

## **Sericulture Is Boon and Tradition: Growth and Development of Silk Industry in Various Districts of Tamil Nadu 2016 - 2020**

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### **Abstract**

Sericulture activities are highly successive and productive in nature. Sericulture is a source of providing employment to the marginal people. It is astonishing to know that sericulture industry is providing gainful employment to 60 lakhs of people every year in India. This sector employs one man throughout the year for producing every 3.07 kg of silk produced and used in handlooms. This potential is very high and no other industry generates this kind of employment, especially in rural areas. Sericulture is highly suitable to small and marginal farmers, because of its capacity to generate a high income with comparatively less investment Economically benefit in different stages of silk industry like mulberry cultivation, silkworm rearing, reeling, twisting, dying and weaving. Every stage is income generating in silk industry like sericulturists to weavers. The study result showed that the area under Mulberry plant and silk worm production has increased in various districts of Tamil Nadu. It also reveals the employment generation and new planting areas also has steep lift in various districts of Tamil Nadu.

**Keywords:** Sericulture, Silk industry, Cucoon, Mulberry

### **Introduction-**

The Present Study aims the Geospatial analysis of Rearing silk worm and Silk production in various districts of Tamil Nadu, and the objectives are to analyses the spatial distribution and temporal distribution of mulberry growth and new planted area in Tamil Nadu. To delineate, the various types of cocoons and silk worm production and also to evaluate silk reeling and sarees production in various districts of Tamil Nadu 2015-2020.

### **Data Source and Methods**

This paper mainly depends on secondary sources of data, Agriculture department in DMS and in Chepauk and also data collected from various published and unpublished sources and websites. Data has been analysed simple statistical methods and Excel diagrams. Main theme has been shown with the help of Arc GIS 10.6 has been used to

create some thematic maps for spatial distribution of mulberry plants and located bar diagrams to show the silk worm area and also the silk production of various distributions of Tamil Nadu. Silkworm has four stages in its life cycle viz., egg, caterpillar, pupa and moth. Man interferes in this life cycle at the cocoon stage to obtain the silk, used in weaving of the dream fabric. The sericulture activities were broadly divided into two divisions' viz., pre-cocoon technology and post cocoon technology. The activities of each division were further divided into sub-sectors. The main product of one subsector becomes a raw material for another sector, thus, interlinking each other and changing the value, form and quantity to enhance the preference by the consumers.

Plant



Layings



Silk moth coming out of cocoon



**Mulberry silk** is considered to be superior in quality as compared to other varieties. Bombyx

mori, the mulberry silkworm feeds on mulberry leaves. About 92 per cent of the total production of the country consists of mulberry silk.

**Rationale of the Study**

Sericulture production was significant for the development of the human civilization from different aspects. Clothing is a very essential component for human shelter. Tamil Nadu is ranked fourth place among the silk producing state of our country. In 1956, Sericulture was practiced in limited pockets of Coimbatore and Dharmapuri district in our state, accounted 500 hectares only. Then with the implementation of many

developmental schemes in the state sericulture activity was introduced into the plains of the state. From 1979, Department of Sericulture with headquarters at Salem is functioning as development wing under Department of Industries and Commerce. During the year 2016-2020, 1184.62MT of raw silk, have been produced in the state, of which 609.12MT are cross breed silk and 575.50 MT are bivoltine silk. Tamil Nadu continues to occupy the fore-front position in the country in bivoltine silk production. Tamil Nadu stands first in cocoon productivity

**Fidings and Result of the Research**

**Irrigated Area Under Mulberry Plant In Tamil Nadu 2015-2020**

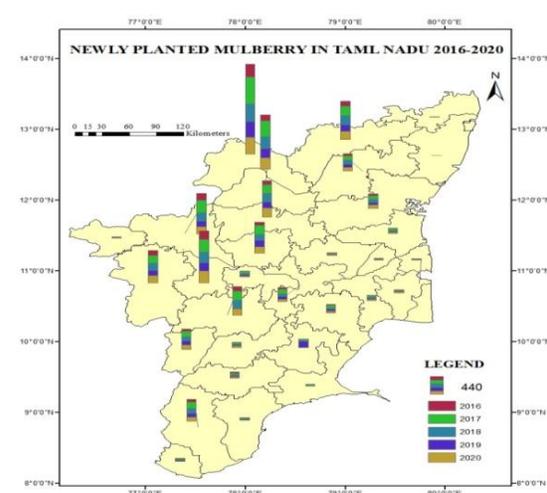
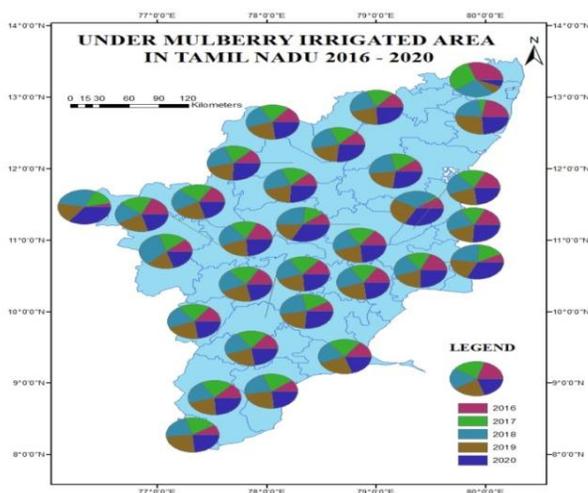
SI.NO	District	2015-16	2016 -17	2017-18	2018-19	2019-20
1	Kancheepuram	15.3	3.2	14.37	18.42	16.4
2	Thiruvallur	15.1	15	12.96	3.64	3.24
3	Cuddalore	59.4	111.6	155.57	140.18	179.05
4	Villupuram	191.6	282.9	406.17	350.71	453.64
5	Vellore	745.6	854.5	1185.93	1064.88	1274.49
6	Tiruvannamalai	224.36	298.32	399.98	337.91	447.55
7	Salem	613.94	873.22	1110	1009.09	1233.58
8	Namakkal	674.8	607.5	779.66	721.15	875.24
9	Dharmapuri	850.62	1106.7	1482.13	1284.15	1639.51
10	Krishnagiri	2090.92	2599.3	3207.35	3073.48	3323.36
11	Erode	1436.5	1830.6	1823.2	1813.99	1818.87
12	Coimbatore	753.7	1108.8	1128.64	1067.31	1266.19
13	Tiruppur	1969	2229	2138.52	2135.68	2287.81
14	The Nilgiris	3.2	14	26.32	17	32.39
15	Tiruchirappalli	288.32	329.16	410.24	393.64	435.24
16	Karur	54.8	94.2	147.37	127.33	157.89
17	Perambalur	23.2	25.8	54.05	36.23	65.38
18	Ariyalur	47	45.2	53.85	53.64	60.53
19	Pudukkottai	184.8	185.2	248.18	233.6	259.11
20	Thanjavur	72.2	96.8	136.84	120.24	160.73
21	Nagapattinam	28.2	24.2	34.41	29.55	40.28
22	Thiruvarur	22.2	46	67.61	58.3	89.68
23	Madurai	118	154.2	175.71	164.17	197.98
24	Theni	555.6	672.8	764.17	754.66	806.68
25	Dindigul	1109.8	1282.3	1421.36	1367.25	1439.78
26	Ramanathapuram	57.6	75.4	78.74	87.25	76.72
27	Virudhunagar	145.2	183.2	212.15	210.32	222.27
28	Sivagangai	51.2	95	133.77	112.75	136.72
29	Tirunelveli	436.84	612.84	698.08	656.9	775.2
30	Thoothukkudi	43.84	79.44	91.03	96.19	95.08

31	Kanniyakumari	40.18	78.78	91.3	99.57	97.37
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**Source: Agriculture department, DMS**  
**Irrigated Area under Mulberry Plant in Tamil Nadu 2015-2020**

Spatial distribution of mulberry plant found to be very high in area such as Krishnagiri, Erode, Dindigul and Tirupur districts shows consistent growth of mulberry plant under irrigation. It is followed by Dharmapuri, Namakkal, vellore and Salem districts shows steady growth in area under mulberry plant. On the other hand Perambalur the Nilgris, Kancheepuram and Thiruvallur are newly

emerged areas under mulberry plant. Tamil Nadu mainly rely on North East Monsoon. The spell of rainfall is dynamic and to only three months. Rainfall mainly because of Tropical cyclone originated over the Bay of Bengal and Indian Ocean. The area under Mulberry plant mainly depends on the irrigation only minor area which receives enough rainfall. Coimbatore, Erode and Salem shows steep increase.

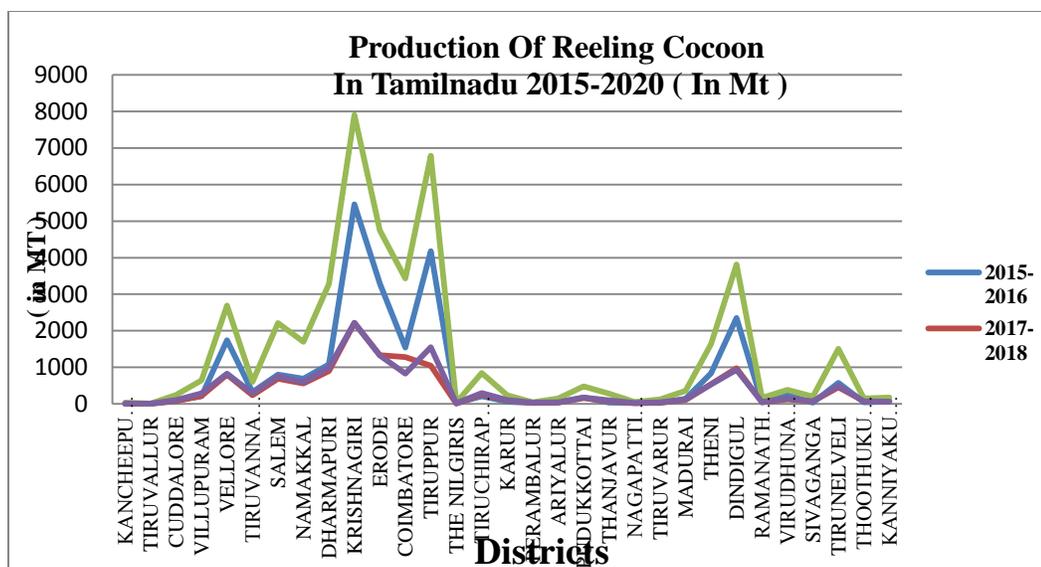


**Source: Compiled by Researcher**

**Newly Planted Areas Of Mulberry Plant 2016-2022**

In the year 2016 the Area under mulberry plant about 426 Sqkm in Krishnagiri and 569.8 Sqkm in 2020 whereas in Tirupur 286.7 Sqkm it has increased into 390 Sqkm in 2020 in Tirupur Dharmapuri and Salem districts have new area

under mulberry plant and also shows gradual increase of areas from 2016 -2022. Apart from that Coimbatore, Vellore and Erode also register more area under new mulberry plant. This district also shows an increase of areas within five years. Dindugul, Tirunelveli and Namakkal register moderate area under the mulberry plant.



Source: Agriculture Department , DMS Chennai

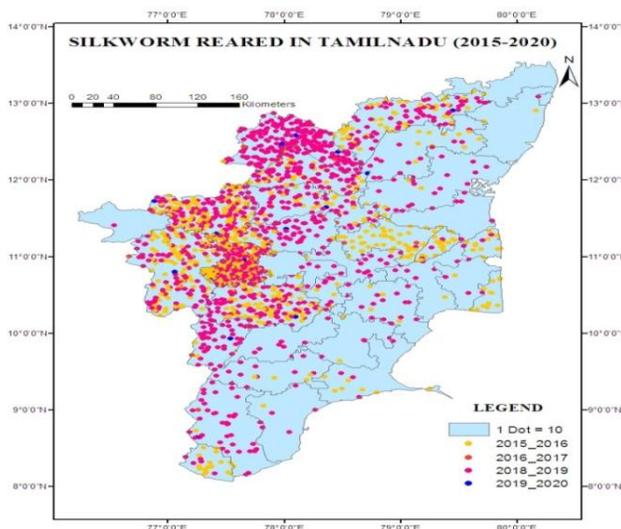
**Production Of Reeling Cocoon In Tamilnadu 2015-2022**

**Krishnagiri Place first in production of cocoons in 2015** (5457.35 tonnes) it shows drastic change of production in next three years but sudden fall in the year 2019-20 only 2217.78 tonnes of production , reason behind this the erratic rainfall destroyed the mulberry plant in that year. Next to Krishnagiri Tiruppur records high production of cocoon about 4176.67 metric tonnes which has sharp increase in 6792.75 tonnes in 2018-19, the sharp decline in 2019-20 because on tropical cyclone Nivar devastated the mulberry plants. High production is also found in Erode 3294.49 tonnes, Dindugul 2352.82 tonnes , Vellore 2694.39 tonnes in 2018-19 and Dharmapuri records 3280.9 tonnes

in the above mentioned year. Almost all the districts shows fall in production during 2019-2022 because of the monsoon.

**Silk Worm Reared In Districts Of Tamil Nadu 2016-2020**

Tamil Nadu is the leading State in bivoltine silk Production. The handloom silk sarees including Kancheepuram silk sarees produced in Tamil Nadu are World famous because of their enchanting craftsmanship. Venpattudhoties produced in Salem are very unique and also got authorization to use 'Geo-Index' number. Krishnagiri 1614.6 tonnes, Erode 974.7 tonnes and Tiruppur( 1235.7 tonnes )are the leading producer of silk worm in 2016. Raw silk production in Tamil Nadu found.



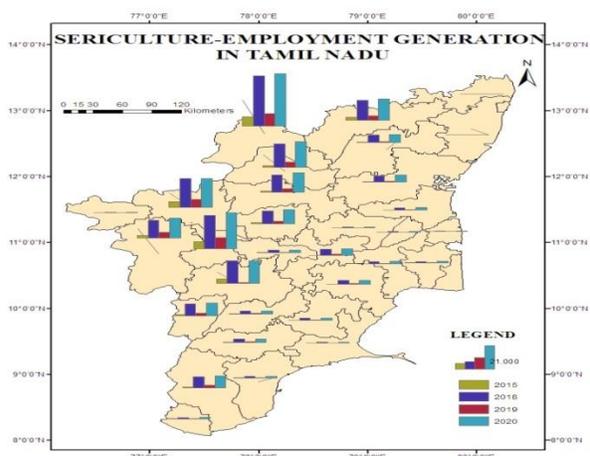
**Source: Agriculture department DMS**

**Sericulture– Employment Generation In Tamil Nadu -2015-2020**

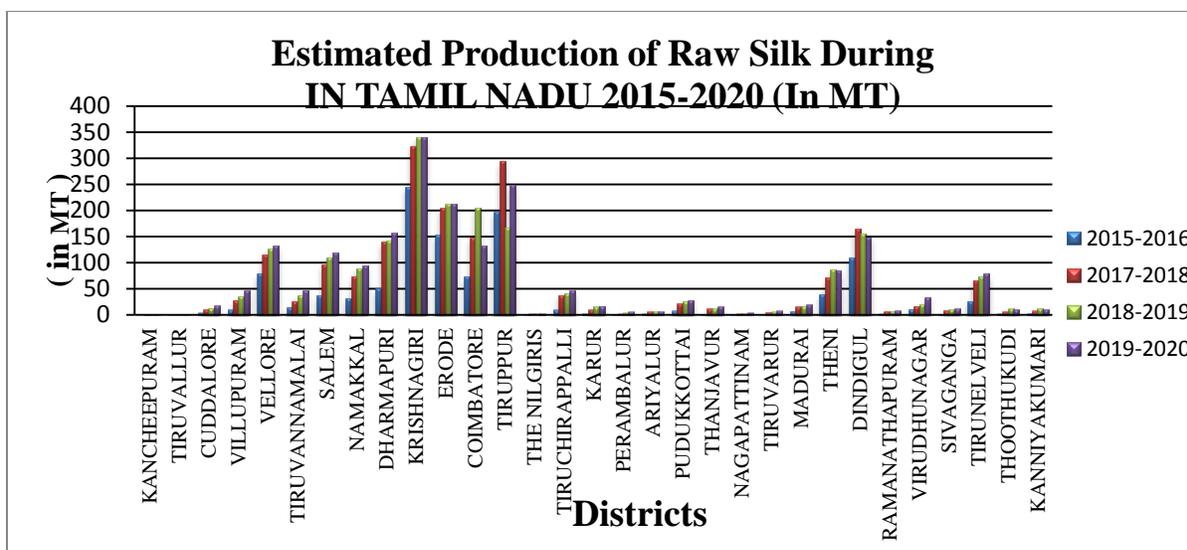
Dharmapuri ranks first in giving employment generation the weavers of silk. Nearly 3.4 billion engaged in sericulture activities during 2016. Area under Mulberry plant also found to be high in this district. Ideal climatic condition and environment enriches the sericulture production in Dharmapuri..Next to Dharmapuri Erode comes second highest employment opportunity , around 2.05 million people are under sericulture in 2016 the employment opportunity has declining due to various factors. Tirupur gives more employment opportunity for the marginal people to engage in rearing silk worm. Around 1.02 million people are engaged in sericulture

Activities during 2016. Following with the above

Districts, Salem Namakkal and Vellore districts also show high employment than the other districts of Tamil Nadu



**Production Of Raw Silk In Districts Of Tamil Nadu**

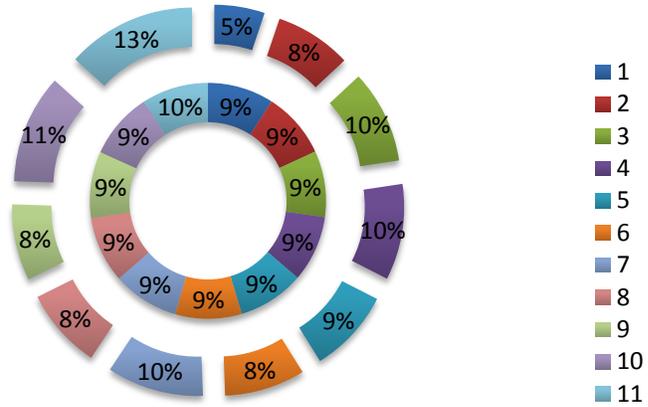


**Raw Silk Production In Tamil Nadu 2007- 2017 (In Mt)**

Women in South India in general in fond of silk sarees. In Tamil Nadu for marriages it's a traditional wearing silk sarees and dhotis so, the demand of product increase in day by day. In this above mention table the production of Raw Silk has been increasing constantly. In the year 2007 which is above 737 (MT) only. But within a year

above 8% of increased. In the year 2009-2010 remind stagnant about 10% of increase when compare with 2008. Every year nearly 9-10% of increase has been recorded new Raw Silk Production of Tamil Nadu. In 2017 it has been increase slightly above 13% of Raw Silk Production in Tamil Nadu which is about 1818 (MT).

**RAW SILK PRODUCTION IN TAMIL NADU  
2007 - 2017 (in MT)**



### **Common Challenges Faced During Sericulture:**

Inadequate equipment and technology for producing silkworm eggs

Insufficient technicians in sericulture

Inadequate tools and QC measures

Lack of capital for investment

No empowerment thus makes the worker feel demotivated

Im proper and availability of technologies for silk processing

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