**Agriculture**

* **Two-thirds** of Indians are engaged in **agricultural** activities
* Agriculture is a **primary activity**, which produces most of the food that we consume
* **Primitive subsistence agriculture** is practised on small patches of land with the help of primitive tools like **hoe, dao and digging sticks**, and family/ community labour
* **Primitive subsistence agriculture** depends upon **monsoon**, **natural fertility** **of the soil** and suitability of **other environmental conditions**
* **Primitive subsistence agriculture** is also known as ‘**Slash and burn’** agriculture
* **Land productivity** in Primitive subsistence type of agriculture is **low** as the farmer **does not use fertilisers or other modern inputs**.
* In **Primitive subsistence agriculture**, the farmers **clear a patch of land** and produce crops to sustain their family. When the soil fertility decreases, they clear a fresh patch of land for cultivation
* ‘Slash and burn’ or Primitive subsistence agriculture is known as **jhumming** in **north-eastern states** like Assam, Meghalaya, Mizoram and Nagaland
* **Intensive Subsistence Farming** is practised in areas of **high population pressure on land**.
* **Intensive Subsistence Farming is labour intensive farming**, where high doses of biochemical inputs and irrigation are used for obtaining higher production
* The main characteristic of **Commercial Farming** is the use of higher doses of **modern inputs**
* Modern inputs of agriculture include **high yielding variety** (HYV) seeds, **chemical fertilisers**, **insecticides** and **pesticides** in order to obtain higher productivity
* **Rice** is a **commercial** crop in **Haryana** and **Punjab**
* **Rice** is a **subsistence** crop in **Odisha**
* **Plantation** is a type of **commercial** farming
* In **Plantation farming**, a **single crop** is grown on a large area
* The **plantation** has an **interface** of **agriculture** and **industry**
* **Migrant labourers** are employed for **Plantation** farming
* In India, **tea, coffee, rubber, sugarcane, banana**, etc.. are important plantation crops
* Tea is a plantation crop of Assam and North Bengal
* Coffee is a plantation crop of Karnataka
* Three cropping seasons in India are rabi, kharif and zaid
* Rabi crops are sown in winter from October to December and harvested in summer from April to June
* Some of the important rabi crops are wheat, barley, peas, gram and mustard
* Two factors in the growth / success of Rabi crops are :

1. Availability of precipitation during winter months due to the western temperate cyclones.
2. Green revolution in Punjab, Haryana, Western Uttar Pradesh and parts of Rajasthan

* Wheat requires **50 to 75 cm of annual rainfall** evenly distributed over the growing season
* Wheat requires a cool growing season and a bright sunshine at the time of ripening
* The two wheat-growing zones in India: Ganga-Satluj plains in the northwest and black soil region of the Deccan
* **Kharif crops** are grown with the onset of monsoon in different parts of the country and these are harvested in **September-October**
* Important **Kharif crops** are paddy (Rice), maize, jowar, bajra, tur (arhar), moong, urad, cotton, jute, groundnut and soyabean
* Three crops of paddy are grown in a year, **Aus**, **Aman** and **Boro**
* The **short season** during the **summer** months is known as the **Zaid season**
* **Jowar** is the **third** most important food crop with respect to area and production
* **Bajra** grows well on **sandy soils and shallow black soil**.
* **Ragi** is very rich in iron, calcium, other micro nutrients and roughage
* A crop which is used both as food and fodder is Maze
* Maze requires temperature between 21°C to 27°C
* Use of modern inputs such as HYV seeds, fertilisers and irrigation have contributed to the increasing production of maize
* Maze grows well in old alluvial soil.
* In states like Bihar, maize is grown in rabi season also.
* Sugarcane grows well in hot and humid climate with a temperature of 21°C to 27°C and an annual rainfall between 75cm and 100cm
* Pulses help in restoring soil fertility by fixing nitrogen from the air.
* Pulses are mostly grown in rotation with other crops as they help in restoring soil fertility by fixing nitrogen from the air.
* Tur (Arhar) is the luguminous crop which does not help in soil fertility by fixing nitrogen from the air
* Different oil seeds are grown covering approximately 12 per cent of the total cropped area of the country
* Main oil-seeds produced in India are groundnut, mustard, coconut, sesamum (til), soyabean, castor seeds, cotton seeds, linseed and sunflower
* Oil seeds are edible, used for cooking and also used for raw material in the production of soap, cosmetics and ointments
* Groundnut is a kharif crop and accounts for about half of the major oilseeds produced in the country.
* Gujarat was the largest producer of groundnut followed by Andhra Pradesh and Tamil Nadu
* Tea cultivation is an example of plantation agriculture
* Tea is an important beverage crop introduced in India initially by the British
* Tea is a labour- intensive industry
* In India, Arabica variety of Coffee initially brought from Yemen is produced
* Arabica variety of Coffee is in great demand all over the world.
* In India Coffee was initially cultivated in Baba Budan Hills and even today its cultivation is confined to the Nilgiri in Karnataka, Kerala and Tamil Nadu
* India was the second largest producer of fruits and vegetables in the world after China.
* India produces about **13** per cent of the world’s vegetables
* **Rubber** is an **equatorial crop**, but it is also grown in tropical and sub-tropical areas.
* **Rubber** is an important **industrial raw material**.
* **Rubber** is mainly grown in Kerala, Tamil Nadu, Karnataka and Andaman and Nicobar islands and Garo hills of Meghalaya.
* In 2010-11 India ranked **fourth** among the world’s natural rubber producers
* The four major fibre crops grown in India are Cotton, Jute, hemp and natural silk
* The **fibre crop** NOT grown in the soil is **silk**
* **Silk** is obtained from **cocoons** of the **silkworms** fed on green leaves specially, **mulberry**
* **Rearing** of **silk worms** for the production of silk fibre is known as **sericulture**
* The original home of the **cotton plant** is **India**
* India was second largest producer of **cotton** **after China**
* **Cotton** is a **kharif crop**
* **Jute** is known as the **golden fibre**
* **Jute** is used in making gunny bags, mats, ropes, yarn, carpets and other artefacts
* Due to its high cost, **Jute** is losing market to synthetic fibres and packing materials, particularly the nylon
* Collectivisation, consolidation of holdings, cooperation and abolition of zamindari, etc. were given priority to bring about institutional reforms in the country after Independence
* ‘**Land** **reform’** was the main focus of our **First Five Year Plan**
* Sustained uses of land without compatible techno-institutional changes have hindered the pace of agricultural development.
* collectivisation, consolidation of holdings, cooperation and abolition of zamindari, etc. were given priority to bring about institutional reforms in the country after Independence
* The agriculture reforms in **1960s and 1970s** include **Green Revolution based on the use of package technology and the White Revolution** (Operation Flood)
* Land development programme of **1980’s and 1990’s** include **provision for crop insurance against drought, flood, cyclone, fire and disease, establishment of Grameen banks, cooperative societies and banks for providing loan** facilities to the farmers at lower rates of interest
* 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
* In order to check / avoid the exploitation of farmers by speculators and middlemen, the government introduced minimum support price and remunerative and procurement prices for important crops.
* Mahatma Gandhi declared **Vinoba Bhave** as his spiritual heir.
* Vinoba Bhave was one of the votaries of Gandhi’s concept of **gram swarajya**
* **Vinoba Bhave** started **Bhoodan** at **Pochampalli** in **Andhra Pradesh**
* Shri **Ram Chandra Reddy** of **Pochampalli** in Andhra Pradesh was instrumental in starting Bhoodan movement by Vinoba Bhave
* Some zamindars, owners of many villages offered to distribute some villages among the landless. It was known as **Gramdan**.
* **Bhoodan-Gramdan** movement initiated by Vinoba Bhave is also known as the **Blood-less Revolution**
* The share of Agriculture showed a declining trend in the Gross Domestic Product (GDP) from 1951 onwards
* ICAR stands for Indian Council of Agricultural Research
* In order to ensure availability of food to all sections of society, the government designed a national food security system.
* India’s food security policy has a primary objective to ensure availability of food grains to the common people at an affordable price.
* The focus of the policy is on growth in agriculture production and on fixing the support price for procurement of wheat and rice, to maintain their stocks.
* The National food security system consists of two components (a) buffer stock and (b) public distribution system (PDS)
* Food Corporation of India (FCI) is responsible for procuring and stocking food grains
* Distribution of food grains is ensured by public distribution system (PDS)
* Public Distribution System (PDS) is a programme which provides food grains and other essential commodities at subsidised prices in rural and urban areas
* MSP stands for Minimum Support Price
* Consumers are divided into two categories: Below Poverty Line (BPL) and Above Poverty Line (APL)
* There has been a gradual shift from cultivation of food crops to cultivation of fruits, vegetables, oil-seeds and industrial crops. This has led to the reduction in net sown area under cereals and pulses.
* Genetic engineering is recognised as a powerful supplement in inventing new hybrid varieties of seeds. It is known as gene revolution