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

DATA ANALYSIS WITH TABLEAU

Project Submitted To Bharathiyar University For Naan Mudhalvan Scheme For The Award Of The Degree Of

B.Sc.PHYSICS

Submitted By

||| - B.Sc.Physics Students

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1.INTRODUCTION

1.1 Over View:

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:

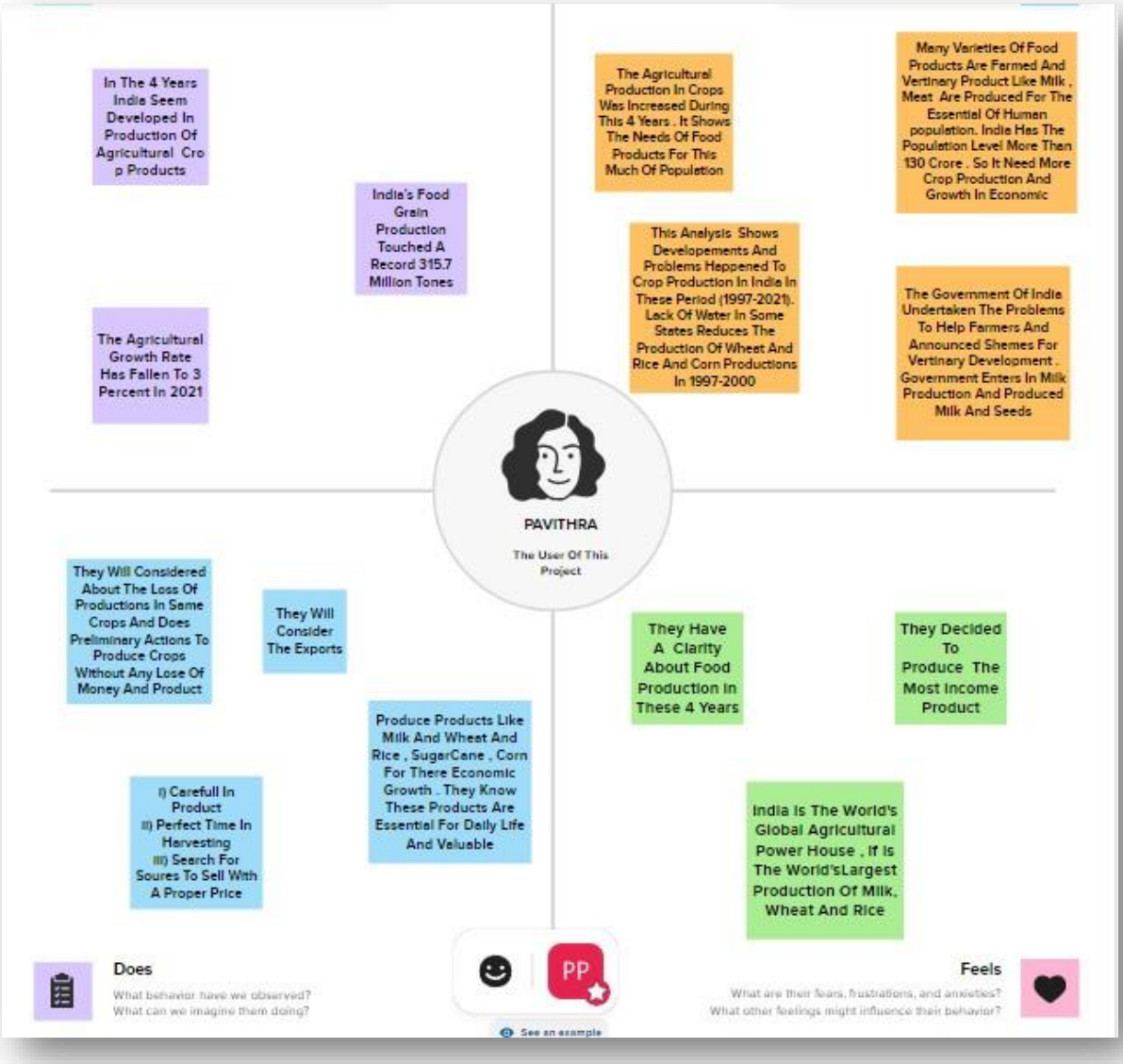
With the tableau , data analysis will be done very easily by giving dataset as a input we can easily make visualizations to understand the data.Data Visualization is a pictorial representation of a Dataset or Information Using Maps, Graphs, Charts and other visual elements. Data Visualization helps in an easy understanding of the trend, insights, patterns, and other connections in a Dataset. Tableau is one of the most popular Data Visualization tools used by many enterprises and businesses to gain better insights into their data to offer the best customer experience.

The Project (topic) Analysed with the Graphics, And Charts by using tableau it will help us to understand how many changes and development happened during this past years.

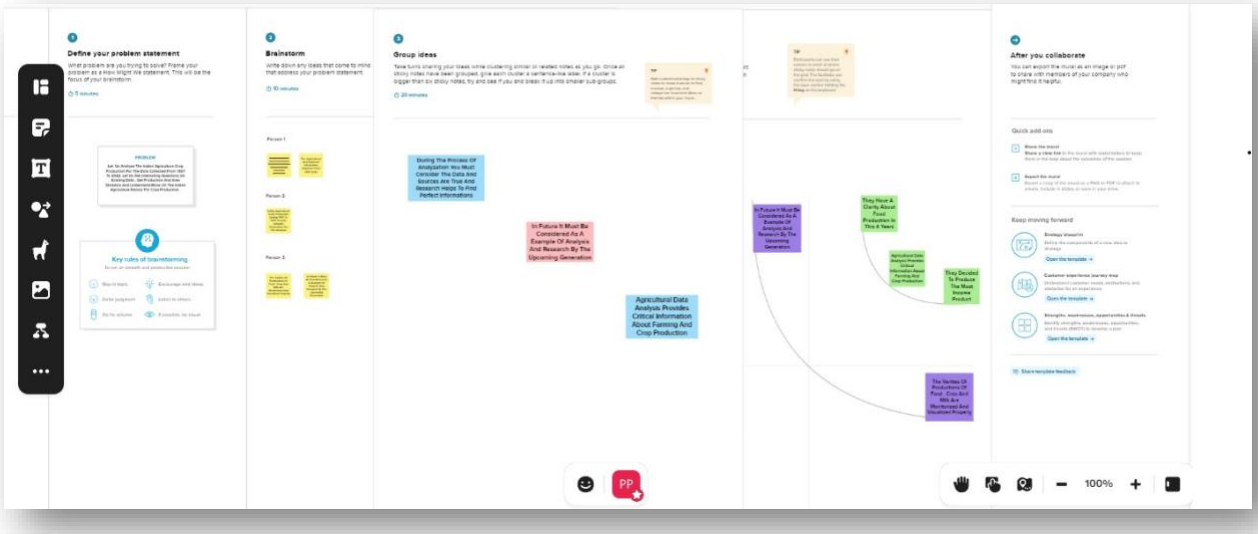
With the Data set we can analyse every single problem and give easy visual solution by using Tableau.

2.PROBLEM DEFINITION & DESIGN THINKING

EMPATHY MAP



- **IDEATION & BRAINSTORMING**



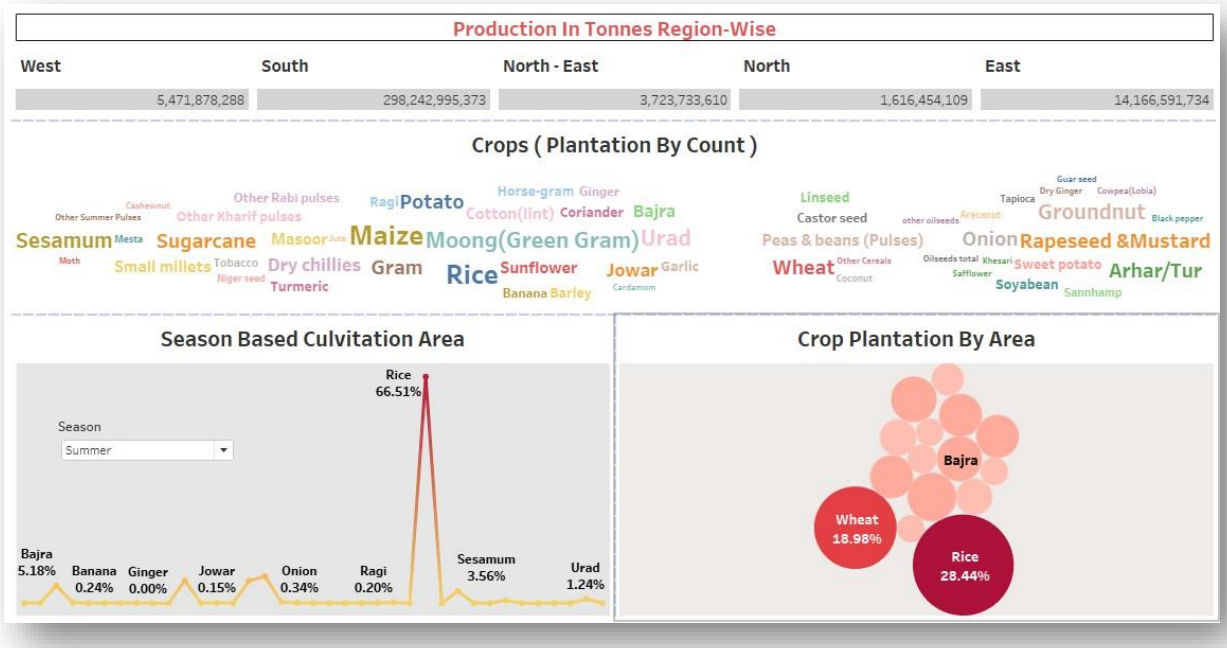
DATA SET

[Download Link](#) ← Click Here

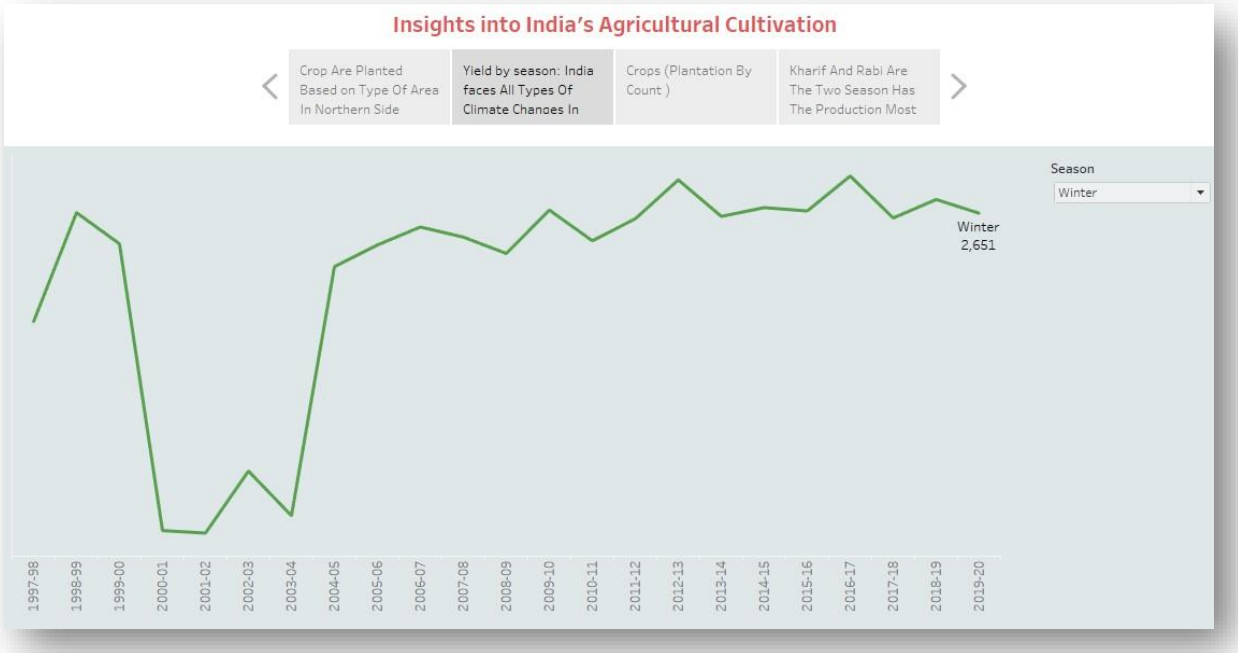
DASHBOARD

[Download Link](#) ← Click Here

(Dashboard And Story Tableau Public Link)


Production In Tonnes Region-Wise
West
South
North - East
North
East
5,471,878,288
298,242,995,373
3,723,733,610
1,616,454,109
14,166,591,734
Crops (Plantation By Count)
Season Based Culvitation Area
Season
Summer
Rice 66.51%
Bajra 5.18%
Banana 0.24%
Ginger 0.00%
Jowar 0.15%
Onion 0.34%
Ragi 0.20%
Sesamum 3.56%
Urad 1.24%
Crop Plantation By Area
Bajra
Wheat 18.98%
Rice 28.44%

STORY


Insights into India's Agricultural Cultivation
Crop Are Planted Based on Type Of Area In Northern Side
Yield by season: India faces All Types Of Climate Changes In
Crops (Plantation By Count)
Kharif And Rabi Are The Two Season Has The Production Most
Season
Winter
Winter 2,651
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

ADVANTAGES

- The Data set used is very detailed.
- The Crop Production analysis was easily analysed by using tableau features.
- The Map shows where was the majority of production happened and minority respectively.
- The Graph shows the increase and decrease of crop variety production from 1997-2021.
- Key Crops by production over the years.
- Relationship between area under production & Magnitude production.
- Changes in crop production pattern over the years.
- Millions of rows of data can be handled with efficiency via Tableau. Large amounts of data can be used to generate a variety of visualization's without compromising the dashboard's performance. Additionally, Tableau has a feature that allows users to create " Live" connections to other data sources, such as SQL , Etc.....

DISADVANTAGES

- Tableau focuses primarily on visualization and cannot work with uncleaned data.
- Lacks data modeling and data dictionary capabilities for data analysts.
- Their support is very poor and some users said that they have to solve the issues by themselves.
- Poor versioning.
- No automatic refreshing of reports.
- Need Manual efforts.
- Not a comprehensive solution.
- No version control.
- SQL Knowledge.

CONCLUSION

By Using the fliters and visual tools text type data is converted into visualized data. By this we can easily analyse the problems and analyse data of **Indian Agricultural Crop Production.**