1 INTRODUCTION

1.1 Overview

In my project on the theme - Horticulture, I aim to observe and focus on the vegetable production and yield across the various states of India between the years 2009-2015.

1.2 Purpose

The project can be applied to point out which states amongst India fruitfully utilize and allocate area for production of vegetables, what the growth rate is like, and what measures should be taken to provide the ultimate yield so as to generate maximum quantity at good value.

2 LITERATURE SURVEY

2.1 Existing Problem

Presently in the horticultural industry, a simple strategy is followed to maximise production for all crops. Uttarpradesh alone for example produces approx. 1/3rd of all of India's potatoes.

2.2 Proposed Solution

By calculating and comparing the yield (Producton/Area), comparing each state, and allocating more area to good yielding crops while cutting down wasted area not poor yielding crops. Uttarpradesh in this respect produces highest yield for cabbage and c. flower, while their largest produce of potato, while still impressive, utilizes unnecesarily too much land creating poor yield.

3 THEORATICAL ANALYSIS

3.1 Block Diagram

3.2 Hardware/Software designing

A fully functioning laptop that can run Tableau, Microsoft Excel, and Firefox.

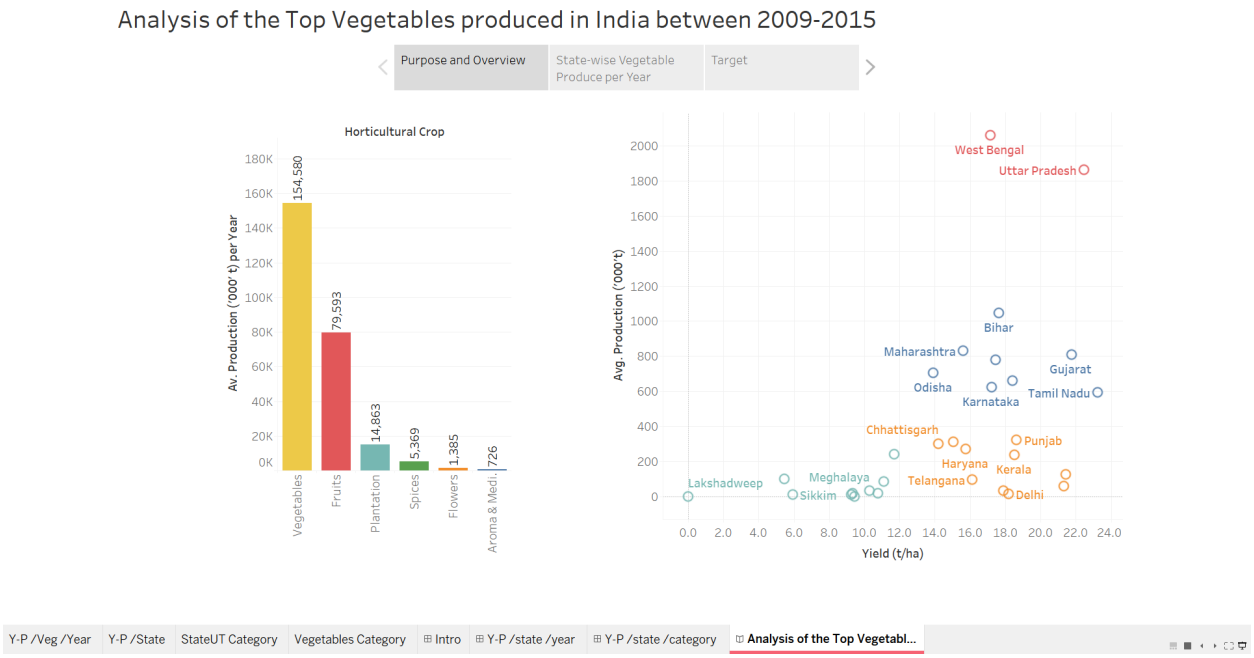
4 EXPERIMENT INVESTIGATIONS

States were divided into 4 main clusters based on yield-production scattergraph and categorised as Top, Above average, Below average, and Poor performing. This made it clear as to what states to focus on.

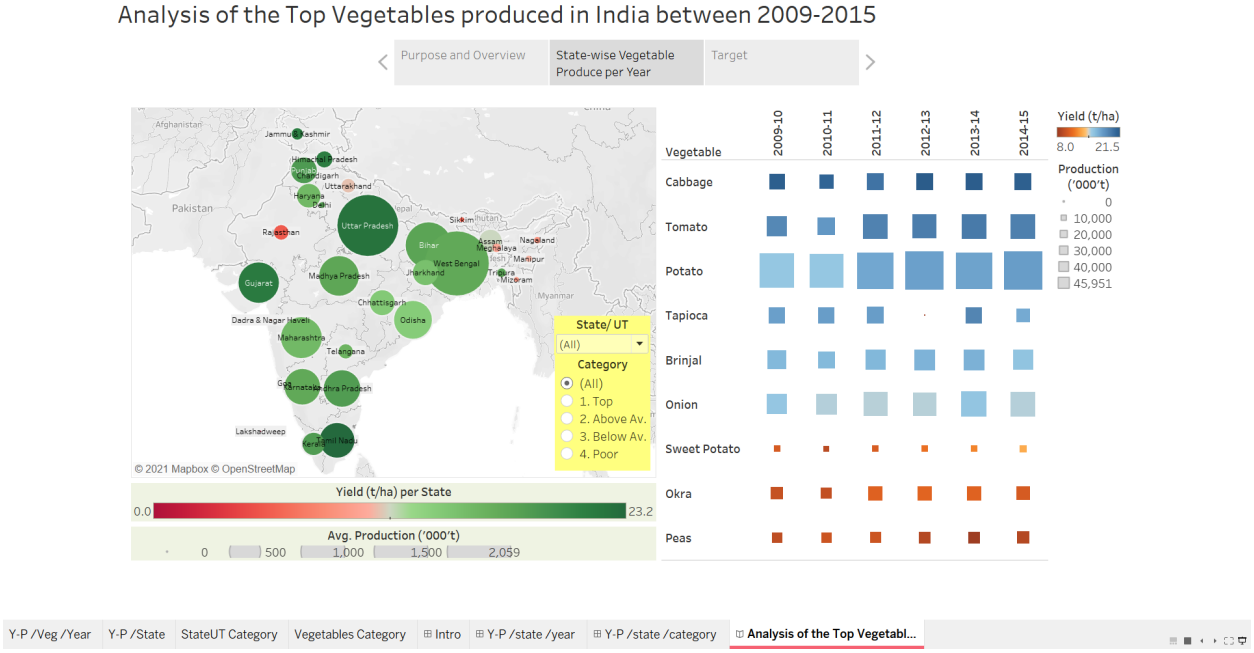
Another compasion on a yield-production scattergraph of vegetables for each state allows us to see what action must be taken for each crop.

5 RESULT

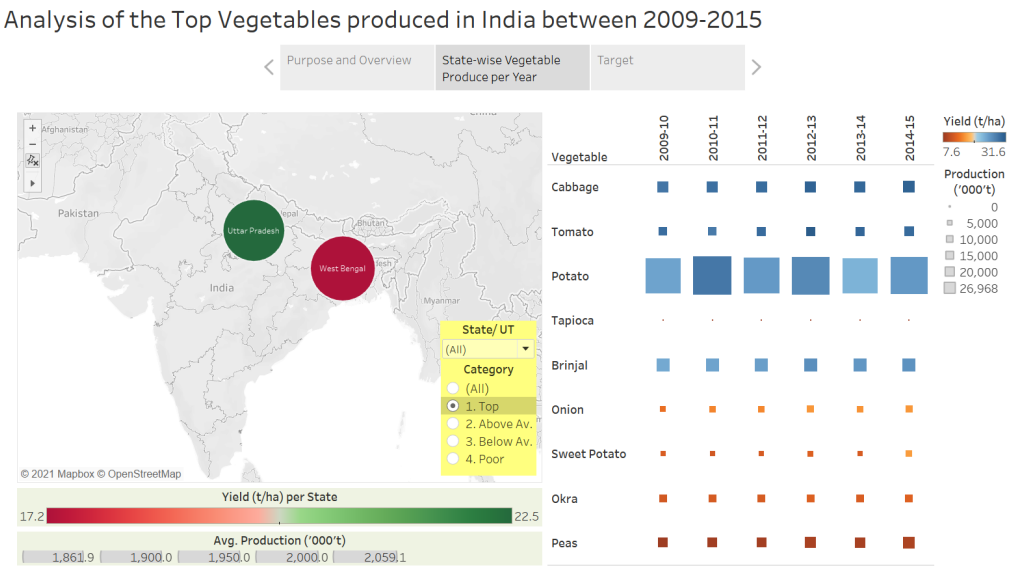
Categorising States



All State vegetable production between the years 2009-2015

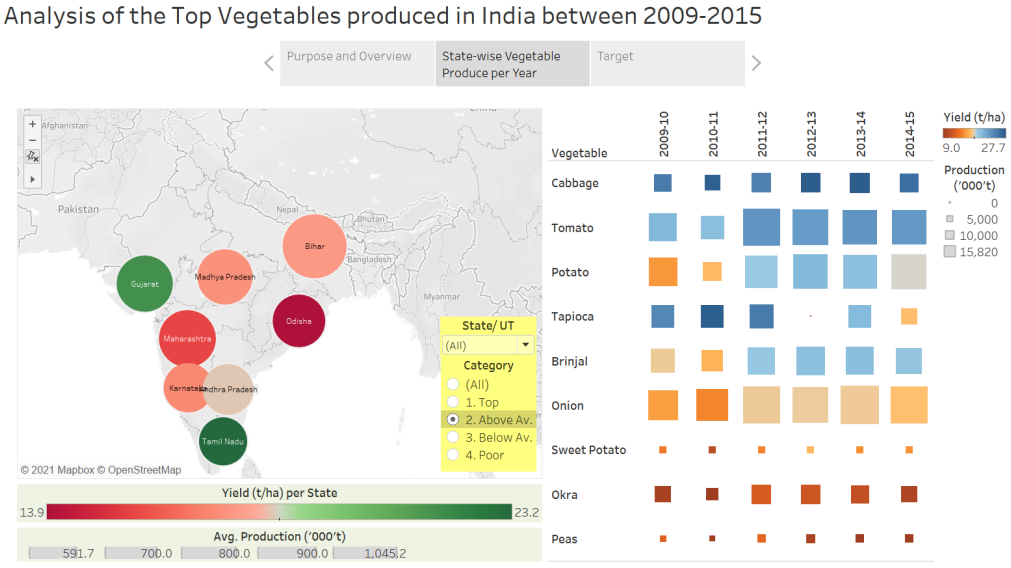


Top performing states focus



Y-P /Veg /Year | Y-P /State | StateUT Category | Vegetables Category | Intro | Y-P /state /year | Y-P /state /category | Analysis of the Top Vegetabl...

Above average states focus



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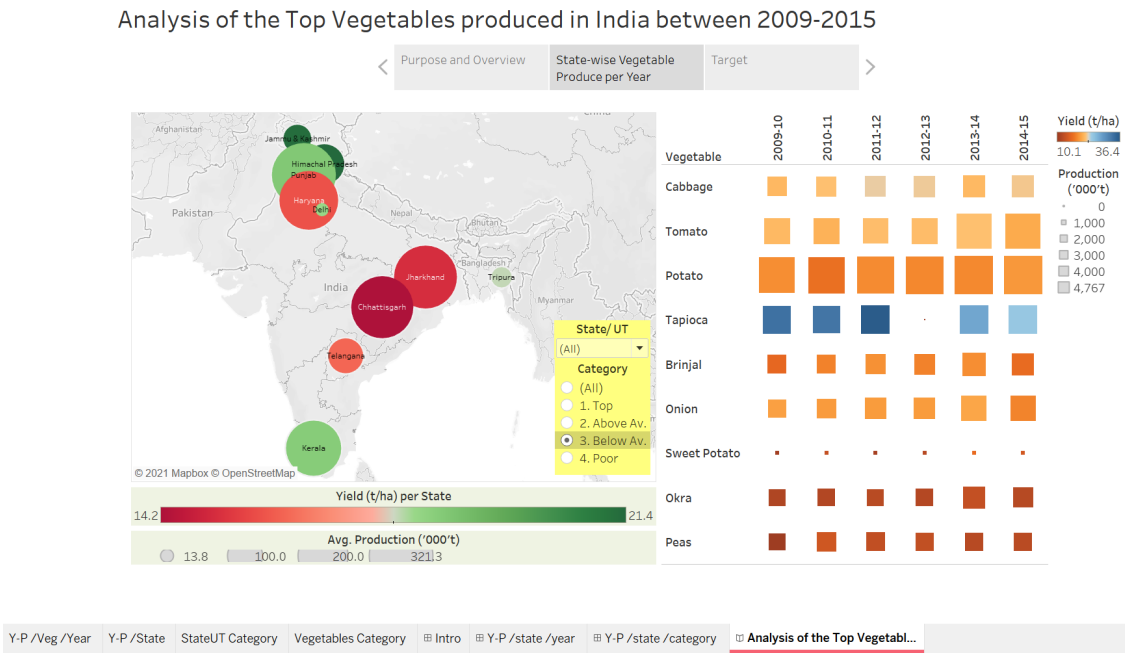
Below average states focus



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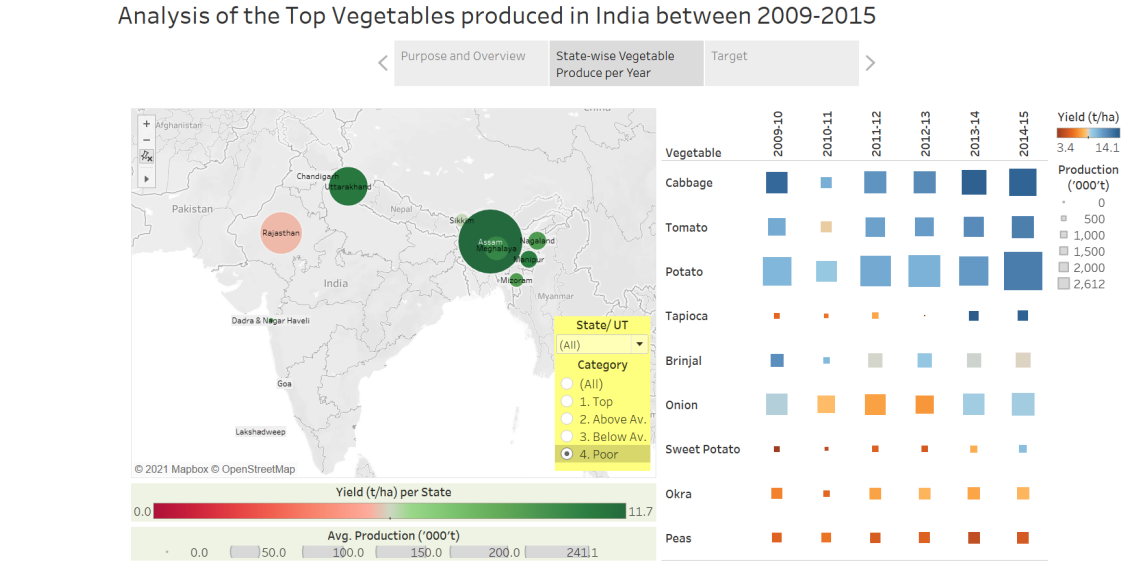
Poor performing states focus



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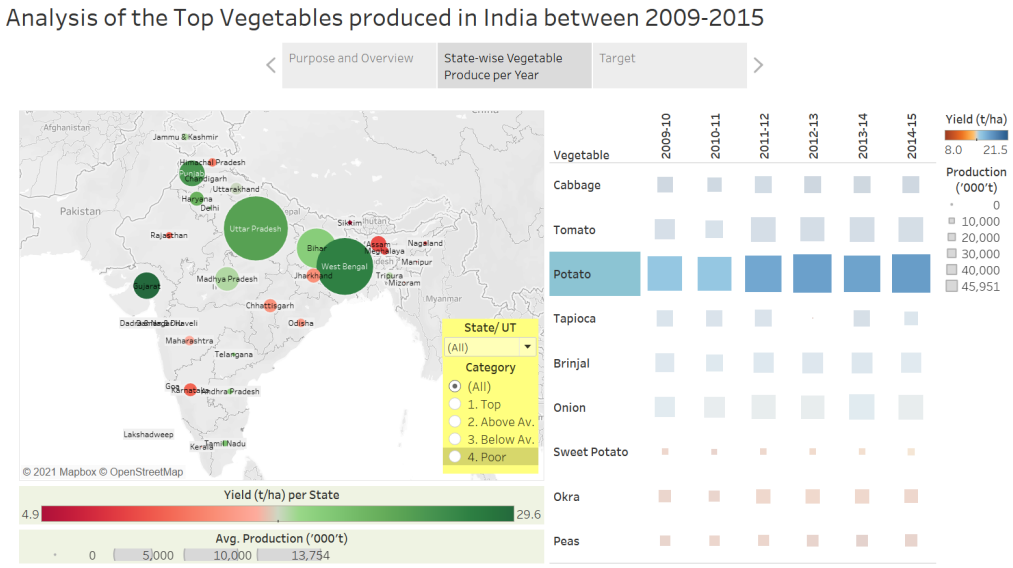
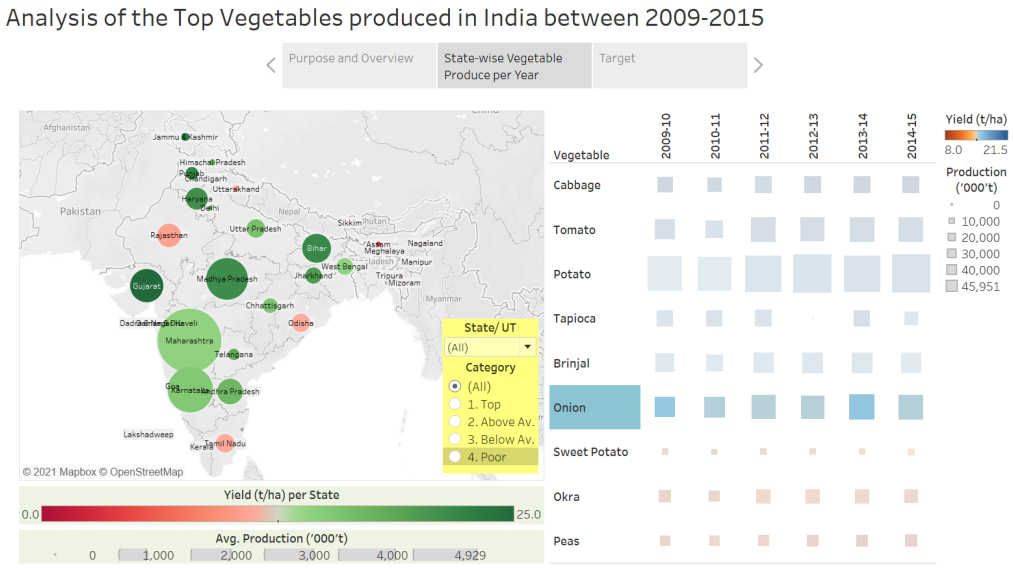
Potato production focus



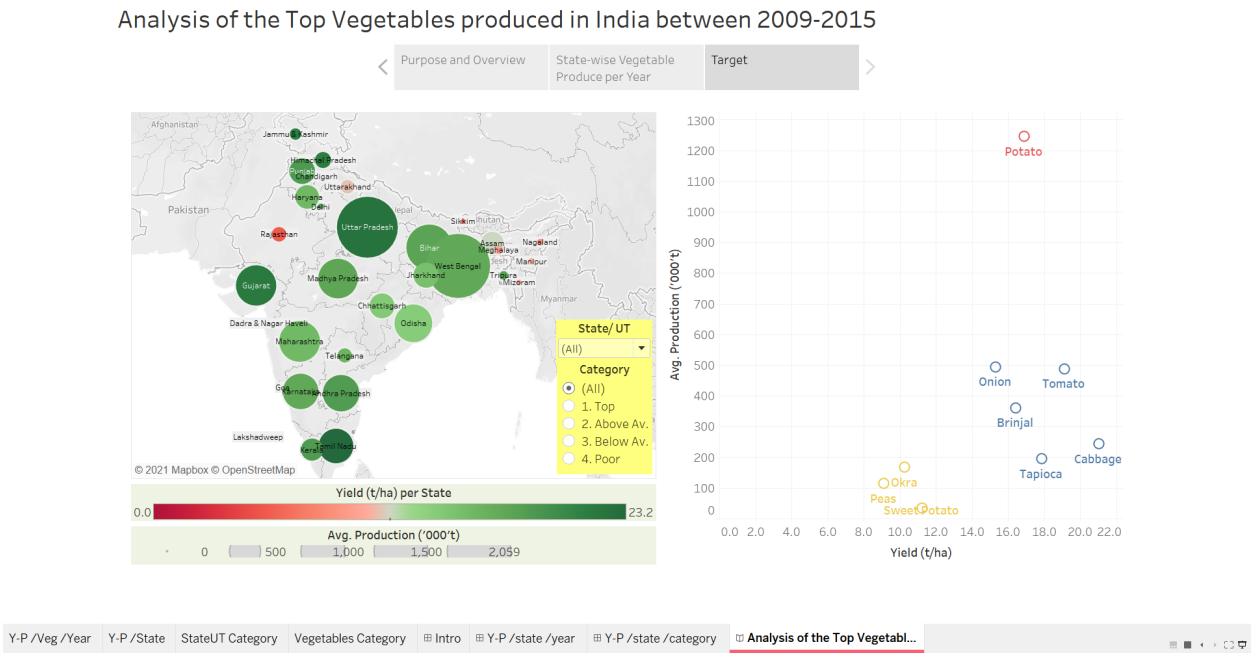
Y-P /Veg /Year | Y-P /State | StateUT Category | Vegetables Category | Intro | Y-P /state /year | Y-P /state /category | Analysis of the Top Vegetabl...

Onion production focus

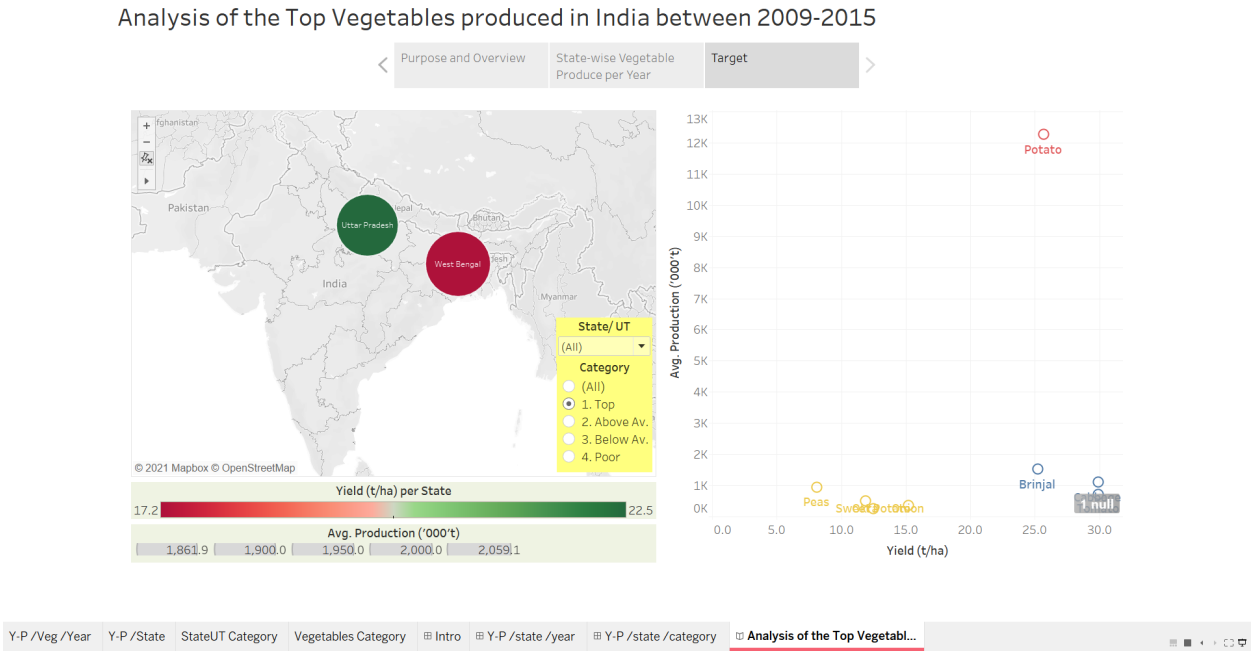


Y-P /Veg /Year | Y-P /State | StateUT Category | Vegetables Category | Intro | Y-P /state /year | Y-P /state /category | Analysis of the Top Vegetabl...

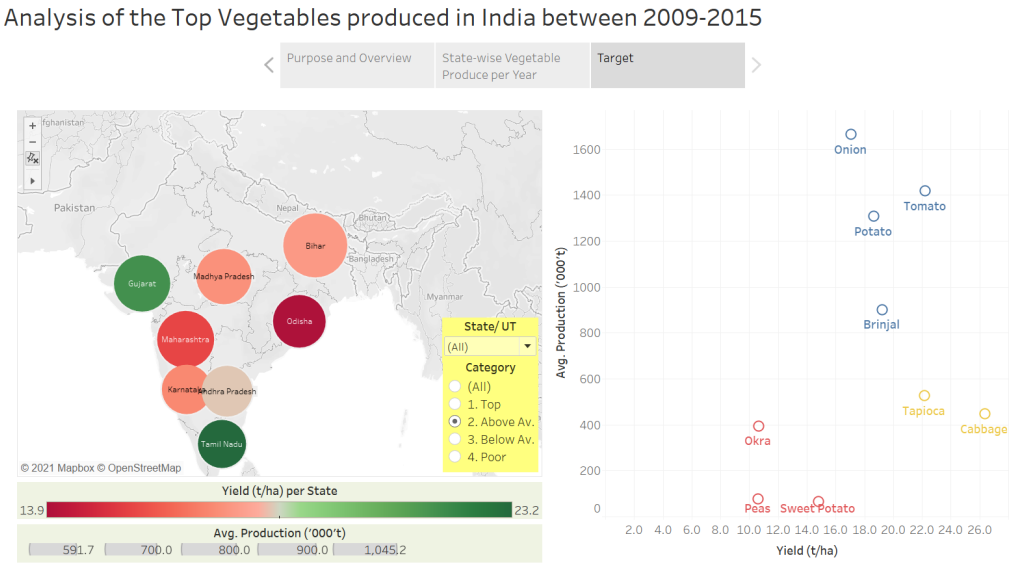
Categorising Vegetables



Top performing states focus



Above average states focus



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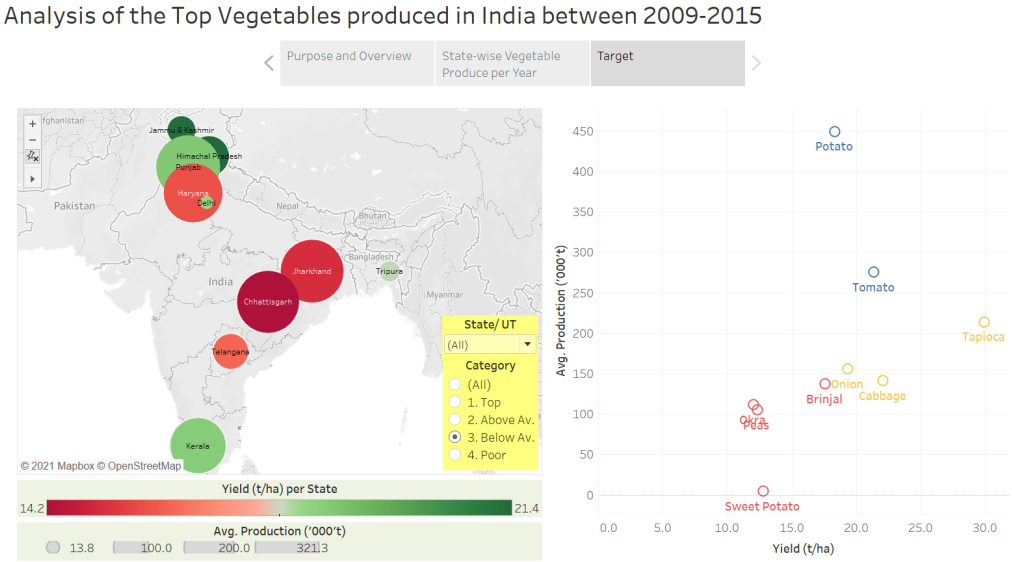
Below average states focus



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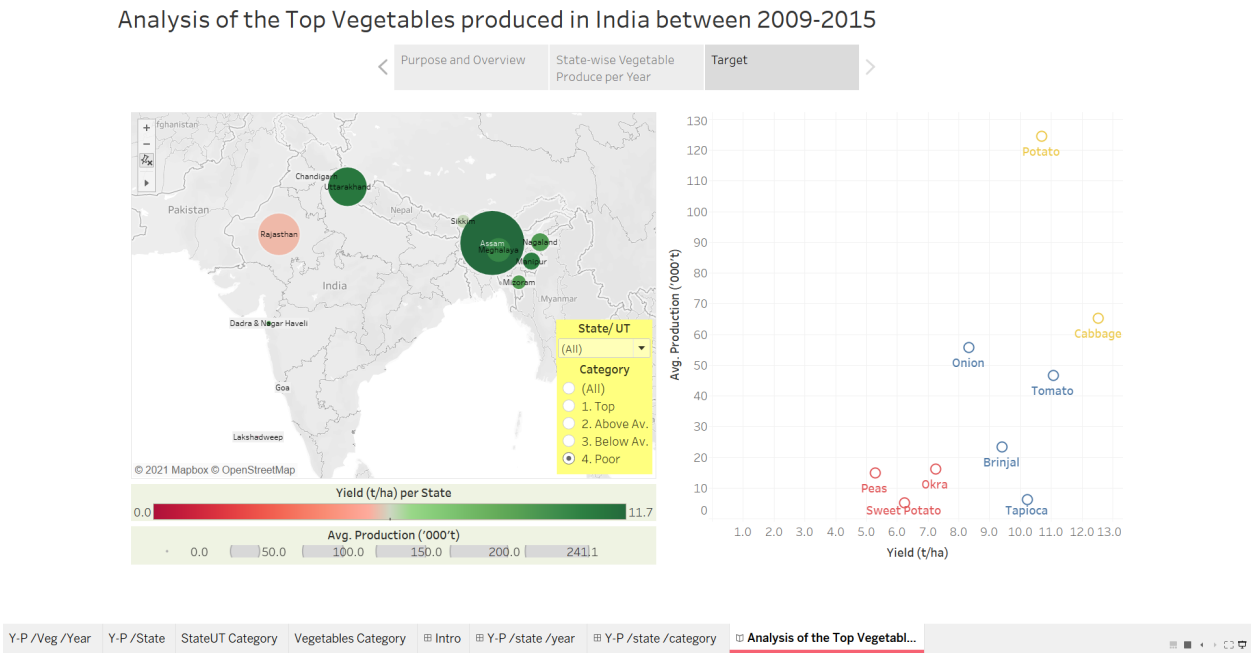
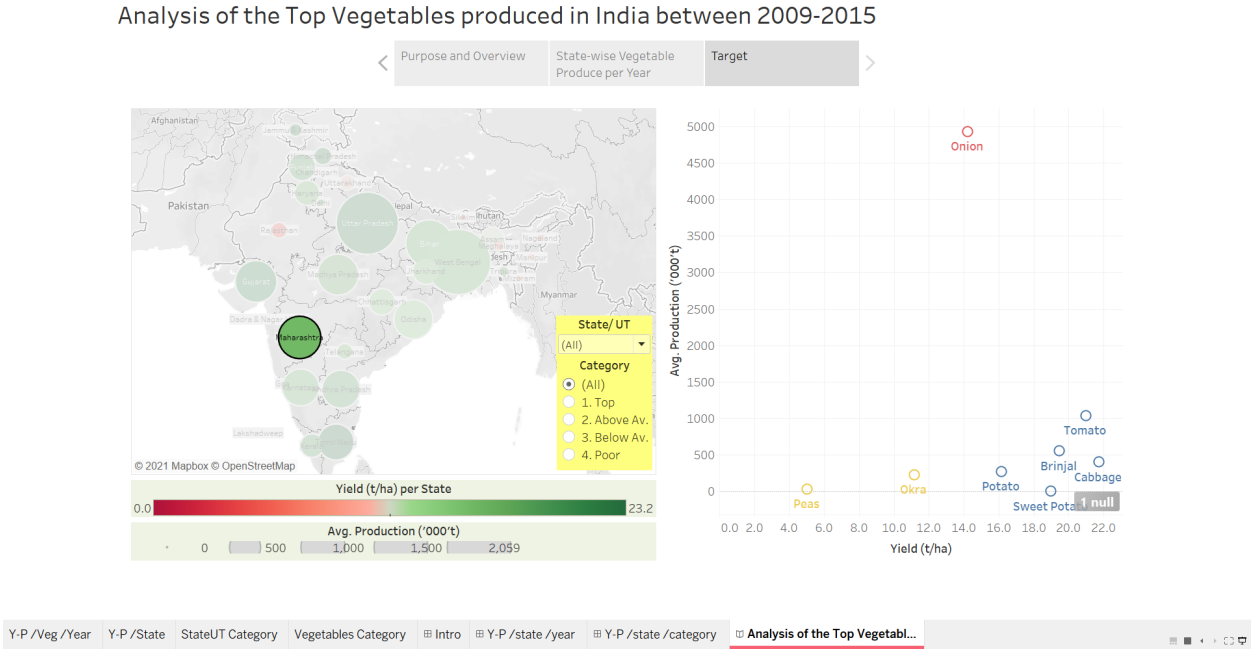
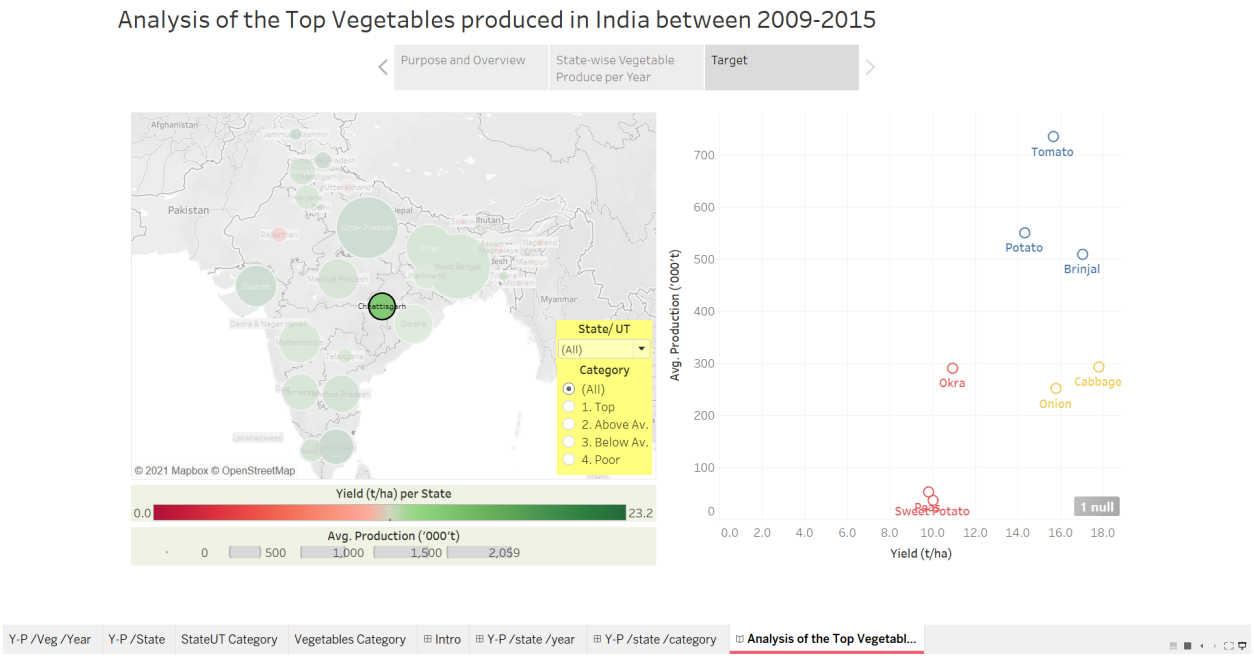
Poor performing states focus



State focus: maharastra



State focus: Chattisgharh



6 ADVANTAGES & DISADVANTAGES

6.1 Advantages

-Completely flexible to observe any data at every granularity with proper depth

-Automatically categorise states and vegetables into 3-4 groups based off performance in Yield and Production and analyse effect live

6.2 Disadvantages

-Data is not updated. Latest available is of the year 2014-15

-Some data rows/coloums may be unavailable or disproportionately large thereby distorting the analysis

-Does not account for financial value of each crop due to lack of data

7 APPLICATIONS

This Dashboard may be applied into other horticultural crops as well such as Spices, Plantations, Fruits, Flowers, Aromatic & Medicinal crops, Ornamental crops, etc. It can also be applied to other countries.

With sufficient more updated data, it can also be made to analyse trend lines and predict rise or fall in production and help devise countermeasures to enhance overall yield.

8 CONCLUSION

The aim is for the top performing states to reduce wasted land by improving yield. The aim for the states in the following 3 categories is to bump themselves to the higher category (ie, states in 4th(poor) to 3rd(below average), states in 3rd to 2nd(above average), and states 2nd to try and improve upto the top category.

By observing the produce from each category, and furthermore, into each top state respectively, we can see that the vegetables in turn can be divided into top performing, average performing, and poor performing. While we want the average performing vegetables to produce and yield upto the top producing level, we need to reduce production on poor performing vegetables and re-allocate that land to more fruitful crops.

10 BIBLIOGRAPHY

10.1 M. Sundar Rajan, M. Palanivel. Application of Regression Models for Area, Production and Productivity Growth Trends of Cotton Crop in India. International Journal of Statistical Distributions and Applications. Vol. 4, No. 1, 2018, pp. 1-5. doi: 10.11648/j.ijsd.20180401.11

10.2 https://elearning.tableau.com/