

LAND USE AND AGRICULTURE

In the previous lessons, we studied climate, soils, various types of resources and human activities. In this chapter, we will study agriculture. For agriculture, land is a very important resource. For its large area size, and physical and socio-cultural diversities, India has different types of land uses. Agriculture is predominant economic activity in India, engaging nearly three-fifths of its working population. Though the share of agricultural sector in gross domestic product has considerably declined to about one-fourth yet the importance of agriculture as employment provider to workforce especially in the countryside is very high. Obviously, agriculture forms the hub of Indian economy as a large number of industries are also heavily dependent on agriculture for supply of raw materials. Agriculture involves not only crops raising but also animal ranching and fishing.

OBJECTIVES

After studying this lesson, you will be able to:

- know the availability of land in India and its different uses;
- appreciate the significance of studying land use and agriculture;
- examine various factors responsible for the development of agriculture in India;
- describe the different types of crops grown in various parts of India;
- locate and identify the area **under different crops on a map of India;**
- infer changing pattern of crop cultivation;
- explain the concept and significance of **Agreclimatic Regions;**
- identify the different strategies adopted for the agricultural development in India, during five year **plans and**
- explain the impact of economic liberalisation on agriculture in India.

22.1 GENERAL LAND USE

Land is the most vital resource of a country. It is a fixed asset and cannot be expanded to meet the needs of an increasing population. Therefore, it must be used carefully and in the best possible manner. The total geographical area of India is 32.88 lakh sq. kms. The major land uses in India are:

Net Sown Area (NSA) The total land area on which crops are grown in a region is called net sown area. The net sown area and the area sown more than once together are called gross cultivated area. In India, about 47 per cent of total reporting area is under the net sown area. States namely Punjab, Haryana, West Bengal, Uttar Pradesh, have the high proportional share of NSA than the national average. Against this, the share of NSA is less than one half of the national average in states of Himachal Pradesh, Uttarakhand, Meghalaya, Manipur, Nagaland, Mizoram, Sikkim and Arunachal Pradesh. All these states suffer from physical disabilities such as undulating terrain due to hilly topography, limiting the availability of plain land and fertile soils, important for cultivation. This is evidently clear from state wise distribution of proportional share of NSA that physiographic factors play an important role in availability of net cropped area in a region.

Forest The area under forest cover is about 68 million hectares or 22 per cent of the total area in the country. This area has increased from 40 million hectares in 1951 to 68 million hectares in 2000. For the ecological balance the forest cover should be at least 33 per cent of the total geographical area of a country. The states of Arunachal Pradesh, Mizoram, Jammu & Kashmir and Tripura have relatively larger proportion of area under forest cover.

Land Not Available for Cultivation The land under the settlements, roads, mines and quarries along with barren lands are included in this category. The sandy waste land of Rajasthan, marshy land of Kutchh (Gujarat) and rugged and eroded areas of northeast and northern mountains are few examples of barren lands. About 13 per cent of the total reported area is recorded under this category. Nagaland, Manipur and Assam registered a very high percentage of area not available for cultivation.

Fallow Lands When lands are left unused to regain their lost fertility in a natural way is called fallow land. On the basis of usability criteria fallow lands can be divided into two groups current and old. Current fallow is the land in which no crop is raised during the current year. Old fallow land remain unused for a period of one or more years but not exceeding 5 years. This is due to low investment capacity of numerous small and marginal farmers in advanced technology, lack of awareness, loss of fertility of soil, inadequacy of rainfall, lacking in irrigational facility etc. The fallow land occupy about 7.5 per cent of the total reported area. The states of Mizoram, Tamil Nadu, Meghalaya, Bihar, Andhra Pradesh and Rajasthan have a high percentage of area under fallow land. It is to be noted here that old

fallow land may not be economically important but from ecological point of view fallow land is important category of land.

Cultivable Waste It is the land in which crops were raised for some period of time but has not been cultivated for the last five years due to certain deficiencies such as alkalinity and salinity in the soils. Such cultivable waste are locally known as reh, bhur, usar, and kholain the some part of North India. Maghalaya, Himachal Pradesh and Rajasthan have a very high share of cultivable waste land in total land use in respective states.

Permanent Pastures and Grazing Lands Not withstanding the highest live stock population in the world, India has only less than 4 per cent of the country under pastures and grazing lands. The states of Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Gujarat and Rajasthan have high above 5% of area under this category.

The area under different land-uses are given below (Table 22.1)

Landuses Area (in lakhs hectare)- In percentage

1. Area under non-agricultural 212 6.95
2. Barren and uncultivable land 197 6.46
3. Net area sown 1442 46.64
4. Forest lands 679 22.27
5. Miscellaneous tree crops 37 1.21
6. Cultivable waste lands 150 4.92
7. Current fallows 138 4.53
8. Old fallows 96 3.15
9. Permanent pastures and 118 3.87

Total 3049* 100 * Total geographical area of which land utilization data is available.

22.2 AGRICULTURAL LAND USE

The net sown area, current fallows and land under tree crops and groves are included in agricultural land use. The agricultural land in India is little more than 50 per cent of the total geographical area in the country. This is the highest share of land in any country in the world. But due to large size of population in India, per capita arable land is available only 0.17 hectares, which is lower than the world average (0.24 hec). The per capita agricultural land in some select countries is much higher than India. In Australia it is 2.8 hec., in Canada 1.35 and in Brazil 0.33 hec. The lower per capita availability of land is an indicator of high pressure of population on land resources. Since there is little scope for increasing land under the plough, the way out to feed the growing population can be found in increasing land productivity. Over the period, area sown more than once has been increasing which is about 15 per cent. If the same piece of land is sown more than once in a year, it is called cropping intensity. Which stands for the ratio between gross cropped area and net sown area..The use of new technology, fertilizers, good quality of seeds and irrigation facilities are necessary for increasing intensity of cropping. The so called Green Revolution is also nothing but technological package, which include HYV seeds, chemical fertilizers and artificial irrigation. After the adoption of Green Revolution by India in 1966 onwards agricultural, land use has undergone a significant change.

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