Using Advanced Visualization techniques to analyze Indian Agricultre

Problem

Agriculture dataset representing statistics of different crops grown in India

Data set description

Dataset – 1 :

Crop - categorical (nominal)

State - spatial attribute

Cost of cultivation - numeric

Cost of production – numeric

Yield – numeric

Dataset – 2 :

Year - temporal

Arhar_yield (numeric)

Cotton_yield (numeric)

Gram_yield (numeric)

Groundnut_yield (numeric)

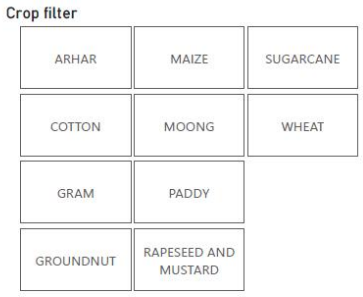
Maize_yield (numeric)

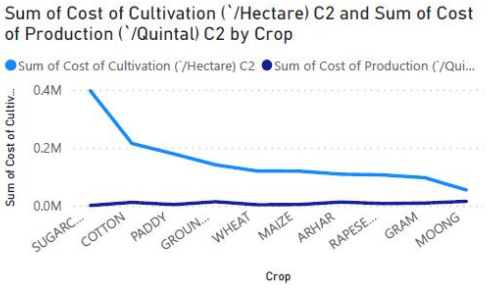
Rapeseed and mustard_yield (numeric)

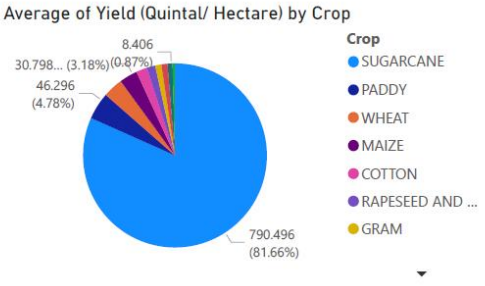
Sugarcane_yield (numeric)

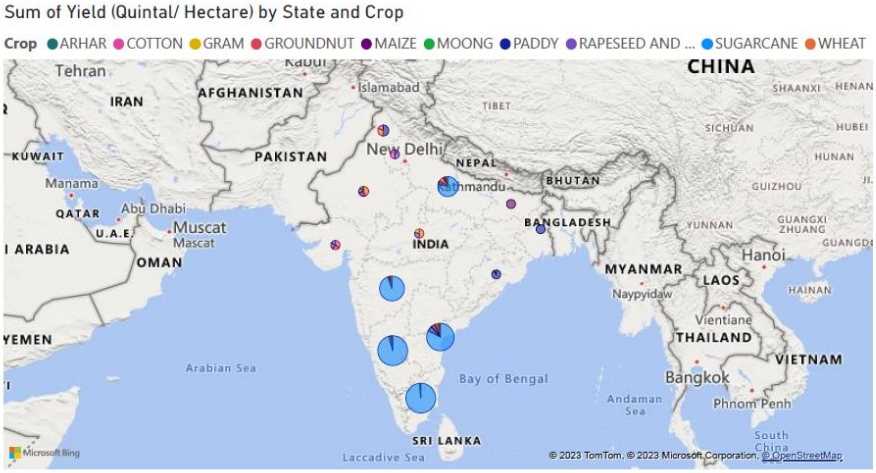
Wheat_yield (numeric)

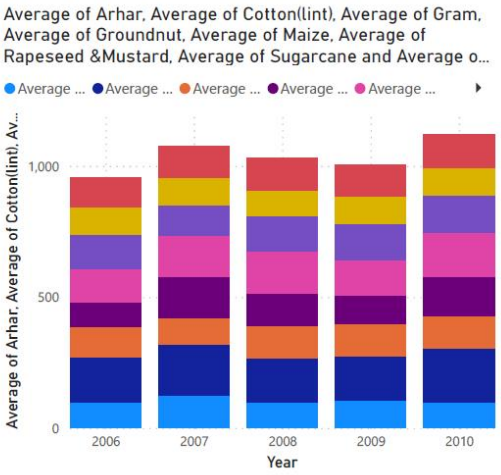
Dashboard :

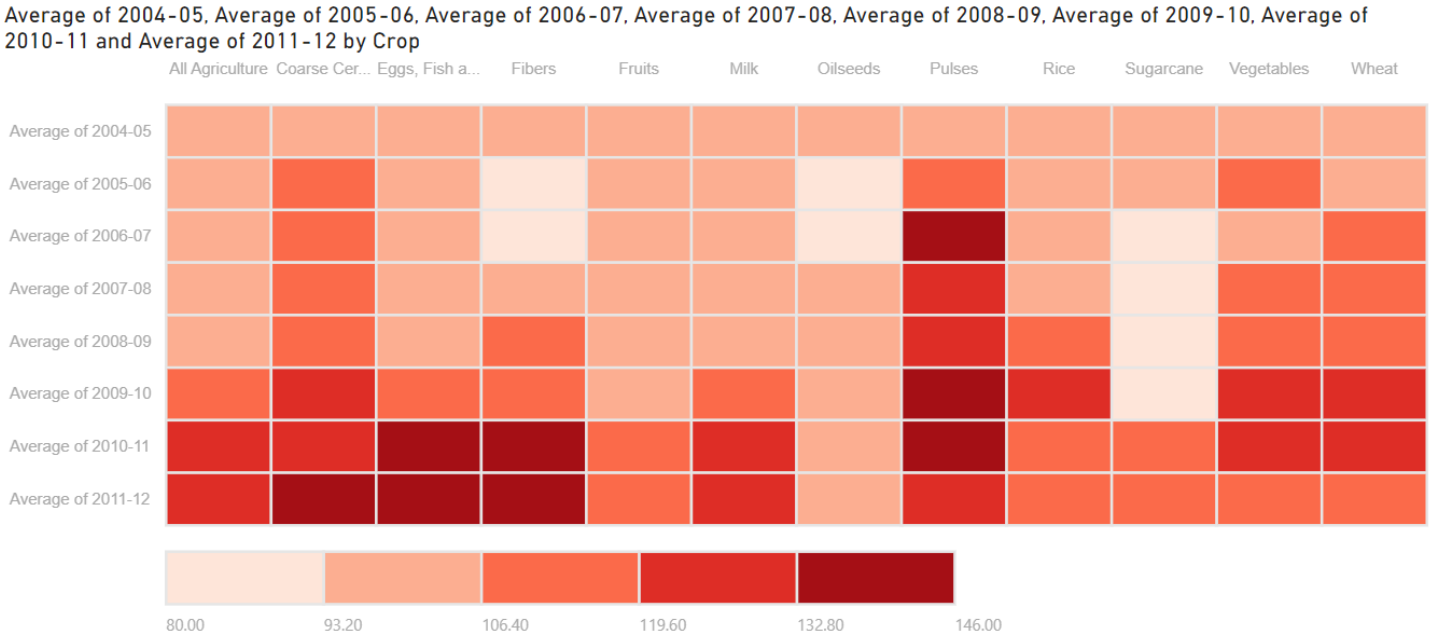












Description :

Crop filter :

It is used to select a particular crop and display visualization of that particular crop

Cost of cultivation and cost of production vs crop :

Created using line plot visualization in power bi

Displays a line plot of cost of cultivation and cost of production (numerical) with respect to crop (categorical)

Inference :

Cost of cultivation for sugarcane is the highest and lowest for Moong

Cost of production is more or less same for all the crops

Yield vs crop :

Pie chart of yield vs crop is created using pie chart visualization in power bi

The pie chart depicts the different crops grown in India with each proportion representing the percentage of yield given by each crop

Inference :

Sugarcane gives the most yield among all other crops

Crops in different states of India with yield :

The above map is proportional symbol map representing crops grown in each state with each pie chart in state representing the proportion of yield of each crop in that state

Inference :

Paddy and sugarcane are the most grown crops in south India

Wheat , rapeseed and mustard are the most grown crops in north India

Year vs crop yield :

The above plot is a temporal stacked bar plot with x axis representing 5 years (i.e 2006,2007,2008,2009,2010) and y axis representing yield of each crop in each year

Inference :

Cotton has the highest yield in all the years with rapeseed and mustard being lowest

Cost of cultivation with each crop :

The above plot is a heat map representing aggregated year vs crop filled with cost of cultivation

Inference :

Cost of cultivation is highest during the year 2011-12 . Least being in the year 2004-05

Cost of cultivation is increasing with each year