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AN OVERVIEW ON TYPES OF FARMING & CROPS IN INDIA

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ABSTRACT

India is a significant agricultural powerhouse Agriculture employs two-thirds of the country's population. Agriculture is a main activity that produces the majority of the food we eat. It generates raw materials for a variety of industries in addition to food grains. The geographical situation of India is special in terms of agriculture since it gives several favorable circumstances. Plain regions, good soil, a lengthy growth season, and a broad range of weather conditions, among other things, exist. Apart from its unique geographical location, India has constantly made creative attempts to enhance output via the use of science and technology. Cropping trends and agricultural practices in the nation some of the most significant crops cultivated in the nation include various types of food and fiber crops, vegetables and fruits, spices and sauces, and so on. Agriculture is one of the most significant areas in both India and the rest of the world. We can't fathom a world without agriculture. As a result, understanding the relevance of diverse forms of agriculture in India is a must. Agriculture is comparable to farmers, and it is incomplete without farmers. An agricultural system might be a single farm or a collection of farms with similar agricultural characteristics. The act of cultivating crops and raising livestock for human consumption and use is referred to as agriculture. Many various kinds of production have been implemented since the advent of agriculture.

KEYWORDS: *Agriculture, Cultivation, Crops, Harvesting, irrigation, Mixed Farming.*

1. INTRODUCTION

India is a significant agricultural powerhouse. Agriculture employs two-thirds of the country's population. Agriculture is a main activity that produces the majority of the food we eat. It generates raw materials for a variety of industries in addition to food grains. Agriculture in our country is a centuries-old economic activity. Cultivation methods have evolved substantially over time, owing to changes in the physical environment, technical knowledge, and socio-cultural behaviors. Farming is classified as either subsistence or commercial. Some of the most significant crops cultivated in the nation include various types of food and vegetable crop, and fiber crops, fruits, spices and sauces, and so on[1]–[3].

Agriculture, often known as farming, may be viewed as a system. Seeds, fertilizers, machines, and labor are all significant inputs[4]. Ploughing, planting, irrigation, weeding, and

harvesting are some of the tasks involved. Crops, wool, dairy, and poultry products are among the system's outputs. Farming is done in a variety of methods all around the world.

Farming may be divided into two categories based on geographical factors, demand for produce, labour, and technological level. Subsistence farming and commercial farming are the two types of farming. To fulfil the demands of an ever-increasing population, a wide range of crops are cultivated. Crops also serve as a source of raw materials for agro-based businesses. Wheat, rice, maize, and millets are the most important food crops. Fiber crops include jute and cotton. Tea and coffee are important beverage crops. In the production of food and fiber crops, agricultural production and management uses a mix of land, water, labor, and other inputs such as seeds, fertilisers, pesticides, and machines.

Agricultural production and management is concerned with how farmers use land, water, farm inputs, labour, and managerial skills to create agricultural crops. In India, there are three main agricultural producing seasons: Kharif, Rabi, and Zaid. In India, the Kharif crop is the summer or monsoon crop. During the south-west monsoon season, Kharif crops are generally planted when the first rains arrive in June-July. This crop is grown in some parts of the country during March to June. Crops cultivated during the Zaid season are grown in various regions of the nation from March through June. In India there are various types of farming which are: subsistence farming, Plantation farming, mixed farming, commercial farming, and shifting cultivation[5], [6].

1.1.Types of Farming

The various types of farming which are shown as:

1.1.1 Subsistence Farming

In India, the vast majority of farmers use this method. Farming for a living this entails producing food for one's own consumption. In other words, the farmers and their families eat the majority of the produce. I don't have anything to sell on the market since I don't have any surplus. Landholdings are tiny and dispersed in this form of farming. This sort of farming is done to satisfy the requirements of the local community. Family of a farmer Low degrees of technology have been the norm in the past and domestic labor are employed to manufacture on a modest scale output. Subsistence farms are generally only a few acres in size, and farm technology is rudimentary and poor yielding[7], [8]. There are several types of subsistence farming such as intense and basic subsistence farming.

The farmer in intense subsistence agriculture uses minimal equipment to farm a tiny area of land more work is required, Climatic conditions with a significant number of days. The combination of sunshine and fertile soils allows for the cultivation of a wide range of plants. On the same plot, one crop is grown each year. The major ingredient is rice, Wheat, maize, legumes, and other crops are among the others oilseeds. While Primitive subsistence agriculture includes shifting cultivation and nomadic herding.

1.1.2. Commercial Farming

Commercial farming is a form of farming that employs larger quantities of contemporary inputs, such as high-yielding variety seeds, chemical, insecticides, and pesticides, to attain increased production. A plantation is a type of commercial agriculture in which a siglen crop is grown across a large area. Plantations cover vast swaths of land with the help of migrant labor and capital-intensive inputs. Large-scale crops are cultivated on enormous fields utilizing sophisticated technology, machinery, irrigation systems, and chemical fertilisers in this form of agriculture, which requires a lot of cash. Commercial agriculture is characterized by the employment of large dosages of modern inputs to increase production[9], [10]. Crops that are in great demand, such as those that must be exported or utilized as raw materials in industries, are mostly grown in commercial agriculture. Furthermore, the scope of agricultural commercialization varies from one region to the next.

1.2. Subsistence vs. Commercial Agriculture: Key Differences:

- Subsistence agriculture is a labor-intensive approach due to the large amount of labour required. Commercial agriculture, on the other hand, necessitates large financial investments, which is why it is a capitalistic method.
 - Only a small region of the world practises subsistence agriculture. Commercial agriculture, on the other hand, needs a huge area.
 - While subsistence agriculture is heavily reliant on the monsoon and primitive irrigation methods, commercial agriculture use sophisticated irrigation techniques such as surface irrigation, drip irrigation, and watering.
 - Traditional techniques of cultivation are utilised in subsistence agriculture, whereas machinery are used in commercial agriculture to cultivate the soil.
 - Food grains such as wheat and rice, as well as fruits and vegetables, are cultivated in subsistence agriculture. Cash crops and grains, on the other hand, are mostly cultivated in commercial agriculture.
2. Subsistence agriculture is an agricultural method in which the farmer and his family cultivate as many crops as possible to fulfil all or almost all of their requirements, with little or no excess goods to sell. Commercial farming is a type of farming that involves growing plants and raising livestock with the goal of selling the goods on the market.

1.3. Plantation Farming

Plantation farming is a type of commercial agriculture in which crops are produced for profit. Because crops are cultivated for profit, huge areas of land are required to make this form of farming profitable. This type of farming is most common in places with a tropical environment. This sort of farming takes a lot of labor and money. Crops may be further processed on the farm where they are cultivated, or in neighboring factories or small-scale businesses. Such farming necessitates the development of a transportation network, which is why one is built. Tea, coffee, sugarcane, cashew, rubber, banana, and cotton are some of the most common crops cultivated on plantations. The world's major plantations are situated in tropical areas. Rubber is grown in Malaysia, coffee is grown in Brazil, and tea is grown in India and Sri Lanka.

1.4. Major differences between the plantation farming and other types of farming:

- The yields obtained are for commercial use one of the most significant distinctions between plantation farming and other forms of farming is that plantation farming's primary objective is to cultivate crops for commercial use.
- Another significant distinction between plantation farming and other forms of agriculture is that just one crop is produced.
- Plantation farming is a type of commercial agriculture. As a result, a significant amount of cash is required to ensure the project's success.
- Plantation farming necessitates a significant amount of land. It's not simple to manage large swaths of land. To be successful, it needs effective management. As a result, this form of agriculture is highly automated and controlled scientifically.
- Plantation farming can only be effective if huge areas of land are farmed.

1.5. Shifting cultivation

Shifting cultivation is an agricultural method in which a person utilises a piece of land for a brief period of time before abandoning or changing that usage. This technique often entails clearing a plot of land, followed by several years of wood harvesting or farming until the soil

becomes deficient in fertility. The area is initially cleared by falling trees and burning them in the process of shifting agriculture. The ash from the trees is then mixed with the soil. Maize, yam, potatoes, and cassava are among the crops cultivated in this type of farming. Crops are cultivated for two or three years on this soil. The property was then abandoned due to a reduction in fertilizer. Farmers then migrate to another piece of land to resume the process. This is also known as slash-and-burn farming.

1.6. Mixed farming

Growing crops and raising animals on the same property is known as mixed farming. Mixed farming, for example, refers to the practise of growing maize and beans while also raising cattle and sheep. The goal is to supplement land and labour demands throughout the year by increasing income from various sources. This form of farming is mostly used in Odisha and Kerala in India.

1.6.1. Mixed farming's characteristics

- On the same farm, crops are cultivated and animals are raised.
- A section of the area is set aside for animal grazing. A part of the farm is set aside for feeding animals or cultivating animal feed in the event that a farm decides to rear its animals in specially built structures.
- Farms are of a reasonable size.
- Animal manure is applied to the soil as a fertilizer. Animal raising allows the farmer to get manure, which he may use on the farm to improve soil fertility, allowing the farmer to enhance his crop and revenue.

1.6.2. Benefits of mixed farming:

- When a crop fails or prices change, a farmer may rely on animals to supplement his income, and vice versa.
- The income is higher, when compared to crop farming or animal raising alone, the combined revenue from selling agricultural harvest and animal products is higher.
- Farmers are able to maintain regular yields in their farms.
- It improves the farmland's production.

1.7. Types of crops:

Various types of fiber crops and food crops, vegetables & fruits, spices and condiments, etc. constitute some of the important crops grown in the country. India has three cropping seasons these are follows:

1.7.1. Rabi Crops

Rabi crops are grown in the winter and harvested in the summer, from April through June. Wheat, barley, peas, Gram, and mustard are some of the most significant rabi crops. Though these crops are cultivated throughout India, states in the north and north-western regions, such as Punjab, Himachal Pradesh, Haryana, Jammu and Kashmir, Uttar Pradesh, and Uttarakhand, are particularly significant for wheat and other rabi crops production. The availability of moisture throughout the winter months owing to western temperate cyclones aids these crops' success. The crops are irrigated or cultivated using rainfall that has percolated into the ground. In comparison to Kharif crops, it also demands cold weather and less water.

1.7.2. Kharif crops

Kharif crops are planted in various regions of the nation as the monsoon season approaches, and they are harvested in September and October. Paddy, urad, jowar, bajra, Arhar, moong, maize, jute, cotton, groundnut, as well as soybean are important crops cultivated during this season. Kharif crops are reliant on a big amount of rainwater as well as the timing of it.

1.7.3. Zaid crops

During the summertime, between the rabi and kharif seasons, there is a short period known as the Zaid season. Vegetables, muskmelon, cucumber, Watermelon, and fodder crops are among the crops grown during 'zaid'. It takes approximately a year for sugarcane to mature. Warm, dry weather is required during the main growing phase of Zaid crops, as well as extended day duration for blooming.

2. DISCUSSION

The agriculture industry is critical to the region's economy. As with all other sectors of the economy, it is experiencing a transition to a market economy, with significant changes in the social, legal, structural, production, and supply structures. In India there are different types of agriculture farming as well as crop season. In India, the Kharif crop is the summer or monsoon crop. During the south-west monsoon season, Kharif crops are generally planted as soon as the first rains arrive in July. Rabi crop is harvested in the spring or winter. Every year, it is seeded in October and harvested in March or April. Crop Zaid from March through June, this crop is cultivated in various regions of the nation. In our country all the types of crops are grown and these crops depends urbanization, and industry all require the expansion of infrastructure as a result of modernization. Certain crops can only be cultivated in certain areas where a number of variables, such as soil, moisture, temperature, and terrain, are ideal.

3. CONCLUSION

When such regions are lost to agriculture, the capacity to grow crops that require that specific mix of variables is gone as well. Agriculture is a vital activity for any country. Crops, vegetables, fruits, and flowers are all part of the process. Agriculture is the sole source of income for any country. Farming is influenced by factors such as geography, product demand, labor, and technological advancements. Agriculture is a vital activity for any country. Crops, vegetables, fruits, upon the season, climate condition, location and many other factors. All the types of crops having advantages and also having limitation. Modern agriculture makes use of planned technologies and stresses resource conservation and renewability management methods. Rural development, and flowers are all part of the process. Agriculture is the sole source of income for any country. Farming is influenced by factors such as geography, product demand, labour, and technological advancements.

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