

Chapter -4

AGRICULTURE



Economic activities = jobs = ways of earning money



Primary activities are those in which people obtain natural resources from the land or the sea.

Farming, fishing, forestry and mining are all examples of primary activities.



Secondary activities are those in which people process or manufacture products.

All **manufacturing industries** are secondary activities. Some make things from natural resources, for example when *wheat is processed into flour*. Others take already processed materials and change them further, for example when *flour is processed into bread*.



Tertiary activities include all kinds of useful **services**.

People working in tertiary or third-level activities include *teachers, truck drivers, hairdressers and travel agents*.



AGRICULTURE



The term Agriculture is derived from two Latin words *ager* or *agri* meaning soil and *cultura* meaning cultivation.



Agriculture is an applied science which encompasses all aspects of crop production including horticulture, livestock rearing, fisheries, forestry, etc.



Agriculture is a primary activity. In the world, 50 per cent of persons are engaged in agricultural activity. Two-thirds of India's population is still dependent on agriculture.



Agriculture

Cultivation on the soil – growing crops and rearing livestock



Horticulture

Growing vegetables, flowers and fruits for commercial use



Sericulture

Rearing of silk worms to extract silk



Cultivation of grapes

Viticulture



Pisciculture

Breeding and rearing for fish .

Different kinds of cultivation

Input Work and Output of Farming System

- Agriculture or farming can be called a system. Now let us look at the input, work and output of this system.
- **Inputs:-** Seeds

Fertilizers

Machinery

Labour

- **Work:-** Ploughing

Sowing

Irrigation

Weeding

Harvesting

Output:- Crops

Wool (Rearing livestock)

Dairy Products (Dairy farm)

Poultry products (Poultry farm)



Seeds Fertilizers Machinery Labour

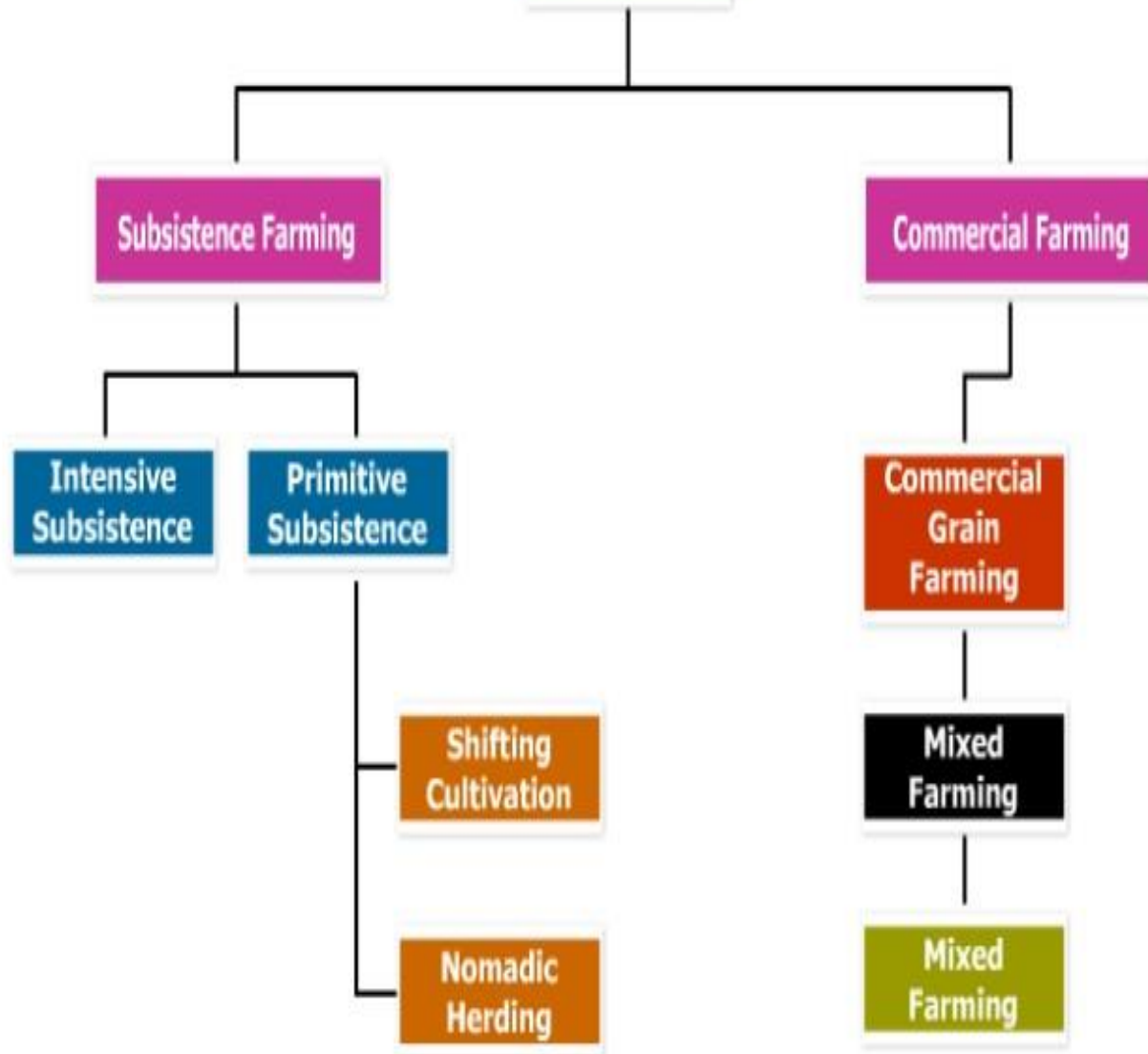


Ploughing Sowing Irrigation Harvesting



Crops Wool Dairy Product Poultry Product

FARMING



Types of Farming

- Farming is practiced in various ways across the world depending upon:
- The geographical conditions of the area,
- Demand for the product,
- Labour available
- Level of technology

Classification of Farming

- Based on these factors farming can be broadly classified into 2 categories, Namely Subsistence Farming and Commercial Farming. It can be further classified as .

SUBSISTENCE FARMING

- Subsistence farming is practiced to meet the needs of the farmer's family.
- Low levels of technology and household labour are used to produce a small output.

Subsistence farming can be further classified as:

- Intensive subsistence
- Primitive subsistence farming



INTENSIVE SUBSISTENCE

- The farmer cultivates a small plot of land using simple tools and more labour.
- More than one crop is grown annually, on the same plot, as the climate is favourable and the soil is fertile.
- Rice is the main crop; other crops include wheat, maize, pulses and oilseeds.
- Intensive subsistence agriculture is prevalent in the thickly populated areas of the monsoon regions of south, southeast and east Asia.



PRIMITIVE SUBSISTENCE

It includes:

- **Shifting Cultivation -**

A plot of land is cleared by felling the trees and burning them. The ashes are then mixed with the soil and crops like maize, yam, potatoes and cassava are grown. After the soil loses its fertility, the land is abandoned and the cultivator moves to a new plot. Shifting cultivation is also known as 'slash and burn' agriculture.



- **Nomadic Herding-**

In this type of farming, herdsmen move from place to place with their animals for fodder and water, along defined routes. Sheep, camel, yak and goats are most reared.

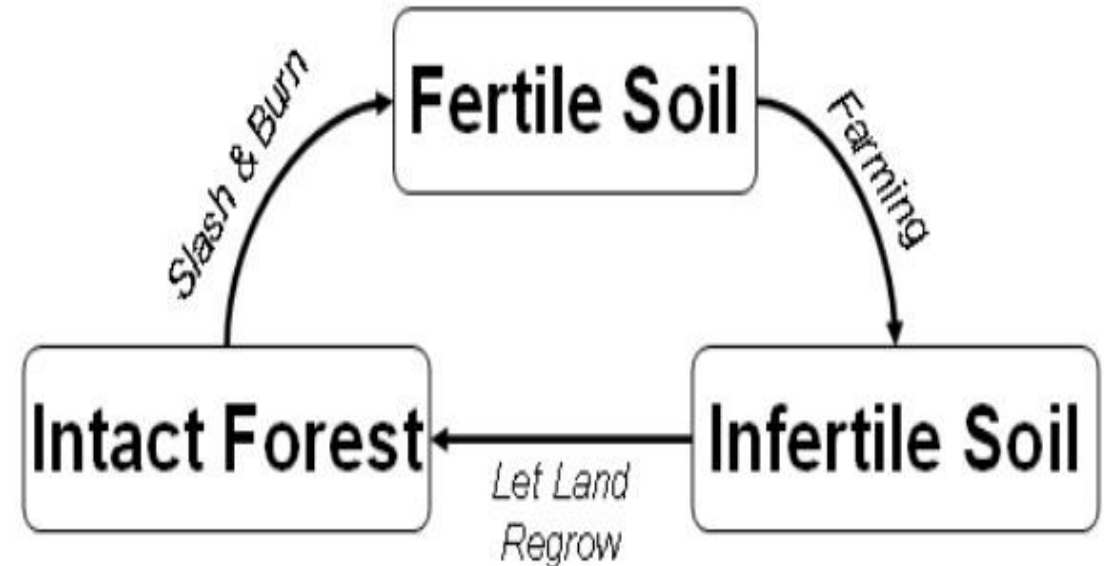


SHIFTING CULTIVATION

- Shifting cultivation is practiced in the thickly forested areas of Amazon basin, tropical Africa, parts of Southeast Asia and Northeast India.
- It receives heavy rainfall and this helps in the quick regeneration of vegetation.

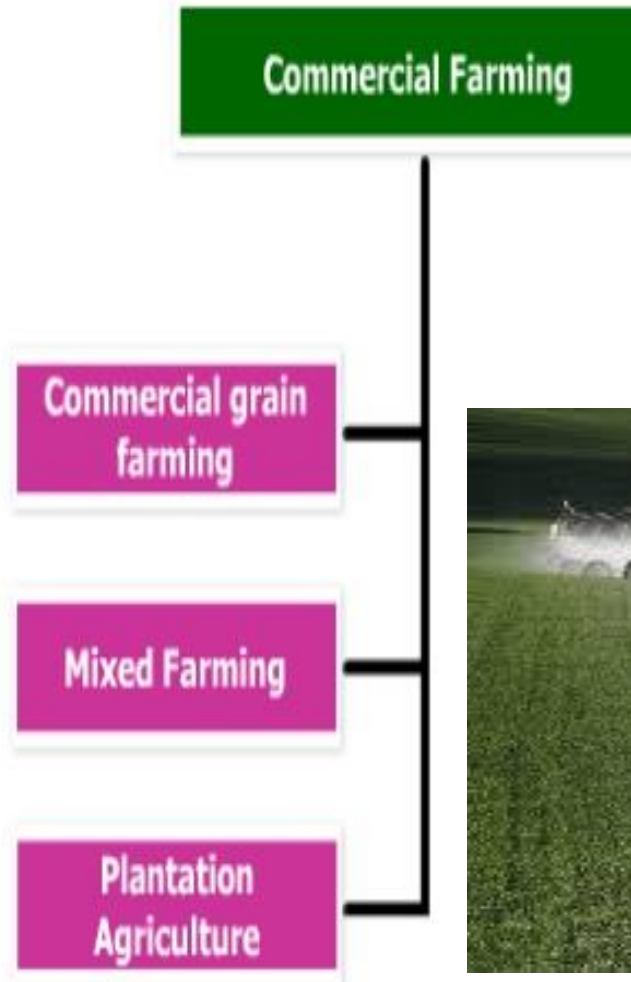
How shifting cultivation is done?

- A plot of land is cleared by felling the trees and burning them.
- The ashes are then mixed with the soil and crops like maize, yam, potatoes and cassava are grown.
- After the soil loses its fertility, the land is abandoned and the cultivator moves to a new plot.
- Shifting cultivation is also known as 'slash and burn' agriculture.
- Shifting cultivation usually starts with cutting trees and a fire which clears a spot for crop production.
- In these case, shifting cultivation is a cycle where farmers come back to the original place after a couple of years.



COMMERCIAL FARMING

- Crops are grown and animals are reared for sale in the market, that is, for commercial purposes, while in Subsistence farming crops are grown mainly for the farmer's family needs.
- The area cultivated and the amount of capital invested is large
- Most of the work is done by machines



COMMERCIAL GRAIN FARMING

- In this crops are grown for commercial purpose.
- Wheat and maize are common commercially grown grains.
- It is mostly practised in the temperate grasslands of North America, Europe and Asia.
- These areas are sparsely populated with large farms spreading over hundreds of hectares.
- Severe winters restrict the growing season and only a single crop is grown.
- This distinctive type of agriculture known as 'commercial grain farming' was developed in US.
- It is a type of agriculture that is largely dependent on mechanization.
- It started with the invention of farm machinery in the early twentieth century.
- The use of machineries allows farmers to cultivate grains on a large scale.



MIXED FARMING

- In **mixed farming** the land is used for growing food and fodder crops and rearing livestock.
- It is practised in Europe, eastern USA, Argentina, southeast Australia, New Zealand and South Africa.
- Mixed farming is the combining of two independent agricultural enterprises on the same farm.
- A typical case of mixed farming is the combination of crop enterprise with dairy farming, that is, crop cultivation with livestock farming.
- Mixed farming may be treated as a special case of diversified farming.



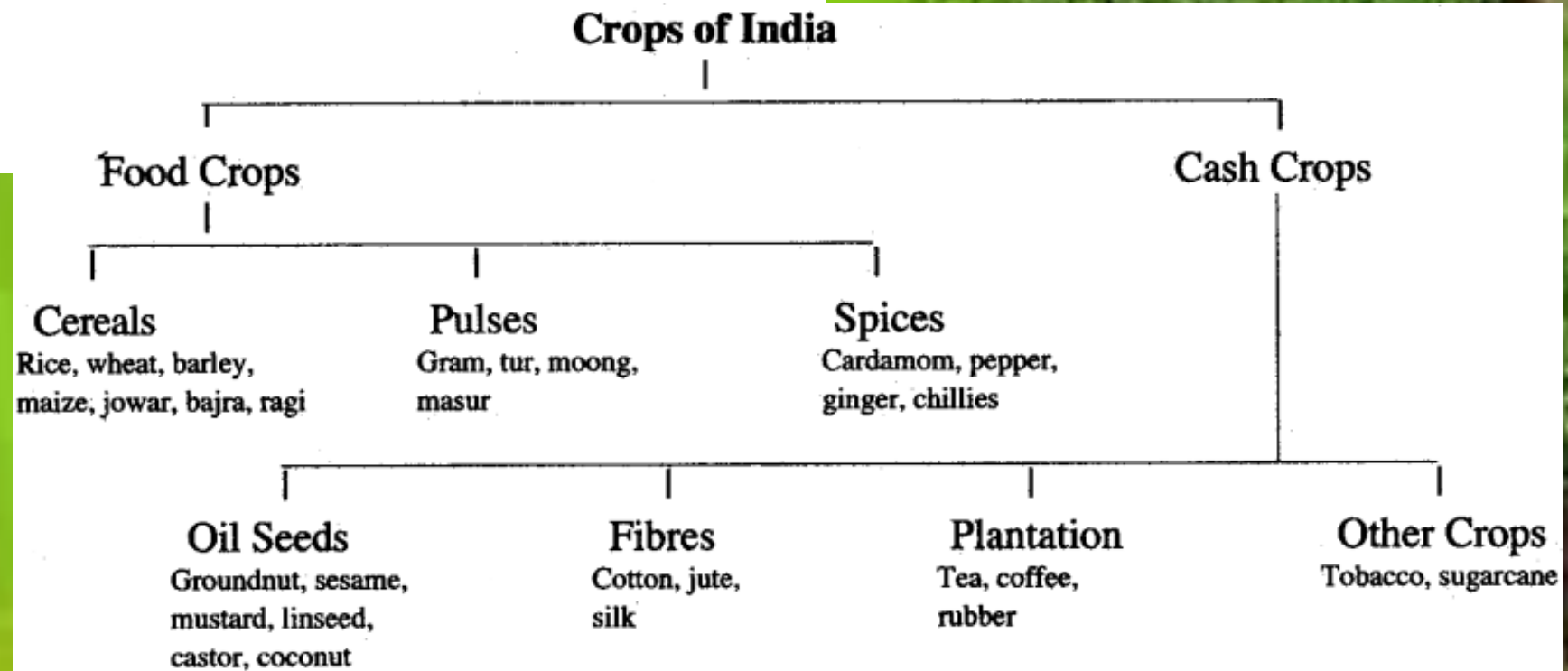
PLANTATION AGRICULTURE

- A single crop is grown over a large area
- planted in neat rows with well-developed network of transportation and communication, connecting plantation areas, processing industries and markets together
- Production is mainly for the market and not for the farmers' self-consumption
- Involves modern inputs like chemical fertilisers, insecticides and pesticides
- Modern machinery is needed
- Labour-intensive



Major Crops

- A large variety of crops are grown to meet the needs of the growing population.
- Major food crops are wheat, rice, maize and millets.
- Main fiber crops are Jute and cotton
- Important beverage crops are tea and coffee.
- Many crops supply raw materials for agro based industries.



Rice

- Rice is the major food crop of the world.
- It is the staple diet of the tropical and sub-tropical regions.
- Rice needs high temperature, high humidity and rainfall.
- It grows best in alluvial clay soil, which can retain water.
- China leads in the production of rice followed by India, Japan, Sri Lanka and Egypt.



Rice Crop



Rice Grain

Wheat

- Wheat requires moderate temperature and rainfall during growing season and bright sunshine at the time of harvest.
- It thrives best in well drained loamy soil.
- Wheat is grown extensively in USA, Canada, Argentina, Russia, Ukraine, Australia and India. In India it is grown in winter.



Wheat Grain

Millets

- Millets are known as coarse grains and can be grown on less fertile and sandy soils.
- It is a hardy crop that needs low rainfall and high to moderate temperature and adequate rainfall.
- Jowar, bajra and ragi are grown in India, Nigeria and China.



Maize

- **Maize requires moderate temperature, rainfall and lots of sunshine.**
- **It needs well-drained fertile soils.**
- **Maize is grown in North America, Brazil, China, Russia, Canada, India, and Mexico.**



Maize Plant
Maize Grain



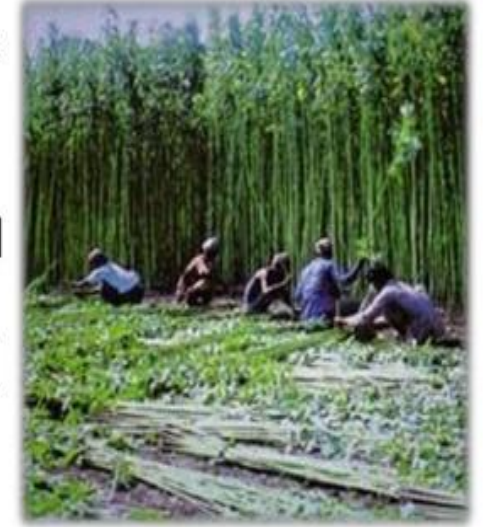
Cotton

- Cotton requires high temperature, light rainfall, two hundred and ten frost-free days and bright sunshine for its growth.
- It grows best on black and alluvial soils.
- China, USA, India, Pakistan, Brazil and Egypt are the leading producers of cotton.
- It is one of the main raw materials for the cotton textile industry.



Jute

- Jute was also known as the 'Golden Fibre'.
- It grows well on alluvial soil and requires high temperature, heavy rainfall and humid climate.
- This crop is grown in the tropical areas.
- India and Bangladesh are the leading producers of jute.



Coffee

Coffee Berries



Coffee Seeds

- Coffee requires warm and wet climate and well drained loamy soil.
- Hill slopes are more suitable for growth of this crop.
- Brazil is the leading producer followed by Columbia and India.

Tea

- Tea is a beverage crop grown on plantations.
- This requires cool climate and well distributed high rainfall throughout the year for the growth of its tender leaves.
- It needs well-drained loamy soils and gentle slopes.
- Labour in large number is required to pick the leaves.
- Kenya, India, China, Sri Lanka produce the best quality tea in the world.



Agricultural Development

- **Efforts are constantly being made to increase farm production in order to meet the growing demand of increasing population.**

Increase agricultural production.

- **Increasing area under cultivation**
- **Increasing the number of crops grown in a year**
- **Improving irrigational facilities in order to increase yield per acre**
- **Use of fertilizers to increase yield**
- **Use high yielding variety of seeds**
- **Use machinery in cultivation**
- **The main aim of agricultural development is to provide 'food security' for the growing world population.**
- **Agriculture has developed world over. The development varies from place to place.**

AGRICULTURAL PRACTICE IN INDIA	AGRICULTURAL PRACTICE IN USA
Size of farm is very small, about (1.5 hectares).	Size of farm is very large, (about 250 – 500 hectares).
Land is intensively cultivated, Double & Multiple cropping is very common. Wheat, rice, pulses, etc. are main crops grown.	Extensive type of farming is practiced, where yield per acre is low but the yield per worker is high.
All family members help in various agricultural activities. Production is for self usage and hardly there is any surplus.	Most of the work is done by machines. Manual labour is scarce and therefore, expensive.
Use of traditional methods of farming. Use of machine is limited.	Modern irrigation facilities are used.
Green Revolution – use of high yielding variety seeds, due to which agricultural production has increased manifolds.	Animals are reared on dairy farms. Mixed farming is common. Fodder crops are grown to feed the animals.
Farmers keep domestic animals like, buffaloes, hen, etc. for milk, egg, etc.	Highly scientific methods of agriculture are used. E.g. Soil is tested frequently for its fertility and best suitability for the crop to be grown.
Farmers do not have transport or storage facility. Thus, sell their products in the local market at low price.	

**Thank
You**

