NCERT Class 10 Geography

Chapter 4: Agriculture

- •2/3rd people in agriculture
- Food grains
- Raw material for industry

Primitive Farming

- In small areas
- Primitive tools hoe, sticks
- Monsoon dependent
- Slash and burn agriculture
- 'Milpa' in Mexico
- 'Masole' in Central Africa
- 'Conuco' in Venzuela
- 'Roca' in Brazil
- 'Ladang' in Indonesia
- 'Ray' in Vietnam

- 'Bewar' or 'Dahiya' in Madhya Pradesh
- 'Podu' or 'Penda' in Andhra Pradesh
- 'Pama Dabi' or 'Koman' or Bringa' in Orissa
- 'Kumari' in Western Ghats
- 'Valre' or 'Waltre' in SE Rajasthan
- 'Khil' in the Himalayan belt
- 'Kuruwa' in Jharkhand
- 'Jhumming' in the North-eastern region
- Pamlou in Manipur
- Dipa in Bastar district of Chattishgarh, Andaman and Nicobar Islands.

Intensive Subsistence Farming

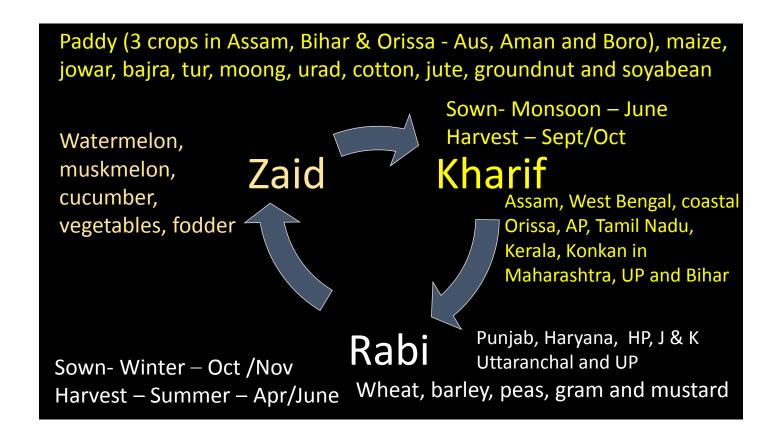
- High population
- Labor intensive
- More chemicals and irrigation
- Small landholdings- division of land

Commercial farming

- •High HYV, fertilizer, chemicals
- Large land
- Mechanized
- Rice commercial crop in Haryana and Punjab;
 in Orissa- subsistence

Plantation Cropping

- Single crop over large area
- interface of agriculture and industry
- Large land
- Capital intensive
- Migrant laborers
- Tea in Assam and N. Bengal
- Coffee in Karnataka
- Good transport to reach market Market oriented



Rice

- Largest after China
- Kharif crop
- High temperature (above 25°C) and high humidity
- Annual rainfall above 100 cm (if less irrigation)
- Plains of north and NE India, coast & deltaic region
- By canal & tubewell in Raj, Punjab, Haryana & west UP

Wheat

- Second after rice
- North and NW India
- Rabi crop
- Cool growing season
- Bright sunshine at ripening
- Rain 50-75 cm
- 2 zones Ganga-Satluj plains in NW & black soil in Deccan
- Punjab, Haryana, UP, Bihar, Rajasthan and parts of MP

Millets

- Jowar, bajra, ragi coarse grains High nutrition
- Jowar 3rd in area & production, rain-fed, in moist areas
- Jowar Largest producer is Maharashtra; Karnataka, AP & MP
- Bajra sandy & shallow black soil
- Bajra Largest is Rajasthan; then UP, Maharashtra, Gujarat & Haryana
- Ragi Dry, grows on red, black, sandy, loamy and shallow black soils; has iron, calcium & roughage
- Ragi Largest is Karnataka, Tamil Nadu, also in HP, Uttaranchal, Sikkim, Jharkhand and Arunachal Pradesh

Maize

- Food and fodder
- Kharif crop
- Temperature 21°C to 27°C
- Old alluvial soil
- •In Bihar grown in rabi season also.
- Karnataka, UP, Bihar, AP & MP

Pulses

- Largest producer and consumer in world
- Protein source
- Tur (arhar), urad, moong, masur, peas and gram
- All leguminous (nitrogen fixation) except tur
- Can grow in dry conditions
- •MP, UP, Rajasthan, Maharashtra and Karnataka

Sugarcane

- Tropical & subtropical crop
- Hot and humid climate
- Temperature of 21°C to 27°C
- Annual rainfall between 75cm-100 cm
- India second after Brazil
- UP, Maharashtra, Karnataka, Tamil Nadu, AP, Bihar, Punjab and Haryana

Oilseeds

- Largest producer in the world
- 12% of total area
- Groundnut, mustard, coconut, sesamum (til), soyabean, castor seeds, cotton seeds, linseed and sunflower
- Groundnut kharif, accounts for 50% of oilseeds, Largest is AP then T. Nadu, Karnataka & Gujarat
- Linseed & Mustard Rabi (mainly Maharashtra)
- Sesamum kharif crop in north and rabi crop in south India.
- Castor seed is grown both as rabi and kharif crop.

Tea

- Plantation
- Beverage crop
- Now owned by Indians
- Tropical and sub-tropical climates
- Deep and fertile well-drained soil, rich in humus and organic matter
- · Warm and moist frost-free climate all through the year
- Frequent showers evenly year round for growth of tender leaves.
- Assam, hills of Darjeeling and Jalpaiguri in WB, Tamil Nadu and Kerala.
- HP, Uttaranchal, Meghalaya, Andhra Pradesh and Tripura
- Largest producer as well as exporter

Coffee

- •4% of world production
- Arabica variety brought from Yemen
- Started in Babubudan hills
- Nilgiri in Karnataka, Kerala and Tamil Nadu

Horticulture

- Largest producer of fruits and vegetables in the world
- 13% of world's vegetables
- Mangoes of Maharashtra, AP, UP, WB
- 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 and Maharashtra
- Apples, pears, apricots and walnuts of J & K and HP

Rubber

- Equatorial crop
- •5th in world in natural rubber production
- Moist and humid climate
- Rainfall of more than 200 cm
- Temperature above 25°C
- Kerala, Tamil Nadu, Karnataka and Andaman and Nicobar islands and Garo hills of Meghalaya

Fibers

- Cotton 3rd largest in world, dry black soil of Deccan, high temp, light rain, 210 frost free days, kharif, 6-8 months to mature; Maharashtra, Gujarat, MP, Karnataka, AP, Tamil Nadu, Punjab, Haryana and UP
- Jute golden fiber, well drained soil, high temp., West Bengal, Bihar, Assam, Orissa and Meghalaya – high cost & now shift to nylon
- Hemp
- Silk Silkworms sericulture

Reforms

- Collectization
- Consolidation of holdings 1st Five Year Plan
- Cooperation
- Abolition of zamindari
- Green & White Revolution but concentrated to few areas
- Crop insurance & Personal Accident Insurance Scheme (PAIS)
- Grameen banks
- Cheap loans & Kisan credit cards
- Gandhiji- Gram Swarajya
- Vinoba Bhave Bhoodan- Gramdam (bloodless revolution) 80 acre land by Ram Chandra Reddy to 80 landless laborers

Agriculture - Role in Economy

- Share in GDP declining since 1951
- Employment to 263 million people (with >50% as agri. laborers)
- Establishment of Indian Council of Agricultural Research (ICAR)
- Agricultural universities
- Veterinary services and animal breeding centres
- Horticulture development; R & D

Issues

Farmers facing international competition

Decrease in subsidies

Decrease in import duties on agricultural products

Farmers withdrawing investment from agriculture

Food Security

- To the remote areas
- By Buffer stock & PDS (at subsidized price by ration shops) by FCI
- FCI provides Minimum Support Price to farmers
- Food to common man at affordable rate
- Increase food production
- Free trade in grains for massive employment
- Shift from food crops to fruits & vegetables led to decrease in land under crop
- Fertilizers shows good result but now are culprits of land degradation
- Unsustainable pumping reduced water in aquifers

Globalization

- Cotton belts attracted Britishers (Manchester & Liverpool)
- Champaran farmers forced to grow indigo & no foodgrains for families
- Improve marginal farmers
- Gene Revolution genetic engineering hybrid seeds
- Organic farming neem leaves
- Diverse crops from cereal to high value crops like <u>fruits</u>, <u>medicinal</u> <u>herbs</u>, <u>flowers</u>, <u>vegetables</u> (import cereal & export like Italy & Israel)
- Bio-diesel crops like jatropha and jojoba need much less irrigation than rice or sugarcane

