INDIAN AGRICULTURAL PERFORMANCE ANALYSIS

(1966– 2017)

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POWER BI PROJECT

BATCH: MIP_DA_04

DATA SOURCE: MENTORNESS

DATASET OVERVIEW

This dataset offers a thorough summary of agricultural productivity from 1966 to 2017. An overview of the columns is shown below:

- District Code: A distinct number assigned to every district.
- Year: The year the information is documented.
- State Code: An individual code that designates each state.
- State Name: The state's name.
- District Name: The district name.
- Crop Areas and Production: This section includes columns pertaining to various crops, including rice, wheat, sorghum, maize, finger millet, barley, chickpea, pigeon-pea, minor pulses, groundnut, sesame, rapeseed and mustard, safflower, castor, linseed, sunflower, soybean, oilseeds, sugarcane, cotton, fruits, vegetables, fruits and vegetables combined, potatoes, onions, and fodder. There are columns for area (measured in thousand hectares), production (measured in thousand tons), and yield for each crop.

KEY INSIGHTS OF THE ANALYSIS

- This research provides an insights of India's agriculture sector from 1966 to 2017. 20 states and 311 districts are there. The dataset report was categorized and divided into sections based on crop categories. These sections include reports on cereals, legumes, fruits, and vegetables, plants (including oil and flowering plants), grass, and state-specific crop analysis.

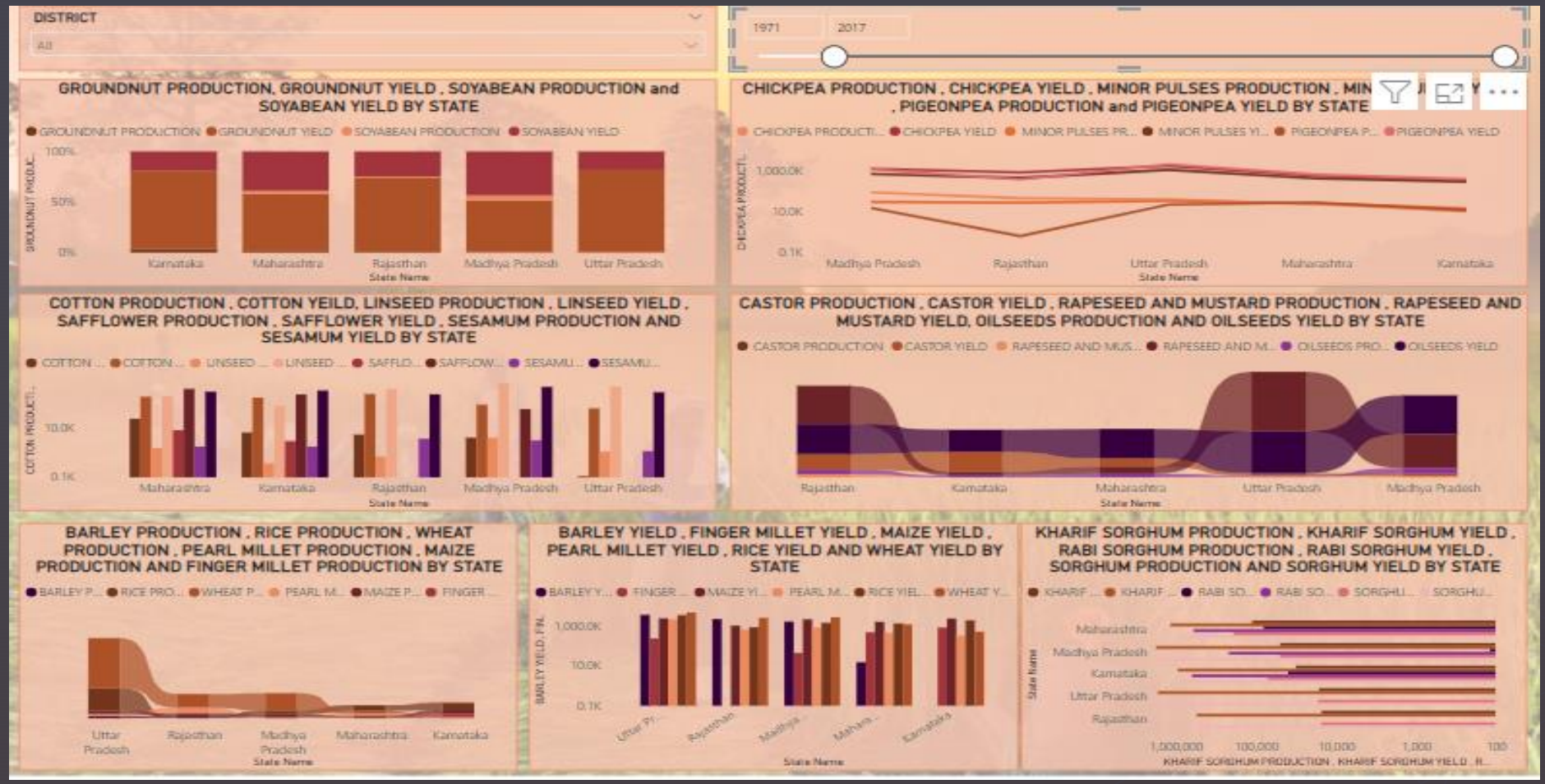
ANALYSIS OF CEREAL CROP-WISE PERFORMANCE

ANALYSIS OF LEGUMES CROP PERFORMANCE

ANALYSIS OF PLANTS CROP PERFORMANCE OVER TIME

ANALYSIS OF FRUITS AND VEGETABLES FARMING AREA

ANALYSIS OF CROPS PERFORMANCE BASED ON STATE



SEASONAL CROP PERFORMANCE ANALYSIS

- In India, Rabi sorghum grows best in the dry winter months, while kharif sorghum is most productive during the monsoon. Their dual cultivation highlights the versatility of sorghum, boosting crop yield and ensuring food security in a range of agricultural environments.

FARMING AREAS OF SORGHUM, RABI SORGHUM and KHARIF SORGHUM
SORGHUM
RABI SORGHUM
KHARIF SORGHUM
1
100
10,000
1,000,000
FARMING PRODUCTION KHARIF SORGHUM, RABI SORGHUM and SORGHUM
KHARIF SORGHUM
RABI SORGHUM
SORGHUM
0.2M
0.4M
FARMING YEILD SORGHUM , RABI SORGHUM and KHARIF SORGHUM
SORGHUM
RABI SORGHUM
KHARIF SORGHUM
1
10
100
1,000
10,000
100,000
1,000,000

REGIONAL VARIATIONS IN THE PERFORMANCE OF AGRICULTURE

Crop growth is influenced by rainfall, temperature, demand, and soil topography. Eight distinct regions make up India's agricultural land: rice, wheat/sugarcane, cotton, maize, millets/oilseeds, and fruit/vegetable. Crops are planted in suitable regions in order to maximize agricultural yield.

THE IMPACT OF WEATHER CONDITIONS ON CROP PERFORMANCE

- Crop yields are decreased by climate change, and product has lesser nutritional value. Droughts, floods, and other extreme weather patterns have an influence on farmers as well as the consumption of food and nutrients. The Indian government has developed programs and strategies to increase agriculture's resistance to climate change by identifying the most vulnerable areas and districts, changing crop types, and using mitigation and adaptation management techniques.

INSIGHTS THAT CONTRIBUTE TO SUSTAINABLE FARMING PRACTICES

- By pointing out the most effective way to allocate resources, data analysis insights can guide sustainable farming methods. Farmers can make well-informed decisions by optimizing the use of resources, such as water, fertilizers, and land, for long-term sustainability by analyzing factors such as soil health, weather patterns, and crop performance. Through adopting technology that is precise for long-term use, agriculture and remote sensing assist in minimizing environmental effect, cutting waste, and optimizing resource utilization.

CONCLUSION

- The information facilitates an extensive examination of crop performance, trends, and distribution, assisting scholars and stakeholders in making knowledgeable decisions that will improve agricultural sustainability and productivity in many areas
- By analyzing historical trends in crop area, production, and yield, stakeholders can identify high-performing crops and regions, facilitating targeted investments and interventions

RECOMMENDATIONS

- Assists farmers with training and extension services
- Create methods for monitoring and evaluating the efficacy of initiatives and policies.
- Promote the use of environmentally friendly farming techniques such crop rotation, insect control, and soil management.

THANK YOU!