CHAPTER

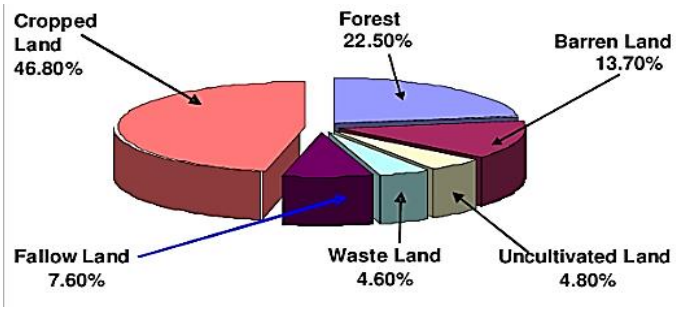
05

Land Resources and Agriculture

Introduction:

The Department of Land Affairs is responsible for categorizing land and keeping records. Unlike other natural features, land is reclassified, not changing in size or location. Economic activity is a major factor affecting land use. In other words, the second sector and higher education tend to grow faster than the lower sector, especially the agricultural sector. This type of change is more common in developing countries, such as India.

1. Categories of land use

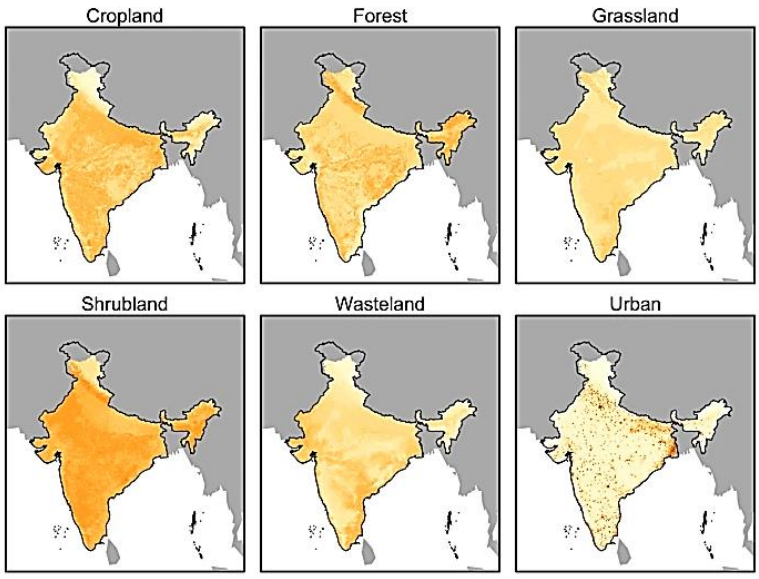


The Department of Land Affairs is responsible for categorizing land and keeping records. These records contain the reporting area.

The categories of land use as kept in the Land Revenue Records are as follows:

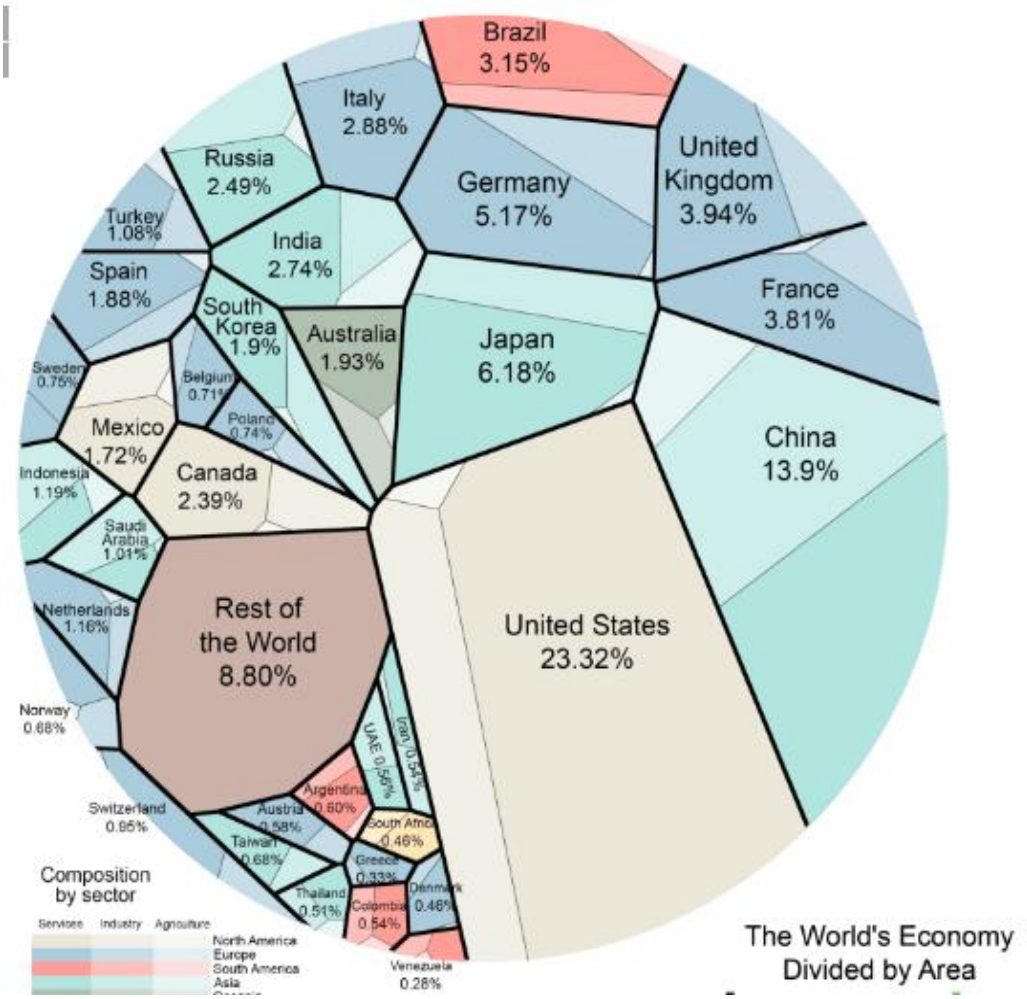
1. Forest
2. Non-agricultural land use.
3. Infertility and Defecation.
4. The area under the permanent pastures and pastures.
5. The area under the plants and trees is mixed.
6. Cultural deserts
7. Current investigation
8. An area planted with a net

2. Land Use Agreements in India



Unlike other natural features, land is reclassified, not changing in size or location. Economic activity is a major factor affecting land use. The three main economic changes that change land use are:

(i) The size of the economy:



The size of the economy (measured by the value of all goods and services produced in the economy) increases over time due to population growth, changes in income levels, available technology and related factors. As a result, the world pressure will increase over time and the surrounding areas will be used.

(ii) Second:

Second, the economic structure will change over time. In other words, the second sector and higher education tend to grow faster than the lower sector, especially the agricultural sector. This type of change is more common in developing countries, such as India. This process will result in the land being gradually shifted from agricultural use to non-agricultural use. You can see that such changes are sharp in the urban areas. Farm land is used for construction.

(iii) Third:

Third, although the contribution of agricultural activities decreases over time, the ground pressure of agricultural activities does not decrease. The reasons for the on-going pressure on agricultural land are:

(a) in developing countries, the proportion of people who depend on agriculture tends to decline very slowly compared to the decline in sector GDP.

(b) The number of people in the agricultural sector to feed is increasing day by day.

During the period 1960-61 to 2008-09 some land use changes should be noted showing the increase and decrease in the following categories:

1. Area records increased land use

1. The forest floor.
2. Current pets.
3. Sub-area for non-agricultural use.
4. An area planted by a net.

2. Area Records Reduce Land Use

1. The desert and the desert.
2. The desert under consideration
3. The area below the permanent pastures and vegetation.
4. Stop without the current cultivation.

On the basis of land ownership, it can be divided into two categories:
Private world Owned by an individual or group of people.

3. Common Property Resources:

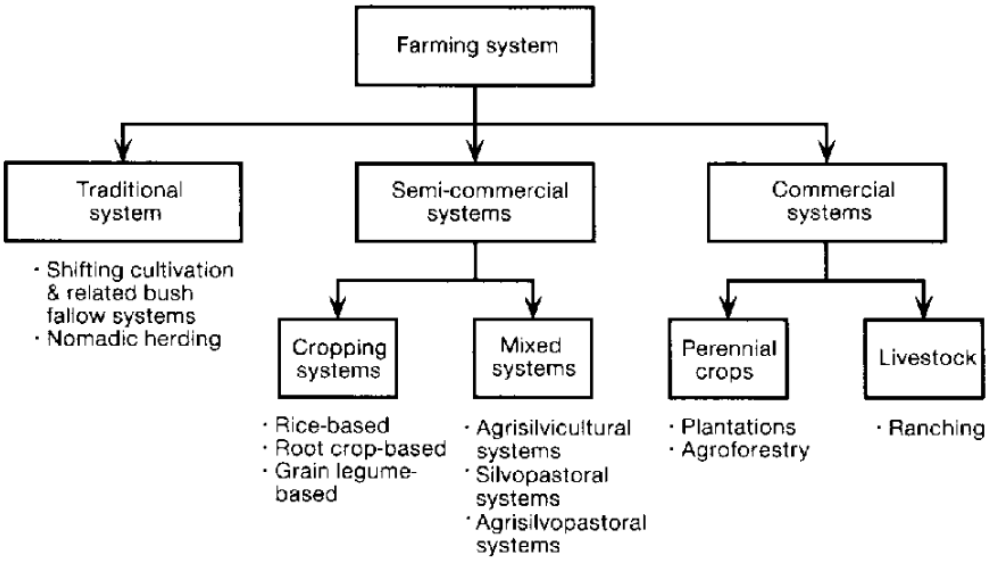
Common Property Resources (CPRs) are available to all and can be used by anyone. It provides livestock with food and fuel. In rural areas, such land is very important for the livelihoods of landless and smallholder farmers.

3. Use of Agricultural Land in India:

Most Indians depend on agriculture, either directly or indirectly for their livelihood. Agriculture is a national activity unlike the higher education and higher education sector. The role of international trade is important in agriculture. When the soil is fertile, it is very productive / productive. Land ownership is considered a social phenomenon in rural areas. It is also seen as collateral for debt, natural disasters or health emergencies. The availability of comprehensive agricultural resources is compounded by combining arable land, all uncultivated lands and arable deserts. Cropping Intensity (Cl) 'is calculated as follows
Percentage = GCA (Total Area) / NSA (Investment Remainder) x 100

Cropping season	Major crops cultivated	
	Northern states	Southern States
Kharif: June-September	Rice, cotton, bajra, maize, jowar, tur	Rice, maize, ragi, jowar, groundnut
Rabi: October-March	Wheat, gram, rapeseeds and mustard barley	Rice, maize, ragi, groundnut, jowar
Zaid: April-June	Vegetables, fruits, fodder	Rice, vegetables, fodder

4. Types of Farming



In India farming is divided on the basis of the moisture found in plants:

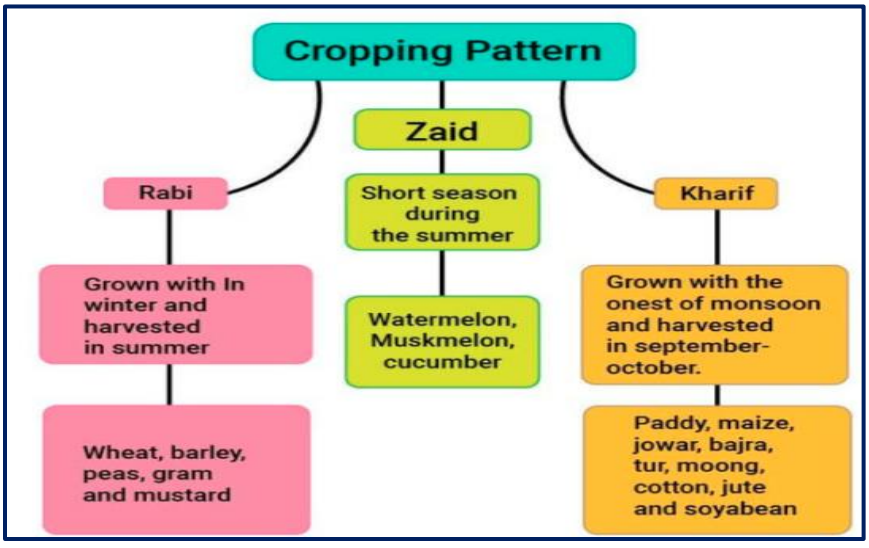
1. **Irrigation farming:**

A major source of moisture for this irrigation farming is various sources such as springs, tubes, etc. Two types of protection: productive farming.

2. **Rained Farming (Barani):**

A good source of moisture during this rainy season. Two types of dry land farming and wetland farming. Planting in arid areas is highly dependent on regions with a rainfall of less than 75 cm. These regions grow hardy and drought-resistant crops such as ragi, bajra, mount, gram and gaur. On the other hand in wetland farming, the rain exceeds the required moisture of the plants during the rainy season. Such regions may be vulnerable to flooding and erosion. These areas grow a variety of crops that need water, such as rice, jute, and sugarcane.

5. Cropping Pattern



1. **Food Grains:**

Food grains are important for the agricultural economy, which covers two-thirds of the agricultural land. Food grains are categorized on the basis of grain:

2. **Cereals:**

India is ranked 3rd in grain production after China and the USA. India produces 11% of the world's land and accounts for about 54% of India's agricultural land. These characters are:

3. **Rice:**

Rice is the most important food crop in India that feeds more than half of our people. India ranks second with about 22% production following China in the world. Countries like West Bengal, Punjab and Uttar Pradesh were the rice-producing provinces in India. In the North West and in the Himalayas, it is grown as a Kharif plant, and in West Bengal, farmers grow three rice crops called 'Aus', 'Aman' and 'Boro'.

4. **Wheat:**

India accounts for 12% of the world's total wheat production. It is grown on about 14% of the arable land. About 85% of the area lay within the Indo-Gangetic Plain, the Malwa Plateau, and the Himalayas in the North and inland. The major wheat producing regions of India are Uttar Pradesh, Punjab, Haryana, Rajasthan, Madhya Pradesh, Bihar and Jammu and Kashmir.

Coarse Grain:

These crops are grown at about 16.50% of the total planted area in the country. The coarse characters are:

1. **Jowar/Sorghum:**

Joker/Sorghum are grown at about 5.3% of the total planted area. Maharashtra is the largest producer of Jowar in India. The main producers of Joar are the central and southern provinces i.e. Karnataka, Madhya Pradesh and Andhra Pradesh.

2. **Bajra:**

Bajra is grown at about 5.2% of the total planted area in the country. The main producers of bajra are Maharashtra, Gujarat, Uttar Pradesh, Rajasthan and Haryana.

3. **Maize:**

Maize is grown at about 3.6% of the total planted area in the country. There is no specific region under maize. It is grown all over India except the Eastern and North Eastern regions. Leading producers are Madhya Pradesh, Andhra Pradesh, Telangana, Karnataka, Rajasthan and Uttar Pradesh.

4. Pulses:

Pulses are grown in India with about 11% of the total planted area. India is one of the largest producers of pulses, as it produces about 20% of the world's pulses. Pulses are legume plants. These are mainly found in the arid regions of the Deccan and Central Plateau and in the northwest of the country.

5. Gram:

Gram Invested at 2.8% of total investment. The main producers are Madhya Pradesh, Uttar Pradesh, Maharashtra, Andhra Pradesh and Rajasthan.

6. Tur (Arhar):

Tur (Arhar) This is invested in 2% of the total investment in India. It is the second most important pulse plant in the world. Maharashtra is a leading tur producer who produces about 75% of tur in India. Also called red gram or pigeon pea.

7. Oilseed:

Oilseed is produced to extract edible oil. Oilseeds include nuts, (3.6%), rapeseed and mustard (2.5%), soybeans, sunflowers, etc. These different oil seeds are grown in India with about 14% of the total area grown in the country. The Dry lands of Malwa Plateau, Maharashtra, Gujarat, Rajasthan, Telangana and Rayalaseema of Andhra Pradesh and the Karnataka plain are the leading producers of oilseeds. Soybeans and sunflowers are some of the most important oil seeds grown in India.

1. Fibber Crops:

Fibber Crops are one that provides fiber for fabric repair. These include:

2. Cotton:

Cotton India grows short cotton (Indian) and long (American) oil. India produces about 8.3% of the world's cotton. This makes India the fourth largest cotton producer after China, USA and Pakistan. The major cotton producers in India are Maharashtra, Gujarat, Andhra Pradesh, Punjab and Haryana.

3. Jute:

Jute India accounts for about 60% of the world's jute production. West Bengal (75%) is the largest producer of jute in the country. Other manufacturers are Bihar and Assam.

6. Other Plants

1. Sugarcane

Sugarcane is an important cash crop in India. Sugarcane production in India accounts for 23% of total land production, making India the second largest producer after Brazil. The main producers are Uttar Pradesh, Maharashtra, and Gujarat. Uttar Pradesh accounts for 40 per cent of sugarcane production and ranks the largest producer in India.

2. Tea:

Tea Assam (53.2%) is the largest tea producer in India. Other provinces are West Bengal and Tamil Nadu.

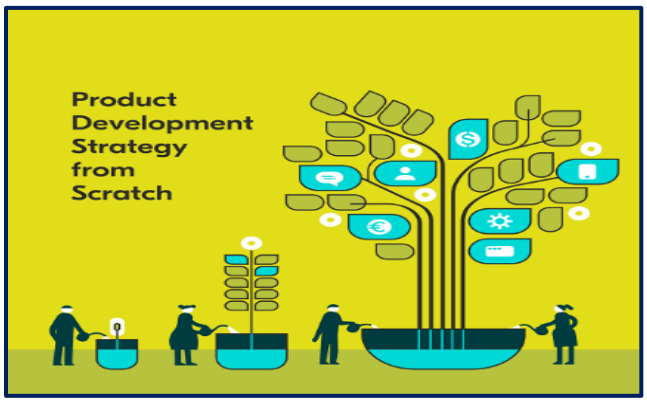
3. Coffee:

Coffee India is the 7th largest coffee producer in the world with about 3.2%. Karnataka is a major coffee producer producing more than 66% of India's total coffee.

7. Agricultural Development in India:

1. About 54.6% of the population is engaged in agricultural activities. According to statistics (2011) about 57% of the land is used for growing a variety of crops in India and the average soil is 12%.
2. The average land area per person in India is only 0.31 hectares whereas, the area is almost double the total area of 0.59 hectares.

8. Development Strategy



Before Independence, Indian agriculture was a major source of livelihood, a period often marked by severe drought, famine, and food shortages. About the l /3rd of the irrigation system went to Pakistan. Therefore, the Government has taken a number of steps to increase food production. Here are three strategies to achieve this goal:

1. Switching from cash crops to food crops.
2. Strengthen crop planting on already cultivated land.
3. Expand the plow by plowing the plowed and uncultivated soil under the plow.

However, Indian agriculture has not been able to make much progress, and the Government is introducing modern technology in agriculture.

This was:

1. High-Generation Seeds (High Yield Variety).
2. Fertilizers
3. Machine
4. Improved irrigation and credit marketing services.
5. Comprehensive Environmental Development Plan

All of the above entries were important features of the so-called Green Revolution. This strategy for agricultural development in the country has enabled the country to become self-sufficient in grain production. However, the green transformation was initially reserved for irrigated areas. This led to regional inequalities in agricultural development in the country until the 70s. Therefore, the Planning Commission prepared plans to solve agricultural problems in the rain forests of the 1980s. It began planning the state of agriculture in 1988 to create regional equity.

9. Growing Agricultural and Technology Outcome

1. Since independence, there have been technological advances in agricultural production. As a result, the increase in agricultural production has been recorded.
2. India is now the 1st largest producer of pulses and jute and is second only to rice, wheat, nuts, sugarcane and vegetables.
3. New technologies were introduced to increase grain production, e.g., HYV seed; chemical fertilizer has grown 15 compounds since the mid-1960s.

10. Indian Farming Problems

These problems are:

1. Relying on Stable Rain There is only 33% of the cultivated area irrigated. The climate of the southwest hurricane is highly variable causing floods and drought conditions in India.
2. Low Production India is also lagging behind per hectare of production and individual production and is lagging behind internationally. This low productivity is the result of population growth which puts a lot of pressure on existing global resources.
3. Financial and Debt Crisis Lack of funding and financial resources is a major obstacle to agricultural development in India. As many farmers are small, small and poor, they cannot afford the expensive inputs to grow their produce.
4. Lack of Land Reform Lack of land reform and equitable distribution of land led to poor conditions for poor and vulnerable farmers and hampered agricultural development in India.
5. Small Farm size and Land Division the 'Inheritance Act' deals mainly with the size of small and diverse farms.
6. Lack of Trade As many farmers are poor and poor, farmers make a living from farming.
7. More Unemployment There is occasional unemployment in the agricultural sector. There is no income at the time of plowing the field to harvest the crops.
8. Degradation of Cultivated Land After the devastation of the green revolution began in India. Excessive use of irrigation, chemical fertilizers, etc. caused problems with water inflow and storage. Soil fertility also decreases day by day.

Questions For Practice

1. Which state is the leading producer of jowar?
(a) Rajasthan (b) Punjab
(c) Maharashtra (d) Haryana

2. Which one of the following is a Rabi crop?
(a) Rice (b) Millets
(c) Gram (d) Cotton

3. Which of the following is not a kharif crop?
(a) Rice (b) Rapeseeds
(c) Cotton (d) Maize

4. How much percentage of total cropped area is occupied by the gram cultivation in India?
(a) 2.8% (b) 25.2%
(c) 4.9% (d) 11.7%

5. Which one of the following is a leguminous crop?
(a) Pulses (b) Millets
(c) Jowar (d) Sesamum

6. Rabi crops are grown in during the months of?
(a) June-September
(b) April-June
(c) October-March
(d) Throughout the year

7. What rank does India hold in terms of cotton production in the world?
(a) First (b) Second
(c) Third (d) Fourth

8. Which one of the following price is announced by the government in support of a crop?
(a) Maximum support price
(b) Minimum support price
(c) Moderate support price
(d) Influential support price

9. Rice research institute of India is situated at?
(a) Cuttack (b) Kolkata
(c) Chennai (d) Dehradun

10. Which of the following is NOT a common property resource in rural areas?
(a) Community forests
(b) Pasture lands
(c) Agricultural fields of a landlord
(d) Village water bodies

11. Name the two countries where HYVs of rice and wheat were developed?
(a) Japan and Australia
(b) USA and Japan
(c) Mexico and Philippines
(d) Mexico and Singapore

12. Which crop was introduced in Baba Badan Hills?
(a) Tea (b) Coffee
(c) Rice (d) Cotton

13. Which of the following is not a kharif crop?
(a) Rice (b) Rapeseeds
(c) Cotton (d) Maize

14. India is the leading producer of which crop in the world?
(a) Jute (b) Rice
(c) Tea (d) Coffee

15. Identify the crop that does not grow under dry land farming.
(a) Sugarcane (b) Baajra
(c) Jowar (d) Ragi

16. Which department is meant for measuring the geographical area of administrative units?
(a) Agricultural Department
(b) Forest department
(c) Revenue department
(d) Survey of India

17. Which state is the largest producer of Jowar in India?
(a) Punjab
(b) Maharashtra
(c) Karnataka
(d) Rajasthan

18. Which of these is the main type of land degradation in irrigated areas?
(a) Siltation of land
(b) Gully erosion
(c) Salinization of soils
(d) Wind erosion

19. Current fallow land is land is land which is left uncultivated for period of?
(a) More than 5 years
(b) 3 to 5 years
(c) 2 to 5 years
(d) 1 or less than 1 year

20. India is the second-largest producer of which crop in the world?
(a) Tea (b) Coffee
(c) Rice (d) Cotton

21. Which region is the largest producer of Jowar in India?
(a) Punjab
(b) Maharashtra
(c) Karnataka
(d) Rajasthan

22. What crop was introduced to Baba Badan Hills?
(a) Tea (b) Coffee
(c) Rice (d) Cotton

23. What is known as golden fiber?
(a) Cotton (b) Instinct
(c) Juta (d) Wool

24. Cotton needs a timeless fit?
(a) 100 days (b) 150 days
(c) 210 days (d) 250 days

25. What is the essence of food grain production in India?
(a) 70 million tons
(b) 100 million tons
(c) 150 million tons
(d) 250 million tons

26. The net area sown in India is?
(a) 77% (b) 67%
(c) 45% (d) 43%

27. In India, how much space does grain occupy?
(a) 34% (b) 44%
(c) 54% (d) 64%

28. Which of the following is a major type of irrigation system?
(a) Soil erosion
(b) Air erosion
(c) The addition of salt to the soil
(d) Soil overflow

29. Which group in the following international group, HYV wheat and rice are being developed?
(a) Japan and Australia
(b) U.S.A. and Japan
(c) Mexico and the Philippines
(d) Mexico and Singapore

30. Which of the following is a rabi crop?
(a) Rice (b) Breasts
(c) Gram (d) Cotton

Solutions

1. (c)	**4. (a)**	**7. (b)**	**10. (c)**	**13. (b)**	**16. (d)**	**19. (d)**	**22. (b)**	**25. (d)**	**28. (c)**
2. (c)	**5. (a)**	**8. (b)**	**11. (c)**	**14. (c)**	**17. (b)**	**20. (c)**	**23. (c)**	**26. (d)**	**29. (c)**
3. (b)	**6. (c)**	**9. (a)**	**12. (b)**	**15. (a)**	**18. (c)**	**21. (b)**	**24. (c)**	**27. (c)**	**30. (c)**