India’s Agricultural Crop Production Analysis (1997 – 2021)

PROJECT REPORT

1 INTRODUCTION

1.1 Overview

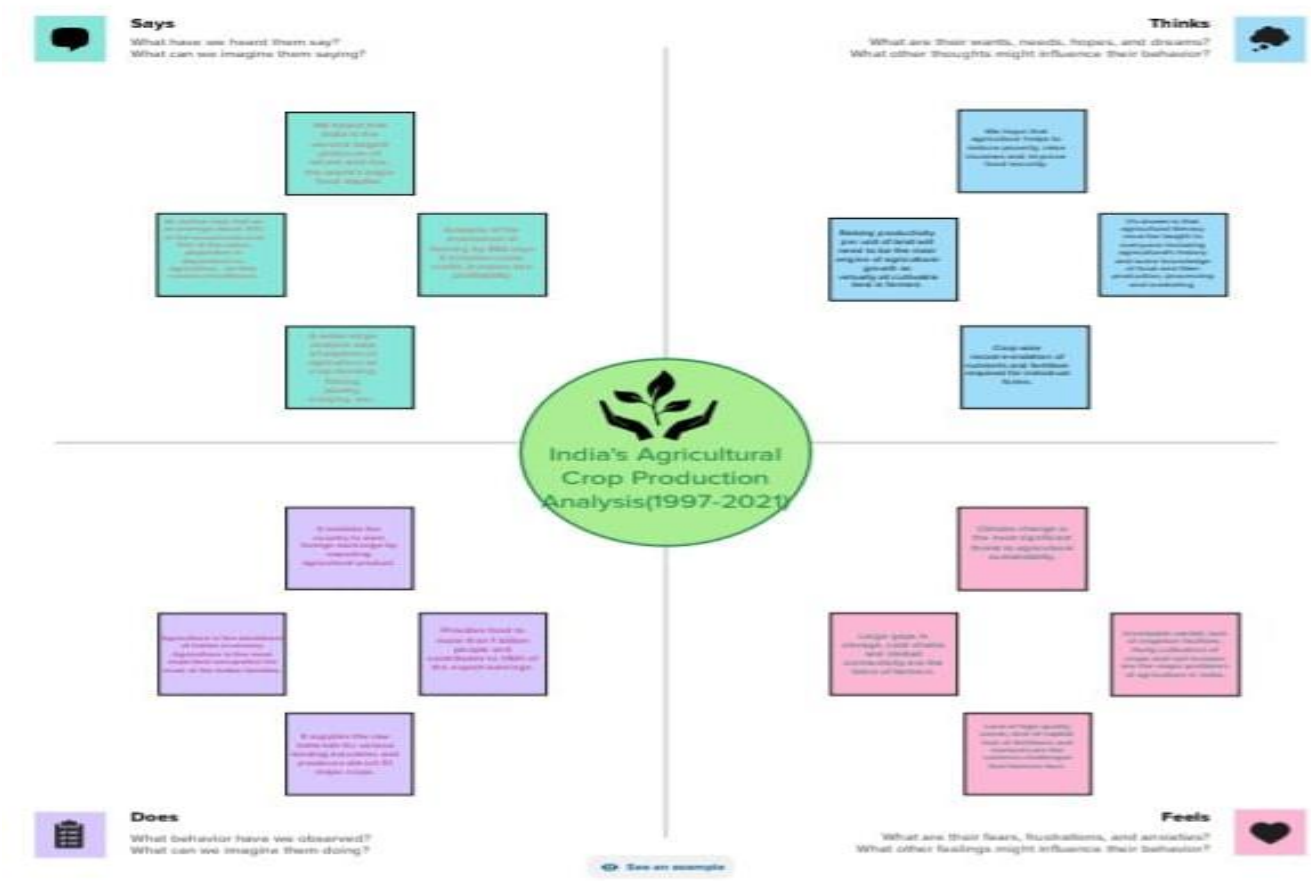
This report delves into the captivating realm of India’s agricultural cultivation, providing a comprehensive visual exploration of key aspects and trends in the agricultural sector. Through the visual representations, readers can gain valuable insights into crop production, seasonal variations, regional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

1.2 Purpose

Crop production is a common agricultural practice followed by worldwide farmers to grow and produce crops to use as food and fibre. This project includes all the feed sources that are required to maintain and produce crops, so they can increase their yield production using this data.

2 Problem Definition & Design Thinking

2.1 Empathy Map

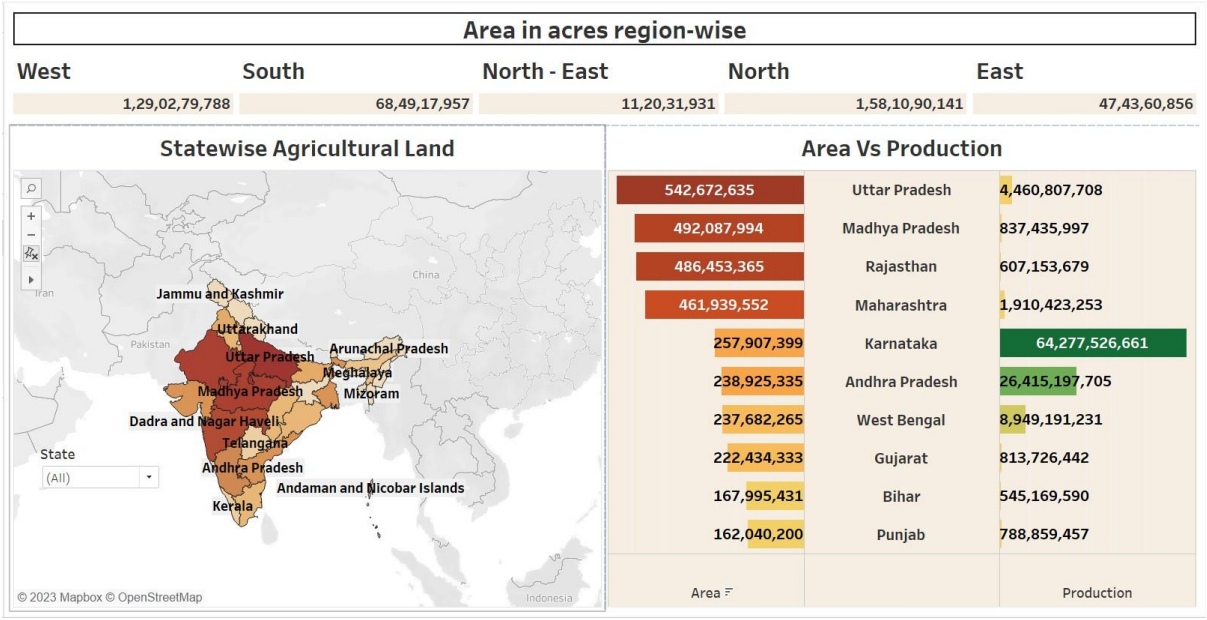


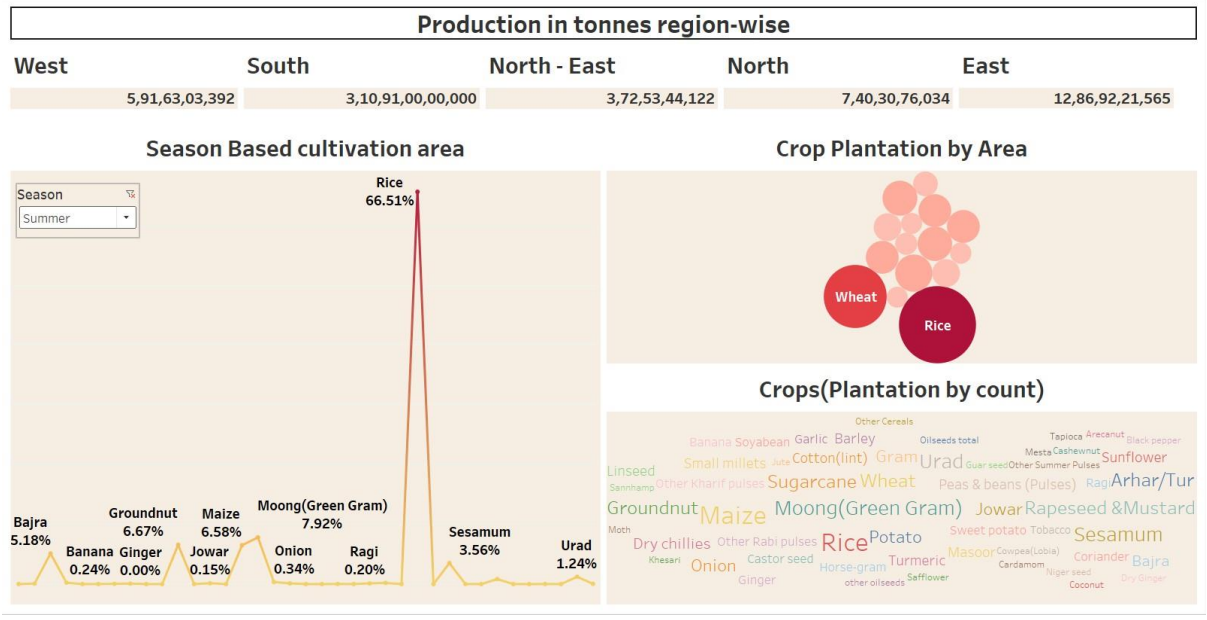
2.2 Ideation & Brainstorming Map

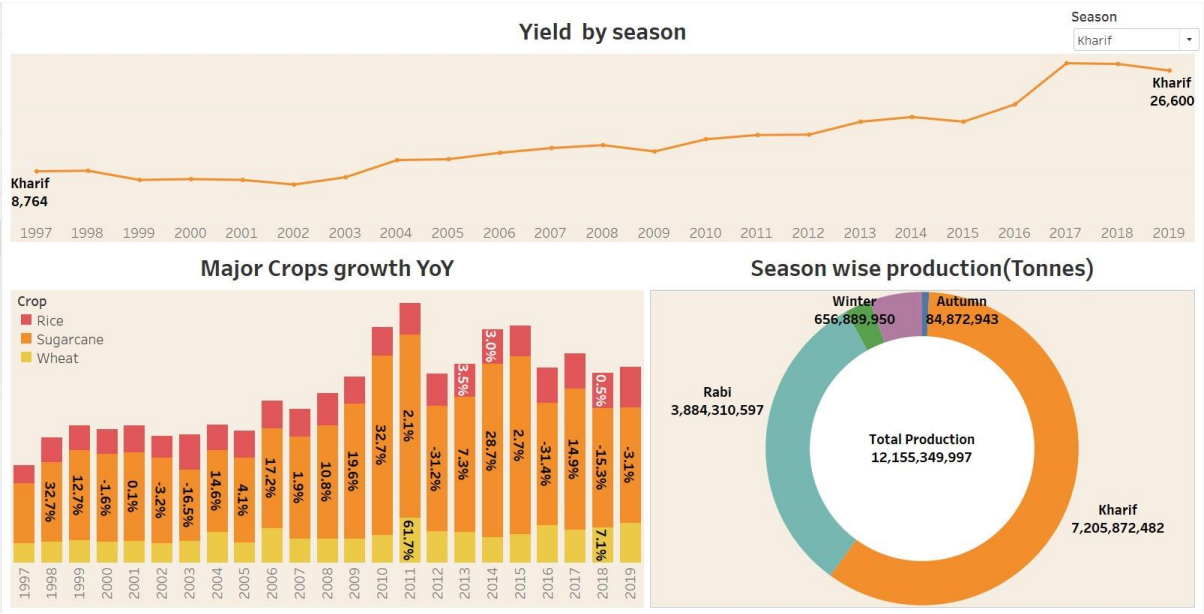
3 RESULT

3.1 Data Model

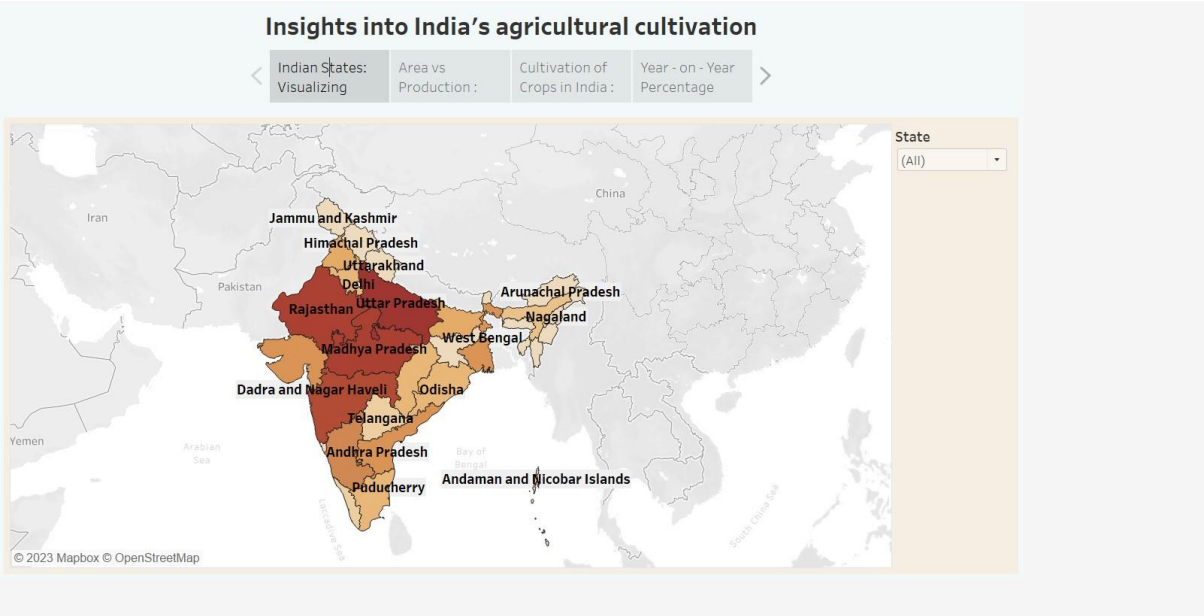
3.1.1 Dashboard






Yield by season
Season
Kharif
Kharif
26,600
Kharif
8,764
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 growth YoY
Crop
Rice
Sugarcane
Wheat
32.7% 12.7% -1.6% 0.1% -3.2% -16.5% 14.6% 4.1% 17.2% 1.9% 10.8% 19.6% 32.7% 2.1% -31.2% 7.3% 28.7% 3.0% 2.7% -31.4% 14.9% -15.3% 0.5% -3.1%
61.7% 7.1%
1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
Season wise production(Tonnes)
Winter
656,889,950
Autumn
84,872,943
Rabi
3,884,310,597
Total Production
12,155,349,997
Kharif
7,205,872,482

3.1.2 Story


Insights into India's agricultural cultivation
Indian States: Visualizing
Area vs Production :
Cultivation of Crops in India :
Year - on - Year Percentage
State
(All)
China
Iran
Pakistan
Yemen
Arabian Sea
Bay of Bengal
Jammu and Kashmir
Himachal Pradesh
Uttarakhand
Delhi
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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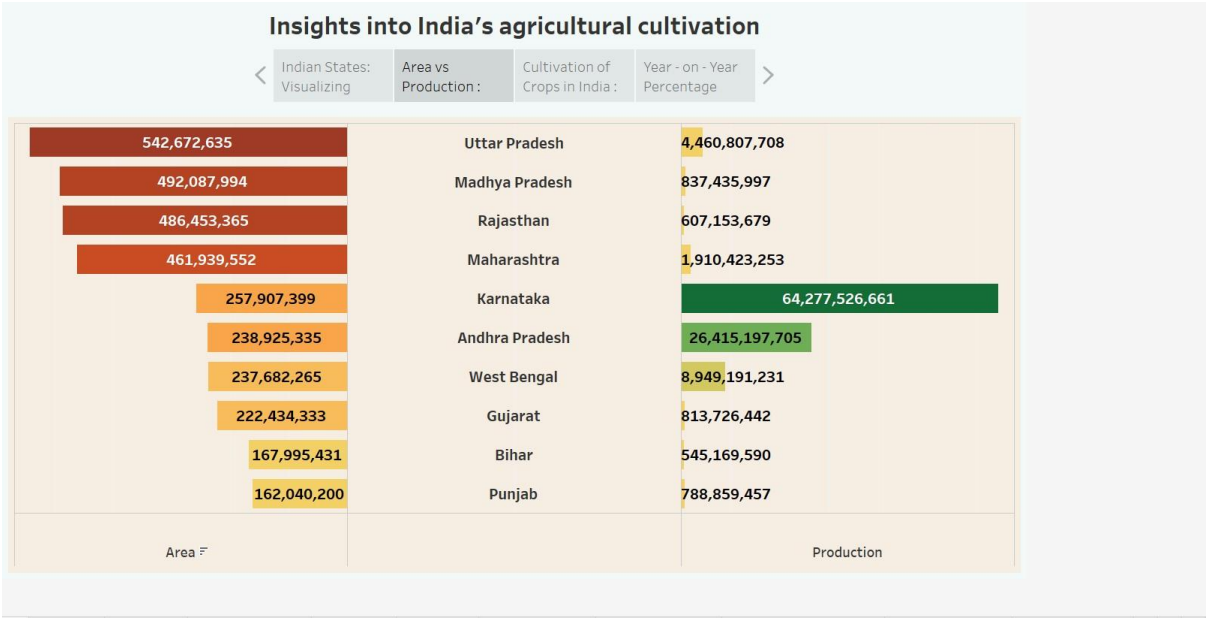
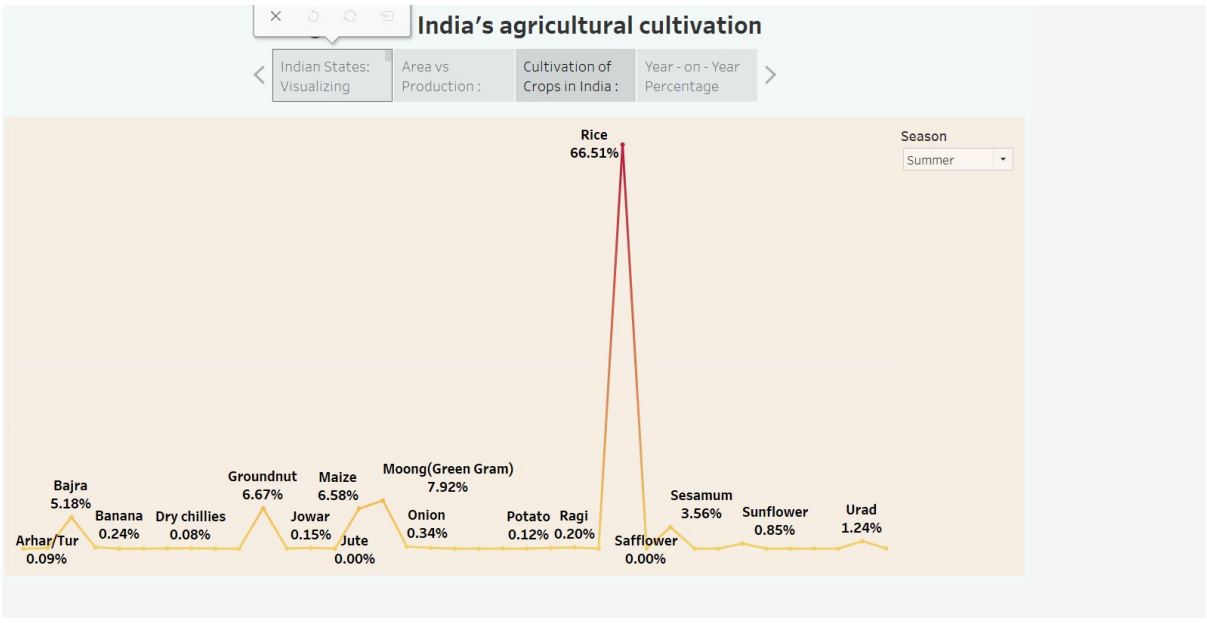

Insights into India's agricultural cultivation
Indian States: Visualizing
Area vs Production :
Cultivation of Crops in India :
Year - on - Year Percentage
542,672,635
Uttar Pradesh
4,460,807,708
492,087,994
Madhya Pradesh
837,435,997
486,453,365
Rajasthan
607,153,679
461,939,552
Maharashtra
1,910,423,253
257,907,399
Karnataka
64,277,526,661
238,925,335
Andhra Pradesh
26,415,197,705
237,682,265
West Bengal
8,949,191,231
222,434,333
Gujarat
813,726,442
167,995,431
Bihar
545,169,590
162,040,200
Punjab
788,859,457
Area
Production

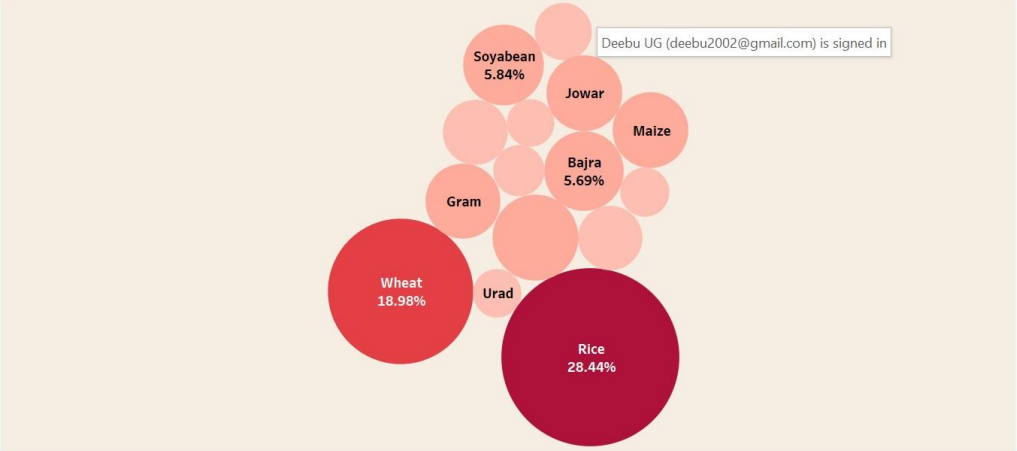

India's agricultural cultivation
Indian States: Visualizing
Area vs Production :
Cultivation of Crops in India :
Year - on - Year Percentage
Season
Summer
Rice 66.51%
Bajra 5.18%
Groundnut 6.67%
Maize 6.58%
Moong(Green Gram) 7.92%
Sesamum 3.56%
Urad 1.24%
Arhar/Tur 0.09%
Banana 0.24%
Dry chillies 0.08%
Jowar 0.15%
Jute 0.00%
Onion 0.34%
Potato 0.12%
Ragi 0.20%
Safflower 0.00%
Sunflower 0.85%

Insights into India's agricultural cultivation

Indian States: Visualizing | Area vs Production : | Cultivation of Crops in India : | Year - on - Year Percentage

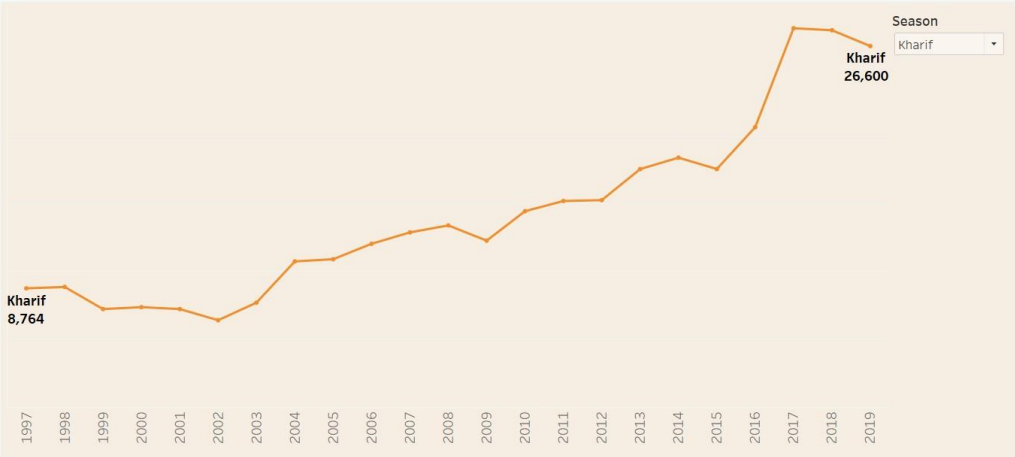
Insights into India's agricultural cultivation

Crop Planting Percentage : | Crop Yield Growth : Year | Word Cloud : The following | Crop Production in



Insights into India's agricultural cultivation

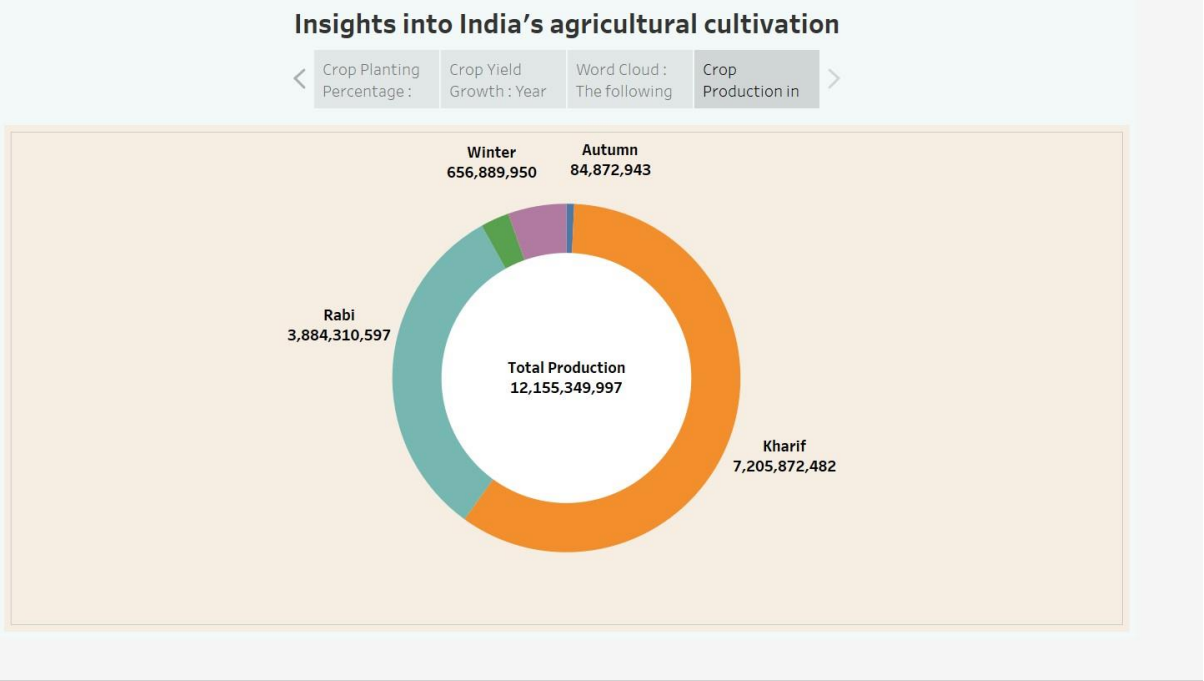
Crop Planting Percentage : | Crop Yield Growth : Year | Word Cloud : The following | Crop Production in



Insights into India's ultivation

Revert

Crop Planting Percentage : | Crop Yield Growth : Year | Word Cloud : The following | Crop Production in



4 ADVANTAGES & DISADVANTAGES

4.1 Advantages

- Increased efficiency.
- Improved crop quality.
- Reduced environmental impact.
- Increased food production.
- Economic benefits.

4.2 Disadvantages

- Soil erosion.
- Irrigation problems.
- Lack of high quality seeds.
- Climate change.

5 APPLICATIONS

- Biotechnology and genetic engineering have resulted in pest resistance and increased crop yields.
- Enhancing soil quality.
- Modernisation in agriculture.
- Efficient markets.

6 CONCLUSION

Indian economy is predominantly dependent on the agricultural sector supports the industrial as well as international trade in both imports and exports. Even though the contribution of agriculture is reducing gradually, it is still the most important sector on which most of the working population depends on.

7 FUTURE SCOPE

- Studying the nature of the soil.
- Changing the traits of plants.
- Developing new varieties of plants.
- Studying the heredity of plants.
- Studying the causes of diseases in plants.