# INTRODUCTION

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Paste the empathy map screenshot

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Paste the Ideation & brainstorming map screenshot

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# INTRODUCTION

# 1.1 OVERVIEW

# Agriculture helps to meet the basic needs of human and their civilization by providing food and clothing. It is the productive unit where the free gifts of nature namely land, light, air, temperature and rain water etc., are integrated into single primary unit indispensable for human beings. Secondary productive units namely animals including livestock, birds and insects, feed on these primary units and provide concentrated products such as meat, milk, wool, eggs, honey, silk.

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# PURPOSE

# Agriculture is the practice of cultivating natural resources to sustain human life and provide economic growth. Agriculture is the backbone of our country’s economy. It is the main traditional occupation of our country. Agriculture provides most of the world’s food and fabric. Many effective agricultural techniques have roots in pre-agricultural human history. It gives employment opportunities to all.

1. **PROBLEM DEFINITION & DESIGN THINKING**

**2.1 Empathy Map**

# 

**2.2 Ideation & Brainstorming Map**

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# RESULT

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# 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.

# 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.

# 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.

# 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 health effects.

# 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.

# FUTURE SCOPE

# Agriculture in India is livelihood for a majority of the population and can never be underestimated.

# . 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.