

# APPOLO STUDY CENTRE

## (Human Development Indicators)

### 10<sup>th</sup> vol -I Geography Unit 5 - India - Population, Transport, Communication & Trade

#### Human Development

- Dr. Mahabub-ul-haq defined as "it is a process of enlarging the range of people's choice, increasing their opportunities for education, health care, income and empowerment. It covers the full range of human choices from a sound physical environment to economic, social and political freedom".
- **Human Development Indicators:**

(as per UNDP) Population trends, health outcomes, education achievements, national income and composition of resources, work and employment, human security, human and capital mobility, supplementary indicators: perceptions of well-being and status of fundamental rights treaties are the human development indicators.

#### Measuring of Human Development

- Human Development Index (HDI) is a composite index focusing on three basic dimensions of human development: i) Health - Life expectancy at birth ii) Education - Expected years of schooling for school age children and average years of schooling for the adult population. iii) Income - Measured by-gross national income and percapita income.

#### Human Development Classification

- HDI classifications are based on HDI fixed cut off points, which are derived from the quartiles of distributions of the component indicators. The HDI of less than 0.550 is used for low human development, 0.550 - 0.699 stands for medium human development, 0.700 - 0.799 for high human development and 0.8 or greater for very high human development.



## 10<sup>th</sup> vol – 1 Economic

### Unit – 1 Gross Domestic Product and its Growth:

#### Economic Growth and Development

- As per the economist Amartya Sen, economic growth is one aspect of economic development. Also, united nation see it like this “Economic development focuses not only on man’s materialistic need but it focuses on overall development or rise in its living standards.

#### Economic Growth

- It is the quantitative measure which considers the rise in the output produced in an economy or nation in a particular period in its monetary value. The key parameters of economic growth in any economy are its Gross Domestic Product (GDP) and gross national product which helps in measuring the actual size of an economy. For example, we say GDP of India is 2.8 trillion USD and ranked 6th in globe whereas GDP of the United States of America is 19.3 trillion USD and ranked one. It shows how much the production of goods and services has increased compared from last year in a quantitative manner. It has many parameters to measure and few of them are human Resources. They are Natural Resource, Advancement in technology, Capital formation, Political and social economic factors.

#### Economic Development

- Economic development projects a broader picture of an economy which takes into account an increase in production level or output of an economy along with an improvement in the living standard of its citizens. It focuses more on socioeconomic factors rather than the just quantitative increase in production. Economic development is a qualitative measure which measures improvement in technology, labour reforms, rising living standards, broader institutional changes in an economy. Human development Index (HDI) is apt tool to measure the real development in an economy.

<b>Comparison between Economic Growth and Economic Development</b>	<b>Economic Growth</b>	<b>Economic development</b>
<b>Definition / Meaning</b>	It is the positive quantitative change in the output of an economy in a particular time period	It considers the rise in the output in an economy along with the advancement of HDI index which considers a rise in living standards, advancement in technology and overall happiness index of a nation.
<b>Concept</b>	Economic growth is the 'Narrower' concept	Economic development is the "Broader" concept
<b>Nature of Approach</b>	Quantitative in nature	Qualitative in nature
<b>Scope</b>	Rise in parameters like GDP, GNP, FDI, FII etc.	Rise in life expectancy rate, infant, improvement in literacy rate, infant mortality rate and poverty rate etc.
<b>Term / tenure</b>	Short term in nature	Long-term in nature
<b>Applicability</b>	Developed nation	Developing economies
<b>Measurement Techniques</b>	Increase in national income	Increase in real national income i.e per capita income
<b>Frequency of Occurrence</b>	In a certain period of time	Continuous process
<b>Government Aid</b>	It is an automatic process so may not require government support /aid or intervention	Highly dependent on government intervention as it includes widespread policies changes so without government intervention it is not possible
<b>Wealth Distribution</b>	Economic growth does not emphasize on the fair and equal distribution of wealth /income among its entire people.	It focuses on a balanced and equitable distribution of wealth among all individual and tries to uplift the downgrade societies.

## Human Development Index

In 1990 Mahbub ul Haq, a Pakistani Economist at the United Nations, introduced the Human Development Index (HDI). The HDI is a composite index of life expectancy at birth, adult literacy rate and standard of living measured as a logarithmic function of GDP, adjusted to purchasing power parity. India climbed one spot to 130 out of 189 countries in the latest human development rankings released today by the United Nations Development Programme (UNDP). India's HDI value for 2017 is 0.640, which put the country in the medium human development category. Between 1990 and 2017, India's HDI value increased from 0.427 to 0.640, an increase of nearly 50 percent - and an indicator of the country's remarkable achievement in lifting millions of people out of poverty. Between 1990 and 2017, India's life expectancy at birth too increased by nearly 11 years, with even more significant gains in expected years of schooling. Today's Indian school-age children can expect to stay in school for 4.7 years longer than in 1990. Whereas, India's GNI per capita increased by a staggering 266.6 % between 1990 and 2017.

# 11<sup>th</sup> Economics

## Unit - 7. Indian Economy

### Meaning of Growth and Development

- A country's economic growth is usually measured by National Income, indicated by Gross Domestic Product (GDP). The GDP is the total monetary value of the goods and services produced by that country over a specific period of time, usually one year.
- The level economic development is indicated not just by GDP, but by an increase in citizens' quality of life or well-being. The quality of life is being assessed by several indices such as Human Development Index (HDI), Physical Quality of Life Index (PQLI) and Gross National Happiness Index (GNHI).

### Gross National Happiness Index (GNHI)

The term "Gross National Happiness" was coined by the fourth king of Bhutan, Jigme Singye Wangchuck, in 1972. It is an indicator of progress, which measures sustainable development, environmental conservation promotion of culture and good governance.

- On the basis of the level of economic development, nations are classified as developed and developing economies.
- Developed economies are those countries which are industrialised, utilise their resources efficiently and have high per capita income. The USA, Canada, U.K, France, and Japan are some of the developed economies. Developed economies are also termed as Advanced Countries. On the other hand, countries which have not fully utilized their resources like land, mines, workers, etc., and have low per capita income are termed as under developed economies. Examples of underdeveloped countries are Sub Saharan Africa, Bangla Desh, Myanmar, Pakistan, Indonesia etc. They are also termed as Undeveloped Countries or Backward Nations or Third World Nations.

## Indian Economy

- Indian economy is the Seventh largest economy of the world. Being one of the top listed countries. In terms of industrialization and economic growth, India holds a robust position with an average growth rate of 7% (approximately).
- Even though the rate of growth has been sustainable and comparatively stable, there are still signs of backwardness.

## Features of a Developed Economy

- ❖ High National Income
- ❖ High Per Capita Income
- ❖ High Standard of Living
- ❖ Full Employment of Resources
- ❖ Dominance of Industrial Sector
- ❖ High Level of Technology
- ❖ High Industrialisation
- ❖ High Consumption Level
- ❖ High Level of Urbanisation
- ❖ Smooth Economic Growth
- ❖ Social Equity, Gender Equality and Low Levels of Poverty

### 1. Political Stability and Good Governance

- The diametrically opposite features of Indian Economy are discussed below in detail.

## 11<sup>th</sup> Economics

# Unit- 8 – Indian Economy Before and After Independence

### Development Indicators

#### Human Development Index (HDI)

- United Nations Development Programme has been publishing Human Development Report annually since 1990. HDI helped the government to the real uplifting of standard of living of the people.

#### Human Development Index (HDI)

HDI was developed by the Pakistani Economist Mahbub ul Haq and the Indian Economist Amartya Kumar Sen in 1990 and was published by the United Nations Development Programme (UNDP). It is constructed based on Life Expectancy Index, Education Index and GDP Per Capita.

HDI is based on the following three indicators

1. Longevity is measured by life expectancy at birth,
  2. Educational attainments,
  3. Standard of living, measured by real GDP per capita (PPP\$).
- Before calculating HDI, the fixed minimum and maximum values of each indicator are chosen.
  - The performance in each dimension is expressed as a value between 0 and 1 by applying the following formula  $\text{Dimension Index} = \frac{(\text{Actual value} - \text{Minimum value})}{(\text{Maximum value} - \text{Minimum value})}$  According to Planning Commission's National Human Development Report 2011, HDI has improved significantly between 1980 and 2011. That is, The HDI went up from 0.302 in 1981 to 0.472 score in 2011.
  - As per latest Human Development Report (2016) by the United Nations Development Programme (UNDP), India has been ranked 131st out of



188 countries. Out of 188 countries, India lies in Medium Human Development bracket. The other nations such as Bangladesh, Bhutan, Pakistan, Kenya, Myanmar and Nepal attained the medium human development. The HDR 2016 stated that regional disparities in education, health and living standards within India has caused India's downfall to 27 % on HDI score. India's HDI rank value in 2015 stood at 0.624, which had increased from 0.580 in 2010. India's rank in 2014 was 131.

**Top three countries of HDI**  
Norway (0.949) Australia (0.939) Switzerland (0.939)

<b>Human Development Index (HDI)</b>		
Dimensions	Indicator	Dimensions Index
Long and Healthy Life	Life Expectancy at Brith	Life Expectancy Index
Knowledge	Adult Literacy rate	Education Index
Decent Standard of Living	Cross enthralment ratio	GDP Index
	GDP Per capita (PPP US\$)	

- Biswajeet Guha has stated that the calculation of HDI neglected many important aspects of human development. He has created four indices of HDI as HDI<sub>1</sub>, HDI<sub>2</sub>, HDI<sub>3</sub>, and HDI<sub>4</sub>. HDI<sub>1</sub> is based on UNDP methodology as given in Human than Development Report. He has enlarged the scope of HDI by adding three more dimensions such as quality of life, poverty eradication, and urbanization. Various countries including India are continuously making efforts to improve and enlarge the scope of available statistical information.

# 11<sup>th</sup> - Economics

## 11. Tamil Nadu Economy

### Introduction

- The economic and social development of states in India are not uniform. Wide regional disparities exist. The western region and southern regions are better than the other regions. Tamil Nadu is geographically eleventh largest and population wise third largest. Tamil Nadu fares well with many achievements. It stands second in terms of contribution to GDP, third highest in terms of per capita income, investment, Foreign Direct Investment (FDI) and industrial output. It has been ranked as the most economically free state by the Economic Freedom.
- In the social and health sector also Tamil Nadu's performance is better than many other states and better than national average in terms of health, higher education, IMR and MMR.

### Highlights of Tamil Nadu Economy

- ❖ Growth of SGDP in Tamil Nadu has been among the fastest in India since 2005.
- ❖ Poverty reduction in Tamil Nadu has been faster than that in many other States.
- ❖ Tamil Nadu contains a smaller proportion of India's poor population.
- ❖ Tamil Nadu is the second largest contributor to India's GDP.
- ❖ Tamil Nadu ranks 3rd in Human Development Index (source: UNDP-2015)
- ❖ Tamil Nadu ranks 3rd in terms of invested capital (Rs.2.92 lakh crore) and value of total industrial output (Rs.6.19 lakh crore).
- ❖ Tamil Nadu ranks first among the states in terms of number of factories with 17% share and industrial workers (16% share) of the country.

- ❖ Tamil Nadu is placed third in health index as per the NITI AAYOG report.
- ❖ Tamil Nadu has a highest Gross Enrolment Ratio in higher education.
- ❖ Tamil Nadu has the largest number of engineering colleges
- ❖ Tamil Nadu has emerged as a major hub for renewable energy.
- ❖ Tamil Nadu has highest credit Deposit Ratio in commercial and Cooperative banks.
- ❖ has highest ranks first on investment proposals filed by MSMEs.

### **Performance of Tamil Nadu Economy**

- Some of the States like Gujarat and Maharashtra seem to perform well in some of the economic indicators. Kerala tops in literacy IMR and MMR. In recent years Tamil Nadu's performance is outstanding and far ahead of all other states in the spheres of health, higher education, growth of MSMEs, poverty alleviation and employment generation.

### **Tamil Nadu is placed third in health index**

- The Tamil Nadu state has come third after Kerala and Punjab in a health index report. The neo natal mortality rate is 14 lower than that of many other states and that the under 5 mortality has dropped from 21 in 2014 to 20 in 2015
- Healthy States, Progressive India Report, (2018) -NITI AAYOG The reasons for the relative success of Tamil Nadu lie in extending social policies to cover most of the population. For instance the Public Distribution System, midday meals and public health infrastructure have near universal coverage.

### **Natural Resource**

#### **Water Resources**

- Tamil Nadu is not endowed with rich natural resources compared to other States. It accounts for three per cent of water sources, four per cent of land area against six per cent of population. North East monsoon is the major source of rainfall followed by South West monsoon. There are 17 river basins in Tamil Nadu. The main rivers are Palar, Cheyyar, Ponnaiyar, Cauvery, Bhavani, Vaigai, Chittar, Tamiraparani, Vellar, Noyyal Siruvani, Gundar, Vaipar, Valparai etc. Wells are the largest source of irrigation in Tamil Nadu (56%).

<b>Water Resources</b>	
<b>Source of Irrigation</b>	<b>Numbers</b>
Reservoirs	81
Canals	2239
Tanks	41262
Tube Wells	3,20,707
Open Wells	14,92,359

Source: Tamil Nadu Government Season & Crop Report 2012-13

### **Mineral Resources**

- Tamil Nadu has a few mining projects based on Titanium, Lignite, Magnesite, Graphite, Limestone, Granite and Bauxite. The first one is the Neyveli Lignite Corporation that has led development of large industrial complex around Neyveli in Cuddalore district with Thermal power plants, Fertilizer and Carbonisation plants. Magnesite mining is at Salem from which mining of Bauxite ores are carried out at Yercaud and this region is also rich in Iron Ore at Kanjamalai. Molybdenum is found in Dharmapuri, and is the only source in the country.

<b>Mineral Resources</b>		
<b>Mineral</b>	<b>Reserve(Tonnes)</b>	<b>National Share</b>
Lignite	30,275,000	87%
Vermiculite	2,000,000	66%
Garnet	23,000,000	42%
Zircon	8,000,000	38%
Graphite	2,000,000	33%
Ilmenite	98,000,000	28%
Rutile	5,000,000	27%
Monazite	2,000,000	25%
Magnesite	73,000,000	17%

(Source: Department. of Geology and Mining)

## Population

- Tamil Nadu stands sixth in population with 7.21 crore against India's 121 crore as per 2011 census. However, Tamil Nadu's population is higher than that of several countries according to UN Report.

Table 11.3 Population

State / Country	Population(in Crore)
Tamil Nadu	7.2
U.K.	6.5
France	6.5
Italy	5.9
South Africa	5.6
Spain	4.7
Sri Lanka	2.1

(Source: Projections published by the United Nations in the 2017 Revision of World Population Prospects.)

## Density

- The density of population which measures population per sq.km is 555 (2011) against 480 (2001). Tamil Nadu ranks 12th in density among the Indian States and overall it is 382 for India.

## Urbanisation

- Tamil Nadu is the most urbanized state with 48.4% of urban population against 31.5% for India as a whole. The State accounts for 9.61% of total urbanites in India against 6% share of total population.

## Sex ratio (Number of female per 1000 males)

- Balanced sex ratio implies improvement in quality of life of female population. The sex ratio in Tamil Nadu is nearing balance with 995 which is far better compared to most of the States and all India level. Tamil Nadu stands third next only to Kerala state and Puduchery Union Territory in sex ratio.

Table 11.4 Sex Ratio

S. No	Indicator	Tamil Nadu	India
1.	IMR	17	34
2.	MMR	79	159
3.	Life Expectancy		
	Total	70.6	67.9
	Male	68.6	66.4
	Female	72.7	69.6
4.	Literacy Rate		
	Total	80.33%	74.04 %
	Male	86.81%	82.14 %
	Female	73.86%	65.46 %
5.	Sex Ratio	995	940

## Infant Mortality Rate (mortality before completing 1 year)

- Tamil Nadu is well ahead of national average and other states in IMR. According to NITI AAYOG, the IMR is 17 (per 1000) for Tamil Nadu which is just half of national average of 34 as on 2016.

## Maternal Mortality Rate (MMR) (Mother's death at the time of delivery per 1 lakh)

- Tamil Nadu has a good record of controlling MMR, ranking third with 79 (Kerala 61, Maharashtra 67) against national average of 159 again half of the national average [NITI AAYOG].

## Life Expectancy at birth

- The average period that a person may expect to live is called life expectancy. However, life expectancy in India still falls short of most developed and developing nations.

## Literacy

- The literacy rate of Tamil Nadu is higher than in many States

## Gross State Domestic Product (GSDP)

- Just like GDP, the Gross State Domestic Product refers to the total money value of all the goods and services produced annually in the State.
- Tamil Nadu is the second largest economy in India with a GSDP of \$ 207.8 billion in 2016-17 according to the Directorate of Economics and Statistics, Tamil Nadu. The GSDP of Tamil Nadu is equal to the GDP of Kuwait on nominal term and GDP of UAE on PPP terms.
- The GSDP of Tamil Nadu is far higher compared to many countries as shown below. This is mainly due to population effect. Per capita GSDP would be better for inter country or interstate comparisons. Tamil Nadu may go below if per capita GSDP is considered for comparison.

**Table 11.5 Gross State Domestic Product**

State / Country	GSDP / GDP (Billion)
Tamil Nadu-GSDP	\$ 207.8
Iraq-GDP	\$ 171
New Zealand-GDP	\$ 184
Sri Lanka-GDP	\$ 81

## Sectoral Contribution

- The tertiary sector (service sector) is the major contributor to Tamil Nadu's GSDP at 63.70%. The secondary sector (Industry) contribution is gradually on the rise and now it is 28.5%. Agriculture occupies a prominent position in occupation but its contribution to GSDP is declining and now it is just 7.76%. This means that the tertiary and secondary sectors have grown faster, the agricultural sector has grown slow. Agriculture sector provides employment and food to larger

proportion of Indians and Tamils. But, the same sector is growing slowly means it is not good. With this trend sustainable development may not be possible.

### Per capita Income

- The Per capita GSDP of Tamil Nadu also (\$ 2,200) which is higher than that of many other States in India. Per capita GSDP of Tamil Nadu is nearly 1.75 times higher than the national average, as per 2018 data. In term of ₹ the per capita income in Tamil Nadu was ₹ 1,03,600 in 2010-11 and it has increased to ₹ 1,88,492 in 2017-18 as per the Budget figures 2018.

**Table 11.6 Per capita income**

State / Country	Per capita Income (in USD)
Tamil Nadu	2200
India	1670
Nigeria	2175
Nicaragua	2151
Pakistan	1443
Bangladesh	1358
Zimbabwe	1029
Nepal	729

(Source: World Bank National Accounts data, and OECD National Accounts data files. -<https://data.worldbank.org/indicator/NY.GDP.PCAP.CD>)

- The Per capita income of Tamil Nadu among the southern States is given below:

**Table 11.7 Per capita Income (2015-16)**

State	PI
Tamil Nadu	1,57,116
Kerala	1,55,516
Karnataka	1,46,416
Telangana	1,58,360
Andhra Pradesh	1,37,000

(Source: Reserve Bank of India, New Delhi. February 2017.)

### Agriculture



- Tamil Nadu, with seven agro climatic zones and varied soil types is better suited for the production of fruits, vegetables, spices, plantation crops, flowers and medicinal plants. The State is the largest producer of loose flowers and the third largest producer of fruits. Tamil Nadu has historically been an agricultural State. At present, Tamil Nadu is the India's second biggest producer of rice, next only to West Bengal. The state is one of the major producers of turmeric. It is also the leading producer of Kambu, Corn, Groundnut, Oil seeds and Sugarcane. It ranks first in production of plantation crops and banana and coconut, second in rubber and cashew nut, third in pepper and fourth in sugarcane.
- The gross cropped area under all crops was 58.97 lakh hectares in the year 2013-14. The area under food crops account for 72.9% and that of non-food crops is 27.1%. Among the food crops paddy takes a major share. Among the non-food crops, groundnut and coconut take a major share.
- Net sown area has been gradually declining; and, rural land, labour and capital are moving towards urban projects. As a result, villages are emptied and cities are over-crowded and congested, leading to spatially unbalanced bulging.

### **Food grain Production**

- Rice production dominates among food grain production with 79.49 lakh tones on 2014-15 followed by millets at 40.79 lakh tons. There is significant jump in pulses production from 3.59 lakhs ton in 2011-12 to 7.67 lakh ton in 2014-15. There may be changes in these statistics. Hence updation is unavoidable.

### **Productivity Position of Tamil Nadu and India**

- The Government of Tamil Nadu lays emphasis on agricultural production and productivity. As a result, Tamil Nadu tops in productivity, in food crops as well as non-food crops, among the States in India.

**Table 11.8 Productivity Position of Tamil Nadu**

Crop	Position of Tamil Nadu at National Level
Maize	1
Cumbu	1
Total Oilseeds	1
Cotton	1
Coconut	2
Rice	2
Sugarcane	3
Sunflower	3
Jowar	3
Coarse cereals	4
Total Pulses	8

(Source: Tamil Nadu Agriculture Department Policy Note 2017-18)

- Tamil Nadu ranks first in maize cumbu, groundnut, oil seeds and cotton second in rice and coconut, third in sugarcane, sunflower and jowar.

### Industry

- Chennai is sometimes referred to as the Health Capital of India or the Banking Capital of India, having attracted investments from International finance Corporation sand the World Bank. It is also called as Detroit of Asia.
- Tamil Nadu has a network of about 110 industrial parks/estates that offer developed plots with supporting infrastructure. Also the Government is promoting other industrial parks like Rubber Park, TICEL Park for Biotechnology, Siruseri IT Park and Agro Export Zones.
- The heavy engineering manufacturing companies are centered around the suburbs of Chennai. Chennai boasts of global car manufacturing giants as well a home grown companies.
- Karur is known for its bus body building which contributes 80% of South Indian bus body building. TNPL is the Asia's largest eco-friendly paper mill. Salem is called as steel city and has many sago producing units and mineral wealth. Sivakasi is the leader in printing, fireworks, safety matches production in India. It contributes to 80% of India's total safety

matches production and 90% of India's total fireworks production. Thoothukudi is the gateway of Tamil Nadu. It is a major chemical producer next only to Chennai.

## **Textiles**

- Tamil Nadu is the largest textile hub of India. Tamil Nadu is known as the "Yarn Bowl" of the country accounting for 41% of India's cotton yarn production. The textile industry plays a significant role in the Indian economy by providing direct employment to an estimated 35 million people, and thereby contributing 4% of GDP and 35% of gross export earnings. The textile sector contributes to 14% of the manufacturing sector. From spinning to garment manufacturing, entire textile production chain facilities are in Tamil Nadu. About half of India's total spinning mill capacity is in Tamil Nadu. The western part of Tamil Nadu comprising Coimbatore, Tirupur, Erode, Dindigul and Karur has the majority of spinning mills manufacturing cotton/polyester/blended yarn and silk yarn used by garment units in Tamil Nadu, Maharashtra etc. Yarn is also exported to China, Bangladesh etc. Tirupur known as "Knitting City" is the exporter of garments worth USD 3 Billion. Karur is the major home for textile manufacturing (Curtain cloth, bed linens, kitchen linens, toilet linens, table linens, wall hangings etc.) and export hub in India. Erode is the main cloth market in South India for both retail and wholesale ready-mades.

## **Leather**

- Tamil Nadu accounts for 30 per cent of leather exports and about 70 per cent of leather production in the country. Hundreds of leather and tannery industries are located around Vellore, Dindigul and Erode. Every year the State hosts the India International Leather Fair in Chennai.

## **Electronics**

- Chennai has emerged as EMS Hub of India. Many multi - national companies have chosen Chennai as their South Asian manufacturing hub.

## **Auto motives**

- Chennai nicknamed as “The Detroit of Asia” is home to a large number of auto component industries. Tamil Nadu has 28% share each in automotive and auto components industries, 19% in the trucks segment and 18% each in passenger cars and two wheelers.

### **Cement Industry**

- Tamil Nadu ranks third in cement production in India (First Andhra Pradesh, Second Rajasthan). Among 10 largest cement companies in India as on 2018, Ramco Cement and India Cement find prominent place. And also Tamil Nadu stands second in number of cement plants with 21 units against 35 units in Andhra Pradesh.

### **Fire works**

- The town of Sivakasi is a leader in the areas of printing, fireworks, and safety matches. It was fondly called as “Little Japan” by Jawaharlal Nehru. It contributes to 80% of India’s fireworks production. Sivakasi provides over 60% of India’s total offset printing solutions.

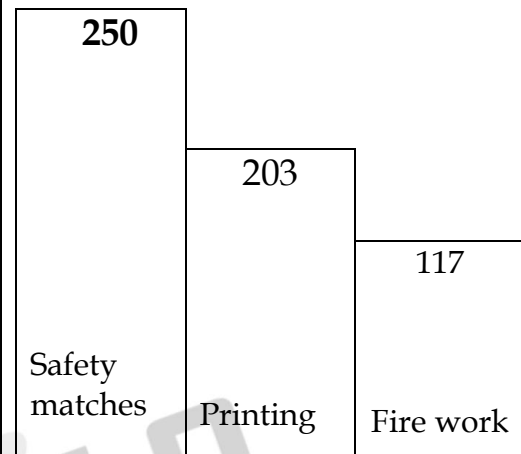
### **Other Industries**

- One of the global electrical equipment public sector companies viz BHEL has manufacturing plants at Tiruchirappalli and Ranipet. The Tamil Nadu State Government owns the Tamil Nadu Newsprint and Papers (TNPL), the world’s biggest bagasse-based paper mill in Karur. Tamil Nadu is a leading producer of cement in India and with manufacturing units located at Ariyalur, Virudhunagar, Coimbatore and Tirunelveli. The region around Salem is rich in mineral ores. The country’s largest steel public sector undertaking, SAIL has a steel plant in Salem.
- Coimbatore is also referred to as “the Pump City” as it supplies two thirds of India’s requirements of motors and pumps. The city is one of the largest exporters of jewellery, wet grinders and auto components and the term “Coimbatore Wet Grinder” has been given a Geographical indication Thoothukudi is known as “Gateway of Tamil Nadu”. Thoothukudi is the major chemical producer in the state. It produces the 70 per cent of the total salt production in the State and 30 per cent in the country.

### Sivakasi-A fireworks manufacturing hub

- Sivakasi is a town in Virudhunagar District of Tamil Nadu
- World renowned for firework Production
- Accounts for USD 50 Million exports of safety Matches, printing and Firework in 2013-14

**Production in 2012 - 13 (USD Million)**



90% India's Fire Work Production	450 Firework factories
0.5 Million direct employment	0.2Million indirect employment
60% of safety match Production	4500 match units

### MSMEs

- The Micro, Small and Medium Enterprises are defined under the MSMED Act 2006. The enterprises are classified as Manufacturing and Service enterprises based on the investment in plant and machinery and equipment (excluding land and building) the classification of Micro, Small and Medium Enterprises is given in Table- 11.11.
- Tamil Nadu accounts of 15.07% Micro, Small and Medium Enterprises (MSMEs) in the country ( the highest among all States) with 6.89 lakhs registered MSMEs. Producing over 8000 varieties of product for a total investment of more than Rs.32,008crore.
- MSMEs produce a wide variety of products in almost all sectors. Te prominent among them are the engineering, electrical, chemicals, plastics, steel paper, matches, textiles, hosiery and garments sector. Around 15.61 lakh entrepreneurs have registered, providing employment opportunities to about 99.7 lakhs persons with total investment of Rs. 1,68,331 crore.

### Energy

- Tamil Nadu tops in power generation among the southern States as seen in following table. Installed capacity of power utilities in States in southern region

**Table 11.11 Energy**

State	Units	Ranks
Tamil Nadu	26,865 MW	I
Karnataka	18,641 MW	II
Andhra Pradesh	17,289 MW	III
Telungana	12,691 MW	IV
Kerala	4,141 MW	V
	<b>79,627 MW</b>	

(Source: Central Electricity Authority, Ministry of Power, Government of India. Retrieved Jan.2017.)

- Tamil Nadu is in the forefront of all other Indian States in installed capacity. Muppandal wind farm is a renewable energy source, supplying the villagers with electricity for work. Wind farms were built in Nagercoil and Tuticorin apart from already existing ones around Coimbatore, Pollachi, Dharapuram and Udumalaipettai. These areas generate about half of India's 2,000 megawatts of wind energy or two percent of the total power output of India.

### **Nuclear Energy**

- The Kalpakkam Nuclear Power Plant and the Koodankulam Nuclear Power Plant are the major nuclear energy plants for the energy grid.

**Table 11.12 Nuclear Energy**

Units	Existing Installed capacity (2018)
Kudankulam	1834 MW (2 x 917)
Kalpakkam	470 MW (2 x 235)

### **Thermal Power**

- In Tamil Nadu the share of thermal power in total energy sources is very high and the thermal power plants are at Athippattu (North Chennai) Ennore, Mettur, Neyveli and Thoothukudi. The generation of power under various sources is given below.

**Table 11.13 Thermal Power**

Source	Million Units	%
Thermal	13304	49.52
Hydel	2203	8.20
Nuclear	986	3.67
Others (Wind Solar)	10372	38.61
<b>Total</b>	<b>26865</b>	<b>100.00</b>

(Source: Central Electricity Authority, Ministry of Power, Government of India.  
Retrieved 15 Jan.2017.)

## Hydel Energy

- There are about 20 hydroelectric units in Tamil Nadu. The prominent units are Hundah, Mettur, Periyar, Maravakandy, Parson Valley etc.

## Solar Energy

- Tamil Nadu tops in solar power generation in India as seen in following table. Southern Tamil Nadu is considered as one of the most suitable regions in the country for developing solar power projects.

**Table 11.14 Solar Energy**

Ranking	States	Total capacity(MW) 2017
1	Tamil Nadu	1590.97
2	Rajasthan	1317.64
3	Gujarat	1159.76
4	Telangana	1073.41
5	Andhra Pradesh	979.65

(Source: Data From MNRE)

## Wind Energy

- Tamil Nadu has the highest installed wind energy capacity in India. Te State has very high quality of of shore wind energy potential of the Tirunelveli coast and southern Toothukudi and Rameswaram coast.

## SERVICES

- Banking, insurance, energy, transport and communication fall under tertiary sector i.e., services.

## Banking

- In Tamil Nadu, Nationalised banks account for 52% with 5,337 branches, Private Commercial Banks 30% (3,060) branches, State Bank of India and its associates 13% (1,364), Regional Rural Banks 5% (537) branches and the remaining 22 foreign bank branches.
- Total deposits of the banks in Tamil Nadu registered an year-on year increase of 14.32% by March 2017 and touched Rs. 6,65,068.59 crores. Total credit of the banks in Tamil Nadu registered a year-on year increase of 13.50% by March 2017 and touched Rs. 6,95,500.31 crores. The share of Priority Sector Advances stands at 45.54% as against the national average of 40%. The percentage of Agricultural advances to total advances as at the end of March 2017 works out to 19.81% as against the national average of 18%. Banks in Tamil Nadu have maintained one of the highest Credit Deposit Ratio of 119.15% in the country whereas this ratio is 77.5% at the national level.

## Education

### a. School Education

- Tamil Nadu is grouped among high Gross Enrolment Ratio (GER) States. It ranks third next only to Kerala (81%) and Himachal Pradesh (74%). The all India average is 43% and the world average is 59%.
- Gross Enrolment Ratio is 118.8% for primary level(class 1-5); 112.3% for upper primary level (class 6-8), 62.7% for secondary level (class 9-10), 49.26% at Higher Secondary level (class 11-12). This has been possible mainly due to the supply of free food, cloth, foot-wear, scholarship, laptop etc.

**Table 11.15 Tamil Nadu's primary education statistics 2016-17**

Number of schools	Primary	35,414
	Middle	9,708
	High and Higher Secondary	12,911

(Source: Tamil Nadu State portal, State interim Budget 2016-17)

### b. Higher Education

- In Gross Enrolment Ratio under higher education (Tertiary level) Tamil Nadu continues to be at the top level well ahead of other states. The GER



is 46.9% in Tamil Nadu which is far higher against national average and all other States This higher GER is thanks to the distribution of free food, cloth, footwear, laptop and scholarship.

Table 11.16 Gross Enrolment Rate %

State	2016-17
Tamil Nadu	46.9
Maharashtra	30.2
Uttar Pradesh	24.9
Odisha	21.0
Bihar	14.4
All India	25.2

(Source: All India Survey on Higher Education (AISHE) released by the Ministry of Human Resource Development- January 2018)

- Tamil Nadu has 59 Universities, 40 Medical colleges, 517 Engineering colleges, 2,260 Arts and Science colleges, 447 Polytechnics and 20 dental colleges. Tamil Nadu produces nearly four lakh engineering and polytechnic students every year, the highest in the country.

### Educational Loans

- As far as educational loans disbursed by Public Sector Banks under priority sector are concerned, 20.8% of the total amount was disbursed in Tamil Nadu between 2013-14 and 2015-16. Andhra Pradesh was second with 11.2% of the total loan amount followed by Maharashtra (10.2%).
- Of the total amount of educational loans disbursed by Private Banks during the same period, Kerala accounted for 37.8% followed by Tamil Nadu with 24.8%. Both Karnataka & Kerala together accounted for more than 60% of the total educational loan amount by Private Banks.

### Health

- Tamil Nadu has a three - tier health infrastructure comprising hospitals, primary health centres, health units, community health centres and sub-centres. As of March 2015, the State had 34 district hospitals, 229 sub-divisional hospitals, 1,254 primary health centres, 7,555 Sub-centres and 313 community health centres.

### Communication

- Maharashtra has the highest number of internet subscribers in the country at 29.47 million, followed by States like Tamil Nadu, Andhra Pradesh and Karnataka. According to government data, India had a total of 342.65 million internet subscribers at the end of March, 2016. Tamil Nadu had 28.01 million subscribers, while its neighbor's Andhra Pradesh and Karnataka had 24.87 million and 22.63 million, respectively.

## **Transport**

- Tamil Nadu has a well-established transportation system that connects all parts of the State. This is partly responsible for the investment in the State. Tamil Nadu is served by an extensive road network in terms of its spread and quality, providing links between urban centres, agricultural market-places and rural habitations in the countryside. However, there is scope for improvement.

### **a. Road**

- There are 28 national highways in the State, covering a total distance of 5,036 km. The State has a total road length of 167,000 km, of which 60,628 km are maintained by Highways Department. It ranks second in India with a share of over 20% in total road projects under operation in the public-private partnership (PPP) model.

### **b. Rail**

- Tamil Nadu has a well-developed rail network as part of Southern Railway, Headquartered at Chennai. The present Southern Railway network extends over a large area of India's Southern Peninsula, covering the States of Tamil Nadu, Kerala, Puducherry, minor portions of Karnataka and Andhra Pradesh. Tamil Nadu has a total railway track length of 6,693 km and there are 690 railway stations in the State. The system connects it with most major cities in India. Main rail junctions in the State include Chennai, Coimbatore, Erode, Madurai, Salem, Tiruchirapalli and Tirunelveli. Chennai has a well-established Suburban Railway network, a Mass Rapid Transport System and is currently developing a Metro system, with its first underground stretch operational since May 2017.

**c. Air**

- Tamil Nadu has four major international airports. Chennai International Airport is currently the third largest airport in India after Mumbai and Delhi. Other international airports in Tamil Nadu include Coimbatore International Airport, Madurai International Airport and Tiruchirapalli International Airport. It also has domestic airports at Tuticorin, Salem, and Madurai, which connect several parts of the country. Increased industrial activity has given rise to an increase in passenger traffic as well as freight movement which has been growing at over 18 per cent per year.

**d. Ports**

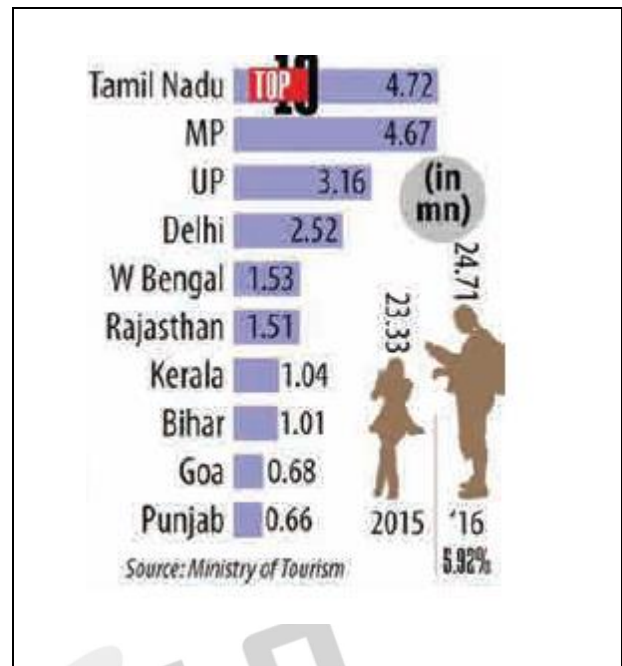
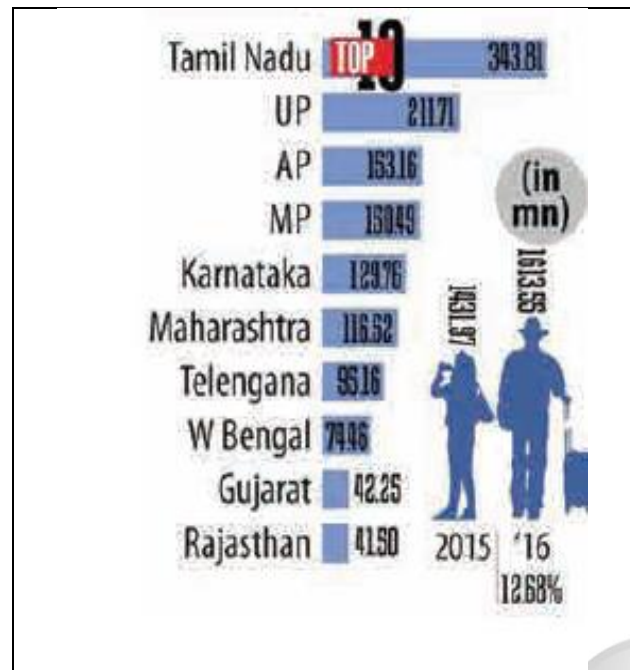
- Tamil Nadu has three major ports; one each at Chennai, Ennore, and Tuticorin, as well as one intermediate port in Nagapattinam, and 23 minor ports. The ports are currently capable of handling over 73 million metric tonnes of cargo annually (24 per cent share of India). All the minor ports are managed by the Tamil Nadu Maritime Board, Chennai Port. This is an artificial harbour and the second principal port in the country for handling containers. It is currently being upgraded to have a dedicated terminal for cars capable of handling 4,00,000 vehicles. Ennore Port was recently converted from an intermediate port to a major port and handles all the coal and ore traffic in Tamil Nadu.

**Tourism**

- Tamil Nadu has since ancient past been a hub for tourism. In recent years, the state has emerged as one of the leading tourist destinations for both domestic and foreign tourists. Tourism in Tamil Nadu is promoted by Tamil Nadu Tourism Development Corporation (TTDC), a Government of Tamil Nadu undertaking. The State currently ranks the highest among Indian States with about 25 crore arrivals (in 2013). The annual growth rate of this industry stood at 16 per cent. Approximately 28 lakh foreign and 11 crore domestic tourists visit the State.

Tourist arrivals in India 2016	
Domestic tourist visits to States	Foreign tourist visits to States /UTs

## /UTs



## Unemployment and Poverty

- National average of unemployment rate stands at 50 and Tamil Nadu ranks 22nd with unemployment rate of 42 per 1000. There are different kinds of unemployment with different economic implications. All those aspects need to be studied to fully understand the employment situation.
- Tamil Nadu is one of India's richest states. Since 1994, the state has seen a steady decline in poverty. Today, Tamil Nadu has lower levels of poverty than most other States in the country. After 2005, Tamil Nadu was among India's fastest growing states, with growth being driven mainly by services.

## Conclusion

- The Tamil Nadu economy which is not rich in natural resources has good record of agricultural growth, industrial progress, infrastructural development and good record of robust growth of service sector especially banking, education, transport and tourism. It occupies top three ranks in health index, education, development of MSMEs. It has a good record of poverty alleviation and employment generation. However, India in general and Tamil Nadu in particular need to work

more to eliminate female foeticide, reduce the population living in slums, sleeping on roadsides, beggars and rag pickers. Development is meaningless as long as the above eyesore continues.

<b>Population Growth in Tamil Nadu: At a Glance (2011 Census)</b>	
Total Population	72138958
Male	36158871
Female	35980087
Crude birth rate (per thousand)	15.7
Crude death rate (per thousand)	7.4
Growth Rate (per thousand)	8.3
Districts with Highest Population	(Chennai, Kancheepuram, Vellore and Thiruvallur)
Districts with Lowest Population	(Perambalur, The Nilgiris, Ariyalur and Theni)
Population Density (per sq km)	555 (2011), 480 (2001)
Maximum Density	Chennai (26903); Kanyakumari (1106)
Minimum Density	The Nilgiris (288); Thiruchirappalli (602)
Sex Ratio (per 1000 males)	995 females (2011) 987 females (2001)
District with Highest Sex Ratio	The Nilgiris (1041 females) Thanjavur (1031 females) Nagapattinam (1025 females)
District with Lowest Sex Ratio	Theni (900 females) Dharmapuri (946 females)
Child Sex Ratio (0-6 age group)	946 female children (2011) 942 female children (2001)
District with Highest Child Sex Ratio	The Nilgiris (985), Kanyakumari (964)
District with Lowest Child Sex Ratio	Cuddalore (896); Ariyalur (897)
Literacy Rate	80.33% (2011) 73.45% (2001)
Male Literacy	86.81% (2011) 82.33% (2001)
Female Literacy	73.86% (2011) 64.55% (2001)

District with Highest Literacy	Kanyakumari (92.14%); Chennai 90.33%
District with Lowest Literacy	Dharmapuri(64.71%) Ariyalur (71.99%)

## Glossary

<b>Per capita Income</b>	- In come per head (GSDP / Population)
<b>GSDP</b>	- Money value of all goods and services produced annually in the State
<b>Neo natal Mortality</b>	- Death of kids soon after delivery
<b>Infant Mortality Rate</b>	-Death of children before completing one year after birth.
<b>Child Mortality Rate</b>	- Death of child before the age of five
<b>C-D Ratio</b>	- Ratio of Bank advances to deposits
<b>Bio-diesel</b>	- Extraction of oil from plants like jatropha
<b>MSMEs</b>	- Micro, Small and Medium Enterprises
<b>Micro Enterprise</b>	- Enterprise with a capital investment, not exceeding 25 lakhs (These many change)
<b>Small Enterprise</b>	- Unit with investment on plant and machinery above 25 lakhs but below 10 cr. (These many change)