SmartInternz: Tableau DataViz Challenge - 2021

Horticulture

Project Report

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Introduction:

Horticulture is the science and art of the development, sustainable production, marketing and use of high-value, intensively cultivated food and ornamental plants. The horticulture has gained importance in recent years as a major component of agriculture in India.

India is one among the several important fruits and vegetables producing countries of the world. Horticultural farming in India promotes the development of natural resources, yields higher returns from land, enhances the land values, creates a better purchasing power among the people and as a consequence adds to the general prosperity.

Project Overview:

This project aims to explore the trends in Horticulture sector. Different datasets related to horticulture is taken and analysed for creating a story in Tableau. This project discusses about the trends in area and production of horticulture crops in India. It also extends to the trends observed in major producing countries around the world.

Datasets:

All the dataset used in this project are from the Open Government Data(OGD) Platform of India. The datasets were modified according to the needs for better visualization results.

1. **Number of horticultural crops varieties released during 1951-2012:**
   The 2 datasets provided in OGD, "Number of horticultural crops varieties released during 2011-2012" and "Number of horticultural crops varieties released during 1951-2009", were combined and was used to visualize the different types of crop varieties released.
   Source: Division of Horticulture, Indian Council of Agricultural Research, New Delhi.

2. **Major Fruits and Vegetables Producing Countries in the World from 2009-10 to 2012-13:**
   This dataset was used to analyse the major countries producing the crops. The parameters considered where Area, Production and Productivity. Graphs was drawn based on the parameters.
   Source: FAO Website
3. **Export of Horticulture Produce in India from 2007-08 to 2013-14:**
   Export data i.e. the quantity(in Tonne) and value(In Rs. Value) is used from this dataset to visualise the export trends of horticulture in India.
   Source: Indian Horticulture Database, Various Issues, National Horticulture Board, Ministry of Agriculture
4. **State-wise Area and Production of Various Horticulture Crops from 2009-10 to 2014-15:**
   The various varieties of crops such as fruits, vegetables, flowers, spices etc were visualized based on its cultivating area and production during the year 2009-10 to 2014-15.
   Source: Horticulture Statistics Division, Department of Agriculture, Cooperation and Farmers Welfare

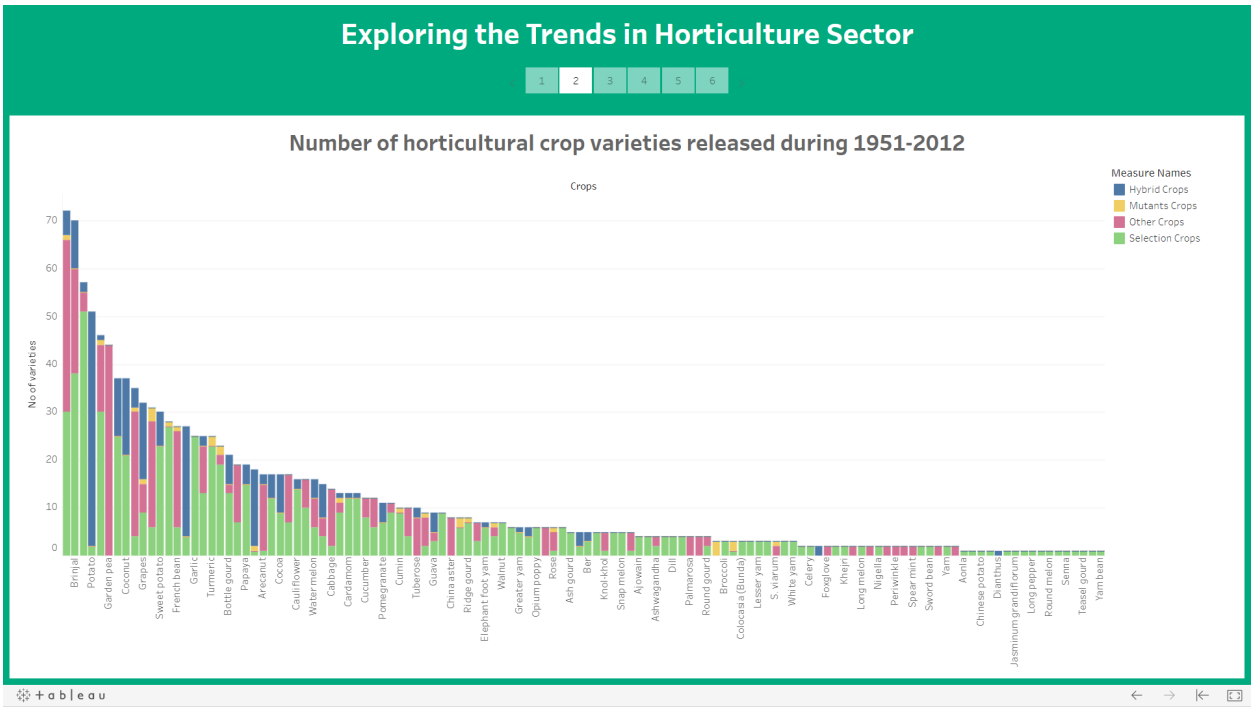
Tools:

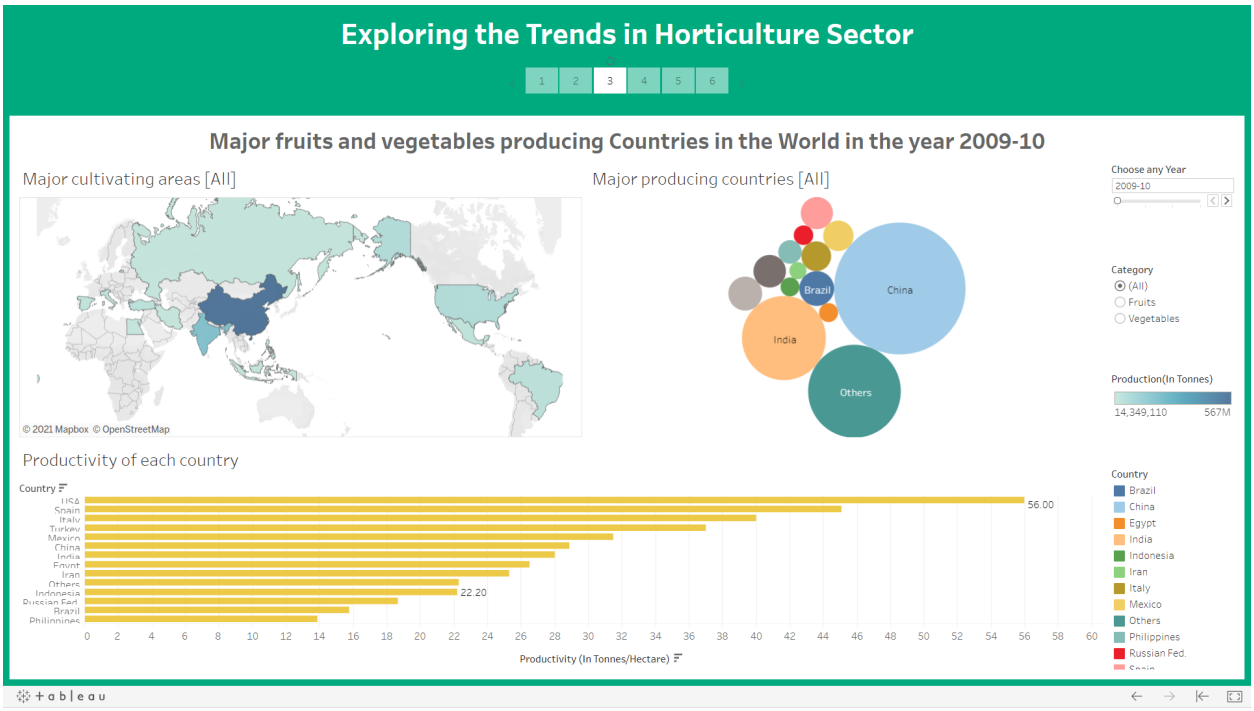
Tableau Desktop

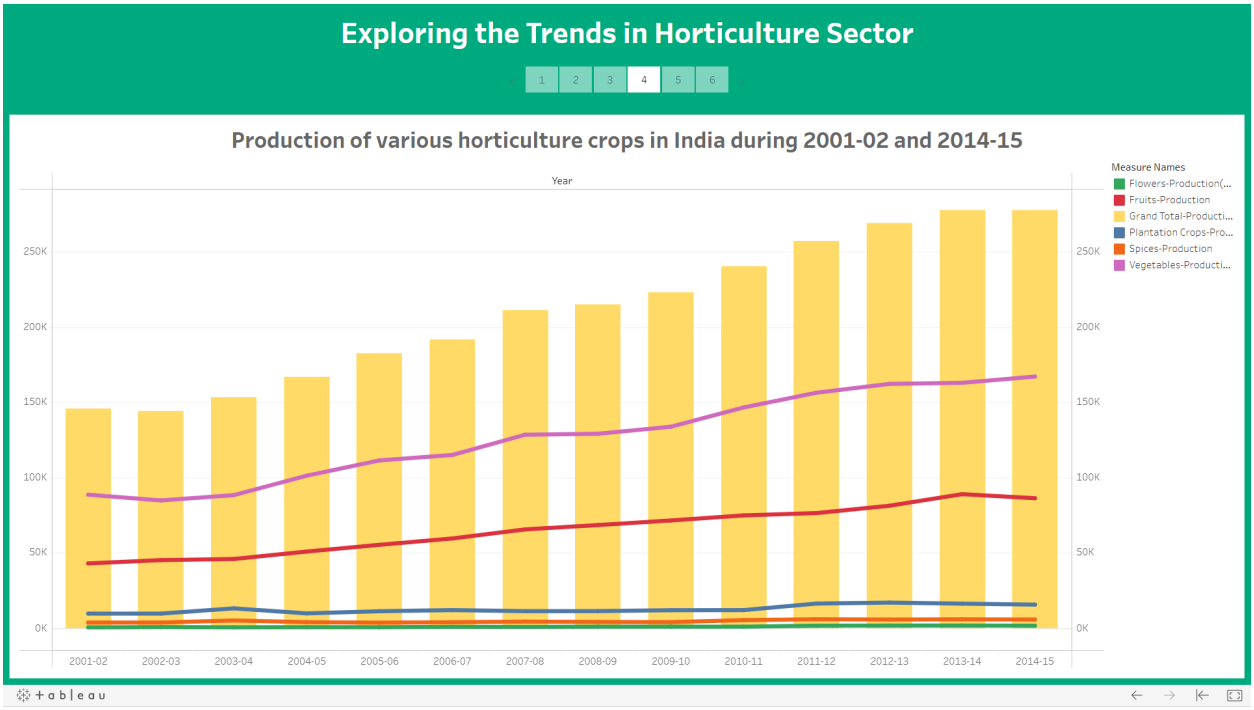
Results:

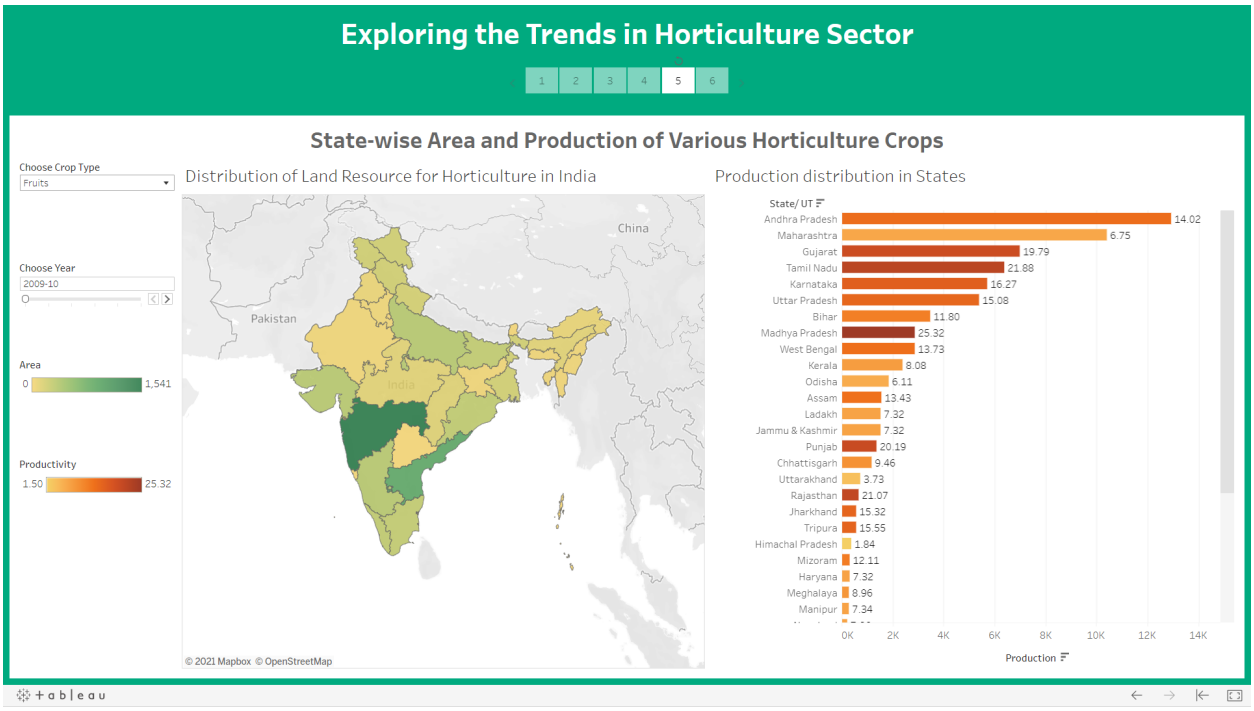
From using all the various datasets listed above, a story was made in Tableau. The images of various sheets/dashboards created is provided below:

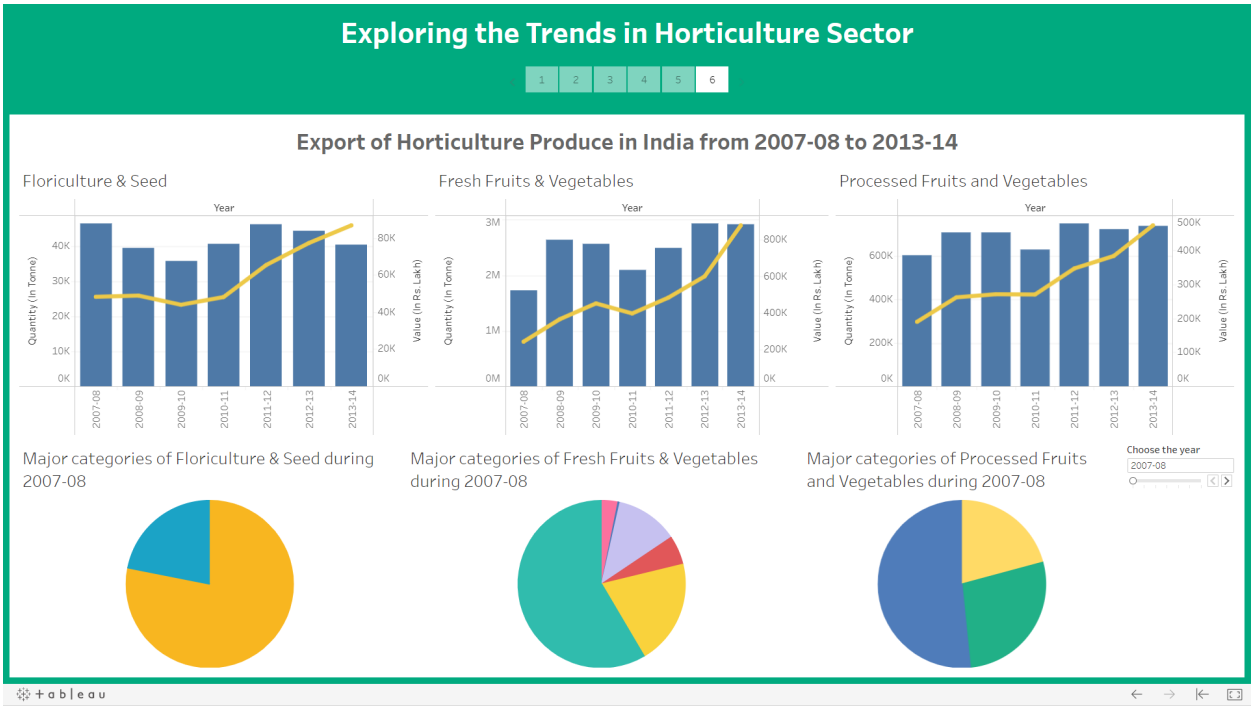
Exploring the Trends in Horticulture Sector
1
2
3
4
5
6
SmartInternz: Tableau DataViz Challenge - 2021
EXPLORING THE TRENDS IN HORTICULTURE SECTOR
tableau


Exploring the Trends in Horticulture Sector
1
2
3
4
5
6
Number of horticultural crop varieties released during 1951-2012
Crops
No of varieties
0
10
20
30
40
50
60
70
Brinjal
Potato
Garden pea
Coconut
Grapes
Sweet potato
French bean
Garlic
Turmeric
Bottle gourd
Papaya
Arecanut
Cocoa
Cauliflower
Water melon
Cabbage
Cardamom
Cucumber
Pomegranate
Cumin
Tuberose
Guava
China aster
Ridge gourd
Elephant foot yam
Walnut
Greater yam
Opium poppy
Rose
Ash gourd
Ber
Knol-khol
Snap melon
Ajowain
Ashwagandha
Dill
Palmarosa
Round gourd
Broccoli
Colocasia (Bunda)
Lasser yam
S. viarum
White yam
Celery
Foxglove
Khajri
Long melon
Nigella
Periwinkle
Spear mint
Sword bean
Yam
Aonla
Chinese potato
Dianthus
Jasminum grandiflorum
Long pepper
Round melon
Senna
Teasel gourd
Yam bean
Measure Names
Hybrid Crops
Mutants Crops
Other Crops
Selection Crops
tableau


Exploring the Trends in Horticulture Sector
1 2 3 4 5 6
Major fruits and vegetables producing Countries in the World in the year 2009-10
Major cultivating areas [All]
© 2021 Mapbox © OpenStreetMap
Major producing countries [All]
Brazil
China
India
Others
Choose any Year
2009-10
Category
(All)
Fruits
Vegetables
Production(In Tonnes)
14,349,110
567M
Productivity of each country
Country
USA
Spain
Italy
Turkey
Mexico
China
India
Egypt
Iran
Others
Indonesia
Russian Fed.
Brazil
Philippines
56.00
22.20
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60
Productivity (In Tonnes/Hectare)
Country
Brazil
China
Egypt
India
Indonesia
Iran
Italy
Mexico
Others
Philippines
Russian Fed.
tableau


Exploring the Trends in Horticulture Sector
1 2 3 4 5 6
Production of various horticulture crops in India during 2001-02 and 2014-15
Year
250K
200K
150K
100K
50K
0K
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
Measure Names
Flowers-Production(...
Fruits-Production
Grand Total-Producti...
Plantation Crops-Pro...
Spices-Production
Vegetables-Producti...
tableau


Exploring the Trends in Horticulture Sector
1 2 3 4 5 6
State-wise Area and Production of Various Horticulture Crops
Choose Crop Type
Fruits
Choose Year
2009-10
Area
0
1,541
Productivity
1.50
25.32
Distribution of Land Resource for Horticulture in India
China
Pakistan
India
© 2021 Mapbox © OpenStreetMap
Production distribution in States
State/ UT
Andhra Pradesh 14.02
Maharashtra 6.75
Gujarat 19.79
Tamil Nadu 21.88
Karnataka 16.27
Uttar Pradesh 15.08
Bihar 11.80
Madhya Pradesh 25.32
West Bengal 13.73
Kerala 8.08
Odisha 6.11
Assam 13.43
Ladakh 7.32
Jammu & Kashmir 7.32
Punjab 20.19
Chhattisgarh 9.46
Uttarakhand 3.73
Rajasthan 21.07
Jharkhand 15.32
Tripura 15.55
Himachal Pradesh 1.84
Mizoram 12.11
Haryana 7.32
Meghalaya 8.96
Manipur 7.34
0K 2K 4K 6K 8K 10K 12K 14K
Production
+ableau


Exploring the Trends in Horticulture Sector
1 2 3 4 5 6
Export of Horticulture Produce in India from 2007-08 to 2013-14
Floriculture & Seed
Year
Quantity (In Tonne)
Value (In Rs Lakh)
2007-08 2008-09 2009-10 2010-11 2011-12 2012-13 2013-14
Fresh Fruits & Vegetables
Processed Fruits and Vegetables
Major categories of Floriculture & Seed during 2007-08
Major categories of Fresh Fruits & Vegetables during 2007-08
Major categories of Processed Fruits and Vegetables during 2007-08
Choose the year
2007-08
+ableau