UNIT 4

Agriculture in Tamil Nadu

Learning Objectives

- To know about the agricultural activity in Tamil Nadu
- To know the extent of land under cultivation in Tamil Nadu
- To understand the importance of water and irrigation in agriculture
- To know about various crops grown in Tamil Nadu
- To analyse the crop productivity in Tamil Nadu

VONLQ

Introduction

Most of the people of Tamil Nadu depended on agriculture at the time of independence and even after 40 years of independence. That situation is being changed in the recent years. It has been noticed that the number of farmers in Tamilnadu has got reduced during the last 10 years according to the 2011 census data. Similarly the number of agricultural workers also reduced during the same period. According to the 2001 census, 49.3% out of the total population of workers were involved in agriculture. The percentage has reduced to 42.1 in the next 10 years. In 2011 there were three crore 29 lakh workers in Tamilnadu of which 96 lakh were agricultural workers.

In 2011, nearly 55% of the women were involved in agriculture whereas nearly one third (35.3%) of the male population was involved in agriculture during the same year.

4.1 Sectors of people involved in agricultural activities

A major portion of the workers involved in agricultural activities are landless labourers. All the land holders do not have the same amount of land. Many have very little land and very few people hold large areas of land.

During 2015-16 , there were 79,38,000 cultivators in Tamil Nadu. But five years earliers there were 81,18,000 cultivators. There was a reduction of 1,80,000 cultivators in these five years. Similarly, the area under cultivation also reduced from 64.88 lakh hectares to 59.71 lakh hectares during the same period. That is, the state of Tamil Nadu had lost nearly 1,03,400 hectares on an average during these five years.

Most of the cultivators in Tamil Nadu are micro farmers who cultivate in an area less than

1 hectare. Micro farmers account to around 78% of the total cultivators, while the area cultivated by these micro farmers is just 36%. Small farmers cultivating 1-2 hectares of land cover 14%, while the land cultivated by them is 26%.

Cultivators of schedule caste farmers are only one percent in Tamil Nadu. 96% of this one percent are small, micro farmers.

The total land area under agriculture is shrinking fast not only in Tamil Nadu, but also throughout India. The number of marginal farmers has increased in India. In contrast, the number of marginal farmers is decreasing in Tamil Nadu. This shows that the farmers are doing other occupations.

4.2 Types of land usage

The total geographical area of Tamil Nadu is One Crore 30 lakhs and 33 thousand hectares. Out of this only one third of land is used for agriculture (45,44,000 hectare). 17% of the land is used for non agricultural use. Nearly the same size (2125 thousand hectares) of land are forests. About 4% of the total land is unusable. One tenth of the land is barren. Other fallow lands are 13 percent. So nearly one-fourth of the land is barren and we have to be concerned of the increasing size of the barren land. Grazing land and cash crops occupy slightly more than 5% of the total land area.

The size of the total cropping land in Tamil Nadu is 4,544 thousand hectare and this keeps on changing every year. Sufficient rains at the proper period will increase this extent of land. Failure or shortage in rainfall leads to the reduction of land usage for cultivation. A small part of this area gives a chance to crop more than once in a year. The extent of this area also changes every year. This land extent was 9 lakh hectare in next year but was reduced to 6 lakh hectare, due to lack of rainfall. This area will be more or less stable only when there is a stable and reliable water source.

In 2012-13, out of the total cultivated land, nearly 72 percent is used for food crops and the remaining for non-food crops.

4.3 Water Resource for Agriculture

There are no perennial rivers in Tamil Nadu. Tamil Nadu receives the required water from the Northeast and Southwest monsoons. When the South West monsoon rains are high in the catchment areas of the Cauvery River in Karnataka dams get filled and in turn the Cauvery river in Tamil Nadu gets water.

The area under irrigation is about 57 percent of the total area under cultivation.

Northeast monsoon (Oct-Dec) is a major source of water for Tamil Nadu. The Northeast monsoon rains are stored in reservoirs, lakes, pond and wells for cultivation. Conventional water bodies like lakes, ponds and canals provide water for agriculture in Tamil Nadu. 2,239 canals run through Tamil Nadu covering a length of 9,750 km. There are 7,985 small lakes, 33,142 large lakes, 15 lakh open wells and there are 3,54,000 borewells in the state where agriculture is carried out with the help of these water resources.

The area of land that is irrigated using water from lakes is very low. Nearly 3.68 lakh hectares of land obtain water from lakes. The canals provide water to 6.68 lakh hectares. Borewells irrigate 4.93 lakh hectares and open wells provide water to 11.91 lakh hectares of land.

Agriculture in Tamil Nadu is dependent mostly on groundwater. Use of ground water for agriculture creates many hardships too. There would be no sufferings if the amount

of water taken from the underground and the amount of water that goes into the underground during the rainy season are equal. On the contrary, as the amount of water taken increases, the ground water goes down resulting in complete dryness or change into unusable water.

The Union Ground Water Board is constantly monitoring the level and nature of ground water.

From this, we come to know that:

1. Tamil Nadu agriculture is dependent on groundwater.
2. It is very urgent and necessary to regulate the usage of underground water.
3. This is very important for sustainable farming.

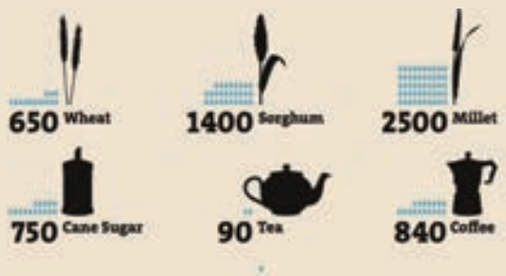
Virtual water

The term 'virtual water' was introduced by Tony Allen in 1990.

The water consumed in the production process of an agricultural or industrial product is called 'virtual water'.

It is the hidden flow of water when food or other commodities are traded from one place to another. For instance, it takes 1340 cubic metres of water (based on the world average) to produce one metric ton of wheat. That is, if one metric ton of wheat is exported to another country, it means that 1340 cubic metres of water used to cultivate this amount of wheat is also being exported.

India is the largest global freshwater user. India has been the fifth largest exporter of virtual water in the world



4.4 Irrigation and Crop types

Crops in Tamil Nadu

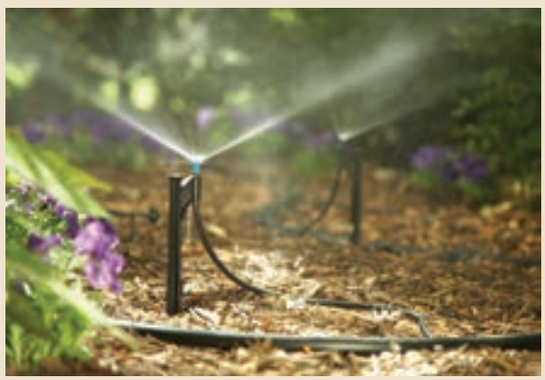
All cultivated crops can be classified as food crops and non-food crops. 57 percentage of the total land under food grain cultivation is irrigated. In 2014-15, 59 percentage of food crops and 50 percentage of non food crops were irrigated in Tamil Nadu.

The total area of land cultivated in Tamil Nadu was 59 lakh and 94 thousand hectares in 2014-2015. Out of this non-food crops were 76%.

Paddy cultivation is carried out at a large scale of 30 percent cultivated land area and other food crops in 12 percent area. Millets

Micro irrigation

Micro irrigation technology is a very good remedial measure to tackle shortage in irrigational water. This irrigation technology helps to have a higher yield when compared to the traditional irrigation methods. As only required amount of water is supplied at regular intervals, it increases the ability of water usage and productivity of the crop resulting in reduction of labour expenses and weed growth in the field. As the fertilizer is distributed through water, it increases the usage of fertilizer and the yield. As Tamil Nadu gets insufficient rainfall, the government has taken many measures to implement micro irrigation for proper distribution of water to crops that require more water.



Different water sources for irrigation

Irrigated area

Wells -62%

Canals - 24%

Lakes - 14%

are cultivated in a very low percentage of area. Sorghum(Cholam) cultivation in 7 per cent land area, cumbu in one percent and ragi in 1.7 per cent. Other millets occupy 6 per cent in the year 2014 - 2015.

The area cultivatable land changes every year as a result of many factors such as rainfall, availability of water, weather and market prices.

DO YOU KNOW?

- River Cauvery is the 3rd largest river in South India. Its length is 765 km.
- The dams constructed across Cauvery in Tamil Nadu are Mettur Dam, Kallanai

4.5 Decadal growth in agricultural production

The total quantity of foodgrains produced in Tamil Nadu in the year 2014 - 2015 was one crore 27 lakh 35 thousand tonnes. Paddy alone accounted to 80 lakhs tonnes. The contribution of paddy to the total amount of food production is 62%. Maize production was 20%, corn 7%, ragi 3% and another 3% occupied by black gram, while other food crops contributed a very meager amount to the total food production in Tamil Nadu.

The amount of production varies depending on the amount of land being cultivated.

4.6 The yield of productive crops

The amount of production depends not only on the area but also on the productivity of crops.

Production capacity of paddy in Tamil Nadu was 4,429 kg per hectare in 2014-2015. This capacity was 3,039 kilograms in 2010-2011 revealing the increase in productivity.

Next to paddy, maize stands second in the production (8,824 kg/hectare).

2,093 kg/hectare corn, 3,077 kgs of rye (cumbu) and 3348 kgs of ragi were produced during the same period.

Black gram, one of the largest cultivated pulses, produced 645 kg per hectare. Production of sugarcane and ground nut (Manila) were 107 tons and 2,753 kg per hectare respectively.

The productivity of crops continues to increase. For example the productivity of paddy in 1965 - 66 was 1,409 kg. It increased to 2,029 kg in 1975-76 and 2,372 kg in 1985-86. It increased to 2,712 kg after a decade. The production was 4,429 kg in the year 2014-15. In the past fifty years, the

productivity of paddy has increased more than three times.

The food grain production capacity, has increased about 3.5 times between 1965-66 and 2014-15.

We find that both the productivity and food production in Tamil Nadu continue to increase. However, the area under food grain cultivation has reduced in the same period. Though there was a reduction in the area of production, the total amount of production has been maintained and there is an increase of productivity.

Recap

- The number of people involved in agriculture and the land under cultivation is declining in Tamil Nadu.
- While the number of marginal farmers is increasing in India, it is decreasing steadily in Tamil Nadu.
- Out of the total geographical land area, only one percent is under cultivation and one fourth is left fallow.
- Areas with good water facilities can be cultivated upto three times a year.
- South West and North East monsoons are the main sources of water for agriculture in Tamil Nadu. So Tamil Nadu's agriculture is dependent on ground water.
- Crops are divided into food and non-food crops.
- Major food crops of Tamil Nadu are paddy, maize and ragi. Coconut stands first in non-food crops.
- Recent researches show that the productivity of crops is steadily increasing.

Exercise

1NPR6

I. Choose the correct answer

1. Irrigated land surface out of cultivable land is.

   a) 27% b) 57% c) 28% d) 49%

2. Out of the following, which is not a food crop

   a) Bajra b) Ragi

   c) Maize d) Coconut

3. The productivity of paddy during the year 2014-2015

   a) 3,039 kg b) 4,429 kg

   c) 2,775 kg d) 3,519 kg

4. Both agricultural productivity and food productivity has

   a) decreased b) not stable

   c) remained stable d) increased

5. The North-East monsoon period in Tamil Nadu

   a) August – October

   b) September – November

   c) October – December

   d) November – January

II. Fill in the blanks

1. The major occupation of people in Tamil Nadu is ----------

2. Tamil Nadu receives rainfall all from the ---------- monsoon.

3. The total geographical area of Tamil Nadu is ---------- hectares.

III. Match the following

1. Non-food crops	–	79,38,000
2. Dhal	–	less than 1 hectare of cultivable land
3. North east monsoon	–	October – December
4. Small farmers	–	Urad Dal, Toor Dal, Green grams
5. No. of farmers in 2015-2016	–	Coconut, Channa

IV. Give short Answers

1. Give two examples for each food crop and non-food crops
2. What are the factors responsible for the changes in cropping area?
3. Who monitors the quantity and quality of ground water?
4. Differentiate between small and marginal farmers.

V. Answer in Detail

1. Give a note on the water resources of Tamil Nadu
2. What are the problems faced by using ground water for agriculture?
3. Discuss about the source of irrigation for agriculture.

VI. Activity

1. Analyse the cultivation of food crops and non-food crops of your village / area.
2. Thanjavur is famous for which crop? Why is it so? Research.
3. Collect statistical data, where paddy is being cultivated at Thanjavur District, which is called the Nerkalanjium of Tamil Nadu.

ICT CORNER

AGRICULTURE IN TAMIL NADU

Through this activity you will know about agriculture process of Tamil Nadu people

Procedure

Step – 1 Open the Browser and type the given URL (or) Scan the QR Code.

Step – 2 "Vivasayam" page will appear on the screen.

Step – 3 Click Search Options to know any information agriculture news, Government Loan etc.,

Step – 4 Click "Velanmai" to know about history of Tamil Nadu agriculture.

URL:

https://play.google.com/store/apps/details?id=nithra.tamil.vivasayam.agriculture.market&hl=en (or) scan the QR Code

*Pictures are indicatives only.