Name - A. Edwin Raj email id- ewin.raj@gmail.com
Institution - Hindustan Institute of Technology and Science , Email - aedwinr@hindustanuniv.ac.in

Agriculture Data Analytics in Crop Yield Estimation using IBM Cognos

Abstract:

Crop production in India is one of the important sources of income and India is one of the top countries to produce crops. In this project the crop production data is analyzed with some important visualization and created a dashboard which will show most of the insights of Crop production in India.

Introduction:

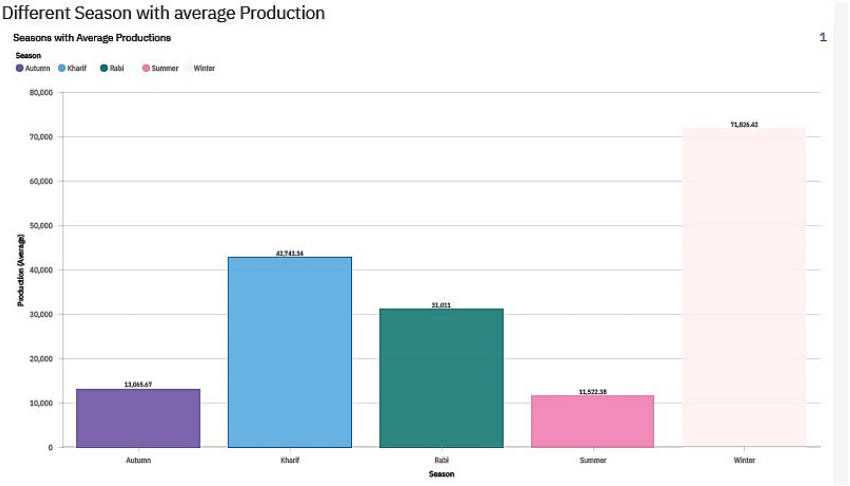
At present we are at the immense need of another Green revolution to supply the food demand of growing population. With the decrease of available cultivable land globally and the decreased cultivable water resources, it is almost impossible to report higher crop yield. Agricultural based big data analytics is one approach, believed to have a significant role and positive impact on the increase of crop yield by providing the optimum condition for the plant growth and decreasing the yield gaps and the crop damage and wastage

Project:

The following steps are followed to do the project. First I have created the IBM cloud account and accessed the IBM cognos analytics using the free trial access. In IBM cognos analytics with Watson, created a new dashboard. Next uploaded the dataset given in this project through the upload files option. Using the guidance of the video link given under each task, the visualization chart has been prepared.

1. Different Season with Average Production

Different Season with average Production



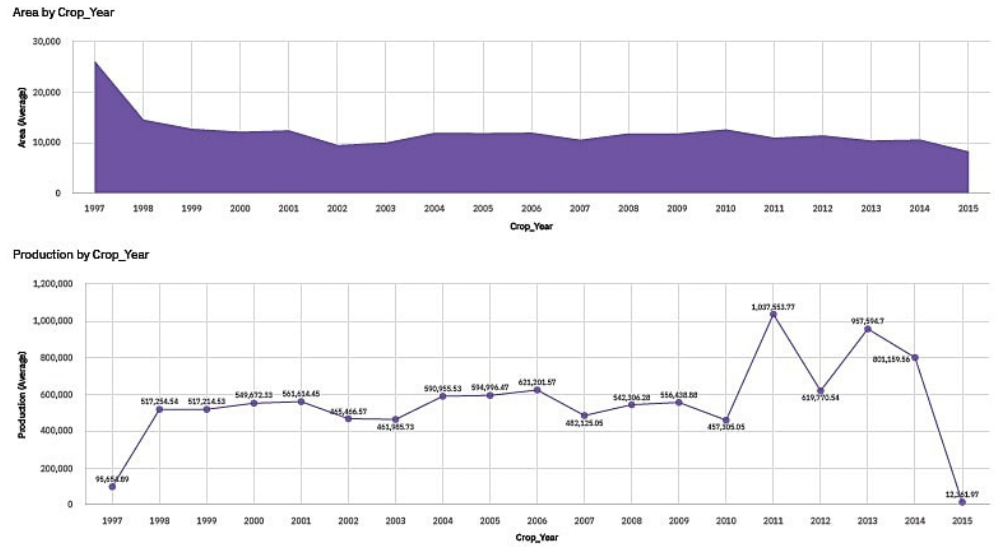
2. **With Years usage of Area and Production**

Filter(s) applied to the visualization(s) on the previous page:

Widget 1

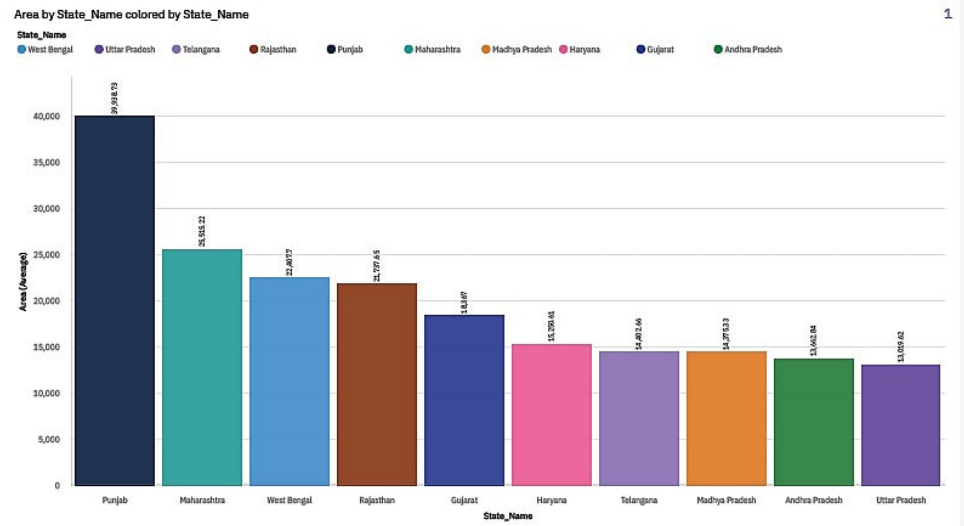
Season Excludes: Whole Year, Whole Year

With years usage of Area and Production



3. **Top 10 states with Most Area**

Top 10 states with most Area

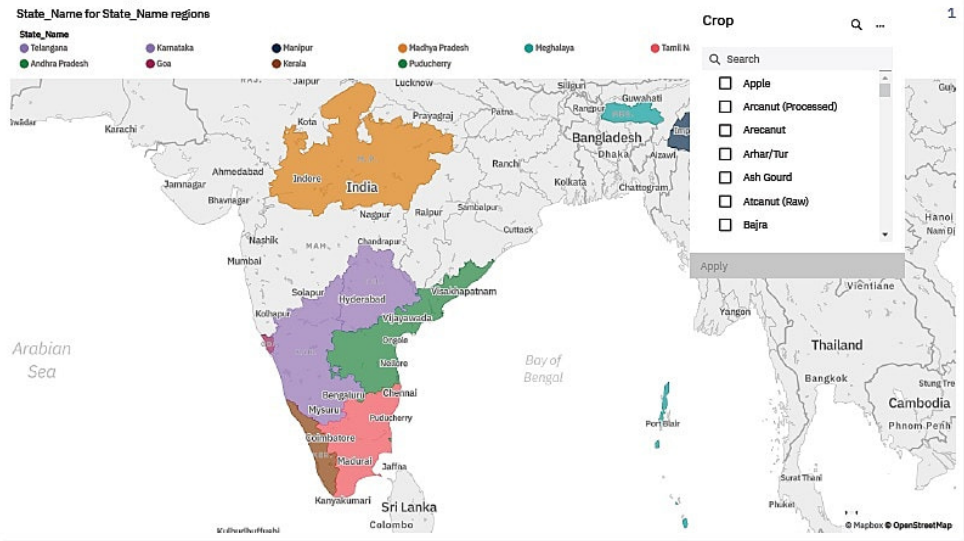


4. State with Crop Production

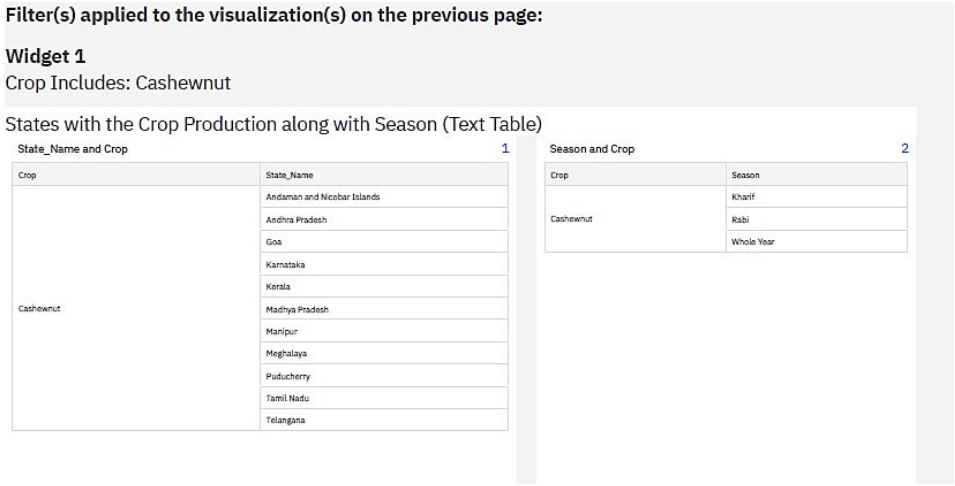
Filter(s) applied to the visualization(s) on the previous page:

Widget 1
Area Top 10

State with Crop Production



5. States with Crop Production along with Seasons(Text Table)



Filter(s) applied to the visualization(s) on the previous page:

Widget 1
Crop Includes: Cashewnut

States with the Crop Production along with Season (Text Table)

State_Name and Crop 1

Crop	State_Name
Cashewnut	Andaman and Nicobar Islands
	Andhra Pradesh
	Goa
	Karnataka
	Kerala
	Madhya Pradesh
	Manipur
	Meghalaya
	Puducherry
	Tamil Nadu
	Telangana

Season and Crop 2

Crop	Season
Cashewnut	Kharif
	Rabi
	Whole Year

Conclusion.

It is a easy-to-use tool that integrates reports, analytics, and dashboards, so businesses of any size can better understand their data and make more effective, confident decisions through automated data visualization. From the obtained visualization chart one can easily predicts the crop production state wise, season wise, area wise, etc which will help to improve the productivity.