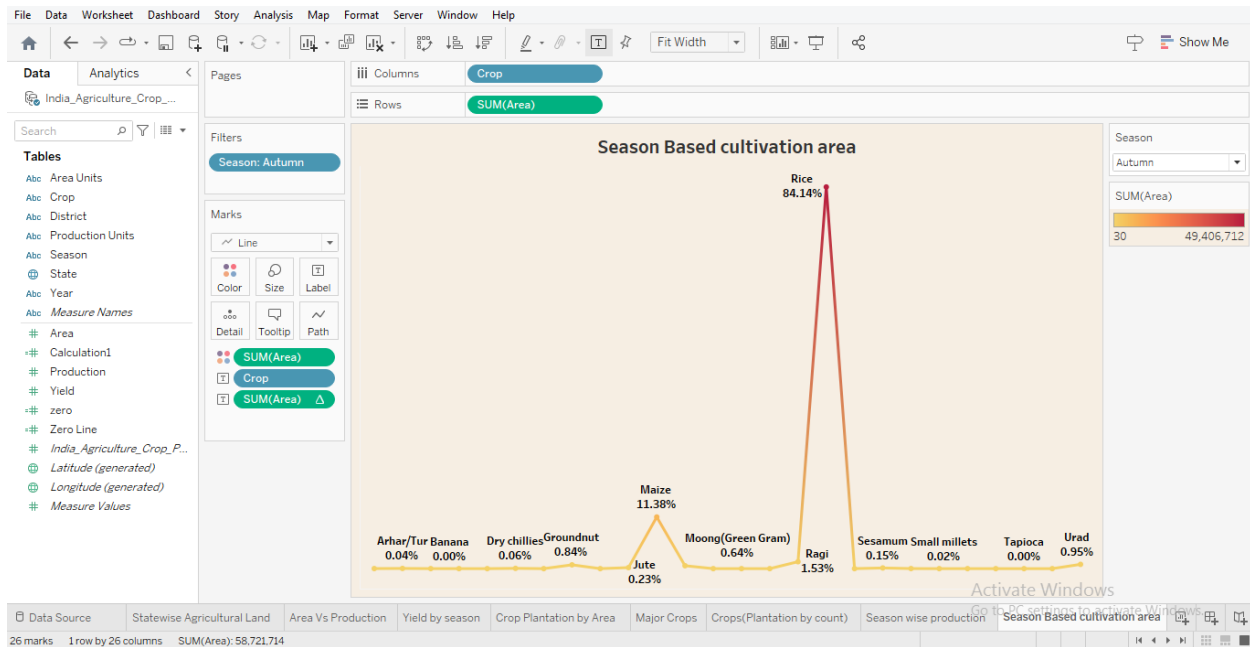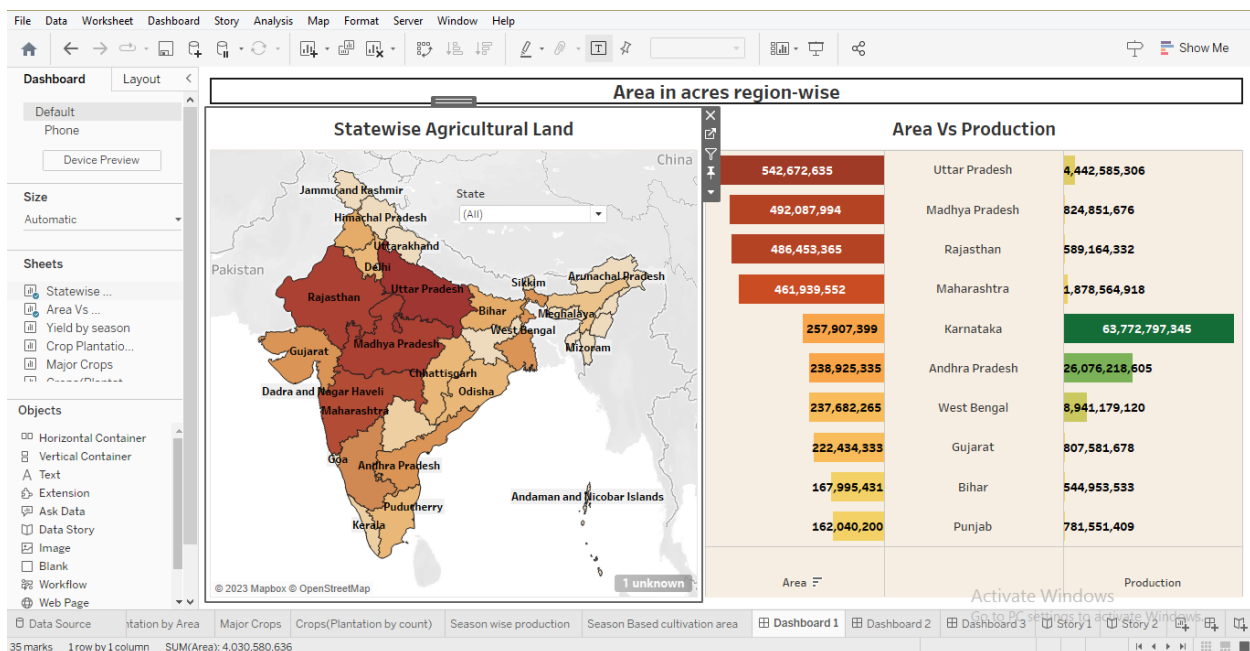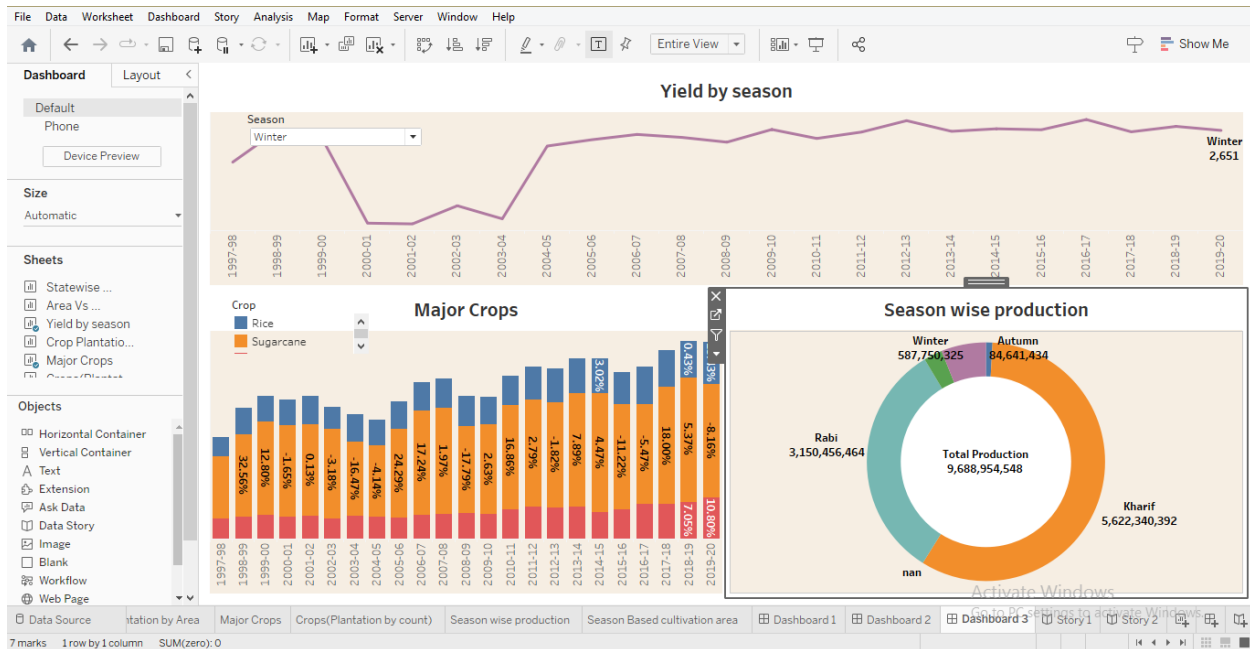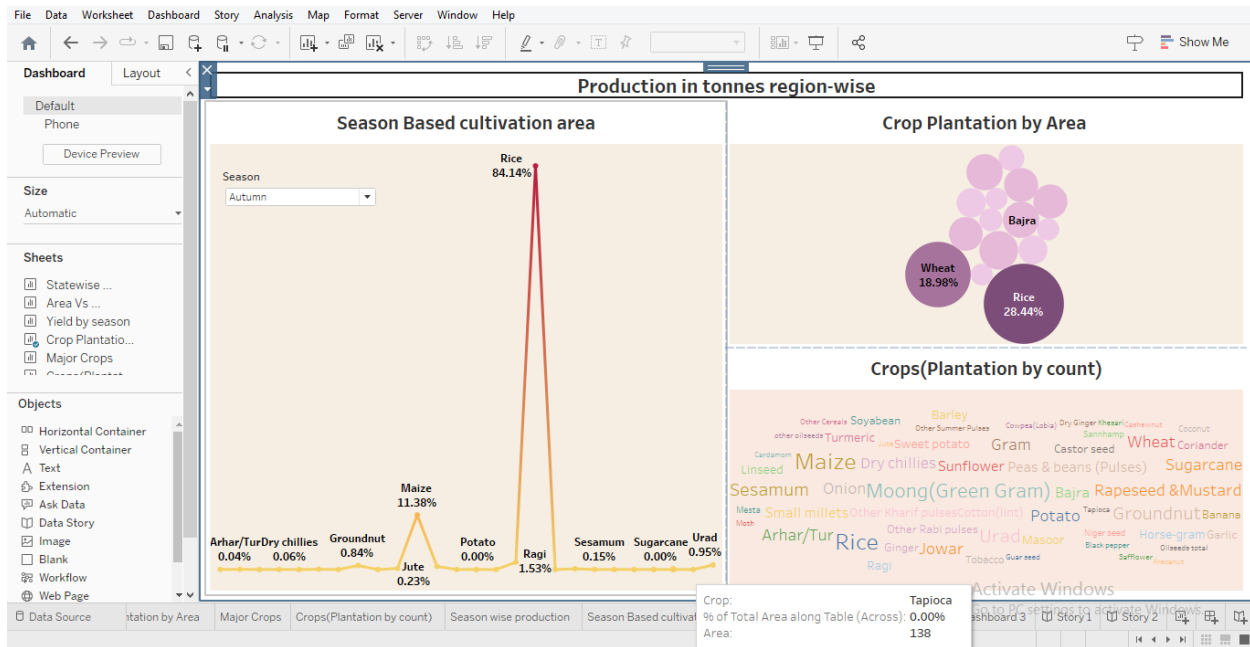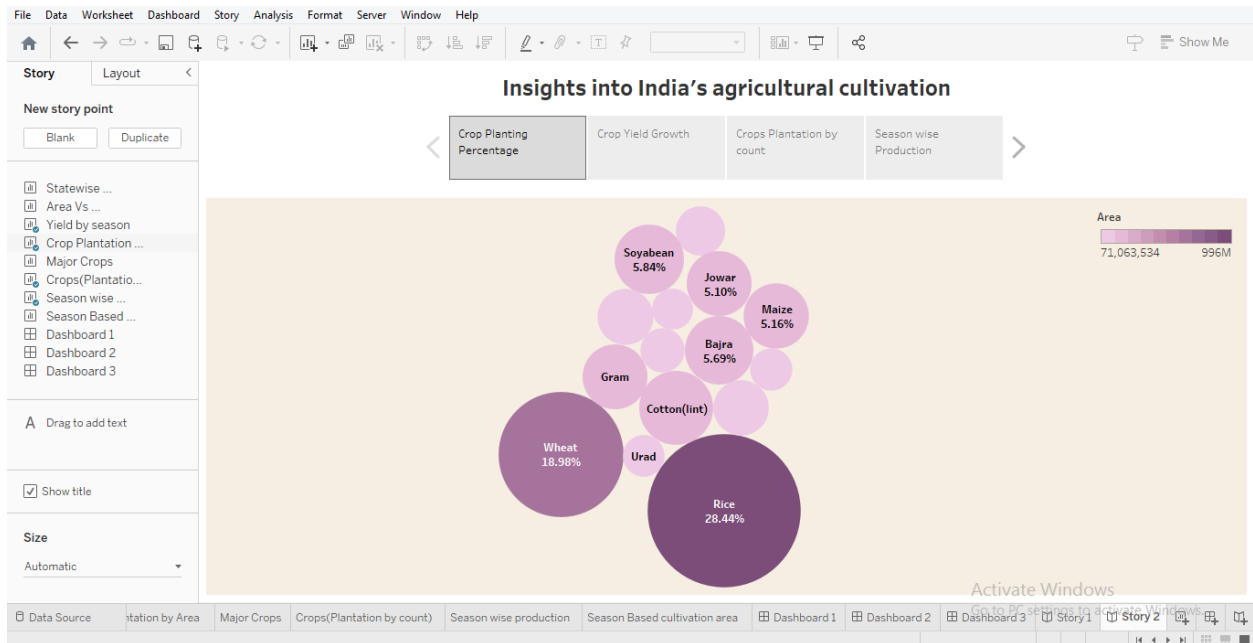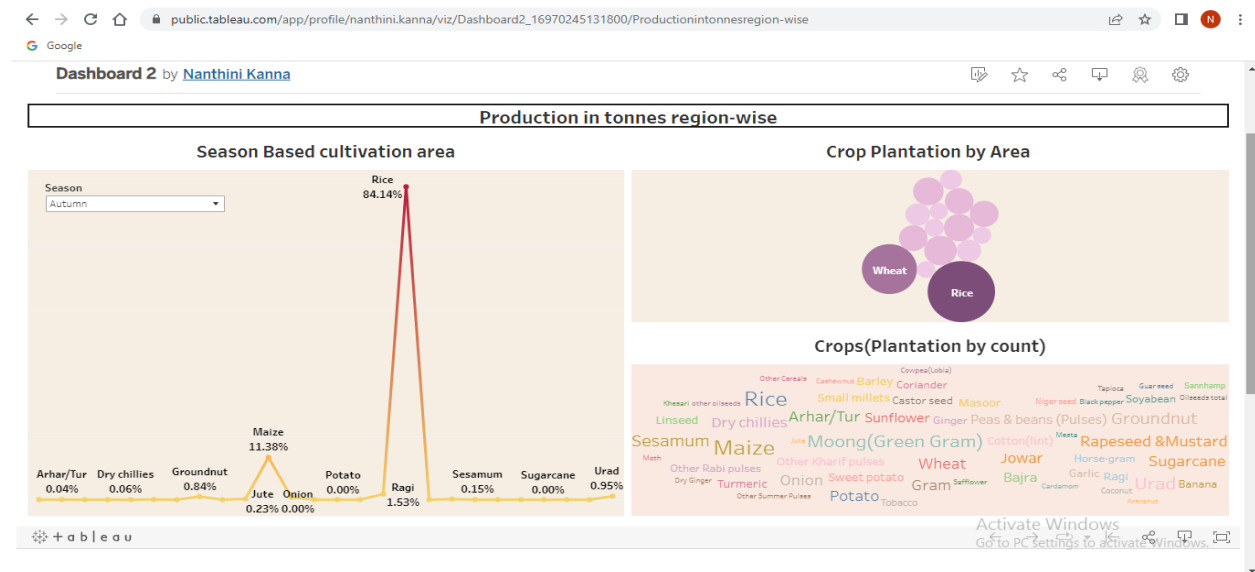**Dashboard 3** by Nanthini Kanna

Yield by season

Season [Winter ▼]

Winter
2,651

1997.. 1998.. 1999.. 2000.. 2001.. 2002.. 2003.. 2004.. 2005.. 2006.. 2007.. 2008.. 2009.. 2010.. 2011.. 2012.. 2013.. 2014.. 2015.. 2016.. 2017.. 2018.. 2019..

Major Crops

Crop
■ Rice
■ Sugarcane

32.56% 12.80% -1.65% 0.13% -3.18% -16.47% -4.1.4% 24.29% 17.2.4% 1.97% -17.79% 2.65% 16.86% 2.79% -1.82% 7.89% 4.47% -11.22% -5.47% 18.00% 5.37% -8.16%

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

Season wise production

Winter
587,750,325

Autumn
84,641,434

Rabi
3,150,456,464

Total Production
9,688,954,548

Kharif
5,622,340,392

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+ableau

6.2 Publication of Story

Story 1 by Nanthini Kanna

Insights into India's agricultural cultivation

| Indian States | Area Vs Production | Cultivation of Crops in India | Year-on-Year cultivation |

Crop
■ Rice
■ Sugarcane
■ Wheat

35.47% 0.54% -0.31% 8.35% -20.62% 22.94% -4.34% 6.43% 2.94% 3.08% 2.39% -8.69% 8.29% 9.12% 2.45% 3.47% 3.02% -11.27% 16.84% -0.64% 0.43% 13.43%

2.7 -1 7.89 4.4 -1 -5. 18.00% 5.37% -8.16%

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. CONCULSION

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.