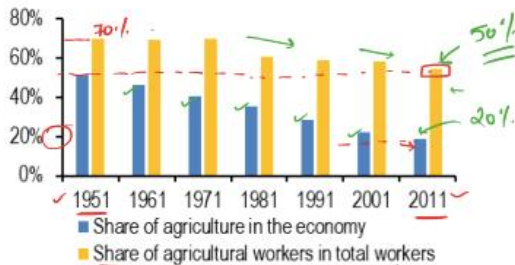
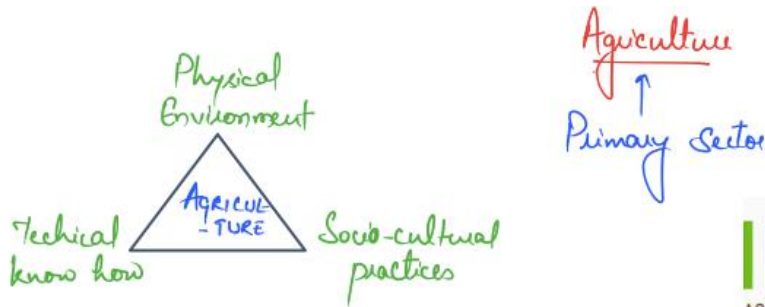


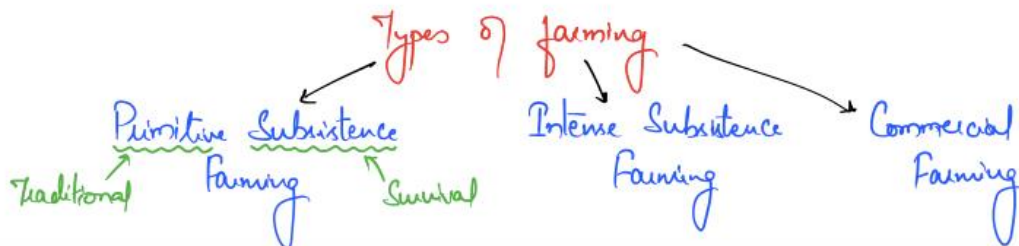
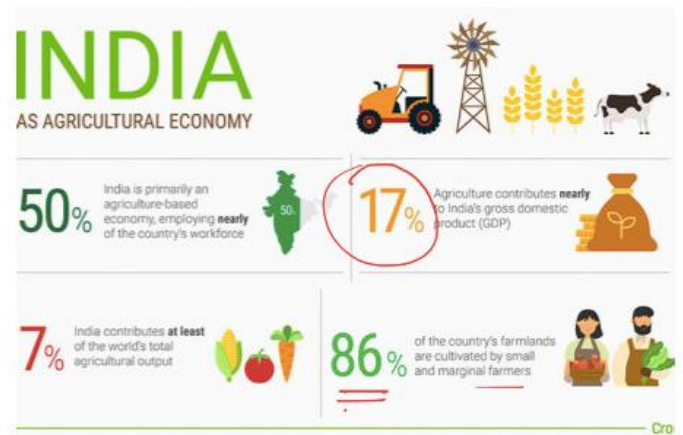
SOCIAL SCIENCE (GEOGRAPHY)

CHAPTER 04: AGRICULTURE

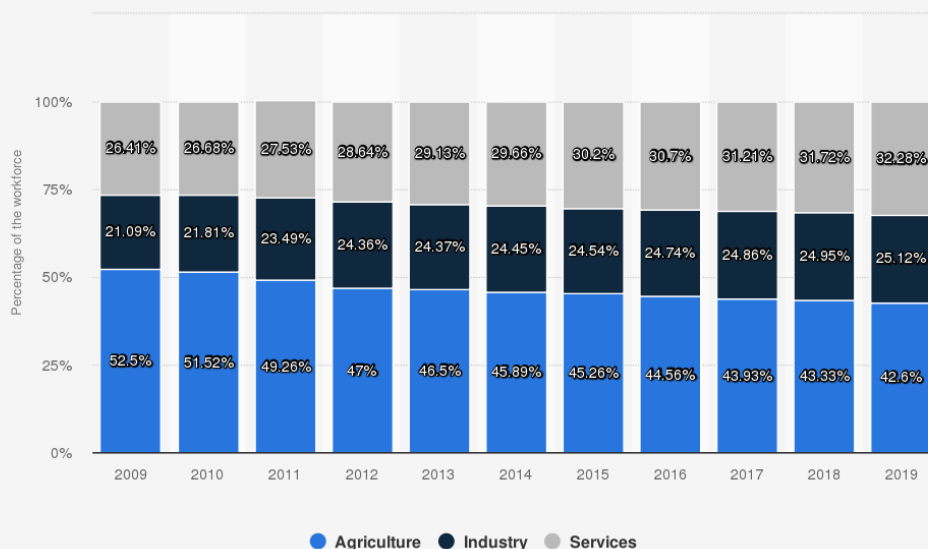
(Hand-written Notes; Version 2.0; Updated on 10.10.2022)



Sources: Agricultural Statistics at a Glance 2017, Ministry of Agriculture and Farmers' Welfare; CSO, MOSPI; PRS



India: Distribution of the workforce across economic sectors from 2009 to 2019



Source
 World Bank
 © Statista 2021

Additional Information:
 India; World Bank; 2009 to 2019

① Primitive Subsistence Farming →

- Done on small patches of land by family / community
- Use of primitive tools like hoe, dao, digging stick etc.



Digging Stick



Hoe



Dao

- Also known as **Slash and Burn Agriculture**

Clear a patch of land, setting fire to clear the remains & using ashes to provide nutrients to the soil

- Dependency on monsoon rains for irrigation
- Cheap / cost effective (small / landless farmers, tribals)

Steps:

1. Prepare the field by cutting down vegetation; plants that provide food or timber may be left standing.
2. The downed vegetation is allowed to dry until just before the rainiest part of the year to ensure an effective burn.
3. The plot of land is burned to remove vegetation, drive away pests, and provide a burst of nutrients for planting.
4. Planting is done directly in the ashes left after the burn.

The land is left idle for long time compared to the time it is used for farming, for the wild vegetation to grow again & to let the soil recover its fertility. (Shifting Agriculture)

Disadvantages →

- Soil erosion
- Deforestation
- Loss of fertility (gradual)
- Biodiversity loss

Different names of Slash and Burn cultivation	
In India	In the World
North-Eastern states : Jhumming	Mexico & Central America : Milpa
Manipur : Pamlo	Venezuela : Conuco
Chhattisgarh : Dipa	Brazil : Roca
Andaman & Nicobar : Dipa	Central Africa : Masole
Madhya Pradesh : Bewar/ Dahiya	Indonesia : Ladang
Andhra Pradesh : Podu/ Penda	Vietnam : Ray
Orissa : Koman/ Bhringa	
Western Ghats : Kumari	
Rajasthan : Valre/ Waltre	
Himalayan Belt : Khil	
Jharkhand : Kuruwa	

② Intensive Subsistence Farming

- Done in the areas of high population
- Labour intensive (manual labour)
- Objective is to fetch more output from a limited piece of land
- Intense use of biochemical fertilizers, pesticides & insecticides

Demand
+
Supply
balance → {



Mixed cropping



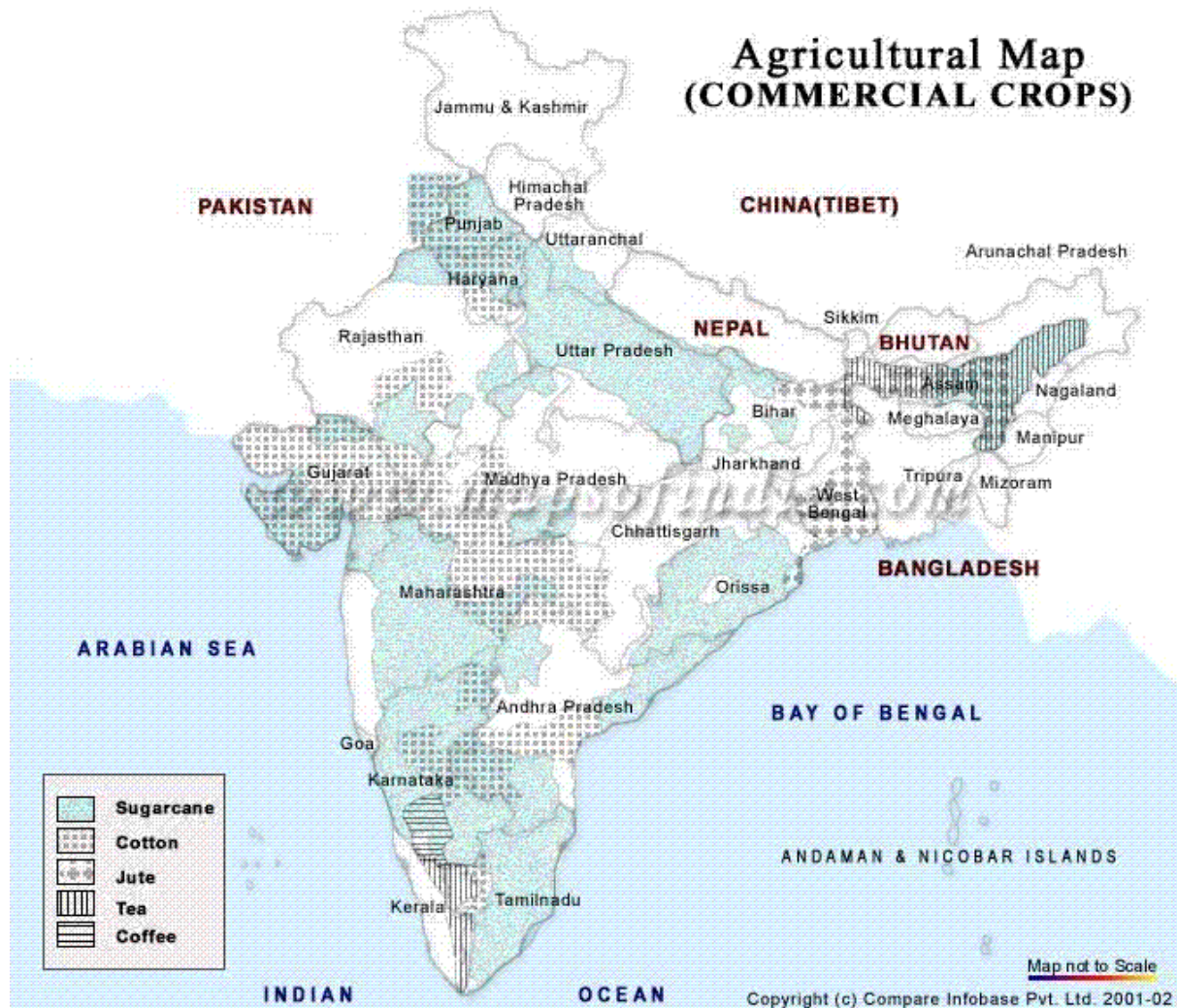
Intercropping

Disadvantage!

Enormous pressure on the land

③ Commercial Farming

- Modern farming methods like HYV seeds, Chemical fertilizers etc.
- Large scale farming → heavy machineries / tools
- Capital intensive
- Objective is profit making



Degree of commercialisation varies from region to region

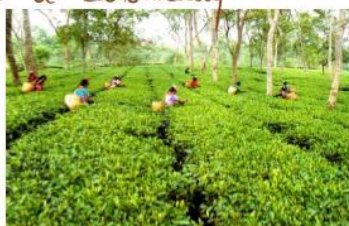
↓
Rice and Wheat

(commercial crops in Punjab and Haryana
but subsistence crop in Odisha)

Plantation Farming → Type of commercial farming in which a single crop is grown on a large area for commercial purposes.

Nearby industry to produce tea makes it economically effective.

→ [Interface of Agriculture & Industry]



Tea Plantation



Coffee Plantation



Sugarcane Plantation

* Cropping Pattern of India

Types of Cropping Seasons in India

Rabi → Ram ko Sardi mein kambal nahi mila to Zunaid ne Syrup pila diya. Zaid
Monsoon →
Summer →

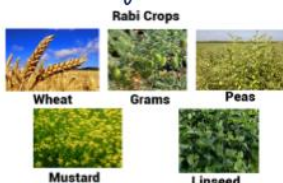
Rabi Crop

- Sown in winter (Oct-Dec) & harvested in summer (Apr-Jun)
- Eg. - wheat, barley, peas, gram etc.
- Mainly grown in north & north-eastern parts [Punjab, Haryana, UP, J&K, Uttarakhand, Himachal]



- Winter rains help growing these crops. (Western Disturbances)
- Success of Green Revolution helped in the growth of these crops.

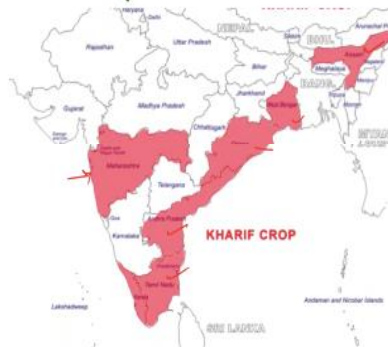
↑
Equipped with better facilities



KEY: World Bank
Wheat → or West Bengal
Barley
GOT into Competition
Gram → Onion
Tomato
Date
Mustard
Potato
Chickpea

Kharif Crop

- Sown in the Monsoon (Jun-July) & harvested in winter (Sep-Oct)
- Eg. - Paddy, Maize, Jowar, Bajra, Cotton, Jute, Tur, Moong, Urad, Groundnut etc.



- Majorly grown in Assam, West Bengal, Odisha, Andhra, Tamil Nadu, Kerala and Maharashtra



KEY: BTP → Bajra
GST → Grams
CM'S → Cotton
RM → Rice
Millet
Soybean
Turmeric
Pulses
Sugarcane
Maize
Groundnut
Cotton

Zaid Crop

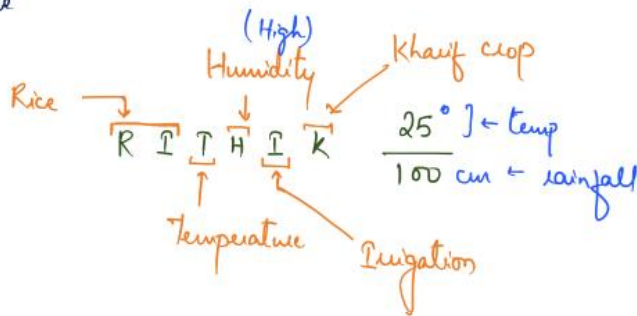
- Sown during the onset of summer (March-Apr) and harvested in summer (June).
- Short season during summer months
- Eg. - Watermelon, Muskmelon, Cucumber, vegetables, fodder

KEY: नींबू (Watermelon), खीरा (Cucumber), मूंग (Mung), चम (Chickpea), खा (Kharif), खरबूज (Muskmelon), सब्जी (Vegetables)

* Major Crops of India



① Rice

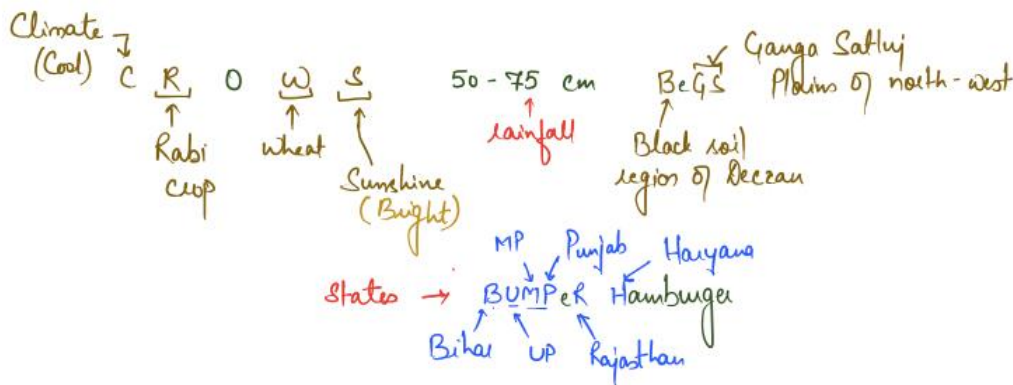


Rice: It is the staple food crop of a majority of the people in India. Our country is the second largest producer of rice in the world after China. It is a kharif crop which requires high temperature, (above 25°C) and high humidity with annual rainfall above 100 cm. In the areas of less rainfall, it grows with the help of irrigation. Rice is grown in the plains of north and north-eastern India, coastal areas and the deltaic regions. Development of dense network



Fig. 4.4 (b): Rice is ready to be harvested in the field of canal irrigation and tubewells have made it possible to grow rice in areas of less rainfall such as Punjab, Haryana and western Uttar Pradesh and parts of Rajasthan.

② Wheat



Wheat: This is the second most important cereal crop. It is the main food crop, in north and north-western part of the country. This rabi crop requires a cool growing season and a bright sunshine at the time of ripening. It requires 50 to 75 cm of annual rainfall evenly distributed over the growing season. There are two important wheat-growing zones in the country - the Ganga-Satluj plains in the north-west and black soil region of the Deccan. The major wheat-producing states are Punjab, Haryana, Uttar Pradesh, Bihar, Rajasthan and parts of Madhya Pradesh.



Fig. 4.5: Wheat Cultivation

③ Millets

(i) Ragi & Jowar



Millets: Jowar, bajra and ragi are the important millets grown in India. Though, these are known as coarse grains, they have very high nutritional value. For example, ragi is very rich in iron, calcium, other micro nutrients and roughage. Jowar is the third most important food crop with respect to area and production. It is a rain-fed crop mostly grown in the moist areas which hardly needs irrigation. Major Jowar producing States were Maharashtra, Karnataka, Andhra Pradesh and Madhya Pradesh in 2011-12.

Bajra grows well on sandy soils and shallow black soil. Major Bajra producing States were: Rajasthan, Uttar Pradesh, Maharashtra, Gujarat and Haryana in 2011-12. Ragi is a



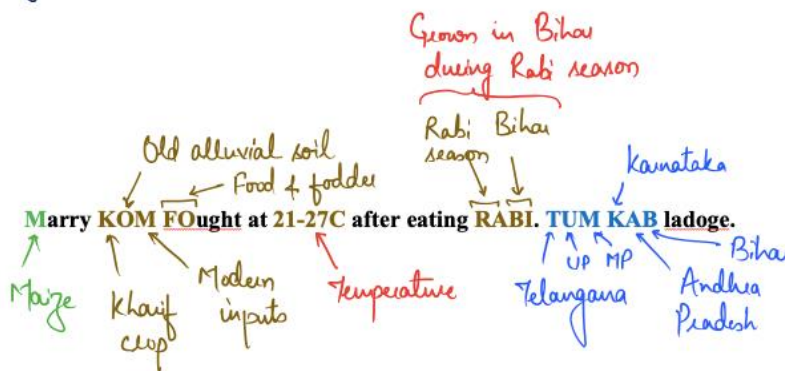
(ii) Bajra



Fig. 4.6: Bajra Cultivation

crop of dry regions and grows well on 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



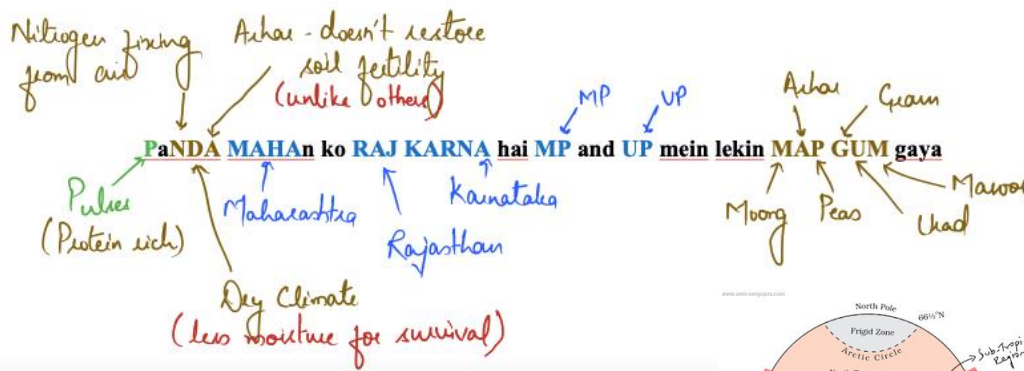
Maize: It is a crop which is used both as food and fodder. It is a kharif crop which requires temperature between 21°C to 27°C and grows well in old alluvial soil. In some states like Bihar



Fig. 4.7: Maize Cultivation

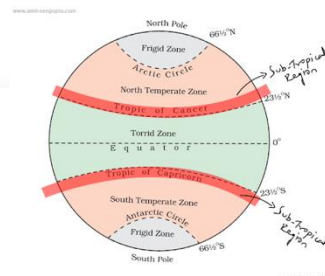
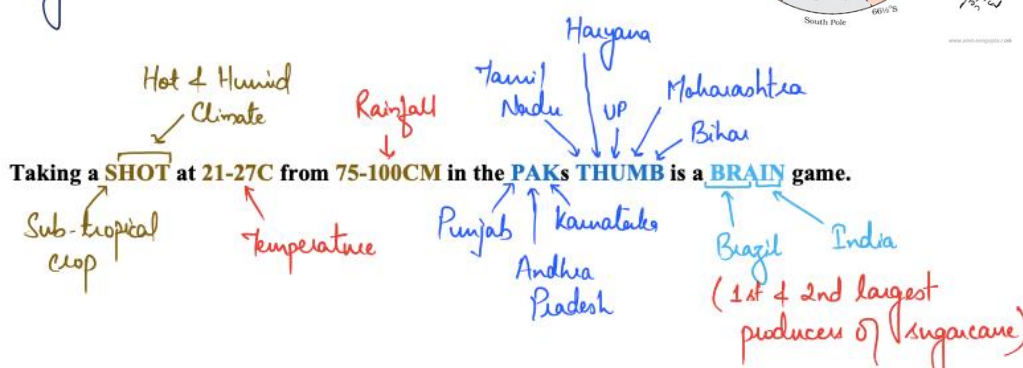
maize is grown in rabi season also. Use of modern inputs such as HYV seeds, fertilisers and irrigation have contributed to the increasing production of maize. Major maize-producing states are Karnataka, Uttar Pradesh, Bihar, Andhra Pradesh, Telangana and Madhya Pradesh.

(5) Pulses



Pulses: India is the largest producer as well as the consumer of pulses in the world. These are the major source of protein in a vegetarian diet. Major pulses that are grown in India are tur (arhar), urad, moong, masur, peas and gram. Can you distinguish which of these pulses are grown in the kharif season and which are grown in the rabi season? Pulses need less moisture and survive even in dry conditions. Being leguminous crops, all these crops except arhar help in restoring soil fertility by fixing nitrogen from the air. Therefore, these are mostly grown in rotation with other crops. Major pulse producing states in India are Madhya Pradesh, Uttar Pradesh, Rajasthan, Maharashtra and Karnataka.

(*) Food crops other than grains
 (6) Sugarcane



Food Crops other than Grains
Sugarcane: It is a tropical as well as a subtropical crop. It grows well in hot and humid climate with a temperature of 21°C to 27°C and an annual rainfall between 75cm and 100cm. Irrigation is required in the regions of low rainfall. It can be grown on a variety of



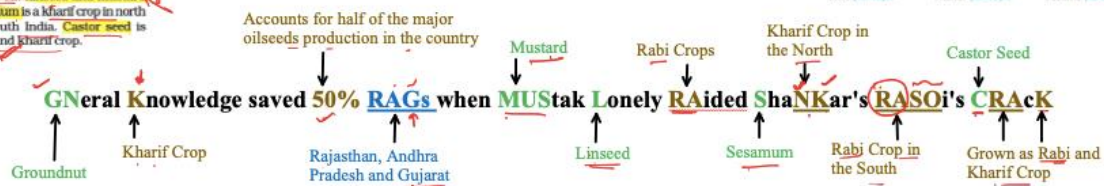
Fig. 4.8: Sugarcane Cultivation

soils and needs manual labour from sowing to harvesting. India is the second largest producer of sugarcane only after Brazil. It is the main source of sugar, gur (jaggery), khandsari and molasses. The major sugarcane-producing states are Uttar Pradesh, Maharashtra, Karnataka, Tamil Nadu, Andhra Pradesh, Telangana, Bihar, Punjab and Haryana.

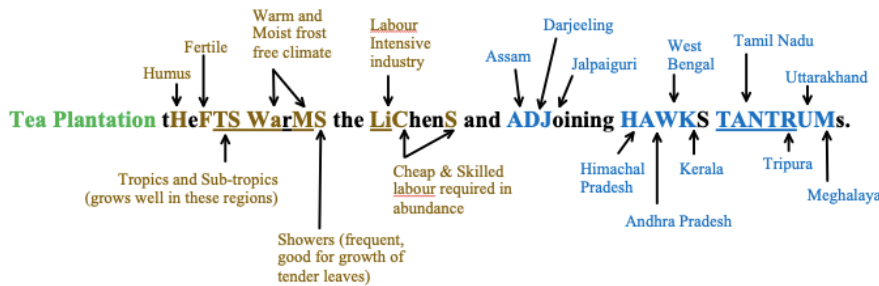
⑦ Oil Seeds

Oil Seeds: In 2008 India was the second largest producer of groundnut in the world after China. In rape seed production India was third largest producer in the world after Canada and China in 2008. 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. Most of these are edible and used as cooking mediums. However, some of these are also used as 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 in 2011-12. **Linseed** and **mustard** are rabi crops. **Sesamum** is a kharif crop in north and rabi crop in south India. **Castor seed** is grown both as rabi and kharif crop.



⑧ Tea



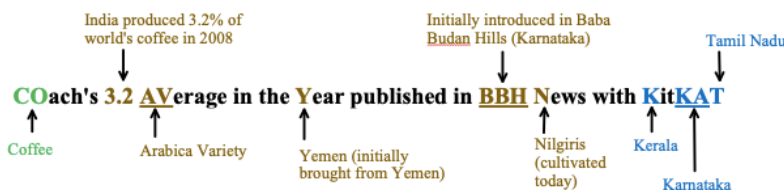
Tea: Tea cultivation is an example of plantation agriculture. It is also an important beverage crop introduced in India initially by the British. Today, most of the tea plantations are owned by Indians. The tea plant grows well in tropical and sub-tropical climates endowed with deep and fertile well-drained soil, rich in humus and organic matter. Tea bushes require warm and moist frost-free climate all through the year. Frequent showers evenly distributed over the year ensure continuous growth of tender leaves. Tea is a labour-intensive industry. It requires abundant,

cheap and skilled labour. Tea is processed within the tea garden to restore its freshness. Major tea-producing states are Assam, hills of Darjeeling and Jalpaiguri districts, West Bengal, Tamil Nadu and Kerala. Apart from these, Himachal Pradesh, Uttarakhand, Meghalaya, Andhra Pradesh and Tripura are also tea-producing states in the country. In 2008 India was the third largest producer of tea after China and Turkey.



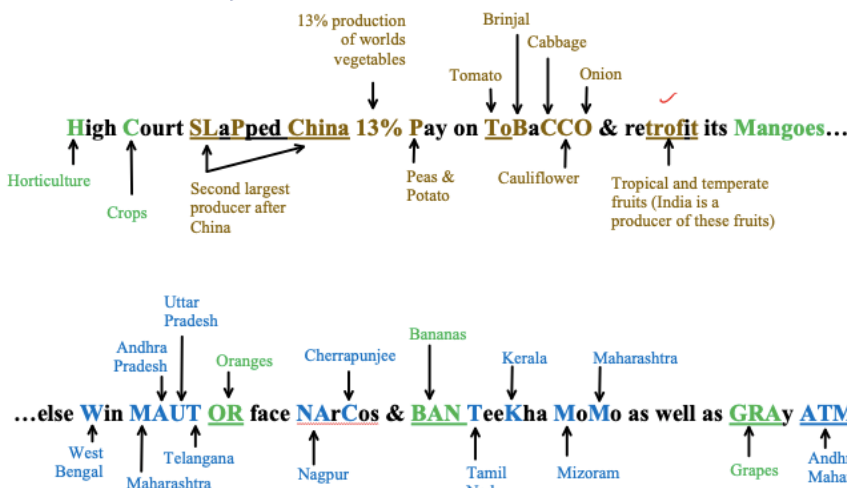
Fig. 4.10: Tea

⑨ Coffee

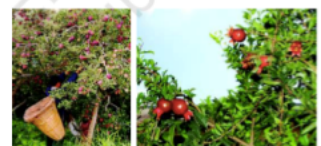


Coffee: In 2008 India produced 3.2 per cent of the world coffee production. Indian coffee is known in the world for its good quality. The **Arabica** variety initially brought from **Yemen** is produced in the country. This variety is in great demand all over the world. Initially its cultivation was introduced on the **Baba Budan Hills** and even today its cultivation is confined to the **Nilgiri** in Karnataka, Kerala and Tamil Nadu.

⑩ Horticulture Crops



Horticulture Crops: In 2008 India was the second largest producer of fruits and vegetables in the world after China. India is a producer of tropical as well as temperate fruits. **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, **lichis** 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.

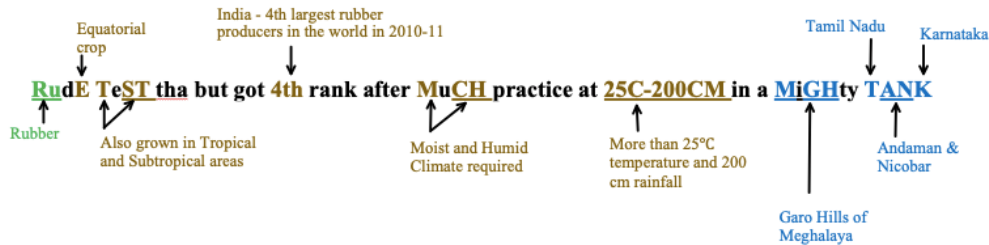


Apple and pomegranate

India produces about 13 per cent of the world's vegetables. It is an important producer of pea, cauliflower, onion, cabbage, tomato, brinjal and potato.

⊛ Non-food crops

⑪ Rubber



Non-Food Crops
Rubber: It is an equatorial crop, but under special conditions, it is also grown in tropical and sub-tropical areas. It requires moist and humid climate with rainfall of more than 200 cm. and temperature above 25°C.
 Rubber is an important industrial raw material. It 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.

Activity
 List the items which are made of rubber and are used by us.

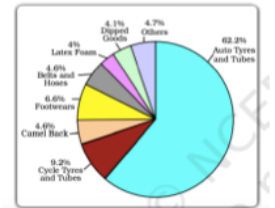


Fig. 4.14: Consumption of natural rubber - 2010-11
 Source: Statistics and Planning Department Rubber Board, Kottayam, Kerala

⑫ Silk, Cotton and Jute (Fibre Crop)

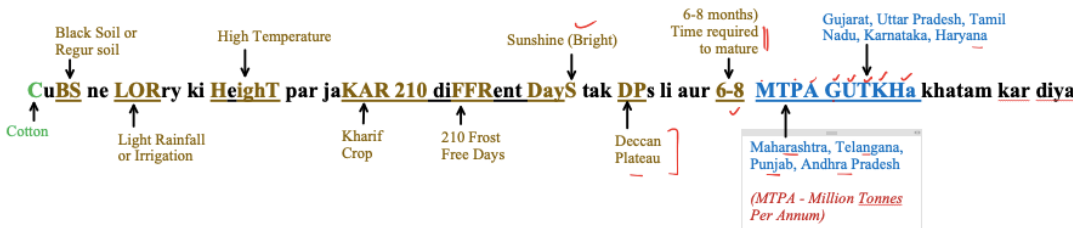
Fibre Crops: Cotton, jute, hemp and natural silk are the four major fibre crops grown in India. The first three are derived from the crops grown in the soil, the latter is obtained from cocoons of the silkworms fed on green leaves specially mulberry. Rearing of silk worms for the production of silk fibre is known as sericulture.

Cotton: India is believed to be the original home of the cotton plant. Cotton is one of the main raw materials for cotton textile industry. In 2008 India was second largest producer of cotton after China. Cotton grows well in drier parts of the black cotton soil of the Deccan plateau. It requires high temperature, light rainfall or irrigation. 210 frost-free days and bright sun-shine for its growth. It is a kharif crop and requires 6 to 8 months to mature. Major cotton-producing states are: Maharashtra, Gujarat, Madhya Pradesh, Karnataka, Andhra Pradesh, Telangana, Tamil Nadu, Punjab, Haryana and Uttar Pradesh.



Hemp (Bhaang)

nemp (bhaang)



Jute: It is known as the golden fibre. Jute grows well on well-drained fertile soils in the flood plains where soils are renewed every year. High temperature is required during the time of growth. West Bengal, Bihar, Assam, Odisha and Meghalaya are the major jute producing states. It is used in making gunny bags, mats, ropes, yarn, carpets and other artefacts. Due to its high cost, it is losing market to synthetic fibres and packing materials, particularly the nylon.



MAJOR CROPS: KEYS

- RICE:** RITHIK 25-100C
- WHEAT:** CRowS 50-75CM BeGS for BUMPeR Hamburger
- MILLETS:**
 - COLumbo RAN for a CRIMINAL JO 3 Million leke gaya MAM K
 - BRaSS ka Lavish TAJ SUKH dega
- MAIZE:** Marry KOM FOught at 21-27C after eating RABI. TUM KAB ladoge.
- PULSES:** PaNDA MAHAN ko RAJ KARNA hai MP and UP mein lekin MAP GUM gaya
- SUGARCANE:** Taking a SHOT at 21-27C from 75-100CM in the PAKs THUMB is a BRAIN game
- OILSEEDS:**
 - SCAMS CLoGS Currency by 12% TCA
 - GNeral Knowledge saved 50% TAGs when MUSTak Lonely RAided ShaNkar's RASOI's CRaCK
- TEA - Tea Plantation** tHeFTS WarMS the LiChenS and ADJoining HAWKS TANTRUMs

9. COFFEE - **CO**ach's **3.2 AVerage** in the **Year** published in **BBH** News with **KitKAT**
10. **HORTICULTURE CROPS** -
o **High Court SLA**pped **China 13% Pay** on **ToBaCCO** & retrofit its **Mangoes** else **Win MAUT OR** face **NARCos** & **BAN TeeKha MoMo** as well as **GRAy** **ATMs**
11. **RUBBER** - **RudE TeST** tha but got **4th** rank after **MuCH** practice at **25C-200CM** in a **MiGHty TANK**
12. **SILK, COTTON & JUTE** -
o **File C**harges against the **Hon'ble C**hief **J**ustice of **S**upreme court
o **CuBS** ne **LORry ki HeighT** par ja**KAR 210** **diFFERent DayS** tak **DPs** li aur **6-8 MTPA GUTKHa** khatam kar diya
o **JunaGarh FightERS FLiP**ped the game, **HT** published **War Broke At** **MORning BY ARMy's** **Hon'ble C**ommander **LM** Narang

⊛ Technological & Institutional Reforms

⊛ Slow pace of techno-institutional reforms hindered the growth of agriculture
↳ shift of focus to industrialisation

⊛ Dependency of farmers on monsoon } ← despite of development of irrigation facilities

Reforms required to bridge the demand & supply gap

↓
Gap has widened because of

- Increase in population
- Slow pace of agricultural reforms
- Division of land over generations led to lower the productivity
- Over dependency on chemical fertilizers
- Land is fixed and net sown area is not extended over the decades (may not be possible also)

Right of Inheritance

Reforms after Independence

- 1) **Collectivisation** → It is the collection of lands belonging to different farmers with an objective to promote the collective farming.
(Stalin first introduced it during Russian Revolution.)

2) Consolidation of holdings (चक्रवर्ती) → Planned re-adjustment and rearrangement of fragmented lands of the same estate (belong to the same owner) with an objective to create large land holdings for better productivity and reduce the cost of production.
Different Acts have been enacted by govt. for this.

3) Abolishing Zamindari system → This system was abolished in India through Zamindari Abolition Act, 1950.

(Introduced by Lord Cornwallis in 1793 through Permanent Settlement Act)

- 1) Easy collection of land revenue by few people (Zamindars) rather than millions of farmers
- 2) Zamindars were made land owners by Britishers, to those lands for which they were revenue collectors (provided with hereditary rights to transfer, sell or mortgage land)
- 3) Taxes were collected on a pre-determined day by the Britishers, from the Zamindars.
Amount was fixed by Britishers
(Land was seized if anyone failed to pay taxes)

4) Amount → $\frac{1}{11}$ th of the total revenue for Zamindars

$\frac{10}{11}$ th of the total revenue for Britishers

East India Company

Main obstacle even today

Lukewarm implementation of policies by Govt.

4) Land reforms → Focused in first Five Year Plan

5) Agriculture reforms:

- Green Revolution
- White Revolution (Operation Flood)
- Provisions for Crop Insurance
- Gramin Banks, Cooperative banks (E.g. - NABARD)
- Kisan Credit Card, Personal Accident Insurance Scheme (PAIS)
- Weather forecast news
- Minimum Support Price



Gujarat Cooperative Milk Marketing Federation



* Bhoodan / Gramdan

- Follower of Gandhiji
- Speech to landless farmers in Pochampalli (Andhra Pradesh)



Acharya Vinoba Bhave

Villagers (landless) demanded some land
(Vinoba Bhave agreed to talk to the Govt. if they would undertake the cooperative farming)

Shri Ram Chandra Reddy (one among the listeners) agreed to donate his 80 acre land to 80 landless villagers



This was called "Bhoodan"

Also known as "Bloodless Revolution"

Bhave when spread this idea, some Zamindars offered some villages to the landless villages. This was "Gramdan."

* Contribution of agriculture to the Indian economy

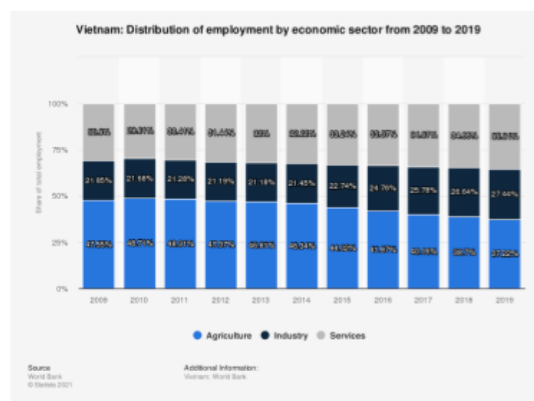
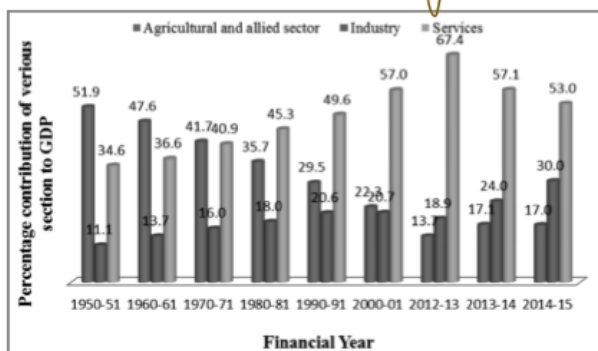
Imp → Agriculture has been the backbone of Indian economy.

CBQ

↓ why?
Majority of population is dependent on agriculture for livelihoods
(though its GDP contribution has declined over the years)

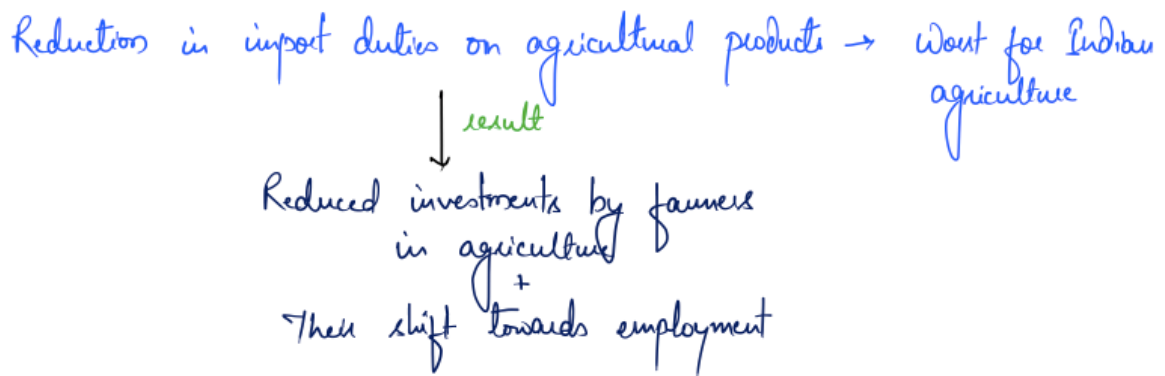
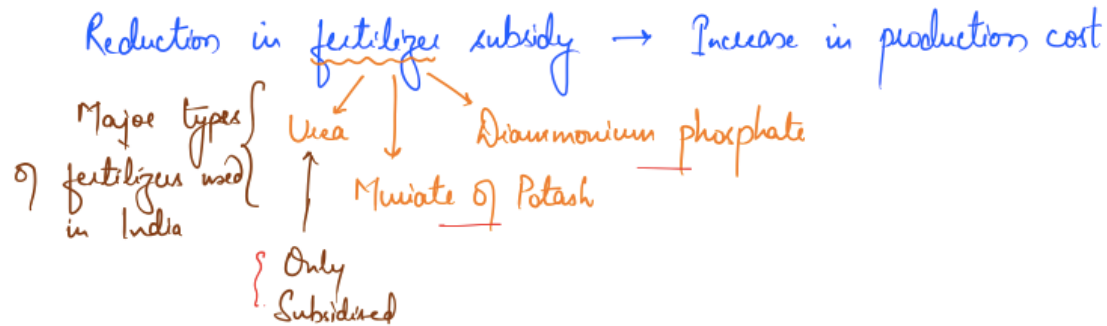
Table 4.1: India: Growth Rate of GDP and Major Sectors (in %)

Sector	2013-14	2014-15	2015-16
Agriculture	4.2	-0.2	1.1
Industry	5.0	5.9	7.3
Services	7.8	10.3	9.2
GDP	6.6	7.2	7.6



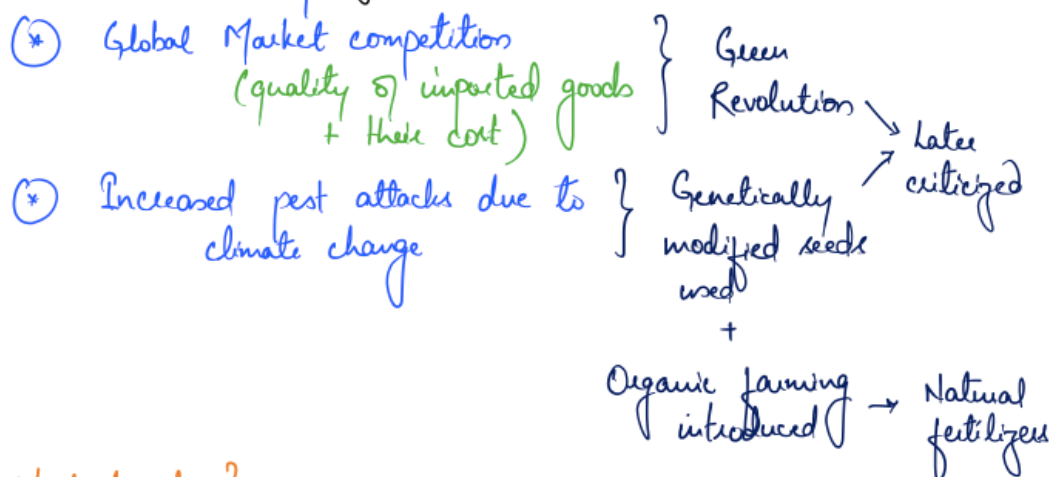
- Steps taken by the govt. to modernise agriculture
 - Establishment of ICAR (Indian Council of Agriculture and Research)
 - Agriculture universities, veterinary services, animal breeding centres
 - Horticulture development

- Development of weather forecast technology
- Rural infrastructure creation



(*) Impact of Globalisation on Agriculture

- 1990 → New challenges to farmers



→ What to do?

- Diversified cropping → Shift from cereals to high-value crops
↓
More income, less land degradation

Food Crops

Sl. No.	Crop	Cropping Season	Temperature	Rainfall	Soil	Features	Features	Location
1	Rice	Kharif	Above 25°C and high humidity	Above 100 cms	Alluvial clayey soil.	India is the second largest producer of rice in the world after China.	In Assam, West Bengal and Orissa, three crops of paddy are grown in a year known as "Aus, Aman and Boro".	Northern plains, North Eastern States, Coastal and Deltaic Regions.
2	Wheat	Rabi	Cool growing season and Bright sunshine	50 - 75 cms of well distributed rainfall	Well drained alluvial soil & Black Soil	Main food crop of the north and north western states of India	Two important wheat-growing zones in India are: The Ganga-Sutlej plains in the northwest and black soil region of Deccan.	Punjab, Haryana, Uttar Pradesh and parts of Madhya Pradesh are major wheat producing states.
3	Millets (Jawar)	Kharif	Grown in areas with high temperature	Low rainfall.	Less fertile soil.	Jawar, Bajra and Ragi. They are also known as coarse grains.	Jowar grows in moist areas and hardly needs irrigation. Very high nutritional value.	Maharashtra, Karnataka, Andhra Pradesh and Madhya Pradesh.
	Millets (Bajra)	Kharif	Grown in areas with high temperature	Low rainfall.	Sandy soil and shallow black soil.		Very high nutritional value.	Rajasthan, Uttar Pradesh, Maharashtra, Gujarat and Haryana.
	Millets (Ragi)	Kharif	Grown in areas with high temperature	Low rainfall.	Dry regions on red, black, sandy loamy & shallow black soils.		Very high nutritional value.	Karnataka, Tamil Nadu, Himachal Pradesh, Uttarakhand, Sikkim, Jharkhand and Arunachal Pradesh.
4	Maize	Kharif	21°-27°C	50 cm - 100 cm	-----	Used as both food and fodder crop.	Grows well in old alluvial soil.	Karnataka, Uttar Pradesh, Bihar, Andhra Pradesh, Telangana and Madhya Pradesh.
5	Pulses	Rabi	Survive even in dry conditions.	Need less moisture	Pulses are usually grown in rotation with other crops, so that the soil can regain its fertility.	India is the largest producer and consumer of pulses in the world.	Tur (arhar), urad, moong, masur, peas and gram. Pulses are the great source of protein.	Madhya Pradesh, Uttar Pradesh, Rajasthan, Maharashtra and Karnataka.

Non-Food Crops

Sl. No.	Crop	Cropping Season	Temperature	Rainfall	Soil	Features	Features	Location
1	Sugarcane	Kharif	21°-27°C	75 cm - 100 cm	Well drained alluvial soil & variety of Soil.	India is the second largest producer of sugarcane after Brazil.	It is a tropical and subtropical crop.	Uttar Pradesh, Maharashtra, Karnataka, Tamil Nadu, Andhra Pradesh, Bihar, Punjab and Haryana.
2	Oilseeds	Groundnut - Kharif Crop	20°-30°C	50 cm - 75 cm	Red Soil.	India was the second largest producer of groundnut in the world after China.	Oil seeds grown in India covers 12% of the total cropped area.	Gujarat was the largest producer of groundnut followed by Andhra Pradesh & Tamil Nadu.
		Linseed & Mustard - Rabi Crops.	-----	-----	-----	India was the third largest producer of mustard seeds in the world after Canada and China.	Oil seeds are majorly used in cooking purpose. Also, used for the production of soap, cosmetics and ointments.	-----
		Sesamum - Kharif Crop in North and Rabi Crop in South.	-----	-----	-----	-----	-----	-----
		Castor - Both Rabi & Karif Crop.	-----	-----	-----	-----	-----	-----

Sl. No.	Crop	Cropping Season	Temperature	Rainfall	Soil	Features	Features	Location
3	Tea	-----	21°C to 29°C	150 cm -250 cm. Frequent showers distributed through out the year.	Mountain Soil. deep and fertile well drained soil, rich in humus and organic matter.	Tea is a plantation crop. Beverage crop.	India is the leading producer of tea in the world. grows well in tropical and subtropical climate.	Assam, West Bengal, Tamil Nadu, Kerala, Meghalaya, Tripura, etc. Darjeeling is famous for the unique quality of tea production.
4	Coffee	-----	15°C to 28°C	150 cm -250 cm. Frequent showers distributed through out the year.	Hill slopes are more suitable for growth of this crop. well drained mountain soil.	Coffee is a plantation crop. Beverage crop. Indian coffee is well known for its good quality throughout the world. Initially, the Arabica variety of coffee was brought from Yemen.	India produced 3.2% of the total world coffee production. Coffee was initially introduced on the Baba Budan Hills in Karnataka.	Nilgiris in Karnataka, Kerala and Tamil Nadu.

HORTICULTURE CROPS

Sl. No.	Crop	Cropping Season	Temperature	Rainfall	Soil	Features	Features	Location
1	Fruits	-----	-----	-----	-----	India produces both tropical and temperate fruits.	India was the second largest producer of fruits and vegetables in the world after China.	Mango: Maharashtra, Andhra Pradesh, Uttar Pradesh, West Bengal. Oranges: Nagpur and Cherrapunjee (Meghalaya). Bananas: Kerala, Mizoram, Maharashtra and Tamil Nadu. Lichi and Guava: Uttar Pradesh and Bihar. Pineapples: Meghalaya. Grapes: Andhra Pradesh and Maharashtra. Apples, Pears, Apricots and Walnuts: Jammu & Kashmir and Himachal Pradesh.
2	Vegetables	-----	-----	-----	-----	India produces 13 % of the world's vegetables.	India is an important producer of pea, cauliflower, onion, cabbage, tomato, brinjal and potato.	-----

NON FOOD CROPS

Sl. No.	Crop	Cropping Season	Temperature	Rainfall	Soil	Features	Features	Location
1	Rubber	-----	Above 25°C	Above 200 cm. It needs moist and humid climate.	-----	Rubber is a plantation crop. Rubber is a crop of equatorial region but it is also grown tropical and subtropical regions.	India is the fourth largest rubber producer in the world.	Kerala, Tamil Nadu, Karnataka and Andaman & Nicobar islands and also in the Garo hills of Meghalaya.

FIBER CROPS

Sl. No.	Crop	Cropping Season	Temperature	Rainfall	Soil	Features	Features	Location
1	Cotton	Kharif	High Temperature.	Light Rainfall. 210 frost-free days and bright sunshine for its growth.	Black Soil.	India was the second largest producer of cotton after China.	-----	Maharashtra, Gujarat, Madhya Pradesh, Karnataka, Andhra Pradesh, Tamil Nadu, Punjab, Haryana and Uttar Pradesh.
2	Jute	Kharif	High temperature & humid climate.	Heavy Rainfall.	Well drained alluvial soil in the flood plain.	Jute is used to make gunny bags, mats, ropes, yarn, carpets, etc.	Jute is also known as the 'Golden Fiber'.	West Bengal, Bihar, Assam, Orissa and Meghalaya.