Two-thirds of India’s population is engaged in agricultural activities. Agriculture is a primary activity, which produces most of the food raw material for various industries. In CBSE Notes Class 10 Geography Chapter 4 - Agriculture, you will study about the various types of farming, cropping patterns and major crops grown in India. In the end, you will know how much Agriculture contributes to the National Economy, Employment and Output.

Types of Farming
The cultivation methods depend upon the characteristics of the physical environment, technological know-how and socio-cultural practices. Farming varies from subsistence to commercial type. In different parts of India, the following farming systems are practised.

1. **Primitive Subsistence Farming**
   It is a ‘slash and burn’ agriculture. Farmers clear a patch of land and produce cereals and other food crops. When the soil fertility decreases, the farmers shift and clear a fresh patch of land for cultivation. It is known by different names in different parts of the country. It is known as jhumming in north-eastern states.
   - Land productivity is low in this type of agriculture.
   - This type of farming depends on monsoon.
   - This farming is practised in few parts of India.

2. **Intensive Subsistence Farming**
   - This type of farming is practised in areas of high population pressure on land.
   - It is labour-intensive farming, where high doses of biochemical inputs and irrigation are used for higher production.

3. **Commercial Farming**
   This type of farming uses higher doses of modern inputs such as high yielding variety (HYV) seeds, chemical fertilisers, insecticides and pesticides to obtain higher productivity.

   **Plantation** is a type of commercial farming in which a single crop is grown on a large area. Plantations cover large tracts of land, using capital intensive inputs, with the help of migrant labourers. All the produce is used as a raw material in industries.
   Eg: Tea, Coffee, Rubber, Sugarcane, Banana.

Cropping Pattern
India has three cropping seasons:
   1. **Rabi**
   2. **Kharif**
   3. **Zaid**

<table>
<thead>
<tr>
<th>Rabi</th>
<th>Kharif</th>
<th>Zaid</th>
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</table>

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### Sowing Season
<table>
<thead>
<tr>
<th>Season</th>
<th>Winter from October to December</th>
<th>Beginning of the rainy season between April and May</th>
<th>In between the rabi and the Kharif seasons, there is a short season during the summer months known as the Zaid season (in the months of March to July)</th>
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</thead>
</table>

### Harvesting Season
<table>
<thead>
<tr>
<th>Season</th>
<th>Summer from April to June</th>
<th>September-October</th>
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### Important Crops
<table>
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<tr>
<th>Crops</th>
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### Major Crops in India

A variety of food and non-food crops are grown in different parts of India depending upon the variations in soil, climate and cultivation practices. Major crops grown in India are:

- Rice
- Wheat
- Millets
- Pulses
- Tea
- Coffee
- Sugarcane
- oil seeds
- Cotton
- Jute

We will discuss all of these one by one, in detail.

#### Rice
1. It is a kharif crop.
2. It requires high temperature and high humidity with annual rainfall above 100 cm.
3. India is the second largest producer of rice in the world after China.
4. It is grown in the plains of north and north-eastern India, coastal areas and the deltaic regions.

#### Wheat
1. This is a rabi crop.
2. It requires a cool growing season and bright sunshine at the time of ripening.
3. It requires 50 to 75 cm of annual rainfall evenly distributed over the growing season.
4. The Ganga-Satlj plains in the north-west and black soil region of the Deccan are two main wheat-growing zones in India.
5. It is the second most important cereal crop and main food crop, in the north and north-western part of India.

**Millets**
1. Jowar, Bajra and Ragi are the important millets grown in India.
2. These are known as coarse grains and have very high nutritional value.

<table>
<thead>
<tr>
<th>Jowar</th>
<th>Bajra</th>
<th>Ragi</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd most important food crop with respect to area and production.</td>
<td>Grows well on sandy soils and shallow black soil.</td>
<td>It is a crop of dry regions.</td>
</tr>
<tr>
<td>It is a rain-fed crop mostly grown in the moist areas.</td>
<td>Grows well on red, black, sandy, loamy and shallow black soils.</td>
<td>Major producing states are Karnataka, Tamil Nadu, Himachal Pradesh, Uttar Pradesh, Uttarakhand, Sikkim, Jharkhand and Arunachal Pradesh.</td>
</tr>
<tr>
<td>Mainly produced in Maharashtra, Karnataka, Andhra Pradesh and Madhya Pradesh.</td>
<td>Major producing states are Rajasthan, Uttar Pradesh, Maharashtra, Gujarat and Haryana.</td>
<td>Major producing states are Karnataka, Tamil Nadu, Himachal Pradesh, Uttar Pradesh, Uttarakhand, Sikkim, Jharkhand and Arunachal Pradesh.</td>
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**Maize**
1. It is a Kharif crop.
2. It requires temperature between 21°C to 27°C and grows well in old alluvial soil.
3. It is used both as food and fodder.
4. Major maize-producing states are Karnataka, Madhya Pradesh, Uttar Pradesh, Bihar, Andhra Pradesh and Telangana.

**Pulses**
1. India is the largest producer and consumer of pulses in the world.
2. Pulses are the major source of protein in a vegetarian diet.
3. Major pulses grown in India are Tur (Arhar), Urad, Moong, Masur, Peas and Gram.
4. Pulses are mostly grown in rotation with other crops so that the soil restore fertility.
5. Major pulse producing states are Madhya Pradesh, Rajasthan, Maharashtra, Uttar Pradesh and Karnataka.

**Food Crops other than Grains**

**Sugarcane**
1. It is a tropical as well as a subtropical crop.
2. It grows well in hot and humid climates with a temperature of 21°C to 27°C and annual rainfall between 75cm to 100cm.
3. It can be grown on a variety of soils.
5. India is the second largest producer of sugarcane only after Brazil.
6. Sugarcane is the main source of Sugar, Gur (Jaggery), Khansari and molasses.
7. The major sugarcane-producing states are Uttar Pradesh, Maharashtra, Karnataka, Tamil Nadu, Andhra Pradesh, Telangana, Bihar, Punjab and Haryana.

**Oil Seeds**
Different oil seeds are grown covering approximately 12% of the total cropped area of India. Main oil-seeds produced in India are:

- **Groundnut**: is a Kharif crop and accounts for half of the major oilseeds produced in India. Gujarat is the largest producer of groundnuts.
- **Mustard**: is a rabi crop.
- **Sesamum (til)**: is a Kharif crop in the north and rabi crop in south India.
- **Castor seeds**: It is grown as both Rabi and Kharif crop.
- **Linseed**: is a rabi crop.
- **Coconut**
- **Soyabean**
- **Cotton seeds**
- **Sunflower**

**Tea**
1. It is also an important beverage crop introduced by the British in India.
2. The tea plant grows well in tropical and sub-tropical climates with deep and fertile well-drained soil, rich in humus and organic matter.
3. Tea bushes require warm and moist frost-free climate all through the year.
4. Tea is a labour-intensive industry.
5. Major tea producing states are Assam, hills of Darjeeling and Jalpaiguri districts, West Bengal, Tamil Nadu and Kerala.

**Coffee**
Yemen coffee is produced in India and this variety of coffee is in great demand all over the world. Its cultivation was introduced on the Baba Budan Hills and is confined to the Nilgiri in Karnataka, Kerala and Tamil Nadu.

**Horticulture Crops**
India is a producer of tropical as well as temperate fruits. Major crops produced are pea, cauliflower, onion, cabbage, tomato, brinjal and potato. Some of the famous horticulture crops grown in India are:

- **Mangoes** of Maharashtra, Andhra Pradesh, Telangana, Uttar Pradesh and West Bengal
- **Oranges** of Nagpur and Cherrapunjee (Meghalaya), bananas of Kerala, Mizoram, Maharashtra and Tamil Nadu.
- **Lichi and Guava** of Uttar Pradesh and Bihar
- **Pineapples** of Meghalaya
- **Grapes** of Andhra Pradesh, Telangana and Maharashtra
- **Apples, pears, apricots and walnuts** of Jammu and Kashmir and Himachal Pradesh
Non-Food Crops

<table>
<thead>
<tr>
<th>Rubber</th>
<th>Fibre</th>
<th>Cotton</th>
<th>Jute</th>
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</thead>
<tbody>
<tr>
<td>It is an equatorial crop.</td>
<td>Cotton, Jute, Hemp and Natural Silk are the four major fibre crops.</td>
<td>It is a Kharif crop.</td>
<td>It is known as the golden fibre.</td>
</tr>
<tr>
<td>It requires a moist and humid climate with rainfall of more than 200cm and temperature above 25°C.</td>
<td>Cotton, Jute and Hemp are grown in the soil.</td>
<td>It requires high temperature, light rainfall, 210 frost-free days and bright sunshine for its growth.</td>
<td>It grows well on well-drained fertile soils in the flood plains. High temperature is required for its growth.</td>
</tr>
<tr>
<td>It is an important industrial raw material</td>
<td>Natural Silk is obtained from cocoons of the silkworms fed on green leaves</td>
<td>Cotton grows well in black cotton soil of the Deccan plateau.</td>
<td>It is used in making gunny bags, mats, ropes, yarn, carpets and other artefacts.</td>
</tr>
<tr>
<td>Mainly grown in Kerala, Tamil Nadu, Karnataka and Andaman and Nicobar islands and Garo hills of Meghalaya.</td>
<td>Rearing of silkworms for the production of silk fibre is known as Sericulture.</td>
<td>Major cotton-producing states are Maharashtra, Gujarat, Madhya Pradesh, Karnataka, Andhra Pradesh, Telangana, Tamil Nadu, Punjab, Haryana and Uttar Pradesh.</td>
<td>Major jute producing states are West Bengal, Bihar, Assam, Odisha and Meghalaya.</td>
</tr>
</tbody>
</table>

Technological and Institutional Reforms

Agriculture provides a livelihood for more than 60% of its population, so this sector needs some serious technical and institutional reforms. The Green Revolution and the White Revolution were some of the reforms initiated by people to improve agriculture.

Some Initiatives taken by the Government are:

- Schemes introduced by Government such as Kissan Credit Card (KCC), Personal Accident Insurance Scheme (PAIS).
- Special weather bulletins and agricultural programmes for farmers on the radio and television were introduced.
• The government also announces minimum support price, remunerative and procurement prices for important crops to check the exploitation of farmers by speculators and middlemen.

Contribution of Agriculture to the National Economy, Employment and Output

• In 2010-11 about 52% of the total workforce was employed by the farm sector.
• The share of agriculture in the GDP is declining.
• Indian Council of Agricultural Research (ICAR), agricultural universities, veterinary services and animal breeding centres, horticulture development, research and development in the field of meteorology and weather forecast, etc. are a few of the initiatives introduced by the government to improve Indian agriculture.