

# **An Analysis on the Growth of Tamil Nadu Economy from 1999-2000 to 2013-2014**

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## **Abstract**

State income, Per capita income of the state, and the sectoral income are the major contributors of the state's development. The State domestic product is a yardstick adopted to measure the overall growth of the economy. The estimate of State income measures the volume of all goods and services produced within the geographical boundaries of the state during a year and throws light on the overall effect of different development of activities in the various sectors of the economy. A Structural Analysis of the state's income throws light on the fact that there have been structural changes in the economic set up of the state. As the economy develops dependence on agriculture is reduced. This is due to the remarkable progress of subsequent sectors like Secondary and Tertiary. The sectoral composition gives an idea of the relative position of different sectors in the economy, therefore this paper focuses on growth and the structure of Tamil Nadu economy. When the growth performance of the three sectors is seen the growth of primary sector has declined for the whole period as compared to Secondary and Tertiary sectors. The growth of the secondary sector is stagnant, as the Tertiary sector has grown tremendously after the second generation reforms. The introduction of the economic reforms particularly, the second generation reforms has made the economy more service oriented. The sectoral analysis also reveals that there is an unbalanced growth in the different sectors of Tamil Nadu economy. Thus unless the primary and secondary sectors are given importance the real growth is untenable.

**Key Words :** Tamil Nadu Economy, Per-capita Income

## **Introduction**

State income, Per capita income of the state, and sectoral income is the major contributor's of the state's development. The State domestic product is a yardstick adopted to measure the overall growth of the economy. The estimate of State income measures the volume of all goods and services produced within the geographical boundaries of the state during a year and throws light on the overall effect of different development of activities in the various sectors of the economy. A structural analysis of the state's income throws light on the fact that there have been structural

changes in the economic set up of the state. As the economy develops dependence on agriculture is reduced. This due to the remarkable progress of subsequent sectors like secondary and tertiary. The sectoral composition gives an idea of the relative position of different sectors in the economy, therefore this paper focuses on growth and the structure of Tamil Nadu economy.

The state income estimates presents a quantitative representation of the structure of the economy overtime and facilitates the assessment of growth in aggregate as well as in all sectors of the state individually. For this purpose the economic activities are classified as under Primary, Secondary and Tertiary sectors.

## **Primary Sector**

Primary sector consists of four sub-groups viz., Agricultural and Allied activities such as Animal husbandry, Forestry and Logging, Fishing and Mining and Quarrying.

## **Secondary Sector**

The state economy is with a solid manufacturing base. Secondary sector encompasses four sub-groups. They are manufacturing (registered), Manufacturing (unregistered), Electricity, Gas, Water supply and Construction.

## **Tertiary Sector**

Tertiary Sector, otherwise known as Service sector is comprised of a medley of nine sub groups viz., Trade, Hotels and Restaurants, Railways, Transport by other means, Storage, Communication, Banking and Insurance, Real estate, Ownership of Dwellings, Business service, Public administration and other services. Growth in income generation in these sub-groups owes much to the development prospects of Primary and Secondary sectors.

## **Theoretical Background of the Study**

The study of Economic development has originated long back from Adam Smith's Wealth of Nations. According to him when there is progress in agriculture, manufacturing industries and commerce there is prosperity in the economy which leads to capital accumulation, Technical progress and rise in profit. David Ricardo was equally interested in analyzing the conditions relating to growth. Colin Clark defines economic growth as an improvement in economic welfare.

Simon Kuznet in his Modern Economic Growth theory states that economic growth is characterized by high rate of increasing in per capita income accompanied by substantial rates of population

growth. High rate of per capita income generate high level of per capita consumption thus increasing the demand for manufactured goods and services due to which there is a decline in the demand for agricultural goods. As a result there is a high rate of structural transformation in the economy from agriculture to non- agriculture activities and the population of labour engaged in agricultural sector declines. Due to structural transformation urbanization takes place, and there is rapid growth of industrialization and establishment of infrastructure which changes the pattern of life of the people.

### Economy of Tamil Nadu

Tamil Nadu has made rapid strides in the pursuit of economic development. The State is an Information Technology and Knowledge hub with a broad-based manufacturing sector and a leapfrogging service sector. The Twelfth Five Year Plan aims to achieve accelerated, innovative and inclusive growth in all sectors of the economy. The Advance Estimates indicate that Gross State Domestic Product (GSDP) at constant prices (2004-05) registered a growth of 7.29 percent in 2013-14 as against 3.3 percent in 2012-13 (Quick Estimate). The growth in GSDP during the current year 2013-14 was mainly supported by the growth of the Tertiary sector (9.31%) and Primary sector (7.24%). Turning to the secondary sector, the growth had, accelerated slightly to 3.07 percent in 2013-14 from 2.06 percent in 2012-13. The slow acceleration was mainly due to the negative growth in the sub-sector electricity, gas and water supply (-9.98%). During the 11th Plan period, Tamil Nadu had achieved a growth rate of 7.7 percent as against the target of 8.5 percent. At all India level it was 8.0 percent, at against 9.0 percent.

### Objectives of the Study

- To assess the rate of growth of Tamil Nadu economy from 1999-2000 to 2013-2014.
- To analyze the sectoral contribution to the NSDP of Tamil Nadu from 1999-2000 to 2013-2014.

### Data Source and Time Frame

Secondary sources are the basis for the study. The period taken for the analysis is from 1999-2000 to 2013-2014. The relevant data for Tamil Nadu NSDP is collected from Tamil Nadu Economic Appraisal various issues published by the Government of Tamil Nadu.

### Methodology

To analyze the growth of Tamil Nadu economy and its sectors and sub-sectors from 1999-2000 to 2013-2014 the following model has been used.

### Trend Model

$$Y = \beta_0 + \beta_1 t + \mu$$

where Y = dependent variable,  $\beta_0$  = constant,  $\beta_1$  = slope coefficient,  $\mu$  = stochastic variable.

### Semi-log Model

$$\text{Log } Y = \beta_0 + \beta_1 t + \mu$$

where : compound growth rate = [(antilog b-1)] x100

$\beta_0$  = constant,  $\beta_1$  = growth of the respective variable,  $\mu$  = stochastic variable.

### Analysis of sectoral share

In order to study the total share of each sector in the total NSDP of Tamil Nadu Percentage share analysis has been used.

### Trend and Growth of Tamil Nadu Economy

In this analysis time has been taken as independent variable and Net State Domestic Product, Percapita income, Primary sector, Secondary sector, Tertiary sector are taken as dependent variables. The growth of the economy is analyzed with these variables and the result is presented below.

**Table – 1**

**Trend and overall growth of Tamil Nadu economy from 1999-2000 to 2013-2014.**

S.No	Variables	Linear Model			Semi – Log Model			Compound growth rate %
		Absolute growth rate b	t	R <sup>2</sup>	b	T	R <sup>2</sup>	
1.	Net State Domestic product	2044796.5	17.159*	95.8	0.079	26.654*	98.2	8.2
2.	Per Capita income	2854.8	15.497*	94.9	0.072	18.773*	96.4	7.4
3.	Primary	72224.2	4.296*	58.7	0.026	3.939*	54.4	2.6
4.	Secondary	518003.6	14.686*	94.3	0.072	16.986*	95.7	7.5
5.	Tertiary	1455510.2	17.545*	95.6	0.092	30.735*	98.6	9.6

Note : \* Indicates significant at 5% level

Source : Tamil Nadu Economic Appraisal (various issues)

Table – 1 shows the result of the Trend Equation and compound growth rate for the Tamil Nadu in terms of NSDP, PCI, Primary, Secondary, Tertiary sectors. The R<sup>2</sup> values are found to be highly satisfactory. The trend co-efficient for the variables in the study period are found to be statistically significant at 5 percentage level. The Tamil Nadu economy has grown at an absolute rate of ₹20,44,796 lakh for the whole period (1999-2000 to 2013-2014). The growth of Per-capita income has grown at an absolute rate of ₹ 2,856 lakh for the whole period (1999-2000 to 2013-2014). The sectoral Analysis reveals that when the three sectors were compared the Primary Sector has grown at an absolute rate of

₹72,224 lakh for the whole period and the secondary sector has grown at an absolute rate of ₹ 5,18,004 lakh and the tertiary sector has grown at an absolute rate of ₹ 14,55,510 lakh.

The Compound Growth Rate of Tamil Nadu Economy for the whole period is 8.2 percent per annum and the growth rate of per capita income is 7.4 percent per annum. Similarly the growth rates of Primary, Secondary and Tertiary sectors are 2.6, 7.5 and 9.6 percent per annum for the whole period.

**Table – 2**

**Trend and overall growth of Primary Sector from 1999-2000 to 2013-2014**

S. No	Variables	Linear Model			Semi – Log Model			Compound growth rate %
		Absolute growth rate b	t	R <sup>2</sup>	b	t	R <sup>2</sup>	
1.1	Agriculture and Allied activities	62858.893	3.967*	54.8	0.028	3.602*	49.9	2.8
1.2	Forestry and logging	3306.443	9.488*	87.4	0.019	9.469*	87.3	1.9
1.3	Fishing	3868.111	3.974*	54.9	0.020	3.600*	49.9	2.0
2.	Mining and quarrying	4017.711	5.849*	72.5	0.035	5.708*	71.5	3.6

Note : \* Indicates significant at 5% level  
Source : Tamil Nadu Economic Appraisal (various issues)

Table – 2 shows the result of the Trend Equation and Compound Growth Rate for the Primary sector of Tamil Nadu economy in terms of Agriculture and Allied activities, Forestry and Logging, Fishing and Mining and Quarrying. The R<sup>2</sup> values are found to be highly satisfactory. The Trend co-efficient for the variables in the study period are found to be statistically significant at 5 percentage level. The sub-sectors Agriculture and Allied activities, Forestry Logging, Fishing, Mining and Quarrying has grown at an absolute rate of 62,859 lakhs, 3,306 lakhs, 3,868 lakhs and 4,018 lakhs for the whole period (1999-2000 to 2013-2014). The Compound Growth Rate of the sub- sectors Agriculture and Allied activities, Forestry and Logging, Fishing, Mining and Quarrying for the whole period (1999-2000 to 2013-2014) is 2.8, 1.9, 2.0 and 3.6 percent per annum.

**Table – 3**

**Trend and overall growth of Secondary Sector from 1999-2000 to 2013-2014**

S.No	Variables	Linear Model			Semi – Log Model			Compound growth rate %
		Absolute growth rate b	t	R <sup>2</sup>	b	t	R <sup>2</sup>	
1.	Manufacturing	341915.179	11.793*	91.7	0.077	13.167*	93.0	8.0
2.	Electricity, Gas and Water supply	-11851.125	-1.896	20.9	-0.074	-1.855	20.9	-7.6
3.	Construction	212254.329	18.408*	96.3	0.093	21.702*	97.3	9.7

Note : \* Indicates significant at 5% level  
Source : Tamil Nadu Economic Appraisal (various issues)

The above Table – 3 shows the result of the trend equation and compound growth rate for the Secondary sector of Tamil Nadu in terms of Manufacturing, Electricity, Gas and Water supply and Construction. The R<sup>2</sup> values are found to be highly satisfactory. The Trend Co-efficient for the variables in the study period are found to be statistically significant at 5 percentage level except for the sub – sector Electricity, Gas and Water supply. The sub- sectors Manufacturing has grown at an absolute rate of ₹ 3, 41,915 lakh. Whereas the growth of Electricity, Gas and Water supply is negative at the absolute rate of ₹11,851 lakhs. Similarly the construction has grown at an absolute rate of ₹ 2,12,254 lakhs for the whole period (1999-2000 to 2013-2014).

The Compound Growth Rate of the sub- sectors Manufacturing, Electricity, Gas and Water supply & Construction for the whole period (1999-2000 to 2013-2014) is 8.0, -7.6, and 9.7 percent per annum.

**Table – 4**

**Trend and overall growth of Tertiary sector from 1999-2000 to 2013-2014.**

S.No	Variables	Linear Model			Semi – Log Model			Compound growth rate %
		Absolute growth rate b	t	R <sup>2</sup>	b	t	R <sup>2</sup>	
1.	Trade, Hotel & Restaurants	378725.946	21.963*	97.4	0.084	20.690*	97.1	8.8
2.	Transport, Storage and communication	247154.211	16.313*	95.3	0.105	42.733*	99.3	11.0
3.	Financing, Insurance, Real estate and Business services	595883.046	13.581*	93.4	0.108	28.701*	98.4	11.4
4.	Community, Social & business services	233472.450	14.032*	93.8	0.069	17.279	95.8	7.1

Note : \* Indicates significant at 5% level  
Source : Tamil Nadu Economic Appraisal (various issues)

Table – 4 shows above the result of the Trend Equation and Compound Growth Rate for Tertiary sector of Tamil Nadu in terms of Trade, Hotel and Restaurants, Transport, Storage and Communication and Financing, Insurance, Real estates and Business services and Community, Social and Personal services. The R<sup>2</sup> values are found to be highly satisfactory. The trend co-efficient for the variables in the study period are found to be statistically significant at 5 percent. The sub- sectors Trade, Hotel and Restaurants, Transport, Storage and Communication and Financing, Insurance, Real estates and Business services and Community, Social and Personal services has grown at an absolute rate of ₹ 3,78,726 lakhs, ₹ 2,47,154 lakhs, ₹ 595883 lakhs and ₹ 2,33,472 lakhs for the whole period (1999-2000 to 2013-2014).

The compound growth rate of the sub- sectors Trade, Hotel and Restaurants, Transport, Storage and Communication and Financing, Insurance, Real estates and Business services & Community, Social and Personal services for the whole period (1999-2000 to 2013-2014) is 8.8, 11.0, 11.4 and 7.1 percent per annum.

**Table – 5**

**Sectoral shares to the total Net State Domestic Product of Tamil Nadu from 1999-2000 to 2013-2014**

Year	Primary	Secondary	Tertiary
1999-2000	16.38	28.25	55.37
2000-2001	16.25	28.21	55.23
2001-2002	16.15	25.62	58.22
2002-2003	11.84	31.72	56.44
2003-2004	10.89	32.17	56.92
2004-2005	12.35	27.99	59.68
2005-2006	12.11	28.19	59.70
2006-2007	11.85	27.66	60.49
2007-2008	10.61	27.15	62.23
2008-2009	9.79	25.13	65.07
2009-2010	9.42	27.89	62.70
2010-2011	8.96	27.70	63.43
2011-2012	9.09	27.53	63.37
2012-2013	7.75	27.11	65.13
2013-2014	7.74	25.98	66.28

Source : Computed by the researcher

The above Table - 5 shows the Relative share of the three sectors that is Primary, Secondary, Tertiary to the total NSDP of Tamil Nadu for the whole period. From the Sectoral Analysis it is revealed that when the three sectors are compared the relative share of Primary sector is shrinking over the periods where as the share of Secondary sector is more or less constant and the share of Tertiary is the highest.

**Conclusion**

From the analysis it is inferred that the Tamil Nadu economy has grown after the Second Generation reforms only. The standard of living measured in terms of Per-capita income has also increased after the second generation reforms. When the growth performance of the three sectors is seen the growth of Primary Sector has declined for the whole period as compared to Secondary and Tertiary sectors and the growth of the secondary sector is stagnant. It is the tertiary sector which has grown tremendously after the second generation reforms. The introduction of economic reforms particularly the second generation reforms has made the economy more service oriented. The sectoral analysis also reveals that there is unbalanced growth in the different sectors of Tamil Nadu economy. Thus unless the

Primary and Secondary sector is given importance the real growth is untenable.

**References**

1. Damodar N. Gujarati, Basic Econometrics, Tata Mc Graw – Hill Publication, New Delhi, 2004.
2. Economic Appraisal – 2009-2010 and 2010-2011, Evaluation and applied research development, Government of Tamil Nadu, Chennai – 600008.
3. Leonard S.J. A.G., “Tamil Nadu Economy” Macmillian publication, Chennai, 2006.
4. Manickam S., Economic Development of Tamil Nadu in perspective, Uyirmmmai Publications, Chennai, 2006.
5. Rajalakshmi N., “Tamil Nadu Economy”, Kalyani Publications, New Delhi, 1987.