

## Chapter-5 Land Resources and Agriculture

### Land use categories

1. Forests
2. Land put to non-agricultural use
3. Barren and waste land
4. Area under permanent pastures
5. Area under miscellaneous tree crops
6. Culturable waste land
7. Current fallow land
8. Fallow other than current fallow
9. Net Sown Area

### Land use changes in India

#### Three types of changes

- I. Size of economy: grow over time, change in income level, marginal lands will become useful
- II. Composition of the economy: the secondary and tertiary grew much faster than primary sector. Land from Ag. Use to non Ag use such as built up area
- III. The contribution of agricultural activities reduces over time The share of Ag. Is declined. No. of people fed by Agri. is increasing

#### Increase in three categories

- 1.i. Forest.
  - ii. Area under nonagricultural use
  - iii. Current fallow land
2. Four areas declined
  - i. Barren and waste land
  - ii. Cultivable wasteland
  - iii. Area under pastures & tree crops
  - iv. Net sown area

### Common property resources

#### 1. Private 2. Common property

- I. The CPTS are used by common purpose / society owned by state
- II. Provide fodder for livestock fuel for the house holds
- III. Produce minor forest products such as fruits, nuts, fibre, medicinal plants
- IV. Every member has right to access

### Agricultural land use in India:

1. Contribution of land in agricultural use is more important
2. Lack of access to land leads to poverty
3. Productivity depends on quality of land
4. Land ownership has social value in rural areas

# Key Notes

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Total cultivable land is = Newtown area + Fallow land + Alterable waste land

1. Since there is no extra land available only the high yielding varieties can increase the productivity
2. Number of times the land can be increased by providing Irrigation Crop intensity can be raised

## Cropping seasons

Season	Period	Crops
Kharif	June-Sep	Rice, Cotton Millets Ground Nut
Rabi	Oct-Nov	Wheat Gram, Rice Maize Millets
Zaid	April-June	Veg. Fruits

## Types of farming

Based on moisture for the crops

### Irrigated farming

1. It is protective/ productive of crops,
2. Due to moisture deficiency irrigation is essential
3. Supplementary to the rainfall
4. To increase cultivable area
5. To achieve high productivity

### Rain fed farming

1. Divided in to two types a. Dry land farming b. wet land farming
2. Dry land farming located in the area of less than 75 cm rain fall
3. drought resistant crops are grown
4. Millets, maize fodder crops
5. practice rainwater harvesting

### Wetland farming

1. Found in areas of high rainfall zones
2. Water intensive crops such as rice, sugarcane, jute is grown

## Cropping pattern

Food grains

Cereals:

**Rice:** grown on sea level to 2000 mts altitude,

3000 varieties are grown

grown in three seasons AUS AMAN BORO in west Bengal / Kharif. Rabi season.

22% of rice production in India.

second after china.

$\frac{1}{4}$  area is under rice cultivation.

WB, PUN UP rice is grown

**Wheat:** Second most important crop,

12% of production is from India,

# Key Notes

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Generally, in winter it is grown.  
Grown in North and central India,  
Irrigation is essential.  
Rain fed crop in Himalayan region.  
14% is under wheat cultivation.  
UP, PUN, HAR, RAJ. Are leading producers

**Jowar:** 16.5 % cropped area is under this crop,  
Main food crop in semiarid areas,  
Maharashtra alone produces  $\frac{1}{2}$  of the production,  
Others are KK, MP AP

**Bajra:** Hot and dry climatic conditions are needed.  
Grown in drought resistant crop,  
It is cultivated alone or mixed crop,  
5.2% of total cropped area.  
Leading producers are MS, GUJ RAJ, HAR

**Maize:** Grown any type of land.  
It is food and fodder crop,  
3.6% total cropped area,  
it is grown all over India,  
the leading producers are MP, AP. KK, RAJ, Yield is high in southern state

**Pluses:** Rich source of protein,  
Increase natural fertility.  
Used in crop rotation,  
India is leading producer of pulses.  
Concentrated in dry lands,  
11% of total cropped area. GRAM, TUR ARE MAJOR CROPS.

**Gram:** Cultivated in subtropical area,  
Rain fed crop,  
2.8% of total cropped area,  
Leading producers are MP, UP, MS, AP, RAJ

**Tur(arhar):** Second important pulse crop,  
It is also called red gram or pigeon pea,  
Rain fed crop,  
2% of total cropped area,  
Leading producers are MS. UP, KK GUJ

**Oil seeds: ground nut:** 17% of total production of the world is in India  
Rain fed,  
Grown in Kharif season,  
3.6% of total cropped area,

# Key Notes

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Leading producers are GUJ, TN, AP, KKA MS

## **Rape seed, mustard:**

Consists of rai sarson toria taramira,  
They are subtropical crops,  
Grown in Rabi season,  
Frost sensitive,  
Irrigated crop,  
2/3 under irrigation,  
2.5 % of cropped area is under this crop.  
2.6 Leading producers are RAJ, UP, HAR, WB, MP

## **Fibre crops:**

### **Cotton:** Grown in Kharif season,

Semi-arid region,  
Short staple and long staple are grown,  
Black soil is suitable,  
India ranks 4th in the world.  
After China USA and Pakistan.  
% of world production.  
4.7% total cropped area. Leading producers are PUN, HAR, RAJ, GUJ MS. AP KK

### **Jute:** Used for packing material,

Cash crop,  
India produces 3/5 of the world production.  
0.5 % total cropped area is under this crop,  
Leading states are: WB, BI, AS  
Other Sugarcane:  
tropical crop,  
cultivated in sub-humid regions,  
irrigated crop,  
India is the second largest producer,  
23% of world's production come from India.  
of cropped area is under this crop.  
The leading producers are UP, MS, KK, TN, AP

### **Tea:** Plantation crop,

tea leaf has high content of caffeine and tannin.  
Grown in hilly areas,  
heavy rainfall is needed,  
started in 1840 in Assam by British.  
Grown Darjeeling, Jalpaiguri, Nilgiris, Western Ghats,  
28% of world production comes from India.  
India rank 3rd after Sri Lanka & China.  
53.2% total cropped area is under this crop.  
Leading producers are WB & TN

# Key Notes

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**Coffee:** Three varieties ARABICA, ROBUSTA, LIBERICA,

4.3% of world production comes from India.

Sixth after Brazil, Vietnam, Colombia, Indonesia, Mexico. Leading producers are KK, TN, KER

## **Agricultural development in India:**

1. 53% of population depends on agriculture
2. 57% land is meant for cultivation
3. 0.31% of hectares per capita

**Strategy of development:** Govt. of India took steps to increase the production

- i. Switching over from cash crops to food grains
- ii. Increase crop intensity
- iii. Increasing cultivated area
- iv. Improvement of irrigation
- v. Intensive agricultural district programme and intensive agricultural area programme were launched
- vi. Use of HYV seeds, fertilizers, irrigation, pesticides,
- vii. Use of package technology
- viii. Introduction of Green Revolution
- ix. Large agriculture inputs

## **Growth of agricultural output and technology**

1. Production and yield increased (wheat, rice, oil seeds, sugarcane, tea pulses, cattle, milk, ground nut)
2. Expansion of irrigated area
3. Use of HYV seeds
4. Use of modern agricultural technology
5. Increased consumption of chemical fertilizers

## **Problems of Indian agriculture**

1. Uneven and unreliable rainfall
2. Low productivity
3. Poverty of the farmers
4. Lack of land reforms
5. Fragmentation of land holdings
6. Lack of commercialization
7. Vast under employment
8. Degradation of cultivable land
9. Illiteracy of the farmers