

**GOVERNMENT ARTS COLLEGE, PARAMAKUDI**  
**UG DEPARTMENT OF PHYSICS**

**PROJECT TITLE:**

**INDIA'S AGRICULTURAL CROP PRODUCTION ANALYSIS (1997-2021)**

**SUBMITTED BY:**

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**GOVERNMENT ARTS COLLEGE, PARAMAKUDI.**

# **PROJECT REPORT**

## **INTRODUCTION**

**Most of its agriculture exports serve developing and least developed nations. Indian agricultural/horticultural and processed foods are exported to more than 120 countries, primarily to the Japan, Southeast Asia, SAARC countries, the European Union and the United States**

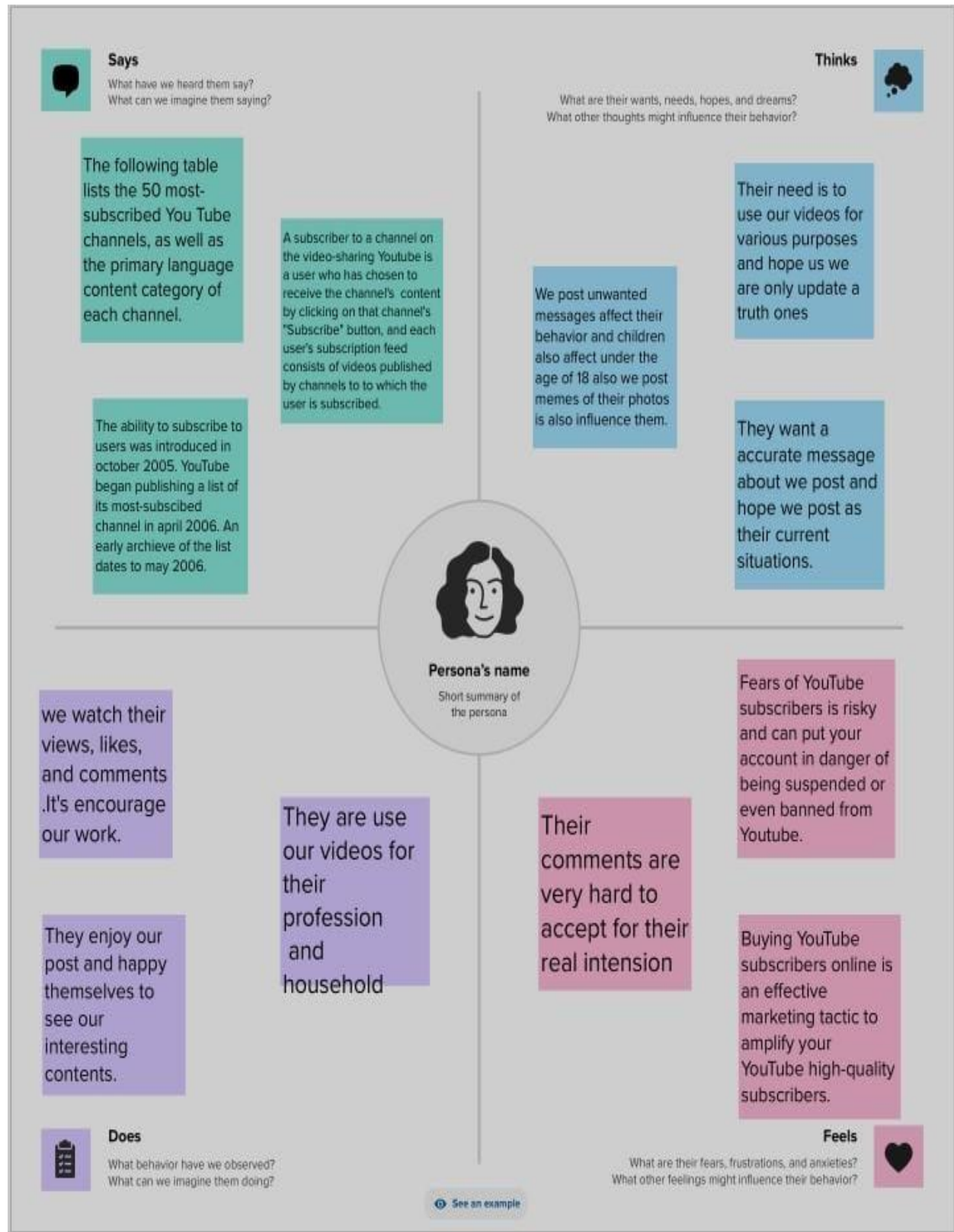
## **OVERVIEW**

**India is the world's largest producer of milk, pulses and jute, and ranks as the second largest producer of rice, wheat, sugarcane, groundnut, vegetables, fruit and cotton. It is also one of the leading producers of spices, fish, poultry, livestock and plantation crops.**

## **PURPOSE**

**Most of its agriculture exports serve developing and least developed nations. Indian agricultural/horticultural and processed foods are exported to more than 120 countries, primarily to the Japan, Southeast Asia, SAARC countries, the European Union and the United States.**

# EMPATHY MAP

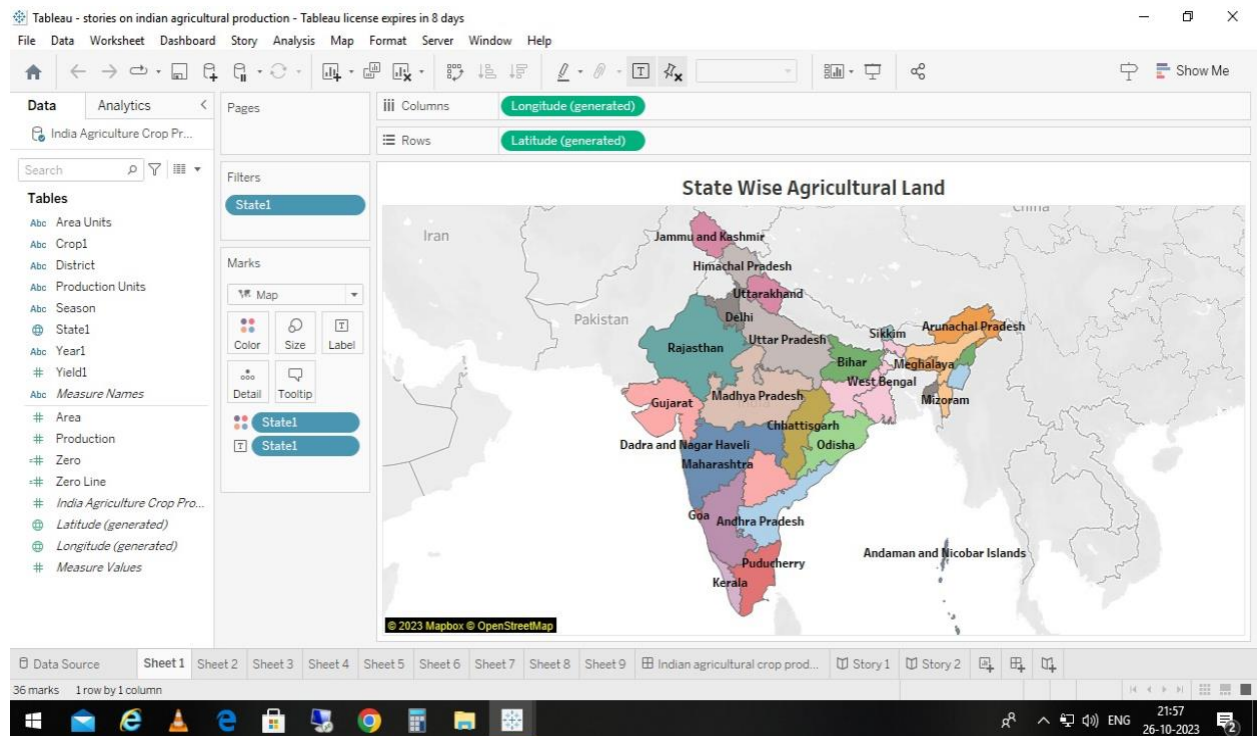


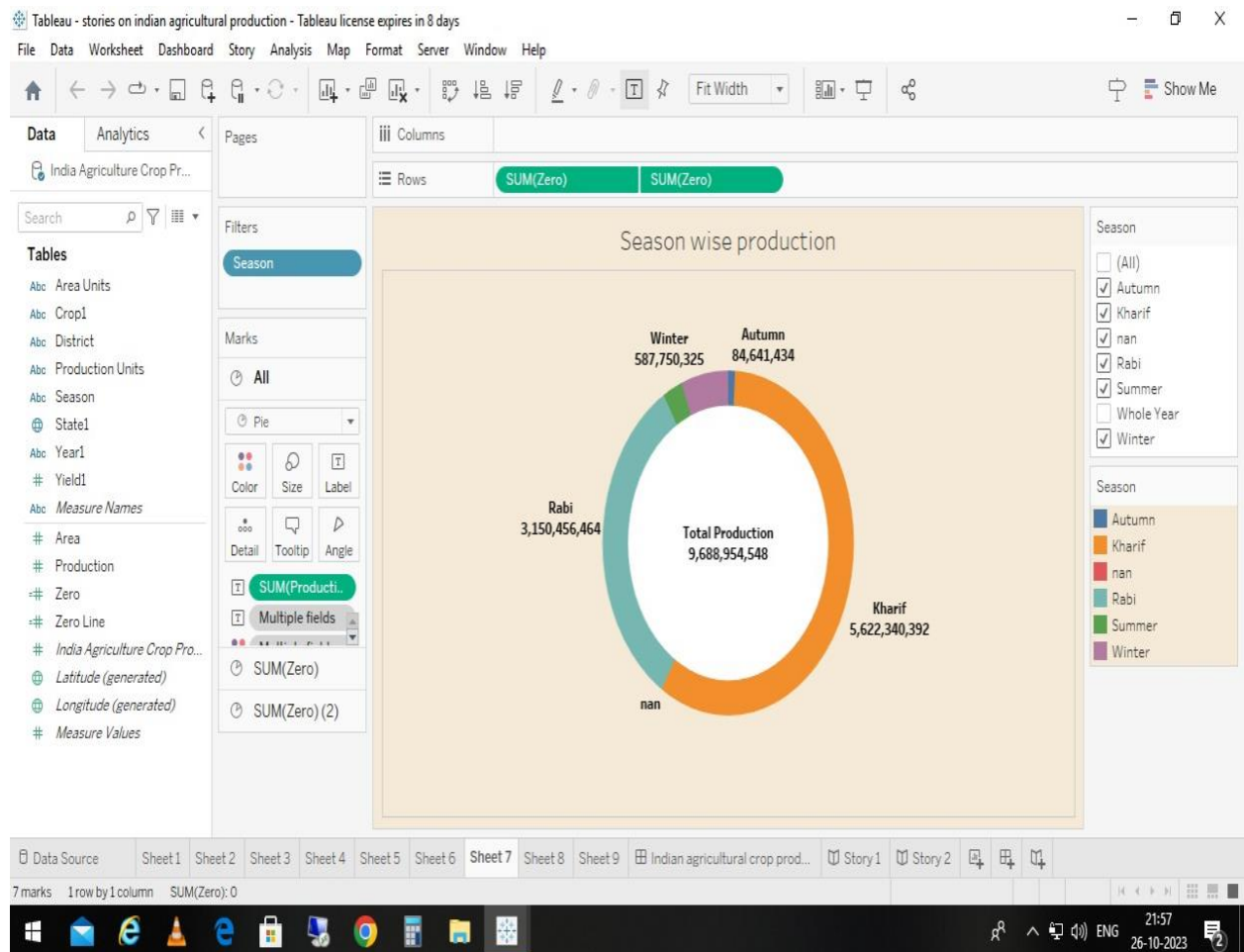
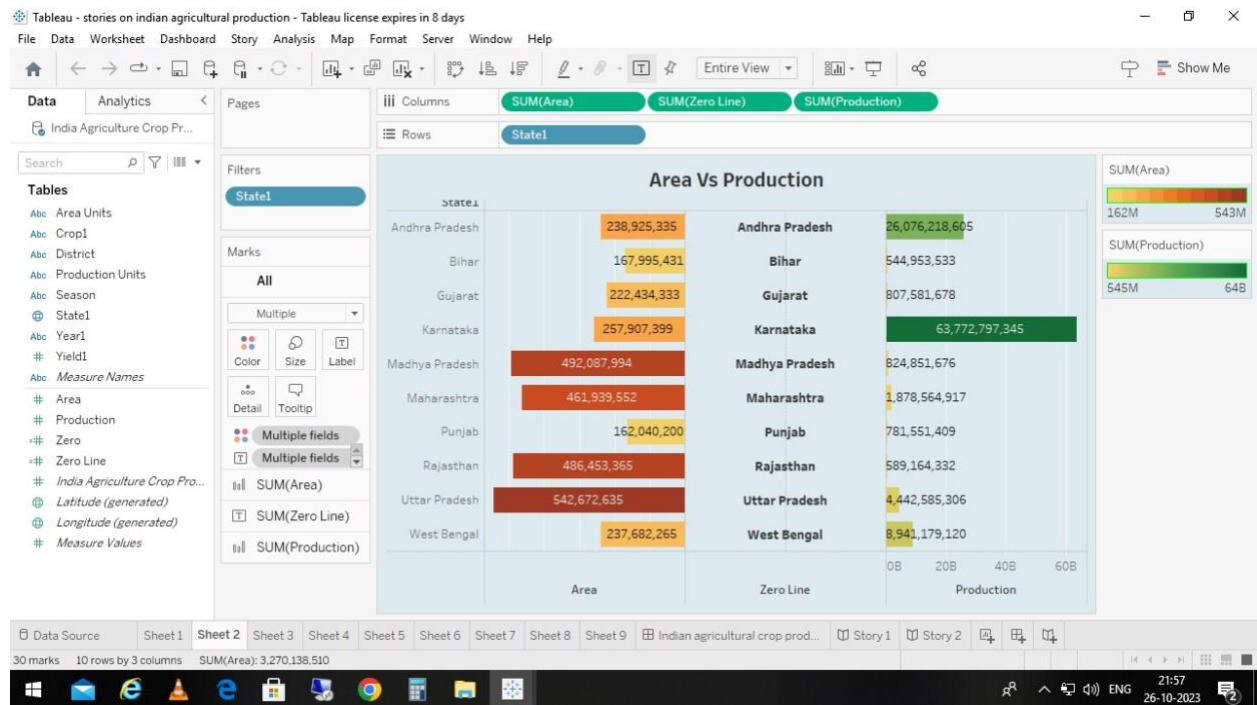
# BRAINSTORM



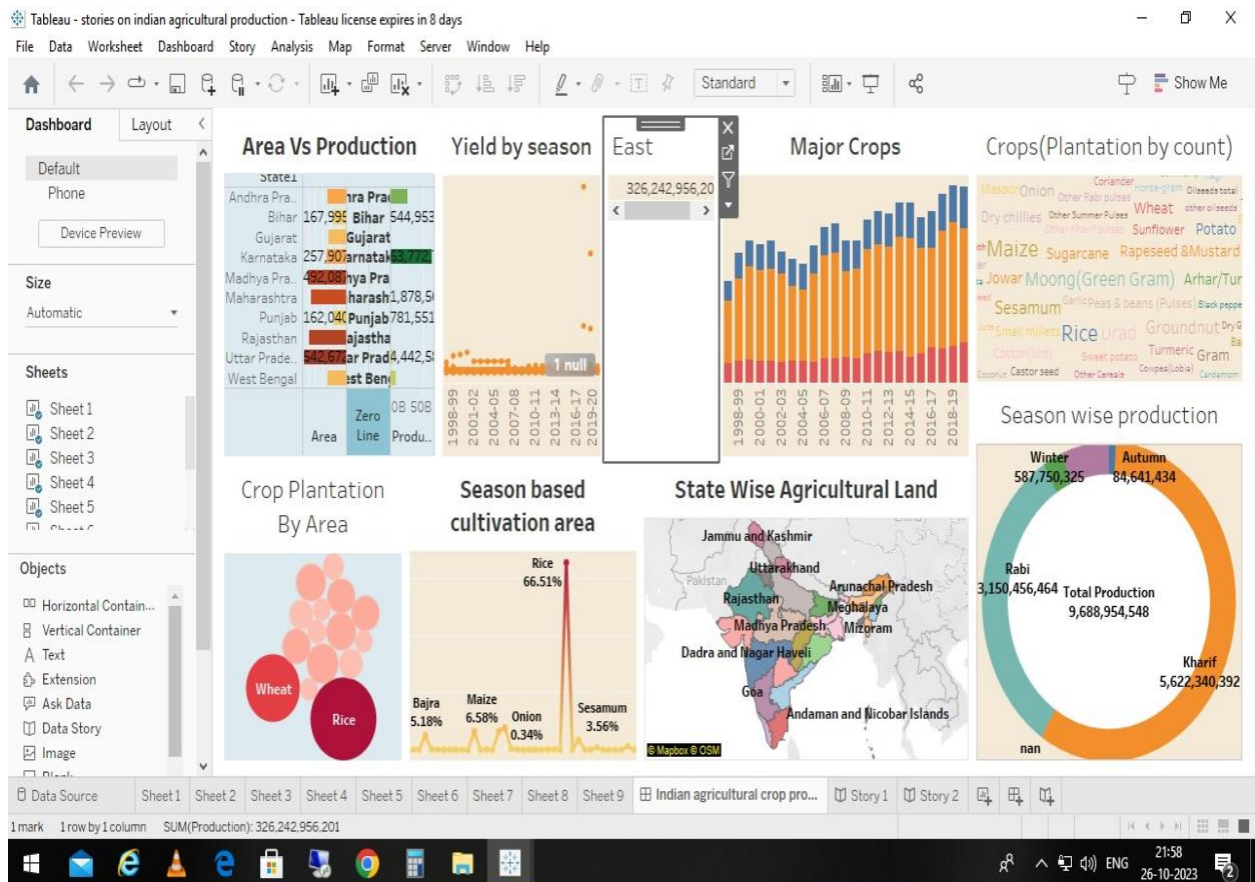
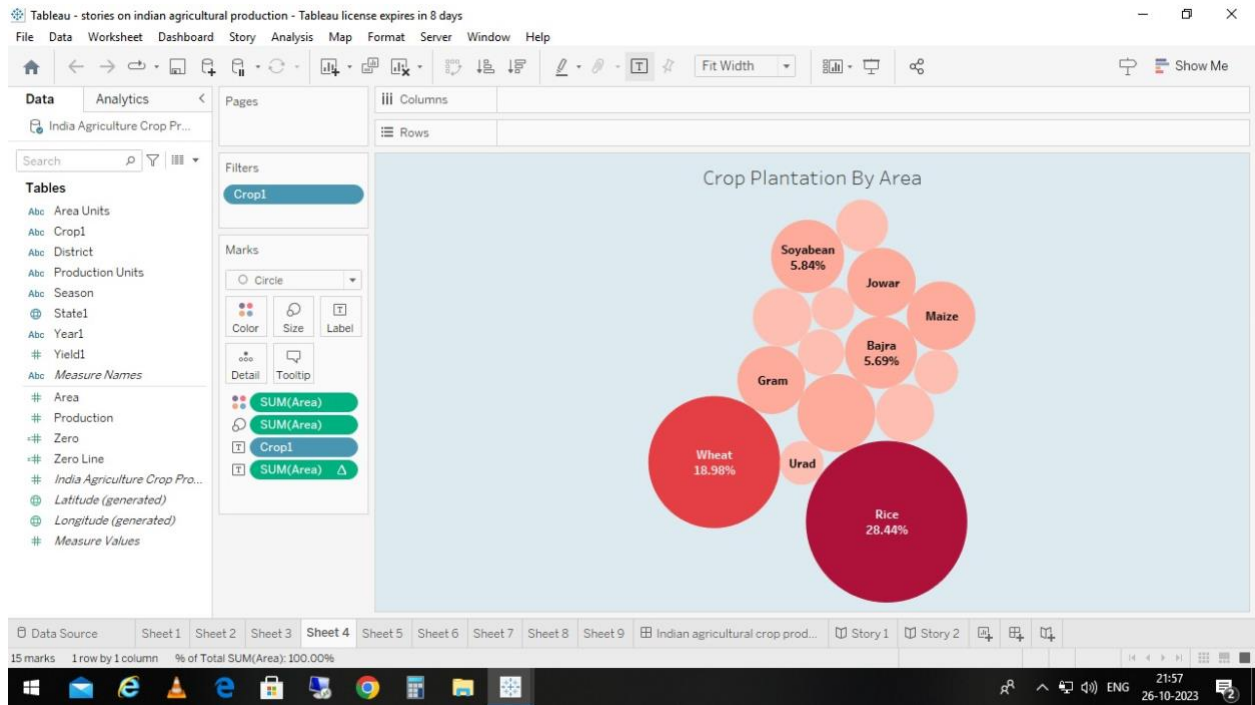
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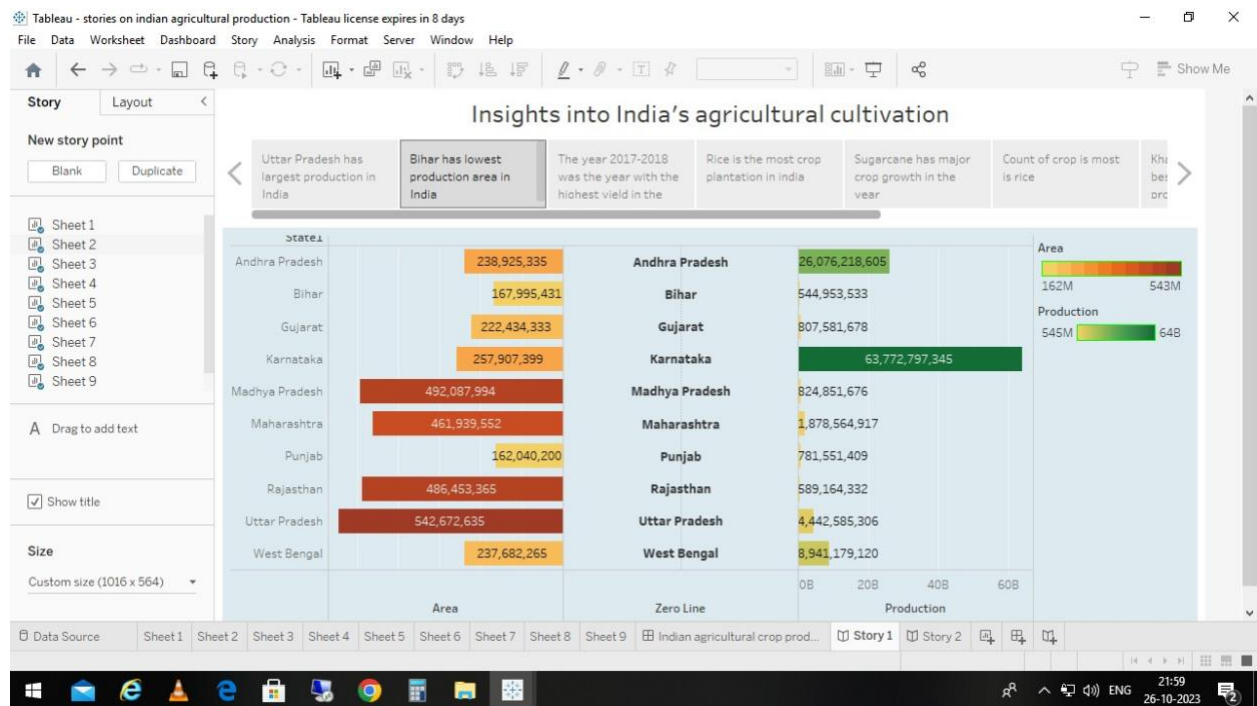
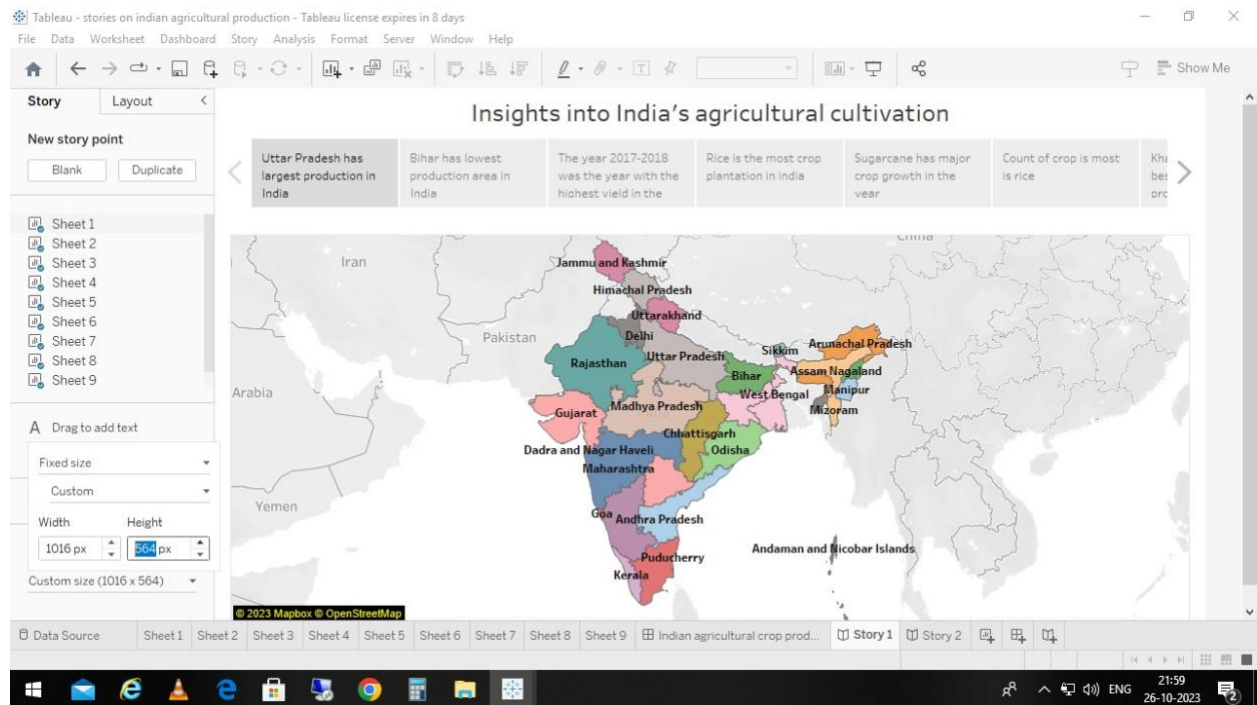
## SHEETS

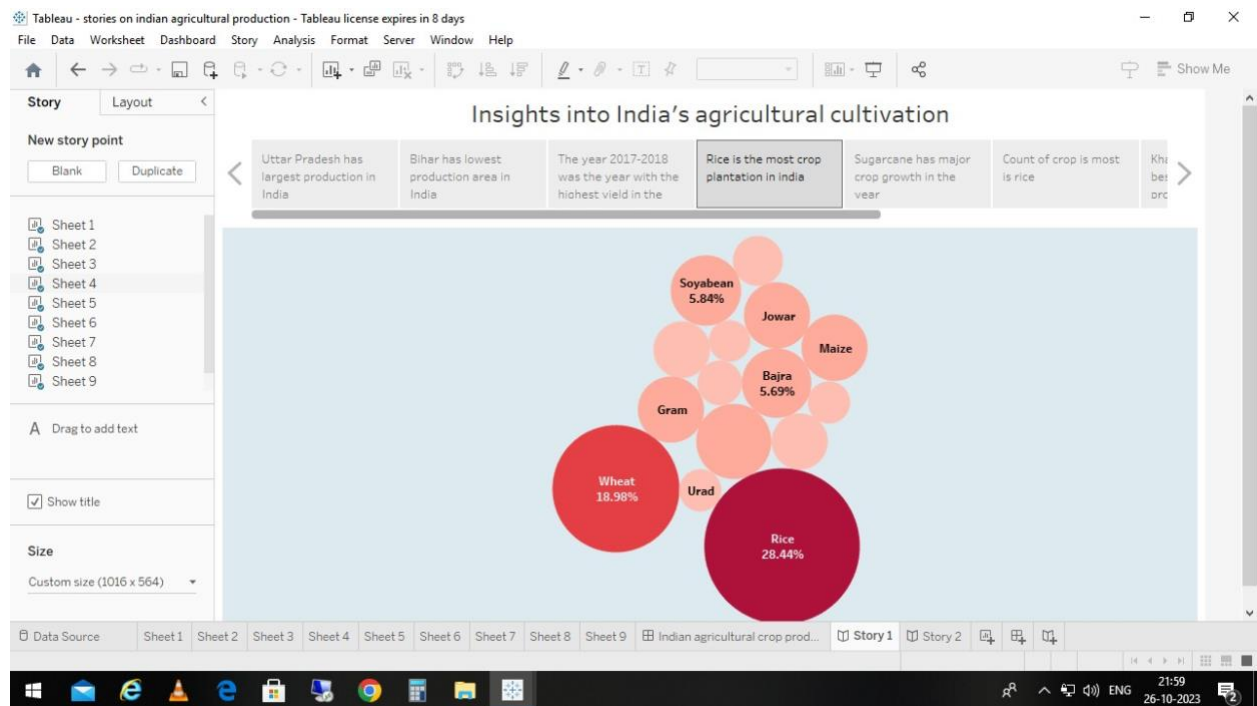
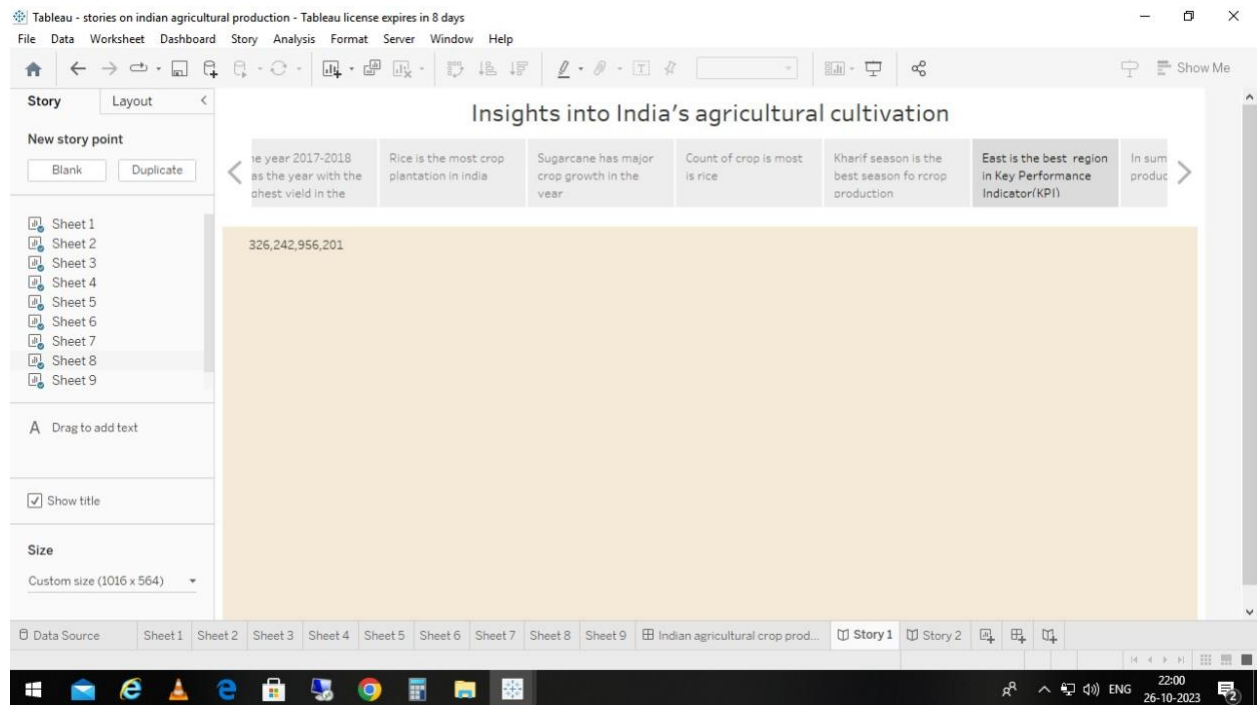




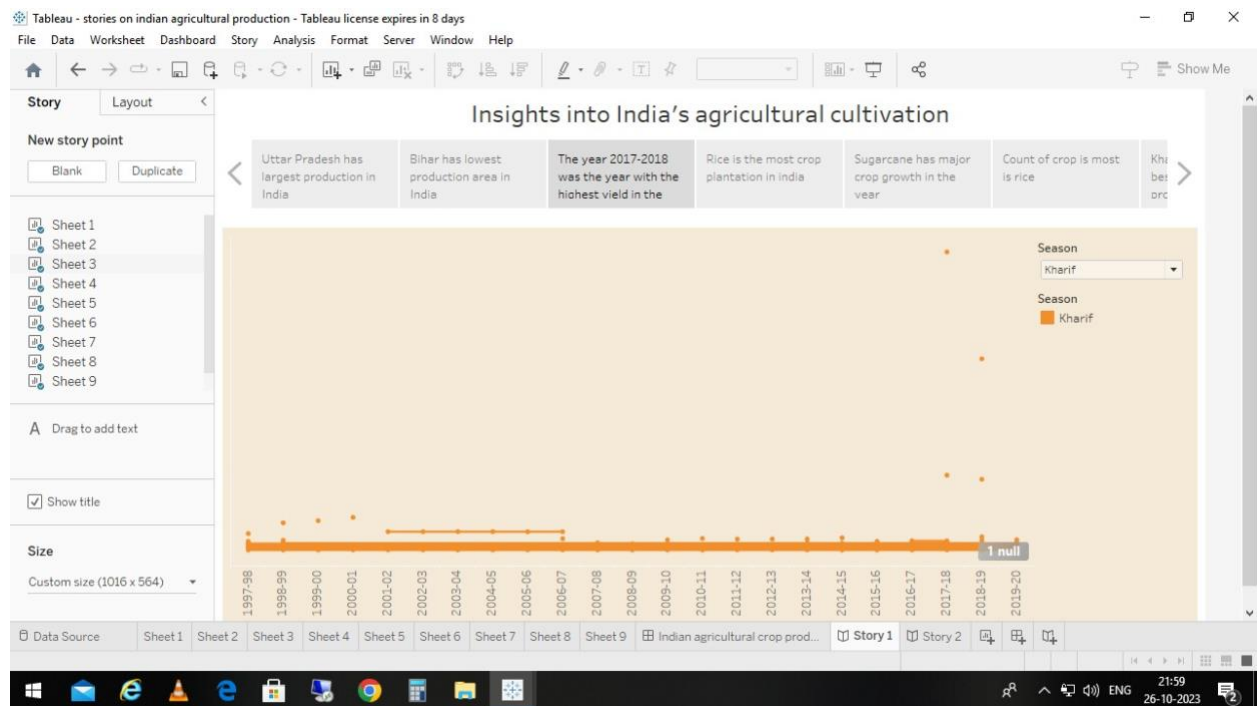
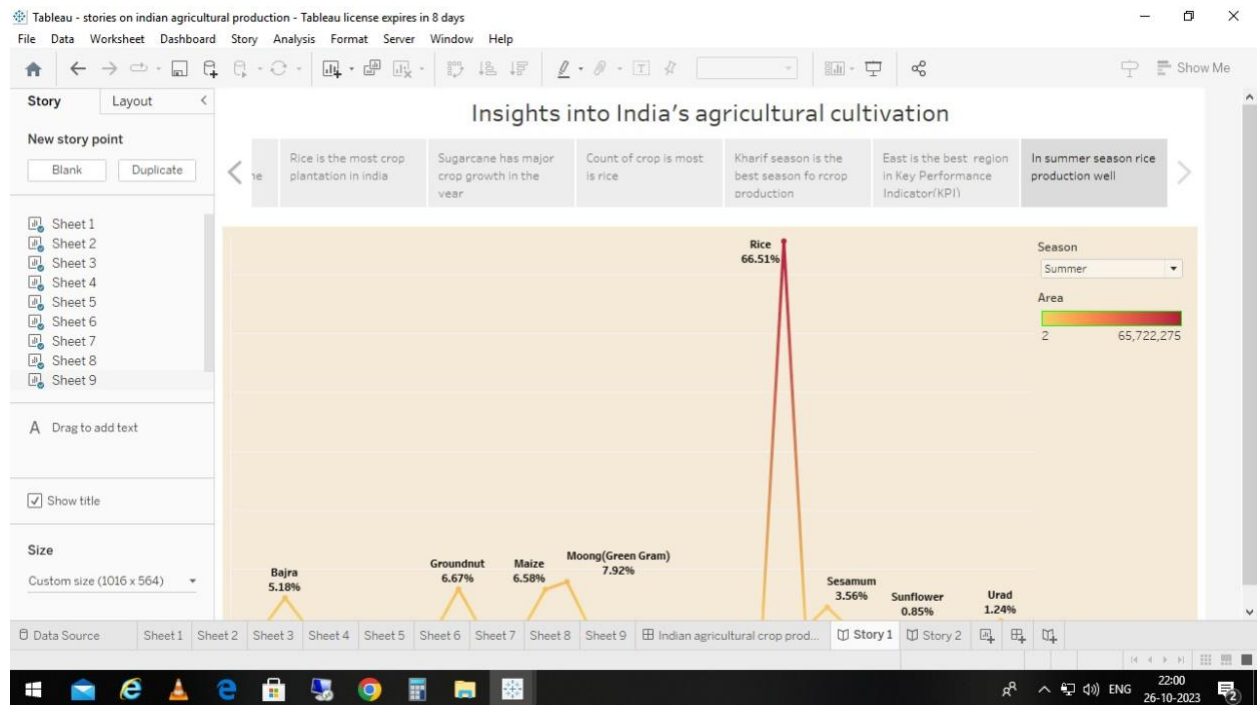












## ADVANTAGES AND DISADVANTAGES

### ADVANTAGES

- Increased agricultural productivity can lead to higher incomes for farmers and improved food security for the country.

- Development of agriculture in rural areas can promote rural employment and contribute to the overall economic growth of the country.
- Disadvantages of Indian agriculture development in rural areas:
- Lack of modernization and inadequate infrastructure can limit the growth of agriculture in rural areas.
- Climate change, water scarcity, and other environmental challenges can pose significant threats to the sustainability of agriculture in India.

## **DISADVANTAGES**

- Erosion of soil by heavy rain, floods, insufficient vegetation cover etc., reduces farm productivity. Inadequate irrigation facilities and poor management of water resources have led to a great decline in agricultural productivity.

## **APPLICATION**

Agricultural Applications means applications relating to (i) cultivating, characterizing or modifying soil; (ii) producing, growing, improving, protecting, treating or modifying crops or forest products; (iii) raising, harvesting, improving, protecting, treating or modifying livestock, poultry, fish or shellfish; and (iv) the preparation, marketing or treatment of products resulting from the activities described in (i)-(iii) above. Agricultural Applications shall include applications involving the improvement or modification of soil, crops, livestock, poultry, fish or shellfish and their resulting products as they relate to human health, as well as foods from plants and animals designed or modified to enhance their health attributes, in each case for nutraceutical applications but not therapeutic applications in humans. Agricultural Applications shall also include agricultural applications relating to bacteria, fungi, and viruses, as well as pest organisms with respect to, and only to the extent of, such bacteria, fungi, viruses or pest organisms' interaction with soil, plants, livestock, poultry, fish or shellfish. For avoidance of doubt it is acknowledged and understood that Agricultural Applications includes genes and gene-based or genetic

technologies useful for achieving the above described activities, in particular: - Gene-based diagnostics of agricultural pests; - Gene-based analysis of metabolism of pesticides in plants and pest organisms; - Gene-based analysis of metabolism and physiological state of plants; livestock, poultry, fish, shellfish, or their pests; - Genetic modification of pest organism for functional analysis of pest-related properties; - Genetic modification of pest, bacteria, fungi, or viruses for functional analysis and optimization as protectants or growth stimulators of plants, livestock, poultry, fish or shellfish; - Functional genetic analysis of the genomes of plants, livestock, poultry, fish, or shellfish or their pest for applications in agriculture; - Genetic modification of plants, livestock, poultry, fish, or shellfish or their pests with the goal of enhancing properties relevant to production and end-use (i.e.; input and output traits); - Gene-based diagnostics for determining seed and crop composition and quality; and - Gene-based markers for facilitation of the breeding of plants, livestock, poultry, fish, or shellfish or their pests for applications in agriculture. Agricultural Applications shall further include food safety applications.

## **CONCLUSION**

Agriculture is an integral part of smart growth. The ability to feed one's own population is critical to the independence of any state. Ontario is blessed with resources that have facilitated the development of a worldclass agricultural industry that provides safe, nutritious, and reliable food. The ability to feed the local population from local sources should not be underestimated. Perhaps because of its long-term presence in the study area, agriculture tends to be taken for granted. Many people expect that it will continue in perpetuity and that as it is pushed out of one area by urban expansion, it will relocate in another area that is less subject to growth pressure. This assumption is false. Agriculture is a diverse industry with very specific locational connections. Certain crops can only be grown in specific locations where the combination of a variety of factors including soil, moisture, temperature, and topography is right. When such areas are lost to agriculture, the ability to produce the crops that require that particular combination of factors is also lost. The public needs

to understand that agricultural land is a nonrenewable resource requiring appropriate management techniques. Before allowing land to go out of production, decision makers must consider the implications of that decision and evaluate it in terms of the long-term loss to Ontario. Preserving the quality of life is perhaps the most fundamental goal of smart growth. A healthy agricultural industry close to urban areas contributes to the quality of life in ways that should not be underestimated. This contribution can be evaluated in terms of the national security value of being able to provide a secure and nutritious food supply the economic value of a world-class industry run by experienced and knowledgeable operators the social value of providing products in response to the demands of a changing ethnic population seeking alternative foods the recreational value of being able to travel to pick-your-own operations and spend time in a rural setting the direct environmental value of improvements to the quality of the environment; indirect environmental value in the preservation of green space, habitat, and wildlife corridors public health value in maintaining control over the food supply and the ability to regulate how it is grown and what techniques are used to grow it an historic value, in that agriculture is part of the history of the settlement of Ontario. Benefits such as these all need to be considered during the development of a smart growth strategy.

## **FUTURE SCOPES:**

There is a tremendous scope for agriculture because food & food products are indispensable for the survival of humanity. It's a recession proof industry because when every industry is downsizing the demand for food crops is on a rise underlining the need for agricultural productivity.