India's Agricultural Crop Production Analysis (1997-2021)

1.Introduction

1.1 Overview:

Indian agriculture began by 9000 BCE as a result of early cultivation of plants, and domestication of crops and animals. Settled life soon followed with implements and techniques being developed for agriculture.

Farming started in the predynastic period at the end of the Paleolithic, after 10,000 BC. Staple food crops were grains such as wheat and barley, alongside industrial crops such as flax and papyrus. In India, wheat, barley and jujube were domesticated by 9,000 BC, soon followed by sheep and goats.

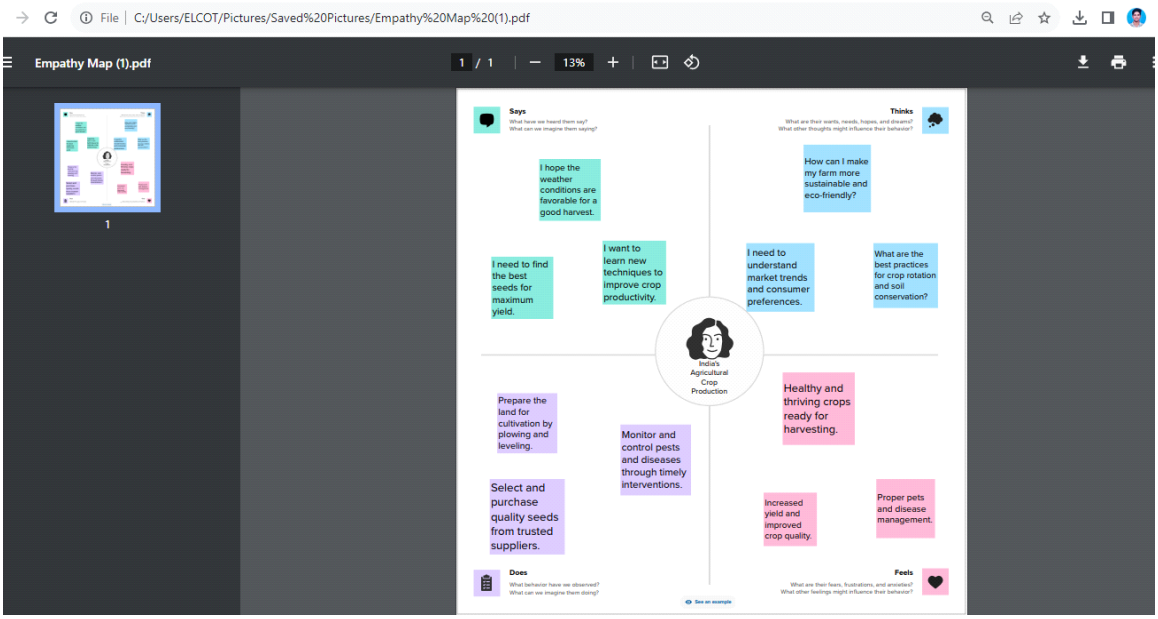
The earliest evidence of crop production has been found at Mehragarh, which yielded evidence of cultivated barley and wheat. Mehrgarh is an important Neolithic site, greatly helped in understanding the transition process from food-collecting stage to food-producing stage.

1.2 Purpose:

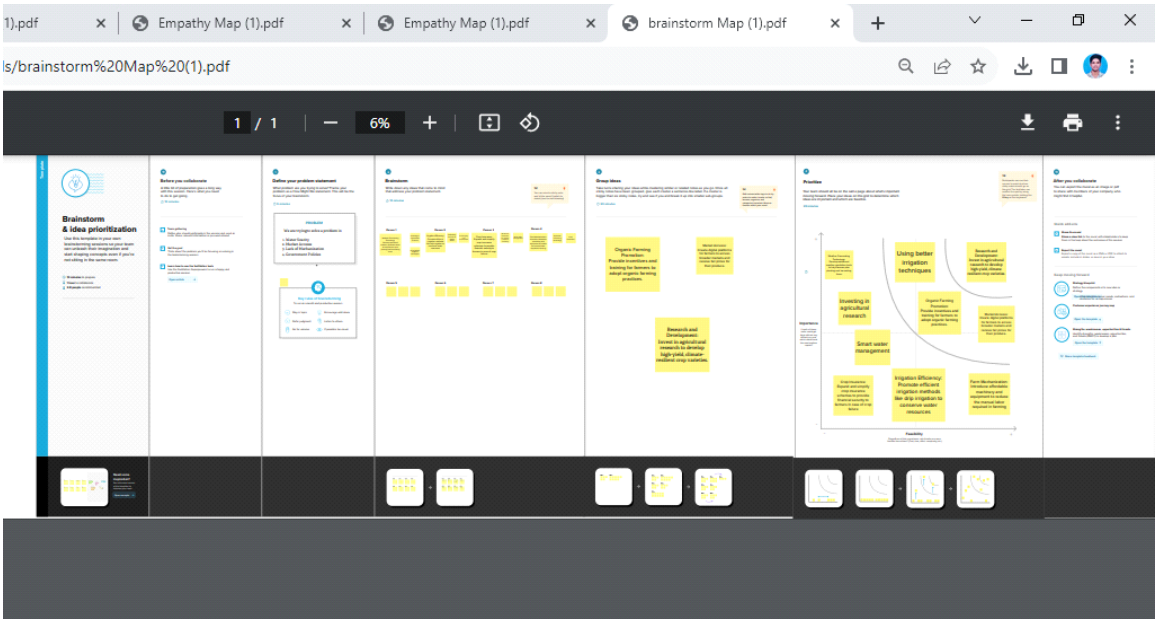
Indian agriculture sector accounts for 18 per cent of India's gross domestic product (GDP) and provides employment to 50% of the countries workforce. India is the world's largest producer of pulses, rice, wheat, spices and spice products.

2. Problem Definition & Design Thinking:

2.1 Empathy Map

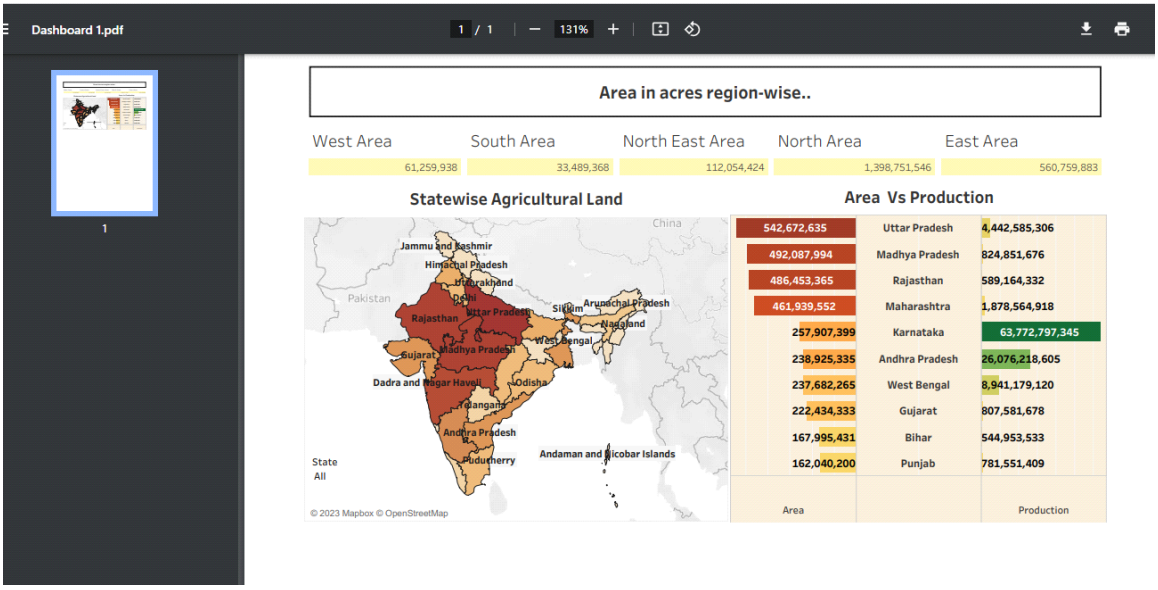


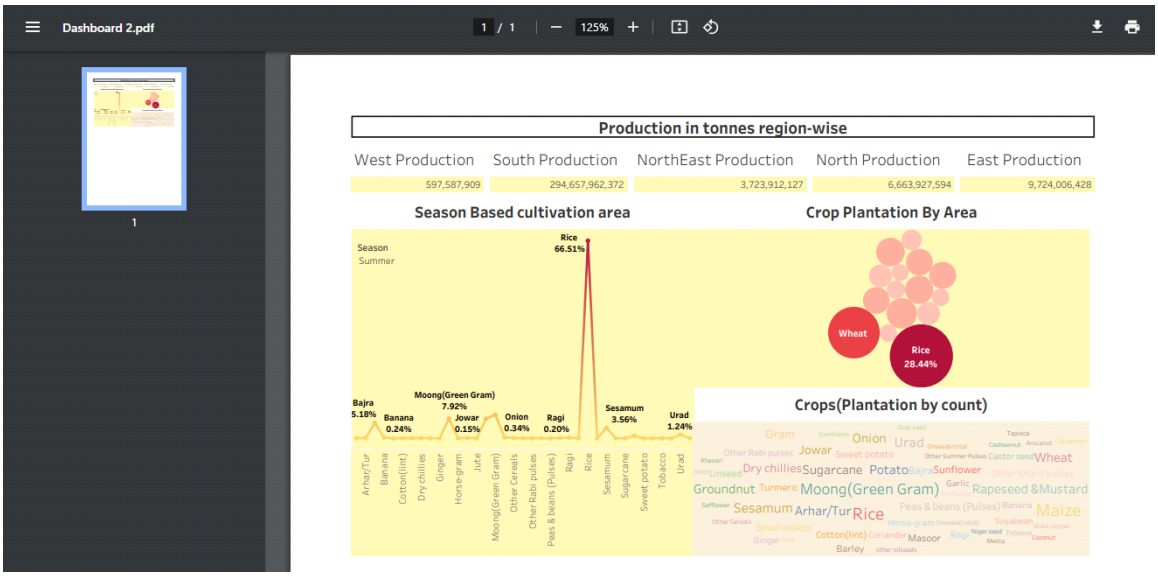
2.2 Ideation & Brainstorming Map

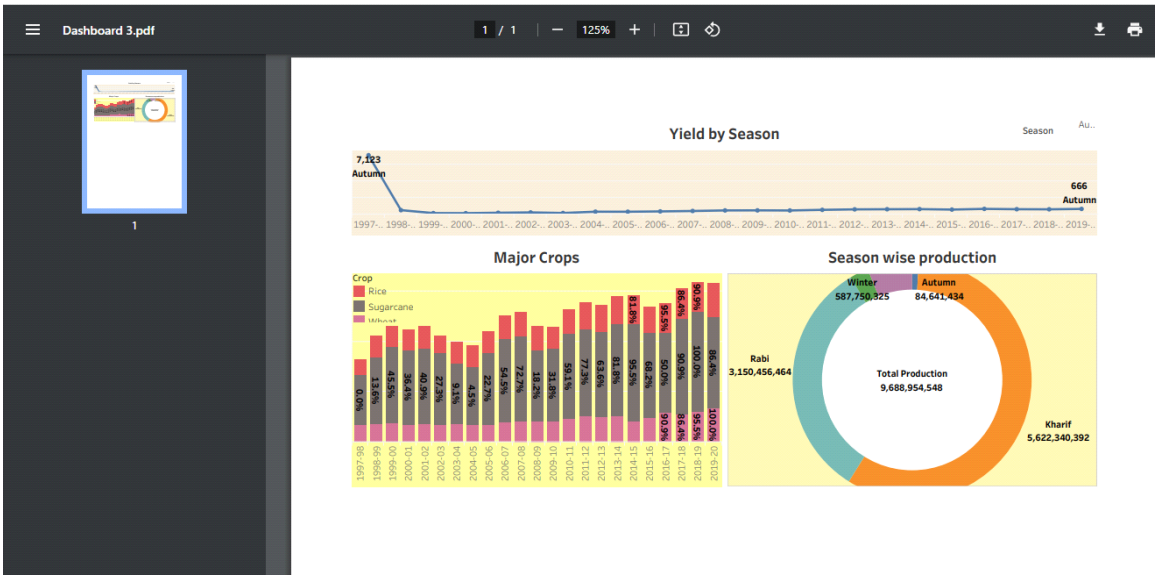


3. Result:

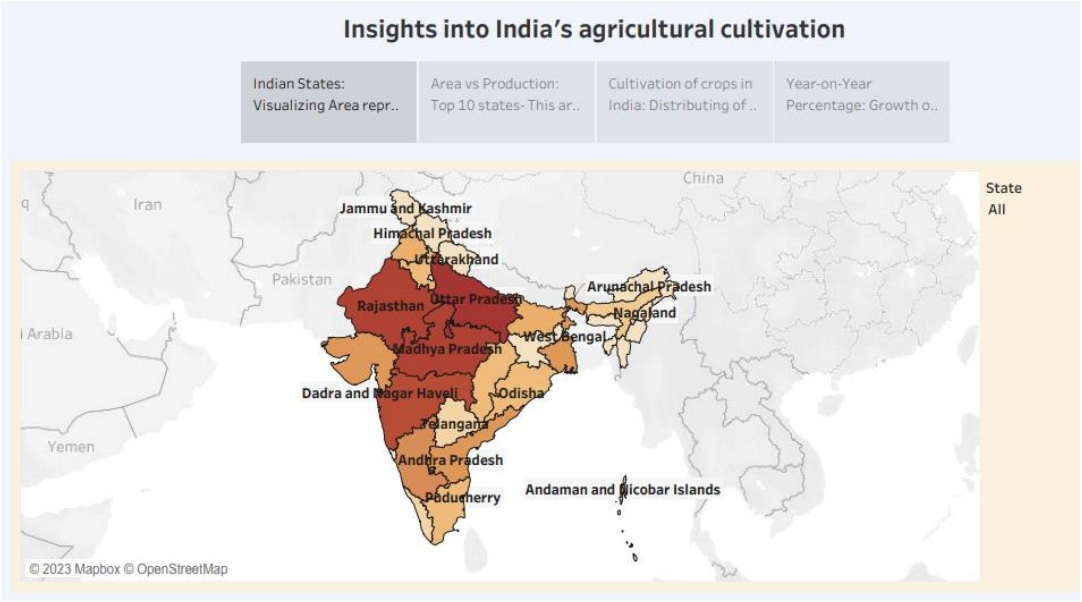
3.1 Dashboard:


Dashboard 1.pdf
1 / 1
131%
1
Area in acres region-wise..
West Area
South Area
North East Area
North Area
East Area
61,259,938
33,489,368
112,054,424
1,398,751,546
560,759,883
Statewise Agricultural Land
Area Vs Production
Jammu and Kashmir
Himachal Pradesh
Uttarakhand
Delhi
Uttar Pradesh
Rajasthan
Sikkim
Arunachal Pradesh
Nagaland
West Bengal
Gujarat
Madhya Pradesh
Dadra and Nagar Haveli
Odisha
Telangana
Andhra Pradesh
Puducherry
Andaman and Nicobar Islands
China
Pakistan
State
All
© 2023 Mapbox © OpenStreetMap
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


Dashboard 2.pdf
1 / 1
125%
1
Production in tonnes region-wise
West Production
South Production
NorthEast Production
North Production
East Production
597,587,909
294,657,962,372
3,723,912,127
6,663,927,594
9,724,006,428
Season Based cultivation area
Crop Plantation By Area
Season
Summer
Rice 66.51%
Bajra 5.18%
Banana 0.24%
Moong(Green Gram) 7.92%
Jowar 0.15%
Onion 0.34%
Ragi 0.20%
Sesamum 3.56%
Urad 1.24%
Arhar/Tur
Banana
Cotton(lint)
Dry chillies
Ginger
Horse-gram
Jute
Moong(Green Gram)
Other Cereals
Other Rabi pulses
Peas & beans (Pulses)
Ragi
Rice
Sesamum
Sugarcane
Sweet potato
Tobacco
Urad
Wheat
Rice 28.44%
Crops(Plantation by count)
Gram
Onion
Urad
Jowar
Sweet potato
Wheat
Dry chillies
Sugarcane
Potato
Sunflower
Groundnut
Turmeric
Moong(Green Gram)
Rapeseed &Mustard
Sesamum
Arhar/Tur
Rice
Maize
Cotton(lint)
Masoor
Barley


Dashboard 3.pdf
1 / 1
125%
1
Yield by Season
Season
7.123
Autumn
666
Autumn
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
Season wise production
Winter
587,750,825
Autumn
84,641,434
Rabi
3,150,456,464
Total Production
9,688,954,548
Kharif
5,622,340,392

3.2 Story:


Insights into India's agricultural cultivation
Indian States: Visualizing Area repr..
Area vs Production: Top 10 states- This ar..
Cultivation of crops in India: Distributing of ..
Year-on-Year Percentage: Growth o..
China
Iran
Pakistan
Arabia
Yemen
Jammu and Kashmir
Himachal Pradesh
Uttarakhand
Rajasthan
Uttar Pradesh
Arunachal Pradesh
Nagaland
West Bengal
Madhya Pradesh
Dadra and Nagar Haveli
Odisha
Telangana
Andhra Pradesh
Puducherry
Andaman and Nicobar Islands
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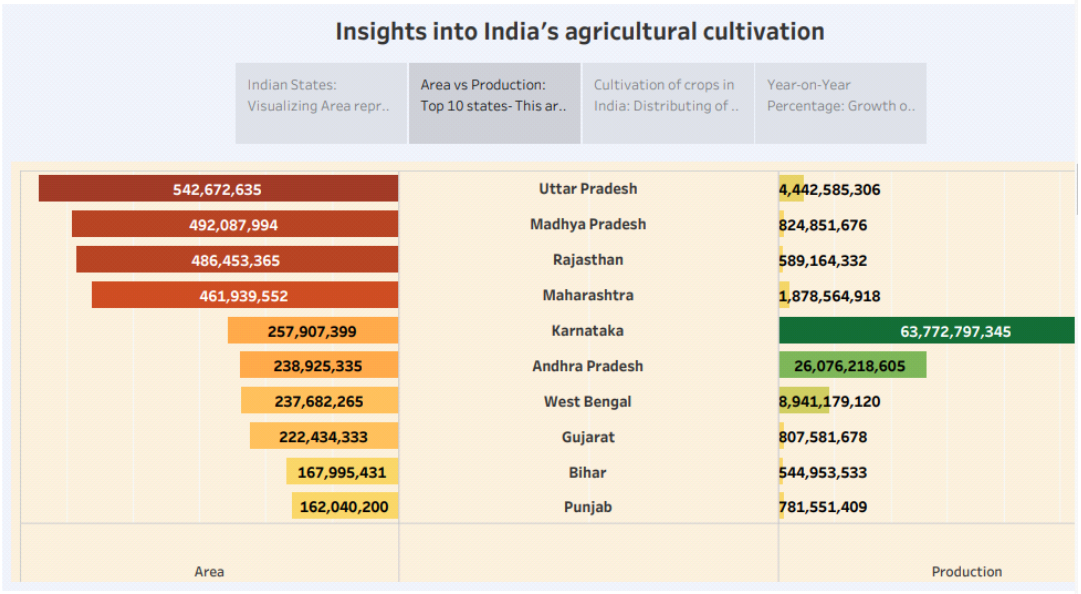
State
All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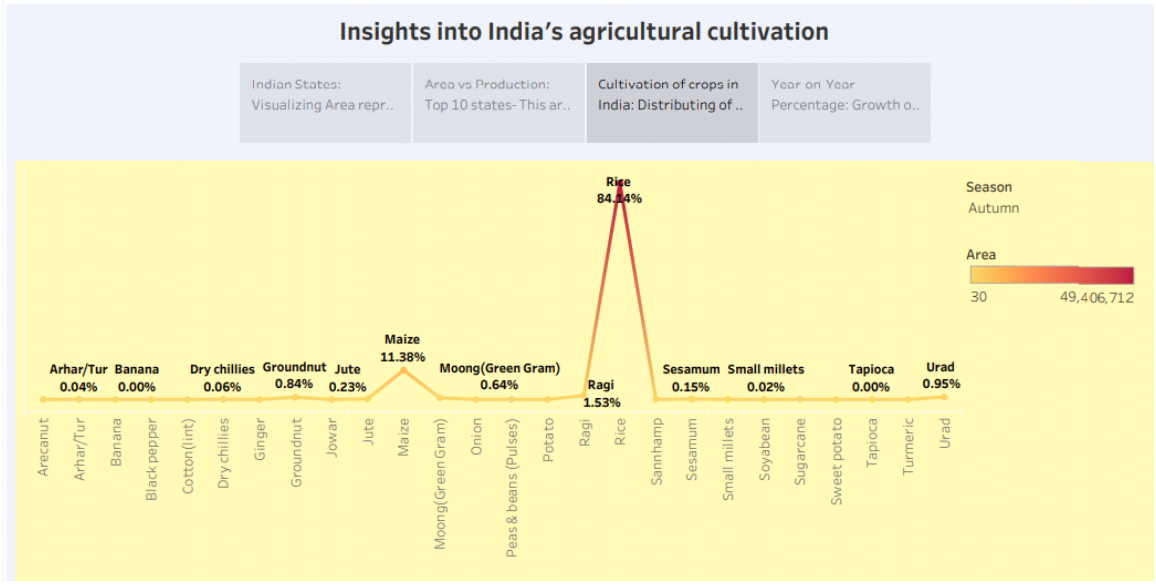
Area
Production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Cultivation of crops in India: Distributing of ..
Year on Year Percentage: Growth o..
Season
Autumn
Area
30
49,406,712
Arhar/Tur 0.04%
Banana 0.00%
Dry chillies 0.06%
Groundnut 0.84%
Jute 0.23%
Maize 11.38%
Moong(Green Gram) 0.64%
Ragi 1.53%
Rice 84.14%
Sesamum 0.15%
Small millets 0.02%
Tapioca 0.00%
Urad 0.95%
Arecanut
Arhar/Tur
Banana
Black pepper
Cotton(lint)
Dry chillies
Ginger
Groundnut
Jowar
Jute
Maize
Moong(Green Gram)
Onion
Peas & beans (Pulses)
Potato
Ragi
Rice
Sannhamp
Sesamum
Small millets
Soyabean
Sugarcane
Sweet potato
Tapioca
Turmeric
Urad

Insights into India's agricultural cultivation

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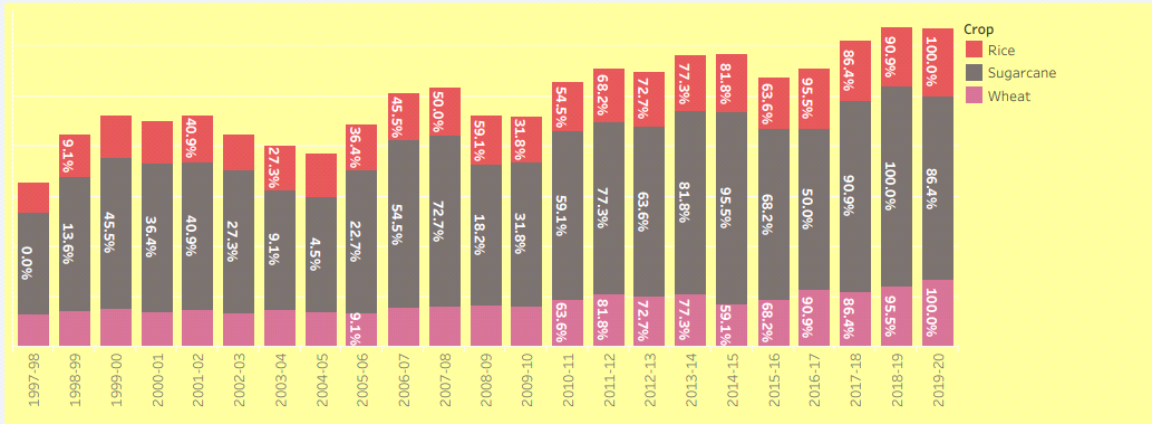
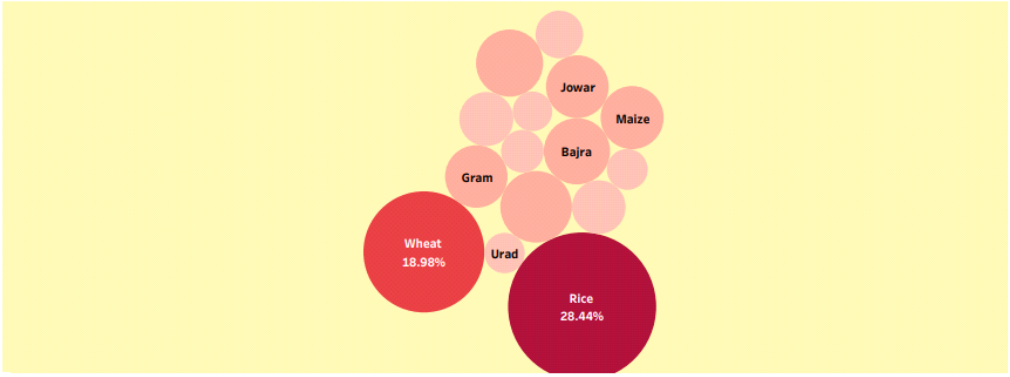


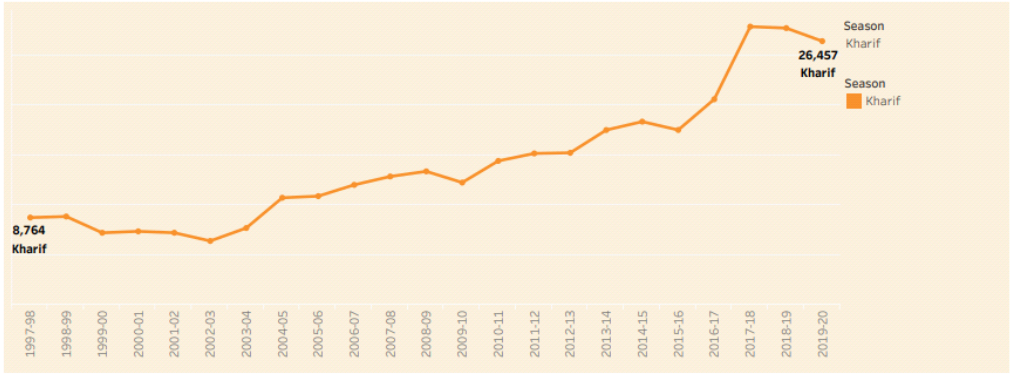
Insights into India's agriculture cultivation

Crop Planting Percentage: | Crop Yield Growth: | Word cloud: | Crop Production in Tonnes:



Insights into India's agriculture cultivation

Crop Planting Percentage: | **Crop Yield Growth:** | Word cloud: | Crop Production in Tonnes:



Insights into India's agriculture cultivation

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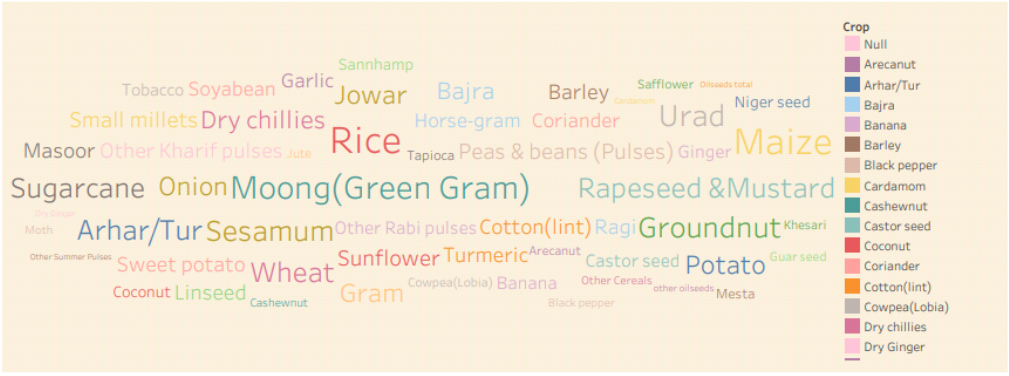

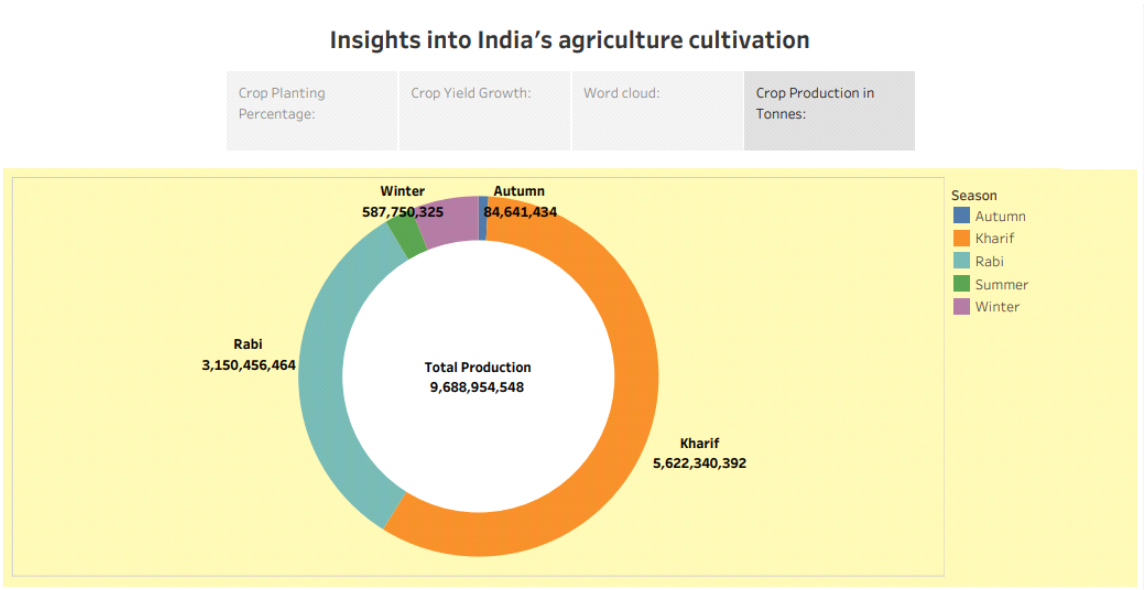

4. Advantages & Disadvantages

Advantages:

Agriculture impacts society in many ways, including: supporting livelihoods through food, habitat, and jobs; providing raw materials for food and other products; and building strong economies through trade.

Disadvantages:

1. Deforestation. Intensive farming causes soil degradation and leads to the expansion of new lands. ...

2.Pest and weed resistance to chemicals. ...

3.Soil degradation. ...

4.Impact on natural habitats. ...

5.Water pollution. ...

6.Climate change.

5. Application:

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6. Conclusion:

In conclusion, Agriculture has given so much to society. But it has its own pros and cons that we can't overlook. Furthermore, the government is doing his every bit to help in the growth and development of agriculture; still, it needs to do something for the negative impacts of agriculture.

7. Future Scope:

Is agriculture good for future? Yes, agriculture is good for the future as it is expected to use advanced technologies and innovations to produce more food with limited land and resources, increase efficiency on farms, and become more profitable, efficient, safe, and environment friendly.