

THIRUMURUGAN ARTS AND SCIENCE COLLEGE FOR WOMEN



BACHELOR OF SCIENCE DEPARTMENT OF MATHEMATICS

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1 INTRODUCTION

1.1 Overview

A brief description about your project.

1.2 Purpose

The use of this project. What can be achieved using this.

2 PROBLEM DEFINITION & DESIGN THINKING

2.1 Empathy Map

Paste the empathy map screenshot.

2.2 Ideation & Brainstorming Map

Paste the Ideation & brainstorming map screenshot.

3 RESULT

Final findings (Output) of the project along with screenshots.

4 ADVANTAGES & DISADVANTAGES

List of advantages and disadvantages of the proposed solution.

5 APPLICATIONS

The areas where this solution can be applied.

6 CONCLUSION

Conclusion summarizing the entire work and finding.

7 FUTURE SCOPE

Enhancements that can be made in the future.

1. INTRODUCTION

1.1 OVERVIEW

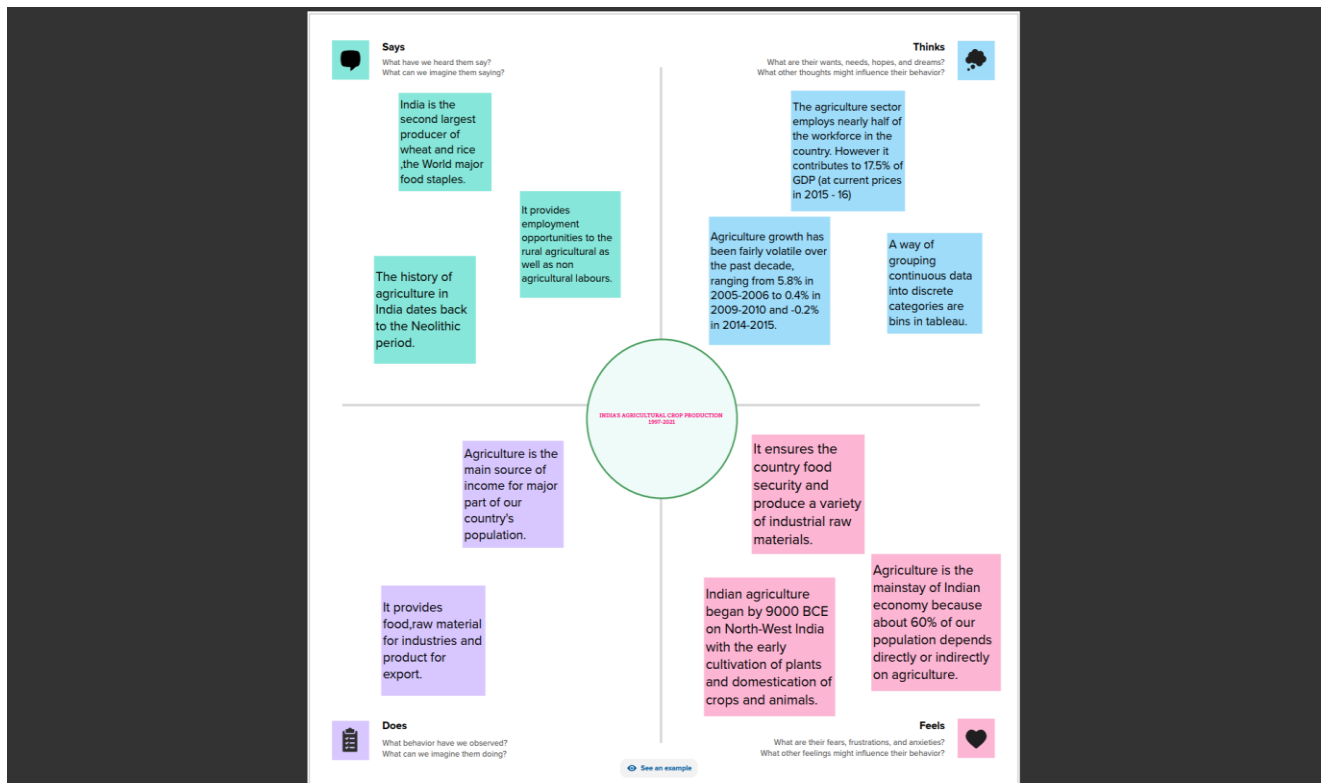
Agricultural project means the acquisition of stocks (including seeds or seedlings), and the preparation, planting, care and harvesting, whether on owned or leased real property, of crops for use as feedstock for any Industrial Projects owned or intended to be acquired or developed by the Company, together with any real and personal property necessary or appropriate for the administration thereof.

1.2 PURPOSE

Agriculture analysis is a very important aspect to crop growing. To increase quality and yields, it is crucial to understand the current nutrient levels of the soil to be able to ascertain which areas require improvement. Our LaquaTwin range of portable meters can provide in-field analysis in your pocket. Analyze pH to check for soil acidity and alkalinity, Conductivity to determine optimised fertilizer usage as well as Sodium, Potassium, Nitrate and Calcium levels. The LaquaTwin range can empower you with the analytical data to make the right choices for your growing application.

2. PROBLEM DEFINITION & DESIGN THINKING

2.1 Empathy Map



2.2 Ideation & Brainstorming Map

Brainstorm & idea prioritization

Use this template in your team brainstorming sessions so your team can visualize their negotiation and start shaping concepts even if you're not sitting in the same room.

- 60 minutes (approx.)
- Clear 6 solutions
- 14 people recommended

Before you collaborate

Before you collaborate, please bring any and all the material that you will need to do so get going.

0 minutes

Define your problem statement

Write down any ideas that come to mind for solving your problem statement. This will be the focus of your brainstorm.

0 minutes

Brainstorm

Write down any ideas that come to mind for solving your problem statement.

0 minutes

Group ideas

Now share your ideas with others sitting around in related roles or you go. One of ideas that have been grouped, give each other a thumbs up if you like it. It's okay to be a bit shy, try and let your ideas be heard by the group.

0 minutes

Prioritize

You have shared all of your ideas with others sitting around in related roles or you go. One of ideas that have been grouped, give each other a thumbs up if you like it. It's okay to be a bit shy, try and let your ideas be heard by the group.

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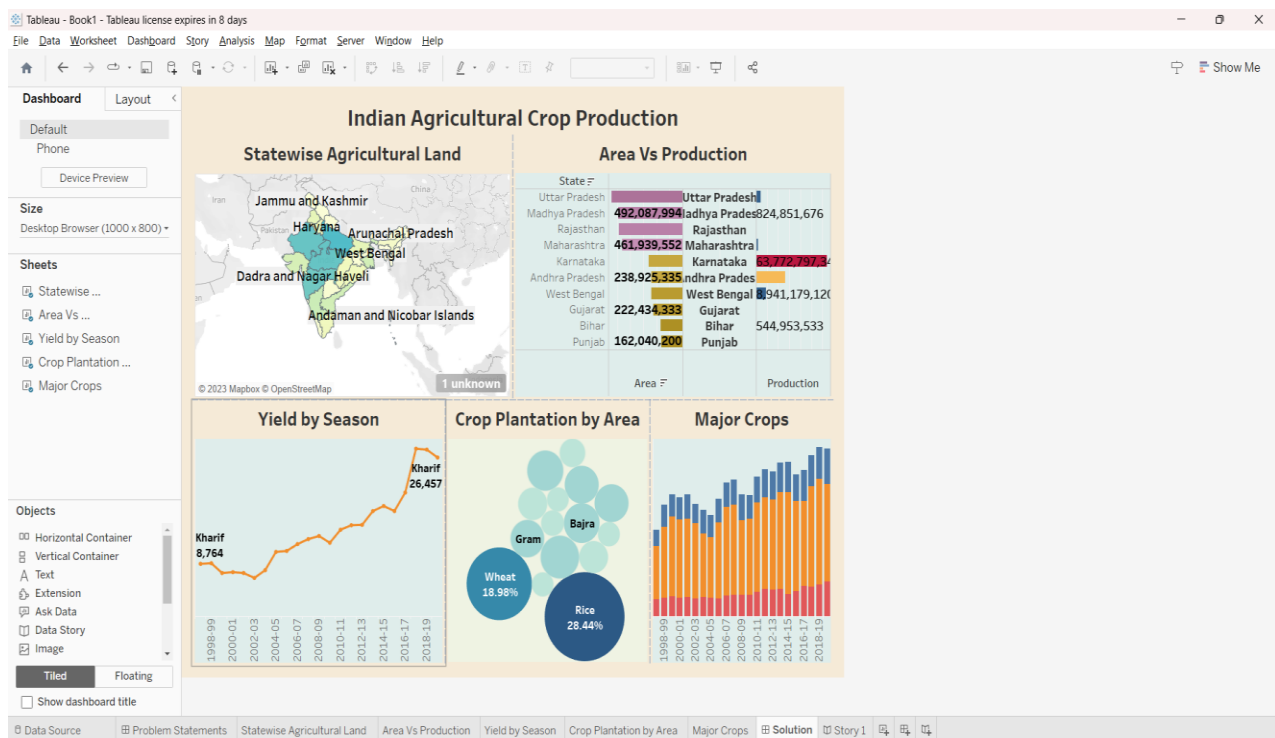
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0 minutes

3. RESULT



4. ADVANTAGES & DISADVANTAGES

ADVANTAGES

- **Increased Efficiency** – Modern farming methods are more efficient than traditional methods, with advanced machinery and equipment, allowing farmers to produce larger quantities of crops in less time and with less labor.
- **Improved Crop Quality** – The use of advanced techniques such as precision farming and genetic engineering has led to the development of higher quality crops that are more resistant to pests and disease.
- **Reduced Environmental Impact** – Modern agriculture techniques are designed to be more sustainable, with a focus on reducing waste, conserving resources, and minimizing the use of harmful chemicals.
- **Increased Food Production** – Modern agriculture has enabled farmers to produce larger quantities of food, helping to address food shortages and hunger in many parts of the world.
- **Economic Benefits** – Modern agriculture has had a positive impact on the economy, by creating jobs and generating revenue for farmers, agribusinesses, and related industries.

DISADVANTAGES

- **Soil Degradation** – The intensive use of modern farming practices, such as heavy use of chemical fertilizers and pesticides, can lead to soil degradation over time, reducing soil fertility and leading to erosion.
- **Biodiversity Loss** – Modern agriculture can have a negative impact on biodiversity, with the use of monoculture and genetically modified crops leading to a loss of natural diversity in plant and animal species.
- **Water Pollution** – The excessive use of chemical fertilizers and pesticides in modern agriculture can lead to runoff and contamination of nearby water sources, potentially harming aquatic ecosystems and human health.
- **Health Risks** – The use of chemicals in modern agriculture can pose health risks to farmers and farm workers who are exposed to these chemicals on a regular basis.
- **Food Safety Concerns** – The use of genetically modified crops and hormones in modern agriculture has raised concerns about the safety of the food supply, with some studies suggesting potential long-term

5. APPLICATIONS

- With the help of our project, we can analyse all the cultivations happened between the specified years . So we can use the data from the analysis to predict the cultivation of crops that gives the maximum yield and high profit with respect to the corresponding seasons.
- Seasonality is the phenomenon that causes crop prices (including cash, futures, basis, option volatility, intramarket, intermarket, and inter-commodity spreads) to behave in a relatively predictable manner, year in and year out.
- For winter wheat and rice, we need to improve the temperature predictions, particularly over the mid-latitudes, whereas improving rainfall predictions was more important for maize. For spring wheat and soybeans, the crop growth simulation itself should be improved.

6. CONCLUSION

The Indian economy is an agro-economy and depends highly on the agricultural sector. Despite just supporting the Indian Economy, the agricultural sector also supports the industrial sector and international trade in imports and exports. Although the contribution of the Agricultural Sector to the Indian Economy is reducing, it is the sector with the most number of people working in it around the country.

Agriculture is the Indian economy's most important sector, and India's farm sector is the largest industry. With constant changes and developments happening and introduced policies, it will only go upwards. It will always remain a significant factor in the nation's economic growth.

The agriculture industry is one that needs to be preserved in order to sustain life. Without agriculture there would be no food, and without food there would be nothing.

In conclusion, Agriculture has given so much to the society.

7. FUTURE SCOPE

- Agriculture in India is livelihood for a majority of the population and can never be underestimated.
- Although its contribution in the gross domestic product (GDP) has reduced to less than 20 per cent and contribution of other sectors increased at a faster rate, agricultural production has grown. This has made us self-sufficient and taken us from being a begging bowl for food after independence to a net exporter of agriculture and allied products.
- Total foodgrain production in the country is estimated to be a record 291.95 million tonnes, according to the second advance estimates for 2019-20. This is news to be happy about but as per the estimates of Indian Council for Agricultural Research (ICAR), demand for foodgrain would increase to 345 million tonnes by 2030.