∜ What Is Agriculture?

Agriculture is the practice of cultivating land, growing crops, and rearing animals. It is one of the oldest and most important human activities. The word "agriculture" comes from the Latin words ager (field) and cultura (cultivation).

同 Agriculture – The science and art of cultivating soil, growing crops, and raising livestock.

Over 50% of the world's population is engaged in agriculture. In India, nearly two-thirds of the population depends on it.

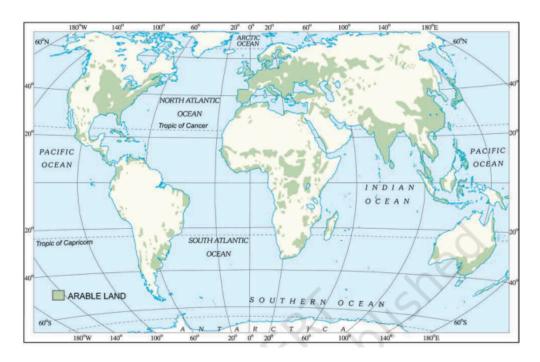


Fig. 3.1 – World Distribution of Arable Land

Economic Activities and Agriculture

Economic activities are divided into three types:

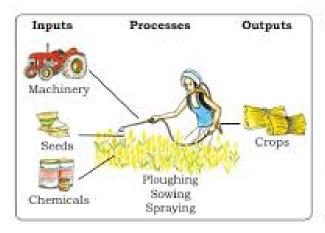
- 1. Primary Based on natural resources (e.g. farming, fishing)
- 2. Secondary Processing of products (e.g. factory work, weaving)
- 3. Tertiary Providing services (e.g. transport, trade)

Agriculture is a primary activity. It includes growing crops, vegetables, fruits, and rearing animals.

Agriculture as a System

Farming works like a system. It has:

- Inputs seeds, fertilisers, tools, water, and labour
- Processes ploughing, sowing, irrigation, harvesting
- Outputs crops, milk, eggs, wool



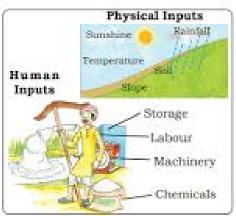


Fig. 3.2 – The Farm System

Fig. 3.3 - Inputs for farming

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Types of Farming

Farming types depend on geography, technology, labour, and produce demand. Two major types are:

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🚺 Subsistence Farming

Farming done mainly to feed the farmer's family.

- Intensive Subsistence:
 - Small land, simple tools, lots of labour
 - Common in densely populated monsoon regions (India, China)
- Main crop: Rice; others: maize, pulses, wheat, oilseeds
- Primitive Subsistence:
 - Includes shifting cultivation and nomadic herding
 - Uses traditional methods, low productivity
- Shifting Cultivation 'Slash and burn' method: Trees are cut and burned; ashes fertilise the soil
 - Also called:
 - Jhumming (NE India), Milpa (Mexico), Ladang (Malaysia)
- Nomadic Herding Moving with animals in search of water and grazing land
 - 📍 Common in Sahara, Central Asia, Rajasthan, J&K



Fig. 3.4 – Nomadic Herders with camels

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Commercial Farming

Done mainly to sell crops in the market. It involves:

- Large land
- Machines
- Investment of capital

Types of commercial farming:

- Commercial Grain Farming:
 - Large farms (USA, Canada, Russia)
- Crops: Wheat, maize
- Only one crop grown due to cold winters
- Mixed Farming:
 - Growing crops + rearing animals on the same land
 - Practised in USA, Argentina, Australia
- Plantation Agriculture:
- One crop grown on large area (e.g. tea, coffee, banana)
- Needs labour, transport, and nearby processing units





™ Fig. 3.6 – Banana plantation

Major Crops and Conditions

Different crops need different climates and soils:

Rice - Needs high heat, rainfall, clayey soil

📍 Top producers: China, India, Japan



Fig. 3.7 – Rice Cultivation

Wheat – Needs moderate climate, loamy soil

📍 Grown in India (winter), USA, Russia, Ukraine



™ Fig. 3.8 – Wheat Harvesting

■ Millets – Coarse grains like jowar, bajra, ragi† Hardy crops grown in India, Nigeria, Niger



■ Fig. 3.9 – Bajra Cultivation

Maize – Needs sunshine, moderate rain, fertile soilGrown in USA, India, Brazil, Mexico



- Cotton Needs high temp, low rainfall, black soil
 - 📍 Grown in China, USA, India, Brazil



Fig. 3.11 – Cotton Cultivation

- Jute Known as Golden Fibre; grows in humid areas
- 📍 Top producers: India, Bangladesh
- Coffee Warm, wet climate, hill slopes
- Prazil is top producer



™ Fig. 3.12 – Coffee Plantation

- 同 Tea Cool climate, regular rain, loamy soil
- 📍 India, Sri Lanka, China



Fig. 3.13 – Tea Plantation

Agricultural Development

■ Agricultural Development – Steps to increase farm production to meet growing demand

Methods include:

- Expanding land
- Irrigation
- HYV (High-Yield Variety) seeds
- Fertilisers and machinery
- Training farmers
- Organic Farming Uses natural fertilisers and pesticides (no chemicals)



Fig. 3.14 – Farmers ploughing in India

ᆂ A Farm in India (Munna Lal, Uttar Pradesh)

- Small land: 1.5 hectares
- Grows 2 crops/year (rice, wheat, pulses)
- Uses rented tractor, buys seeds from market
- Uses tube well for irrigation

- Owns buffaloes and hens
- Sells milk to co-operative society
- No storage facilities → sells crops even when prices are low



Fig. 3.15 – Indian Agricultural Field

- A Farm in the USA (Joe Horan, Iowa)

- Large farm: 300 hectares
- Grows corn after soil testing
- Uses computers linked to satellites
- Sprays fertilisers only where needed
- Uses machines: harvester, seed drill, tractor
- Stores grains in automated silos
- Works like a businessman



™ Fig. 3.16 – US Farm

Term	Meaning
Agriculture	Growing crops and rearing animals
Subsistence Farming	Farming for family use
Commercial Farming	Farming to sell produce
Shifting Cultivation	Slash and burn method
Nomadic Herding	Moving with animals for grazing
Organic Farming	Uses natural fertilisers, no chemicals
Plantation	Large farm growing one crop
Agricultural Dev.	Improving farm productivity
HYV Seeds	High-yielding variety seeds