

Chapter 1

CHAPTER 1: AGRICULTURE SUMMERY

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Origin and definition of Agriculture

- The word Agriculture was derived from **two latin** words '**Agri**' and '**Cultura**'. AGRI... Field CULTURA...Cultivation
- Agriculture is the practice of cultivating crops and rearing of



CROPS

1. Crops

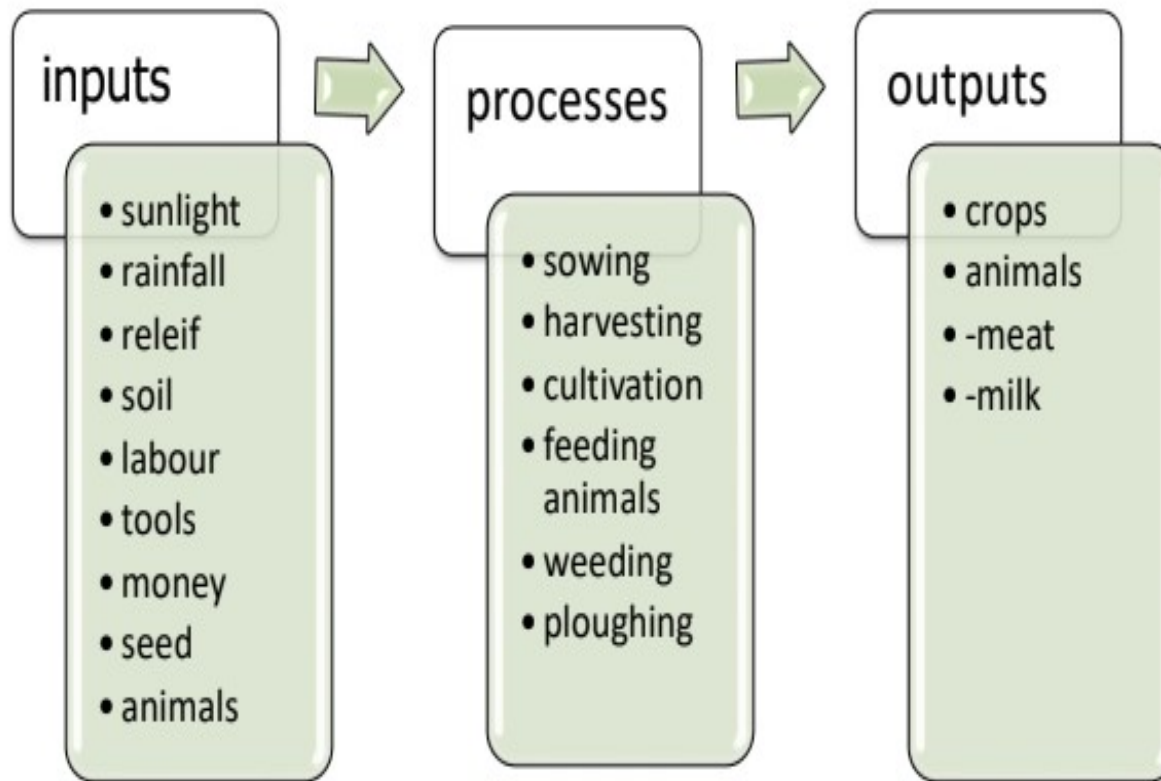
2. Animals

- **Fisheries**
- **Livestock**



Farming activities/ system

Agriculture is a system because it has inputs, processes and outputs.



Factors affecting/ influencing agriculture.

- The growing of crops and rearing of livestock as well as the distribution of these activities within a country are influenced by a number of factors. These can be grouped into:

1. Physical factors

a) Climatic conditions

I. Rainfall

II. Temperature

III. Light

IV. Humidity

V. Winds

Cont....

Temperature affects agriculture in two ways.

1) **low temperature**

- Slow growth rate of crops as the process of photosynthesis is slowed.
- High incidence of diseases in some crops such as coffee.

2) **High temperature**

- Increase evaporation leading to wilting of crops.
- Increase rate of growth or fasten the maturity of crops.

Sunshine: It provides energy used in photosynthesis.

- **Light duration:** refers to the period during which light is available

Light intensity: strength of the rays of the light energy.



Amount of light harnessed can be increased by

- a) Pruning
- b) Thinning
- c) Weeding
- d) Wider spacing

Wind: refers to the air in motion.

Effects of wind on crop production

- Increase the rate of evaporation.
- Strong wind causes destruction of crops.
- Acting as agent of seed dispersal.
- Acting as agent of soil erosion.

Rainfall

Rainfall: rain is the most important factor as it is the sources of water necessary for all life processes. Lack of rain means the farmers cannot plant new plant the growing ones may wilt and die or they may not yield as expected. Aspects of rainfall:

aspects of rainfall

- rainfall reliability
- amount of rainfall
- rainfall distribution
- rainfall intensity.

Importance of studying geography

6. One acquires basic skills and knowledge which contribute to local development.
7. Promotes conservation of the environment by creating awareness to its significance.
8. Helps in promoting in inter-personal relationship especially during field work.
9. Helps learners to develop skills of observation and statistical data.
10. Promotes understanding on how

Soil

- 1) **Soil texture:** is the size of soil particles. Can either be coarse, medium or fine.
- 2) **Soil structure:** is arrangement of soil particles
- 3) **Soil moisture:** It is contained within the pores between the soil particles.
- 4) **Soil air:** It is contained within the pores between the soil particles.
- 5) **Soil temperature:** hotness or coldness of the soil.

Topography (relief)

I. Altitude

- Differences in altitude determine the type of crops that can be grown and animals which can be reared.

Biological factors

(a) **Weeds**

Benefits of weeds

1. Weeds bind soil particles thus reducing soil erosion.
2. Most grass weeds are used as livestock feed.
3. Weed residue can be used as mulch.
4. Weeds decay and add organic matter to the soil.
5. Leguminous weeds fix nitrogen in the soil.

Harmful effects of weeds

1. Weeds reduce the quality of farm produce
2. They compete for nutrients, water, space and light.
3. Some weeds are poisonous and can poison livestock and human.
4. Some cause irritation to farm workers.
5. They increase cost of production since they have to be controlled.
6. Weeds harbor pests and diseases.

Pests

Effects of pests on crop production

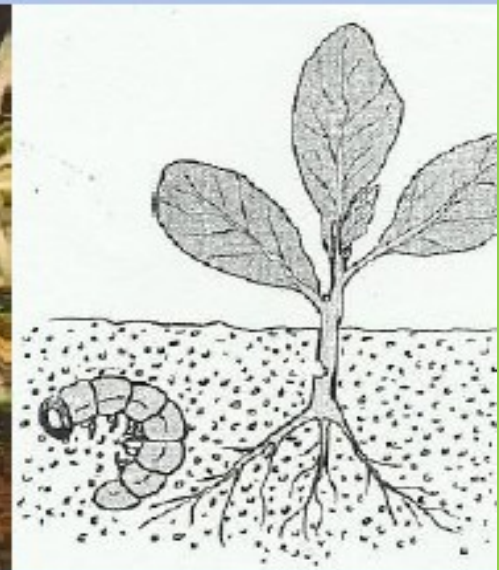
- Chewing of leaves thus reducing the photosynthetic area.
- They transmit diseases.

The increase in pest infestation

Effects of pests on leaves.



Pests that damage roots



Diseases

- Reduce quality of crop products.
- Increase cost of production.
- Can kill livestock.

Decomposers

- Increase soil fertility by decomposing organic matter.

Pollinators

- Responsible for cross-pollination.

Human factors

- **(a) Social factors**

- I. Cultural traditions***

- Traditions can influence the kind of crops grown or the animal kept.
 - Some community may concentrate on growing **finger millet** because it is their staple food while others grow **maize** because it is their staple food.

- ***Religious beliefs***

Commercial **cattle-rearing** cannot be practiced among the **Hindu** because they treat the cow as a sacred animal

Economic factors

- Operational cost.
- II. Marketing expenses.
- Cost of Storage
- Cost of transportation
- III. Price fluctuations

Political factors

Government policies that affects agriculture positively include

1. Formulation of laws that help to conserve soil and water-catchment areas.
2. Formulation of policies that create markets for agricultural produce within and outside the country..
3. Reduction of taxes on agricultural inputs.
4. Imposition on quality control on agricultural produce.

Government policies that affects agriculture negatively include

1. Poor pricing policies and price control.
2. Imposition of high taxes on agricultural inputs.
3. Failure to protect agriculture from negative effects.

IMPORTANCE OF AGRICULTURE

1. Source of food
2. Source of raw materials
3. Source of income
4. Source of medicine and herbal materials
5. Source of foreign exchange
6. Provides employment

Geographic Coordinate System

- ✓ **Longitude and latitude.**
- ✓ **Longitude** is an angular distance east or west of a point on Earth's surface, measured from the center of Earth.
- ✓ The word longitude is derived from the **Latin** word, "**longus**", meaning "length."
- ✓ A line connecting all points along the same longitude is a **meridian**.
- ✓ Thus, **longitude** is the name of the **angle**, **meridian** names the **line**, and both indicate distance east or west of an arbitrary **prime meridian**—a meridian designated as **0°**.
- ✓ The longitude reference is the prime meridian, running perpendicular to the equator from the North Pole to the South Pole.

CLASSIFICATION OF FARMING

Based on specialization

1. Arable farming
2. Livestock farming
3. Mixed farming

Based on the location

1. Shifting cultivation
2. Sedentary subsistence farming

Based on the output

1. Subsistence farming
2. Commercial farming

Based on the input

1. Intensive farming
2. Extensive farming

Arable farming

A) Subsistence farming

1. Shifting cultivation
2. Sedentary subsistence farming
3. Intensive subsistence farming

B) Commercial farming

1. Plantation farming
2. Extensive mechanized grain cultivation
3. Intensive commercial farming

CLASSIFICATION (TYPES) OF FARMING

- 1- Classification based on specialization
- 2- Classification based on the location
- 3- Classification based on the output
- 4- Classification based on the input

Classification based on specialization

- 1. Arable farming
- 2. Livestock farming
- 3. Mixed farming