

Revision Notes
Class - 10 Social Science (Geography)
Chapter 4 - Agriculture

Agriculture, an age-old economic activity. About two-thirds of our population is engaged in agriculture. Agriculture not only produces grains but also raw materials for many industries.

Types of farming

Farming varies from subsistence to commercial type.

At present the following farming systems are practiced:

1. Primitive Subsistence Farming

- It is also called slash and burn agriculture.
- This type of farming is majorly practiced on small patches, using primitive tools like hoe, dao and digging sticks. Family and community labor are involved in this type of farming.
- Nature plays a significant role in this type of farming. The production depends upon fertility, monsoon and suitability of other environmental conditions.
- First, a patch of land is cleared and then food crops are grown on it. After the soil fertility decreases, they shift to another patch which allows the previous patch to replenish the nutrients and new fertile land for plantation.
- No modern equipment or advanced farming techniques are used in this type of farming.

2. Intensive Subsistence Farming

Usually practiced in areas where there is high pressure of production on land. Various biochemical inputs and modern irrigation techniques are used to aid production.

3. Commercial Farming

- High doses of high yielding variety (HYV) seeds, fertilizers, insecticides and pesticides are used.
- Rice is a commercial crop in Haryana.
- Another type of commercial farming is plantation in which a single crop is grown over a large area.
- In India, tea, coffee, rubber, sugarcane, banana, etc.. are important plantation crops. Tea in Assam and North Bengal coffee in Karnataka are some of the important plantation crops grown in these states.

Cropping patterns

Three cropping seasons:

1. Rabi

- Rabi crops are sown in winter from October to December and harvested in summer from April to June.
- Wheat, barley, peas, gram, and mustard are major rabi crops.
- States from the north and northwestern parts such as Punjab, Haryana, Himachal Pradesh, Jammu and Kashmir, Uttarakhand and Uttar Pradesh grow most quantities of wheat and other rabi crops.

2. Kharif

- Kharif crops are grown with the onset of monsoon and are harvested in September-October.
- Important crops grown during this season are paddy, maize, jowar, bajra, tur (arhar), moong, urad, cotton, jute, groundnut and soyabean.
- Some of the most important rice-growing regions are Assam, West Bengal, coastal regions of Odisha, Andhra Pradesh, Telangana, Tamil Nadu, Kerala and Maharashtra, particularly the (Konkan coast) along with Uttar Pradesh and Bihar.

3. Zaid

- A short season during the summer months, in between the rabi and the Kharif seasons is known as the Zaid season.

- Watermelon, muskmelon, cucumber, vegetables and fodder crops are some of the major zaid crops.

Major crops

1. Rice

- India is the second-largest producer of rice in the world after China.
- It is a Kharif crop and requires elevated temperature, (above 25°C) and high humidity with annual rainfall above 100 cm.
- Major rice production is found in the plains of north and north-eastern India, coastal areas, and the deltaic regions.

2. Wheat

- It requires 50 to 75 cm of annual rainfall.
- There are two important wheat-growing zones in the country – the Ganga-Satluj plains in the northwest and the black soil region of the Deccan.
- The major wheat-producing states are Punjab, Haryana, Uttar Pradesh, Bihar, Rajasthan, and parts of Madhya Pradesh

3. Millets

- Jowar, bajra and ragi are the important millets grown in India.
- Jowar is a rain-fed crop cultivated in Maharashtra, Karnataka, Andhra Pradesh and Madhya Pradesh
- Bajra grows well on sandy soils and shallow black soil.
- Major Bajra producing States were: Rajasthan, Uttar Pradesh, Maharashtra, Gujarat and Haryana.
- Ragi grows well on dry red, black, sandy, loamy and shallow black soils.
- Major ragi producing states are: Karnataka, Tamil Nadu, Himachal Pradesh, Uttarakhand, Sikkim, Jharkhand and Arunachal Pradesh.

4. Maize

- It is a Kharif crop and requires a temperature between 21°C to 27°C.
- Grows well in old alluvial soil.

- Major maize-producing states are Karnataka, Uttar Pradesh, Bihar, Andhra Pradesh, Telangana and Madhya Pradesh.

5. Pulses

- Major pulses cultivated are tur (arhar), urad, moong, masur, and peas.
- They help in restoring soil fertility as there are leguminous crops and nitrogen fixation. These crops are grown in rotation with cereal crops.
- Major pulse producing states in India are Madhya Pradesh, Uttar Pradesh, Rajasthan, Maharashtra and Karnataka.

Food Crops other than Grains

1. Sugarcane

- It is a tropical as well as a subtropical crop.
- It grows well in a hot and humid climate and 21°C to 27°C as temperature
- Rainfall between 75cm and 100cm is required for its proper cultivation.
- India is the second-largest producer of sugarcane, after Brazil.
- Uttar Pradesh, Maharashtra, Karnataka, Tamil Nadu, Andhra Pradesh, Telangana, Bihar, Punjab and Haryana are major producers of sugarcane.

2. Oil seeds

- In 2008 India was the second largest producer of groundnut in the world after China.
- 12 percent of the total cropped area of the country is used for the cultivation of various oil crops.
- Main oil-seeds produced in India are groundnut, mustard, coconut, sesamum (til), soyabean, castor seeds, cotton seeds, linseed, and sunflower.
- Groundnut is a kharif crop.
- Gujarat was the largest producer of groundnut followed by Andhra Pradesh and Tamil Nadu.
- Linseed and mustard are rabi crops.
- Sesamum is a Kharif crop in the north and a rabi crop in south India.
- Castor seed is grown both as rabi and kharif crops.

3. Tea

- Tea is a labour-intensive industry.
- Assam, hills of Darjeeling and Jalpaiguri districts, West Bengal, Tamil Nadu and Kerala are major tea producing states in India. Apart from these, Himachal Pradesh, Uttarakhand, Meghalaya, Andhra Pradesh and Tripura are also tea-producing states in the country.
- India was the third-largest producer of tea after China and Turkey in 2008.

4. Coffee

- In 2008 India produced 3.2 per cent of the world coffee production.
- It is cultivated in the Nilgiris in Karnataka, Kerala, and Tamil Nadu.

5. Horticulture crops

- In 2008 India was the second largest producer of fruits and vegetables in the world after China.
- 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 are in great demand the world over.
- India produces 13 per cent of the world's vegetables.

Non-food crops

1. Rubber

- It grows in a moist and humid climate with rainfall of more than 200 cm and temperature above 25°C.
- It is grown in Kerala, Tamil Nadu, Karnataka and Andaman and Nicobar Islands and Garo hills of Meghalaya
- India ranked fourth among the world's natural rubber producers.

2. Fiber crop

I. Silk

- It is obtained from cocoons of the silkworms that feeds on mulberry leaves.
- The rearing of silkworms to produce silk fibre is known as sericulture.

II. Cotton

- India was the second-largest producer of cotton after China in 2008
- It grows well in drier parts of the black cotton soil of the Deccan plateau.
- It requires elevated temperature, light rainfall, and irrigation, 210 frost-free days and bright sunshine.
- It is a Kharif crop and requires 6 to 8 months to mature.
- Major states are— Maharashtra, Gujarat, Madhya Pradesh, Karnataka, Andhra Pradesh, Telangana, Tamil Nadu, Punjab, Haryana, and Uttar Pradesh.

III. Jute

- It is known as golden fibre.
- Elevated temperature is required for its growth.
- West Bengal, Bihar, Assam, Odisha and Meghalaya are the major jute producing states.

Technological and Institutional Reforms

1. The main focus of the First Five Year Plan by the government was 'land reform'.
2. The Government of India introduced agricultural reforms in the 1960s and 1970s to improve agriculture.
3. The Green Revolution and the White Revolution (Operation Flood) were some of the strategies adopted to improve Indian agriculture.
4. In the 1980s and 1990s, a comprehensive land development programme was initiated, which included both institutional and technical reforms.
5. Important steps like provision for crop insurance against drought, flood, cyclone, fire and disease, the establishment of Grameen banks, cooperative societies and banks for providing loan facilities to the farmers at lower rates of interest.

6. Kissan Credit Card (KCC), Personal Accident Insurance Scheme (PAIS) are some other schemes introduced by the Government of India for the benefit of the farmers
7. The government also announces minimum support price, remunerative and procurement prices for important crops which helps to increase farmer's profit and promotes them to grow more crops.

Contribution of agriculture to the national economy, employment and output

- In 2010-11 about 52 per cent of the total workforce in India was employed under the farming sector.
- More than half of the Indian population is dependent on agriculture for their sustenance
- The establishment of the 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. were given priority for improving Indian agriculture.

Food Security

- If any segment of our population does not have this access, that segment suffers from lack of food security.
- The remote areas of the country are more prone to natural disasters and uncertain food supply.
- The government has resorted to two components (a) buffer stock and (b) public distribution system (PDS), to ensure food availability to all.
- PDS provides food grains and other necessities at subsidized prices to the poor.
- Food Corporation of India (FCI) is responsible for procuring and stocking food grains, while distribution is ensured by public distribution system (PDS).
- The FCI procures food grains from the farmers at the government announced minimum support price (MSP) and then is given to the poor at subsidized prices.

Impact of Globalization on Agriculture

- After 1990, under globalization, the farmers in India have faced new challenges in the international market.

- Despite being an important producer of rice, cotton, rubber, tea, coffee, jute and spices Indian agricultural products are not able to compete with the developed countries because of the highly subsidized agriculture in those countries.
- Genetic engineering is recognized as a powerful supplement in inventing new hybrid varieties of seeds that can increase production and make farming more profitable.
- In fact, organic farming is much in vogue today because it is practiced without factory-made chemicals such as fertilizers and pesticides and promotes organic farming.

Important Questions and Answers

1. What are the various types of primitive subsistence farming?

Ans: It is also called slash and burn agriculture.

- This type of farming is majorly practiced on small patches, using primitive tools like hoe, dao and digging sticks. Family and community labor are involved in this type of farming.
- Nature plays a significant role in this type of farming. The production depends upon fertility, monsoon and suitability of other environmental conditions.
- It is practiced in the states of Assam, Meghalaya, Nagaland and Mizoram.
- ‘Khil’ is primitive agriculture practiced in the Himalayan region.
- ‘Kumari’ is practiced in the Western Ghats.
- ‘Bewar’ is a type of slash and burn agriculture practiced in Madhya Pradesh.

2. What are the various cropping patterns in India? Write briefly about them.

Ans: There are three major cropping patterns in India. They are mentioned below:

1. Rabi

- Rabi crops are sown in winter from October to December and harvested in summer from April to June.
- Wheat, barley, peas, gram, and mustard are major rabi crops.
- states from the north and northwestern parts such as Punjab, Haryana, Himachal Pradesh, Jammu and Kashmir, Uttarakhand and Uttar Pradesh grow most quantities of wheat and other rabi crops.

2. Kharif

- Kharif crops are grown with the onset of monsoon and are harvested in September-October.
- Important crops grown during this season are paddy, maize, jowar, bajra, tur (arhar), moong, urad, cotton, jute, groundnut and soyabean.
- Some of the most important rice-growing regions are Assam, West Bengal, coastal regions of Odisha, Andhra Pradesh, Telangana, Tamil Nadu, Kerala and Maharashtra, particularly the (Konkan coast) along with Uttar Pradesh and Bihar.

3. Zaid

- A short season during the summer months, in between the rabi and the Kharif seasons is known as the Zaid season.
- Watermelon, muskmelon, cucumber, vegetables and fodder crops are some of the major zaid crops.

3. What are the requirements to grow sugarcane? What are the regions where it is grown?

Ans: It is a tropical as well as a subtropical crop. Its various requirements are:

- It grows well in a hot and humid climate and 21°C to 27°C as temperature
- Rainfall between 75cm and 100cm is required for its proper cultivation.

India is the second-largest producer of sugarcane, after Brazil. Uttar Pradesh, Maharashtra, Karnataka, Tamil Nadu, Andhra Pradesh, Telangana, Bihar, Punjab, and Haryana are the major producers of sugarcane.

4. Write a note on rice cultivation in the country.

Ans: Rice is a staple food in India, especially Southern India.

- India is the second-largest producer of rice in the world after China.
- It is a Kharif crop and requires elevated temperature, (above 25°C) and high humidity with annual rainfall above 100 cm.

- Major rice production is found in the plains of north and north-eastern India, coastal areas, and the deltaic regions since it requires a lot of water for irrigation.
- There are three paddy crops in a year namely: Aman, Aus and Boro.
- Major rice producing states are Uttar Pradesh, Punjab, Haryana, and Rajasthan.

5. Write a short note on oilseeds.

Ans: In 2008 India was the second-largest producer of groundnut in the world after China. 12 percent of the total cropped area of the country is used for the cultivation of various oil crops. The main oil-seeds produced in India are groundnut, mustard, coconut, sesamum (til), soyabean, castor seeds, cotton seeds, linseed, and sunflower. Groundnut is a kharif crop. Gujarat was the largest producer of groundnut followed by Andhra Pradesh and Tamil Nadu. Linseed and mustard are rabi crops. Sesamum is a Kharif crop in the north and a rabi crop in south India. Castor seed is grown both as rabi and Kharif crops.

6. Write about the various horticulture crops and their region of growth.

Ans: In 2008 India was the second-largest producer of fruits and vegetables in the world after China. 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, litchi 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 are in great demand the world over. India produces 13 per cent of the world's vegetables.

7. What is Bhoodan and Gramdan?

Ans: Vinoba Bhave, a former Satyagrahi, initiated the movement. He tried to help the landless farmers in Pochampalli, Andhra Pradesh by asking for aid from the government but ended up receiving unexpected help from Shri Ram Charan Reddy who offered around 80 acres of land to the landless farmers. This act was popularly

known as 'Bhoodan.' This step was appreciated and various zamindars also distributed some land amongst the poor and was called 'Gramdan'.

8. What is the contribution of agriculture to the national economy, employment and national output?

Ans: In 2010-11 about 52 per cent of the total workforce in India was employed under the farming sector. More than half of the Indian population is dependent on agriculture for their sustenance. A decline in the number of people involved in agriculture can be disastrous for the Indian economy. The establishment of the Indian Council of Agricultural Research (ICAR), agricultural universities, veterinary services and animal breeding centers, horticulture development, research, and development in the field of meteorology and weather forecast, etc. were given priority for improving Indian agriculture.

9. Write a note on the Food Security System.

Ans: If any segment of our population does not have this access, that segment suffers from a lack of food security. The remote areas of the country are more prone to natural disasters and uncertain food supply. The government has resorted to two components (a) buffer stock and (b) public distribution system (PDS), to ensure food availability to all. PDS provides food grains and other necessities at subsidized prices to the poor. Food Corporation of India (FCI) is responsible for procuring and stocking food grains, while distribution is ensured by the public distribution system (PDS). The FCI procures food grains from the farmers at the government announced minimum support price (MSP) and then is given to the poor at subsidized prices.

10. What is the impact of globalization on agriculture?

Ans: After 1990, under globalization, the farmers in India have faced new challenges in the international market. Despite being an important producer of rice, cotton, rubber, tea, coffee, jute and spices Indian agricultural products are not able to compete with the developed countries because of the highly subsidized agriculture in those countries. Genetic engineering is recognized as a powerful supplement in inventing new hybrid varieties of seeds that can increase production and make farming more profitable. In fact, organic farming is much in vogue today because it

is practiced without factory-made chemicals such as fertilizers and pesticides and promotes organic farming.