Project Based Experiential Learning Program

Political Juggernauts: A Quantitative analysis of Candidates in the 2019 Lok Sabha Election

INDIA DISTRICT -WISE AGRICULTURE CROP AREA AND PRODUCTION

1.INTRODUCTION

1.1 Overview

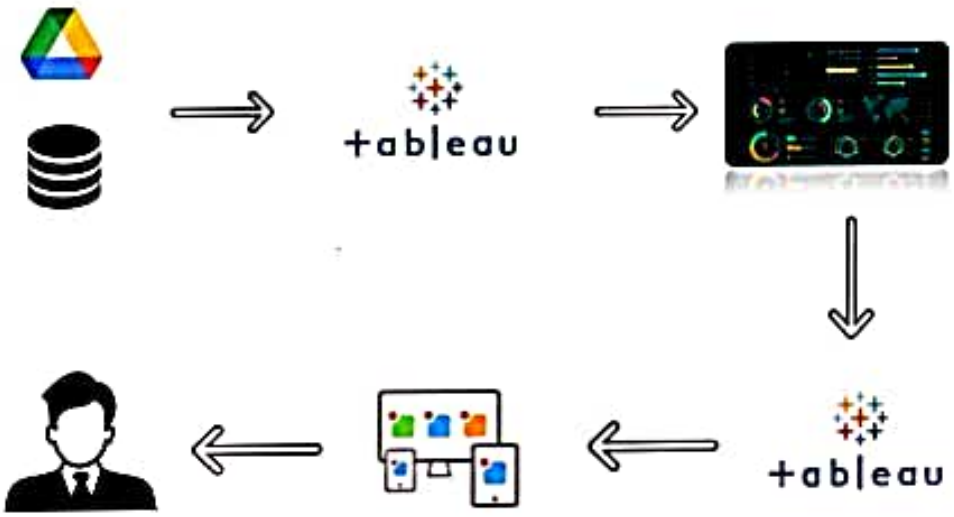
Agriculture is an evolutionary process that consists of a series of activities such as the production of food, fibers, feed, and raising of domesticated animals to fulfill the demand of the population. Agriculture is a key to development in the area of human civilization.

There are several Major Crops In India like Food grains -Rice, Wheat, Maize, Millets and Pulses, Cash Crops- Cotton, Jute, Sugarcane, Tobacco, and Oilseeds, Plantation Crops-Tea, Coffee, Coconut and, Rubber and Horticulture crops-Fruits and Vegetables.

1.2 Purpose

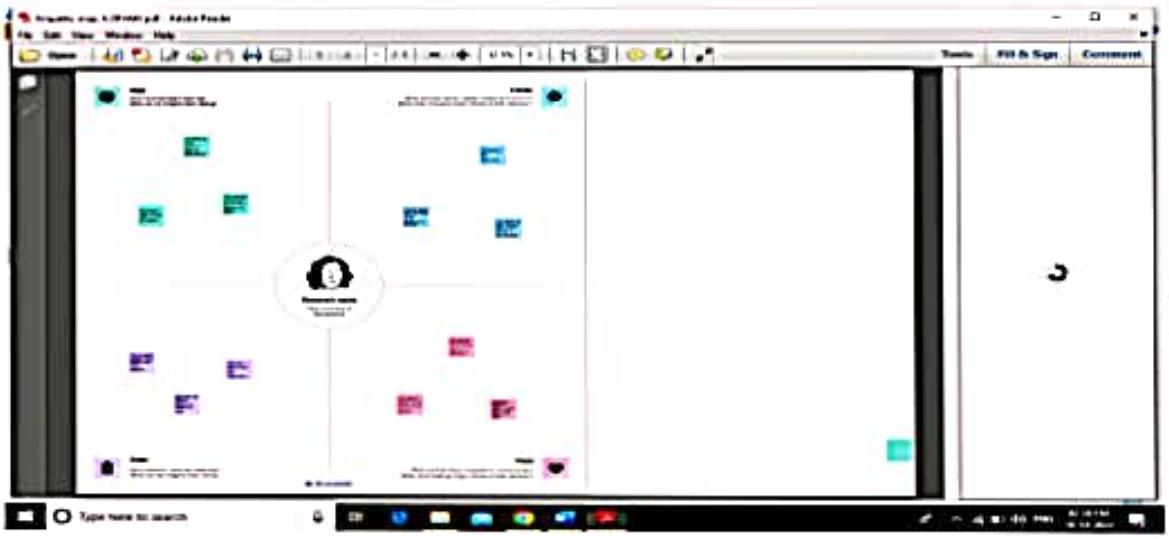
Crop production is a common agricultural practice followed by worldwide farmers to grow and produce crops to use as food and fibre. This practice includes all the feed sources that are required to maintain and produce crops. Listed below are few practices used during crop production. Preparation of Soil.

Technical Architecture:

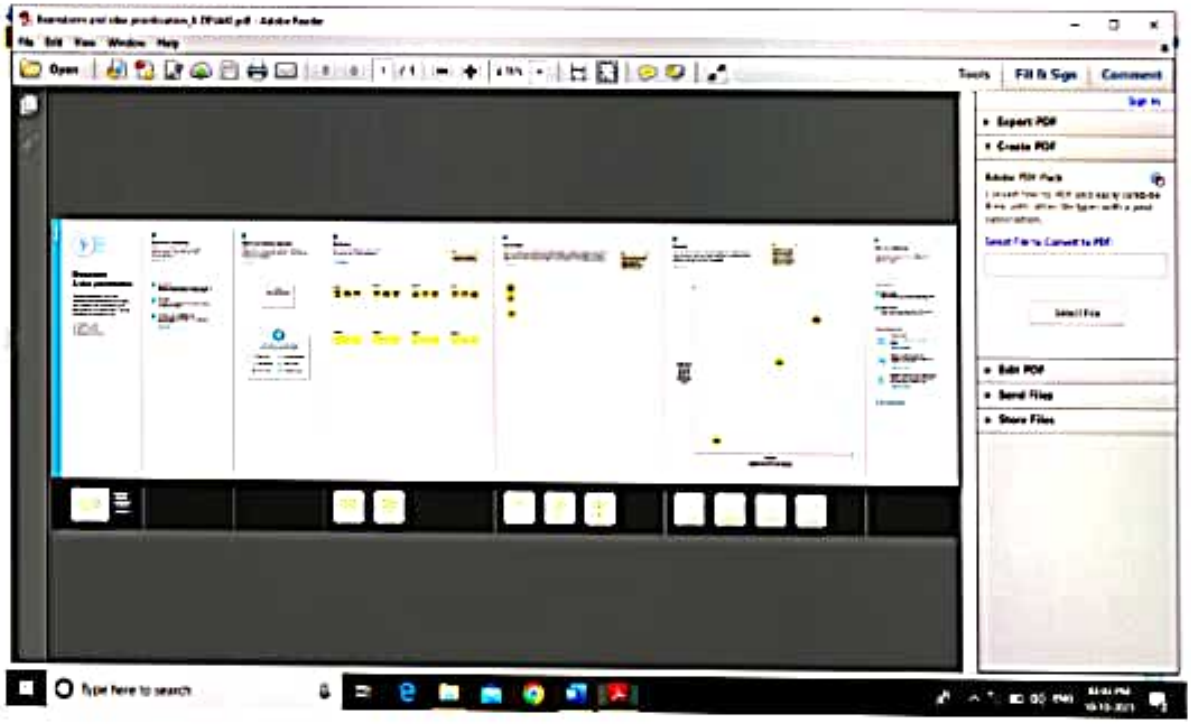


2. Problem Definition & Design Thinking

2.1 Empathy map Screenshot:



2.2 Ideation & Brainstorming Map Screenshot:

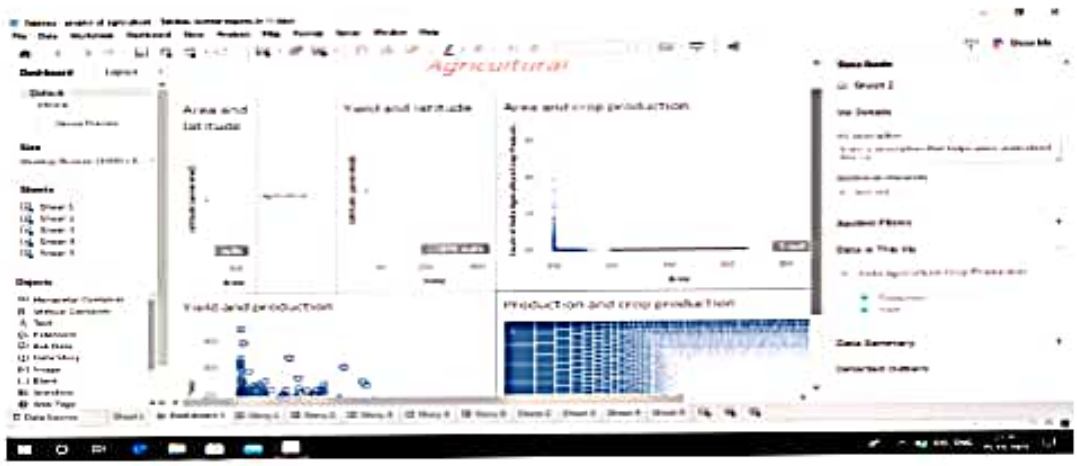


3.RESULT

3.1 DASHBOARD

Link:https://public.tableau.com/app/profile/janani.g6293/viz/projectofagriculture/Dashboard1?publish=yes

Tableau Public Screenshot for Dashboard:

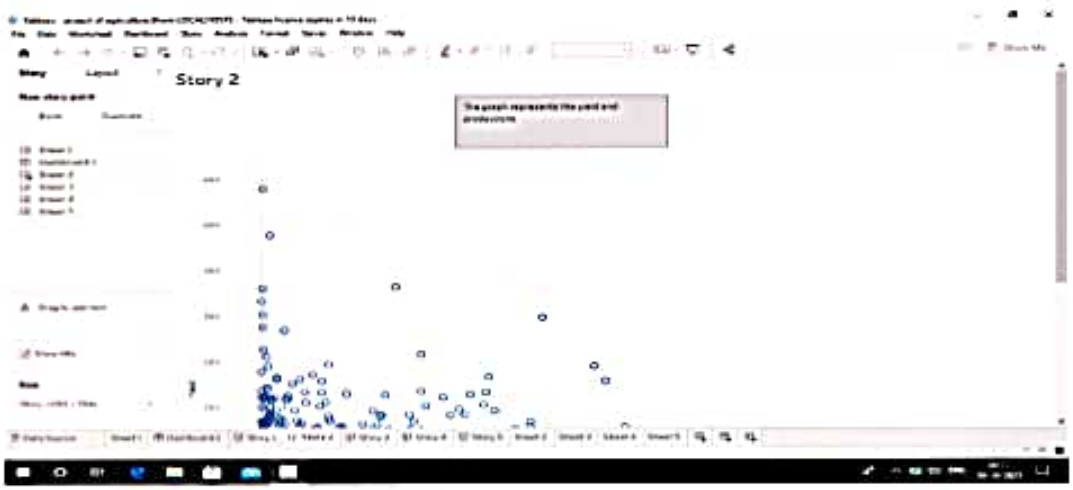


3.2 Story

Link

https://public.tableau.com/app/profile/janani.g6293/viz/projectofagriculture/storyt2?publish=yes

Tableau Public Screenshot for Story:



3.3 Web Application

HTML Template Screenshot:

4.ADVANTAGES & DISADVANTAGES

Advantages:

1.There is over all increase in yield of crops mainly due to maintaining physical- chemical properties of soil. Soil fertility is restored by fixing atmospheric nitrogen, encouraging microbial activity (more organic matter) and protecting soil from erosion, salinity and acidity.

2. It helps in controlling insects, pests & soil borne diseases. It also controls weeds. E.g. repeated wheat culture (growing) increases wild oats and phallaris infestation. Similarly growing berseem continuously encourages chicory (kasani) infestation, but an alternate cropping of berseem and wheat helps in controlling kasani as well as oats and phallaris.

3.Prevent or limit periods of peak requirements of irrigation water. Crops requiring high irrigation if followed by light irrigation, this will not affect or deteriorate the soil physical condition.

4. It facilitates even distribution of labour. Following crop make proper utilization of all resources and inputs. Family and farm labour, power, equipment and machines are well employed thought the year.

5. Farmers get a better price for his produce due to higher demand in local market. So there is regular flow of income over year.

6.Inclusion of crops of different feeding zones (root system) and nutrient requirement could maintain the better balance of nutrient in soil. Growing crops of different root depths avoids continuous depletion of nutrients form same depth. E.g. deep rooted crops take nutrients from deeper zone and during that period upper zone get enriched. Similarly, surface feeding roots take nutrients from upper zone when lower zone get enriched. So growing same crop without rotation results in loss of soil productivity utilized the nutrients from entire soil mass and cost of cultivation is reduced.

Disadvantages:

Industrial Agriculture: Benefits And Risks Mitigation

Intensive agriculture is the most typical method of soil cultivation and the key source of food worldwide. It relies on reaping high yields with strong and often extreme land exploitation and often extreme inputs. The main benefits of intensive farming include sufficient food supplies at affordable prices.

However, advantages never come for free. Increased chemical applications are dangerous both to nature and the human body. Intensive farming causes environment pollution and induces major health issues due to poisonous agents. In this regard, the impacts of industrial agriculture require serious attention and management of risks.

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What Is Industrial Agriculture?

The concept of industrial agriculture implies increased use of farmlands to produce the highest yields possible to gain profit and support human food needs. The maximization is achieved through typical intensive farming practices like increased use of fertilizers, insecticides, abundant irrigation, heavy machinery land treatment, planting high-yield species , expansion of new areas, among others. This way, higher inputs in industrial agriculture condition higher outcomes.

Most commercial agricultural enterprises apply intensive crop farming and regard agriculture primarily as a business, taking as much as they can from every single unit of land. On the contrary, extensive farming propagates a more sparing and healthy approach to land use, with fewer chemical inputs. It maintains productivity in natural and eco-friendly ways that echo with organic farming.

Irrigation of industrial fields

Benefits Of Industrial Agriculture

The main advantage of intensive farming is its increased performance when higher yields are harvested from smaller territories. This brings economic benefits to landowners and provides food for the growing population. Intensive agriculture fully satisfies the market demand even in densely inhabited areas. It also requires less labor compared to eco-friendly farming methods since chemical pest and weed controls work faster and are easier to implement.

Disadvantages Of Industrial Agriculture

The highest crops come with some drawbacks though. Traditional intensive agriculture neither aligns with the sustainability concept nor contributes to nature protection, so intensive farming problems require serious consideration

Pest and weed resistance to chemicals. Regular use of synthesized pesticides and herbicides in industrial agriculture induces adaptation .

5.APPLICATONS

Crop production is a common agricultural practice followed by worldwide farmers to grow and produce crops to use as food and fibre. This practice includes all the feed sources that are required to maintain and produce crops. Listed below are few practices used during crop production. Preparation of Soil.

Harvesting
Once the crop is matured or fully ripen, they are cut and gathered (Reaping) which are collectively called as harvesting. Harvesting depends on many factors like season, crop variety, maturity period, etc.

Over-irrigation, irregular sunlight can prolong ripening of crop which thus delays the harvesting time. Early harvesting causes loss of unripened grains while delayed harvesting leads to shedding off of grains.

Besides this, rodents and even birds eat the grains. Therefore regular examination of the crop is necessary as harvesting period approaches. The golden yellow colour is the indication of ripened crops for paddy, rice, and wheat.
Manually harvesting is done by using sickles but it is a tedious job as well as time-consuming. In recent times, machines called harvesters are used for harvesting, especially in large-scale farming.

Followed by harvesting, threshing of the crop has to be performed. Threshing is the process, in which, the collected grains are separated from the chaff by beating or by the threshing machine. In small-scale farming, chaff and grains are separated from each other by a process called winnowing.

Harvesting is considered as a festival in most part of the country. It is a time of joy where the fruits of the hard workrevent bacteria and other microorganisms. After proper treatments, grains have to be stored in gunny bags or granaries and deposited in godowns.

Thus we see how harvesting and storage of grains form an important part of crop production.

6.CONCLUSION

The agricultural sector is of vital importance for the region. It is undergoing a process of transition to a market economy, with substantial changes in the social , legal, structural, productive and supply set-ups, as is the case with all other sectors of the economy.

7.FUTURE SCOPE

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.

The recent bout of drought in East Africa has propelled the demand for food grains.

The Ongoing Ukraine war has highlighted that consistent food grain production is vital for survival. In fact, with growing climatic challenges, we require Agriculture scientists who can develop pest resistant varieties that give a bumper harvest.

The scope for agriculture can be determined from the fact that ever since the war started, many countries are struggling with the food shortage. These nations depend on the food grain supplied from the Ukraine, which dried up owing to the war.

This proves that the agriculture sector is vital for survival highlighting the need for graduates with a degree in Agriculture.