



## FOOD GRAIN PRODUCTION IN TAMIL NADU

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### ABSTRACT

*Agricultural growth has played a major role in rural poverty reduction in the past in Tamil Nadu and could make substantial contributions in the future. Agriculture is the livelihood for every farmer and consequently the economy of the State is primarily focused on agriculture. The role of agriculture in shaping the economy could be reflected from the large proportion of population that depends on agriculture for their livelihood and the significant contribution of agriculture to the State's income. The present study focused on secondary data. The study suggested that Success of Agriculture depends very largely on optimum usage of water and assured irrigation. Hence, the Government is taking intensive efforts to popularize the Micro Irrigation system which helps in bringing more crops per drop.*

**KEY WORD:** Land, Water and Food Grain Production .

### INTRODUCTION

Agriculture is the livelihood for every farmer and consequently the economy of the State is primarily focused on agriculture. The role of agriculture in shaping the economy could be reflected from the large proportion of population that depends on agriculture for their livelihood and the significant contribution of agriculture to the State's income. Tamil Nadu is one of the well-developed states. It is the second largest state in economic activity after Maharashtra and the fifth largest contribution to India's GDP. Tamil Nadu is the eleventh largest state in India by area and the seventh most populous state. It is the second largest state economy in India as of 2012. But the case of the agriculture sector Tamil Nadu is one of the water starved states in India: it is endowed with three percent of water resources in India. The efforts of the Government to introduce bouquet of frontier technologies, quality seeds, bio-fertilizers helped to achieve a quantum jump in food grain production and the State was honoured with "Krishi Karman" award for having attained total food grain production of 101.52 Lakh Metric Tonnes by Government of India (GoI) during the year 2011-12. Since the food grain production surpassed 100 Lakh Metric Tonnes, the Government of Tamil Nadu (GoT) was given "Krishi Karman" award for the best performance in pulses production of 6.14 Lakh Metric Tonnes during 2013-14 and for coarse cereals production of 40.79 Lakh Metric Tonnes for the year 2014-15.



### STATEMENT OF THE PROBLEM

The role of agriculture sector in the Indian economy is major and needs no emphasis. There have been important developments in Indian agriculture, especially, in the context of farm mechanization, use of hybrid and genetically modified seeds and adoption of market driven cropping patterns thereby, leading to increase in crop yields and emerging of new cropping patterns. Demographically, agriculture sector is the broadest economic sector and plays a significant role in the overall

socio-economic fabric of the country. It accounted for around 18 percent of the Gross Domestic Product (GDP) at current prices in 2015-16. However, the share of this sector is showing a declining trend except in the year 2013-14. Slowing down of agriculture growth, decline in the number of operational holdings from 11.17 lakh during 1990-91 seven lakhs during 2000-07 indicated that large portion of the rural masses is now seeking job opportunities outside the agricultural sector (Vatta Kamal and Garg, 2008).

### OBJECTIVES OF THE STUDY

The present study focuses the bold objective of to study land use pattern and selected food grain production in Tamil Nadu

### METHODS

The study based on secondary data. The secondary data collected from agriculture censuses agricultural statistics at glance year book from 2011 to 2018.

### ANALYSIS AND DISCUSSION

Tamil Nadu is geographically located between 8°5' and 13°35' North latitude and between 76°15' and 80°20' East longitude. As a result of this geographical position, Tamil Nadu enjoys semi-arid to dry sub humid climate, which permits higher crop productivity under irrigation. Tamil Nadu is one of the most water starved states endowed with only three per cent of the nation's water resources putting high stress on irrigation water availability and vulnerable to seasonal fluctuations causing uncertainty in agriculture production. 140 million hectares of land is used as agriculture area, as of 2012-2013 (Agricultural statistics at Glance, 2015). Over the years, this area has been fragmented into smaller pieces of land. The Tamil Nadu land use pattern as per the latest statistical report (2016-17) is given below.

**Table- 1: Land Use Pattern in Tamil Nadu**

SI No	Details	Area (lakh Ha)	% With Reference to Geographical Area
1	Forest	21.57	16.55
2	Net cropped area (*)	43.47	33.35
3	Area under Misc. Tree crops	2.32	1.78
4	Permanent pastures	1.08	0.83
5	Current fallow	13.61	10.44
6	Other fallow	18.47	14.17
7	Cultivable waste	3.23	2.48
8	Land put to non-agricultural use	22.01	16.89
9	Barren and uncultivable land	4.58	3.51
	<b>Total Geographical Area</b>	<b>130.33</b>	<b>100.00</b>
	<b>Cropping intensity (%)</b>	<b>118</b>	-

(\*) Difference between Gross Cropped Area (51.29 Lakh Hectare) and Area sown more than once (7.82 Lakh Hectare)

The number of marginal land holdings (less than one hectare) increased from 36 million in 1971 to 93 million in 2011 (Agriculture Censuses, 2010-11). Of the total agriculture area under operation, 10 percent of land has been given out on agriculture leases with the percentage of leased out land varying across states (NITI Aayog, 2016). According to the Agriculture censuses 2010-11, the number of operational land holders in the State is 81.18 lakh, operating cultivable land of 64.88 Lakh Hectare. Small and Marginal holders account for 92 percent of the total holdings operating 61 percent of the area occupied. The average size of the land

holding in the States 0.80 hectare which is lesser than the average size of land holding of the country (1.15 hectare).

The average annual rainfall of the State is around 921 mm which is less than the National average of 1,200 mm. The quantum of rainfall received during Winter (January - February), Summer (March - May), South-West Monsoon (June – September) and North-East Monsoon (October - December) is three percent, 14 percent, 35 percent and 48 percent respectively. The per capita availability of water is 750 cubic meters per year as compared to the all India average of 2,200 cubic meters. About 51 percent of the agriculture area cultivating food grains is covered by irrigation (Ministry of Agriculture and Farmers Welfare, 2015). There is a need to improve the efficiency of water use, especially in agriculture. Irrigation currently consumes about 84 percent of the total available water in the country (NITI Aayog, 2015). The details of net area irrigated using various sources of irrigation across the state (2016-17) are as follows:

**Table – 2: Water Source Wise Net Area Irrigated**

Source	Availability (Nos)	Net Area Irrigated (l.Ha)	% with Reference to Net Area Irrigated
Canals	2239	5.27	22.10
Tanks	41127	3.02	12.66
Wells	1872088	15.54	65.16
Others		0.02	0.08
<b>Total</b>		<b>23.85</b>	<b>100.00</b>

Source: State Agriculture Profile of Tamil Nadu -2011

The area irrigated by wells accounted for 65 percent followed by Canals (22 percent) and Tanks (13 percent). Out of Gross Cropped Area (GCA) under irrigation (28.45 Lakh ha.) 77 percent is brought under food crops and 23 percent under non-food crops in the State. Tamil Nadu is the only State across the country where 100 percent subsidy is extended for Small and Marginal farmers and 75 percent subsidy for other Farmers. As of now, the coverage of micro irrigation is one per cent of total irrigated area and hence the Government is taking various innovative measures to expand the area under micro irrigation in Tamil Nadu with higher fund allocation. It leads to save the production of food grain crops in Tamil Nadu.

During 2016-17, due to various natural impediments such as failure of South West as well as North East Monsoon, non-release of Cauvery water from Karnataka, poor storage position in all major reservoirs, Vardah cyclone and most importantly severe drought, the State witnessed lesser area under major crops besides damage to the standing crops and hence food grain production reached a low level of 52.38 Lakh Metric Tonnes in 2016-17.

**Table -3: Food Grain Production in Tamil Nadu**

Crop	Food Grain Production (lakh Metric Tones)						
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Rice	74.59	40.50	71.15	79.49	73.75	35.54	65.92
Millets	23.24	13.42	32.73	40.79	34.25	13.45	37.36
Pulses	3.69	2.13	6.14	7.67	5.85	3.39	6.09
<b>Total Food Grains</b>	<b>101.52</b>	<b>56.05</b>	<b>110.02</b>	<b>127.95</b>	<b>113.85</b>	<b>52.85</b>	<b>109.37</b>

Source: State Agriculture Profile of Tamil Nadu -2011

Majority of the farmer did not have marketable surplus. Major problems faced by the farmer paddy grower were lack of capital or fund, weak market infrastructure, limited transport facilities and fluctuating market prices (Vijay Kumar et al., 2008). The National Food Security Mission for rice is implemented with an objective to increase the production of Paddy through area expansion and productivity

enhancement, enhancing the farm level economy and to restore the soil fertility and productivity at the individual farm level in eight identified districts viz., Pudukkottai, Tiruvarur, Nagapattinam, Ramanathapuram, Sivagangai, Thanjavur, Tiruvannamalai and Cuddalore. During 2017-18, the components such as Cluster demonstrations, cropping system-based demonstrations, distribution of certified quality seeds of High Yielding Varieties (HYV), hybrids, production enhancing inputs, integrated nutrient and plant protection measures, farm machineries and resource conservation techniques besides cropping system-based trainings were implemented with a budget outlay of Rs.14.84 Crore. The scheme will be continued during 2018-19 also.

Millets are multigrain gluten free small seeds often called poor man's cereals which gained the privilege of farmers to change in consumers' preference resulting in inclusion of millets poignant from Traditional Foods Basket (TFB) to Commercial Food Baskets (CFB) in Tamil Nadu. Millets are providing multiple securities such as food security, fodder security, health and nutritional security and livelihood security. Millets such as Maize, Sorghum, Cumbu, Ragi, Thinai, Varagu, Samai, Kudiraivali etc., are cultivated in Tamil Nadu with a normal area and production of 8.013 Lakh Ha and 28.88 Lakh Metric Tonnes respectively. Considering the importance of millets and its consumption, in order to increase the millet production, various efforts were taken thus resulted 9.17 lakh ha has been brought under Millet cultivation during 2017-18. This resulted in increased coverage of 1.157 lakh ha more, when compared to normal area.

The cereals and pulses occupy about 3/4<sup>th</sup> of the gross cropped area under cultivation. Millets and pulses registered an increase in productivity to the extent of 30-35 percent increase (Agriculture Statistics at a Glance, 2014). The millets are commonly cultivated in the districts of Villupuram, Cuddalore, Salem, Namakkal, Tiruppur, Erode, Perambalur, Ariyalur, Theni, Dindigul, Virudhunagar, Tirunelveli, Thoothukudi, Tiruvannamalai, Dharmapuri and Krishnagiri. Sensitizing the farmers on various local and indigenous technologies, supply of critical inputs, generating consumers' demand for millet based food products through awareness creation and processing and value addition techniques are implemented in a massive way under various ongoing and new programmes.

Pulses are the important sources of dietary protein and play a vital role in improving the soil fertility. Red gram, Black gram, Green gram and Horse gram are the major pulses cultivated in Tamil Nadu covering a normal area of 7.53 lakh ha. Pulses being a short duration, less water consuming and less input intensive crops, it is cultivated in all the seasons throughout Tamil Nadu. In order to attain the self sufficiency in pulses production by bridging the yield gap and to increase the cropping intensity for creating additional income to the farmers, constant efforts are being taken by the GoT in a mission mode approach for years. As a result, the area which was 6.37 Lakh Ha in 2010-11 has increased to 8.84 Lakh ha in 2014-15 and production which was only 2.45 Lakh Metric Tonnes in 2010-11 has escalated to an insurmountable record of 7.67 Lakh Metric Tonnes in 2014-15.

The productivity which was hovering around 385 Kg/Ha also increased to 868 Kg/ha in 2014-15 and set a new benchmark in the production & productivity of pulses in Tamil Nadu. The efforts were continued during 2015-16 and 2016 – 17 and as a result, the pulses area was sustained to an extent of eight Lakh Ha despite severe occurrence of flood and drought. The innovative activities were being carried out in a mission mode approach to bring an area of 9.4 Lakh ha and a production of six Lakh Metric Tonnes with a productivity of 632 Kg/ha during 2017-18 and covered 8.78 Lakh ha area. Besides, farmers are being integrated into groups to form Farmer Producer Organisation (FPO) through various programmes such as Mission on Sustainable Dryland Agriculture and Collective (MSDLAC) farming for ensuring easy access to inputs and services at lesser price and as well as facilitate them to get additional income through value addition.

## CONCLUSION

Agriculture growth has been fairly volatile over the past decade, ranging from 5.8 percent in 2005-06 to 0.4 percent in 2009-10 and -0.2 percent in 2014-15. Overcoming the constraints faced by the agricultural sector in Tamil Nadu, and accelerating growth in agricultural production and the rate of rural poverty reduction will require appropriate policies and investments in four priority areas: improving the efficiency of

water use, increasing the effectiveness of public expenditure and agricultural extension, spurring the development of agricultural markets, and maximizing the real income growth of the rural poor. Success of Agriculture depends very largely on optimum usage of water and assured irrigation. Hence, the Government is taking intensive efforts to popularize the Micro Irrigation system which helps in bringing more crops per drop.

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