

# Geopolitical Tamil Nadu

Courtesy : Sree Chidambaram.I

## Introduction

Tamil Nadu, the southern-most State of India, nestles in the Indian peninsula between the Bay of Bengal in the east, the Indian Ocean in the south and the Western Ghats and the Arabian Sea on the west. In the north and west, the State adjoins Karnataka, Andhra Pradesh and Kerala. Tamil Nadu shows rich variety and diversity in its geography and climate with coastal plains co-existing with tropical rain forests, river valleys and hill stations. The main river is the 760 km long Cauvery, which flows along the entire breadth of Tamil Nadu. Other major rivers are the Palar, Pennar, Vaigai and Tamiraparani.

## History

Tamil Nadu has a very ancient history which goes back some 6000 years. The State represents Dravidian culture in India which preceded Aryan culture in the country by almost a thousand years. Historians have held that the architects of the Indus Valley Civilization of the fourth century BC were Dravidians and that at a time, anterior to the Aryans, they were spread all over India. With the coming of the Aryans into North India, the Dravidians appear to have been pushed into the south, where they remained confined to Tamil Nadu, with the other southern States such as Andhra Pradesh, Karnataka and Kerala forming repositories of Dravidian culture. The Tamil country was not subjugated by any external power over any long period of time or over large areas, and was not subjected to the hegemony of Hindu or Muslim kingdoms of North India. The rise of Muslim power in India in the 14th century AD had its impact on the South, however, by and large the region remained unaffected by the political upheavals in North and Central India. The Tamil area, for the most part, has maintained a certain political integrity, while at the same time has not insulated itself from the rest of South India.

Tamil Nadu was subject to the rule of four great kingdoms: Cholas, Cheras, Pandyas and Pallavas. The Cholas established their supremacy between AD 100 and 200 and continued their dominance over the Cheras in the southwest and the Pandyas in the southeast till the 5th century AD. Karikala Chola, who ruled during this period, is credited with the building of large irrigation tanks, based on harnessing the Cauvery through a system of barrages and tanks. The Pallavas came to the fore in the 6th century AD and their domain extended to a considerable part of present day Tamil Nadu.

The Pandyas, who re-emerged during this period, held sway in the south-eastern part of the State. The Pallava period extended till the 9th century AD and marked a fusion of Aryan elements with Dravidian culture. This period is known for the establishment of a land revenue system and the emergence of an agrarian economy. The Cholas re-emerged in the 9th century AD, defeating the Pallavas, and consolidated their empire over the next four centuries. The Chola period witnessed maritime expeditions to neighbouring Sri Lanka and South East Asian countries and forging of trade and cultural links with these countries. Historians refer to the existence of an elaborate bureaucracy during this period with some autonomy for village level political units.

The decline of the Cholas saw a brief period of Muslim rule till the rise of the Vijayanagar rulers, who ruled the Tamil territories through Telugu warrior chiefs or Nayaks and through local Tamil chieftains. Dominant landed groups emerged and the rights of share cropping peasants—which was a

feature of Chola rule—suffered erosion. With the decline of the Vijayanagar Empire, the Tamil territories were parcelled out among several petty kings such as the Nayaks of Madurai and Thanjavur who declared themselves independent. This was a period of political, economic and social instability which enabled the British to take full advantage. With the arrival of the East India Company at Madras in 1639, a new chapter was opened in the history of South India and very soon, most of South India came under the hegemony of the British.

During the next two centuries, the East India Company gradually extended its influence and obtained possession of the entire area from Cape Comorin to the Northern circars, the Danish station of Tranquebar, the French settlements at Pondicherry and the territories of the five native States<sup>1</sup> all of which together came to be called Madras Presidency with its capital city at Madras. The area of the then Madras Presidency was 141,705 sq. miles.

With India attaining independence in 1947, the Madras Presidency continued in its original form comprising Tamil Nadu, Andhra Pradesh, Karnataka and parts of Kerala. However, the agitation for a separate Andhra State compelled the Government of India to bifurcate the Madras Presidency into Andhra with Telugu speaking areas and Madras with Tamil speaking areas. The old capital, Madras, was retained by the new Madras State. Under the State Reorganization Act of 1956, Madras lost Malabar district and Kasargod taluk, to the newly formed State of Kerala while Madras gained four taluks of Trivandrum district and Shencottah taluk of Quilon district of Kerala. The four taluks gained were constituted as Kanniyakumari district in the new Madras State. The new Mysore (Karnataka) absorbed some parts of the old South Kanara district (excluding Kasargod taluk) and the Kollegal taluk of Coimbatore district in 1960. Four hundred and five sq.miles of Chittoor district of Andhra Pradesh was transferred to Madras in exchange for 326 sq. miles from Chengalpattu and Salem districts. The Madras State thus constituted has today an area of 130,000 km and is the fourth largest State in the country. It was renamed as 'Tamil Nadu' on 14 January 1967. The total number of districts in Tamil Nadu stands at 30. The population of Tamil Nadu as per the 2001 Census is 62.11 million, constituting 6.05 per cent of the total population of India.

### **Tamil Nadu Geography**

Tamil Nadu is bounded by Karnataka and Andhra Pradesh in the north and Kerala in the west. The coastal eastern and southern boundaries are lapped by the waters of the Bay of Bengal and the Indian Ocean respectively. The eastern and western tips of the state are defined by the Point Calimere and Mudumalai wildlife sanctuaries while the northern extreme is Pulicat lake and the southernmost tip is Cape Comorin or Kanniyakumari the Land's End of India.

With an area of 130,058 sqkm and population over 62 million, Tamil Nadu is the 11th largest state in India. The Union Territory of pondicherry is a small enclave in the district of South Arcot.

Traditionally, the land of Tamils has been divided into 5 major physiographic divisions - the Kurinji or mountainous region, the Mullai or forest region, the Palai or arid region, the Marudham or the fertile plains and the Neidhal or coastal region.

The Eastern and Western ghats meet in Tamil nadu and run along its eastern and western borders. All of Tamil Nadu's famous hill stations, i.e Udhagamandalam, Kodaikanal, Kothagiri and Yercaud are situated in this region. The 25km wide Palakkad gap and Shencottah gap are the only breaks into the long chain of hills that border western Tamil Nadu.

Contrasting with the low rocky hills of the Eastern ghats, the hills of the Western ghats have dense forests. This area receives abundant rainfall and the scenic valleys of Cumbum and Pollachi are

dotted with plantations of tea, coffee and spices. However, the upper reaches of the Eastern ghats are not without their share of beauty and Yercaud in the Shevaroy hills is famous for its fruit orchards and banana and coffee plantations.

Tamil Nadu has a wealth of flora and fauna and some of its major wildlife sanctuaries like Mudumalai and Anaimalai (Indira Gandhi W.S) are situated in the hills of the Western ghats which is the habitat of elephants, tigers, bisons and a variety of monkey and deer. Of the 3000 and more plant species found in Tamil Nadu, a majority are found in the mixed deciduous forests of this region. One of the most noteworthy flowers is the Kurinji of Kodaikkanal which blooms once in 12 years. Cinchona from which quinine - a drug for treating malaria - is extracted, and eucalyptus grow abundantly in the Nilgiris. Forests of medicinal herbs are found in Palani hills and Courtallam. Palmyrah trees grow by the thousands in Tirunelveli and its products are used as raw materials for several cottage industries. Rubber is the main plantation crop in Kanniyakumari and the more exotic sandalwood grows, though not in very large numbers, in the Javadhu hills of Vellore district.

The perennial river of the state is the CAUVERI which originates in Coorg in the neighbouring Karnataka. The fertile Coromandel plains are irrigated by the Kaveri and its delta in Thanjavur - Nagapattinam region is known as the granary of Tamil Nadu. The other rivers in the state are the Palar, Pennar, Vaigai and Tamiraparani.

The arid, desert-like land in the state is confined to a small area in Tirunelveli district and is known as the Palai. The coastal Tamil Nadu comprises the Coromandel coast which has its northern half and the Fisheries coast which is the southern half. Mylapore, Poompuhar and Mamallapuram were the famous ancient ports on the Coromandel from where merchant ships sailed to Rome, Greece and the far east. There are mangrove forests at Pichavaram and prominent bird sanctuaries at Pulicat Lake and Vedanthangal, though the latter is not on the coast itself. Once famous for its pearls, the Fisheries coast is a major tourist attraction since it has some of the most important pilgrim centres in India.

### **Art, Architecture and Culture**

The dynasties which ruled ancient Tamil Nadu have left behind a rich heritage of art, architecture and culture. Prominent among them are the Cholas who built the Grand Anicut across the Cauvery river in the 2nd century AD, a work that is even today considered an engineering marvel. Poompuhar, a port of the Chola empire, built over 2000 years ago points to bustling trade links with South East Asian kingdoms. The Pallavas, who ruled between the 6th and 8th century AD with Kancheepuram as their headquarters, gave expression to art and architecture through their magnificent temples and temple carvings. The Pandyas of Madurai and the later Cholas also left behind impressive monuments, particularly temples with intricate Gopuras and carvings. The temples were not only places of worship but also served as centres of learning. Subsequent inroads from the North by the Vijayanagar kings further enriched the architectural scene.

Tamil Nadu also has a rich cultural heritage in other areas. Dance forms such as Bharathanatyam and various forms of music including Carnatic music have flourished here for centuries. Handicrafts include intricately carved designs in wood, stone and metal. The exquisitely carved bronze and Tanjore plates deserve special mention here. Modern day social reformers and freedom fighters such as Subramanya Bharathi, V.V. Subramania Iyer, V.O. Chidambaram Pillai and Periyar E.V. Ramasamy Naicker also left their indelible mark on the cultural fabric of Tamil Nadu.

DakshinaChitra is an exciting cross cultural living museum of art, architecture, lifestyles, crafts and performing arts of South India. It is situated in Chennai. The literally meaning of Dakshina chitra is "a

picture of south". You can explore 17 heritage houses, amble along recreated streetscapes, explore contextual exhibitions, interact with typical village artisans and witness folk performances set in an authentic ambience.

### Population Trends

According to the 2001 Census, the State's population is approximately 62 million as opposed to 55.9 million in 1991. The sex ratio works out to 986 in 2001 as compared to 974 in 1991 and 977 in 1981 (Table 1). The decadal (1991–2001) growth rate is 11.19 per cent. The density of population in Tamil Nadu, a true indicator of population distribution, is 478 persons per sq. km in 2001, as against 429 in 1991 and 372 in 1981.

TABLE 1 Basic demographic indicator

Indicators	1971	1981	1991	1997	2001
Population in millions	41.2	48.2	55.9	60	62.1
Decennial Growth (%)	23.3	17.5	15.4	7.5	11.2
Density of Population per Sq.Km	317	372	429	462	478
Urban population (%)	30.3	33	34.2	36.8	43.9
Sex Ratio	978	977	974	975	986

Source: Registrar General of India, Census Documents 1971, 1981, 1991, 2001 (Provisional)

Tamil Nadu is today the most urbanized State in the country with 42 per cent of its population living in urban areas. Tamil Nadu's slum population was estimated in 1993–4 to be 3.13 million which is 16.5 per cent of the total urban population of the State. More than 30 per cent of Chennai's population lives in slums and 50 per cent of these are in dense slum areas.

The scheduled castes (SCs) constitute a higher percentage of the population in Tamil Nadu (19.18 per cent in 1991 as against 18.3 per cent in 1981) compared to that for the country as a whole (16.3 per cent in 1991 and 15.7 per cent in 1991). However, Tamil Nadu has a much lower percentage of scheduled tribes (STs)—1 per cent in 1991 as against the all-India average of 8 per cent

### Social factors

#### Health

Comparison of some major health indicators of Tamil Nadu with All India figures shows that the State has made impressive strides. Tamil Nadu has shown, over the last two decades, faster reduction in

population growth rate as compared to all other States except Kerala. The annual population growth rate during 1981–91 was 2.14 per cent for All India, while it was 1.43 per cent for Tamil Nadu, second only to Kerala (1.34 per cent). For health indicators such as life expectancy, total fertility rate (TFR) etc. there are often two data sets, at the national and State levels. Both of these have been presented here, when deemed useful, to give comparative figures. Life expectancy at birth indicates the quality of health care in the State. The vital events survey (VES) for the reference year 1997, conducted by the Tamil Nadu Danish International Development Assistance (DANIDA) Health Care There have been doubts raised over the recall methodology adopted by the 55th Round of NSS. There are some who feel that the head count ratios have been underestimated because of this methodology.

Project (TNHCP), revealed that LEB, which was 41.09 years for males in 1959–60, rose to 64.91 years in 1997 and for females from 38.24 years to 68.85 years during the same period. The sample registration system (SRS) estimates for the year 1997–2001 ranked Tamil Nadu's LEB (65.2 for males and 67.6 for females) next only to Kerala, Maharashtra and Punjab. The crude birth rate (CBR) for the State declined from 31.4 in 1971 to 19.3 in 2000 (SRS), and was second only to Kerala (18.2). The crude death rate (CDR) declined from 14.4 in 1971 to 7.9 in 2000 (SRS) and the State ranks eighth in the country in this respect.

The TFR for Tamil Nadu has shown a sharp decline from 3.9 in 1971 to 2.0 in 1997 (SRS). The VES for 1997 also indicates a TFR of 2.0. However the recent National Family Health Survey (NFHS-2) 1998–9 data show Tamil Nadu's TFR to be 2.48 (Figure 1.1), next only to Kerala (2.0). Significantly, NFHS-2 shows an increase in TFR for Kerala also from 1.8 in 1997 (SRS) to 2.0 in 1998–9.

With respect to IMR, the State has made rapid progress. The IMR has been reduced from 113 in 1971 to 48.2 in 1998–9 (Figure 1.2). The NFHS-2 survey shows that the State stands fifth among major States in IMR with Kerala maintaining the lead (16.3) and Maharashtra (43.7) replacing Punjab as the State with the second lowest IMR. However, perinatal mortality decline has not been very significant, from 55.2 in 1971 to 43.4 in 1997 (as per SRS), while the corresponding figures for Kerala and India in 1997 were 17.5 and 43.2, respectively.

## **Literacy and Education**

Tamil Nadu's human development achievements have been largely a result of its strong educational heritage. Even in the early years, when the State was Madras Presidency, education was actively pursued and promoted. The results of this are evident in the post-independence period as well.

While the literacy rate of Tamil Nadu was almost comparable to the all-India position in 1941, the State has inched ahead of all-India in the decades following independence (Figure 5.1). The results of the 2001 Census show that Tamil Nadu has attained third position behind Kerala and Maharashtra among major States, both in terms of overall and female literacy. While the overall literacy rate has gone up from 62.7 per cent in 1991 to 73.47 per cent in 2001, the male literacy rate has increased from 73.75 to 82.33 per cent. What is encouraging is that the female literacy rate has gone up by more than 13 percentage points from 51.33 per cent in 1991 to 64.55 per cent in 2001. The ratio of male literacy to female literacy has come down from 1.4 in 1991 to 1.27 in 2001, revealing the narrowing of gender inequality in the State.

Tamil Nadu is the first State in the country to provide computer education in all government higher secondary and high schools. Over 100,000 students have benefitted from this innovative scheme. The State is also a pioneer in providing multi-skilled training through vocational education to improve the quality of secondary education.

In the field of higher education, self-financing institutions, polytechnics, industrial training institutes and arts and science colleges have been encouraged so that the State's burden in providing higher education is considerably reduced.

Tamil Nadu has 500 engineering colleges and 1150 arts colleges, 2250 schools. Some of the prestigious higher education institutions in Tamil Nadu are the following:

1. Indian Institute of Technology, Chennai
2. Anna University, Chennai
3. Loyola Academy, Chennai
4. RMK and RMD Group of Engineering Colleges, Chennai
5. MSN Engineering College, Chennai
6. VIT Institute of Technology, Vellore
7. Sathyabama University, Chennai.
8. Amrita Deemed University, Coimbatore
9. PSG Institute of Technology, Coimbatore
10. Bharathidasan Institute of Management, Chennai
11. Madras University, Chennai
12. National Institute of Technology, Tiruchi
13. Christian Medical College, Vellore

### Growth

The all-round development of the State over the last five decades can be seen from the increased contribution from the industries (secondary) and services (tertiary) sectors to the real income of the State's economy. Tamil Nadu's performance during the different Plan periods compared to the performance of the country as a whole (at constant prices) shows that the rate of growth of the State's economy has been marginally higher than that of the country during the First and Fourth Plans, Fifth to Seventh Plans and in the first three years of the Ninth Plan, and marginally lower than that of the country during the Second, Third and Eighth Plan periods. Tamil Nadu's NSDP growth rate was 6.3 per cent per annum during the 1990s, ahead of the NSDP growth rate of 5.99 per cent of the 15 major States in the country.

Annual Growth Rate Tamil Nadu and India (in percentage)		
Plan period	Tamil Nadu	India
First	4.45	3.6
Second	2.9	4
Third	1.56	2.2
Fourth	3.4	3.3
Fifth	7	5.2

Sixth	6.01	5.2
Seventh	4.94	5.8
Eight	5.97	6.8
Nine	5.46	5.34

### Per Capita Income

Tamil Nadu's per capita income was below the national average during the 1980s but crossed the all-India average marginally in 1991–2. Ever since the early 1990s this higher per capita income has been maintained.

Tamil Nadu ranks fourth among major States in terms of per capita income. Tamil Nadu's per capita income (at current prices) was Rs 19,889 in 2000–01. Maharashtra, Punjab and Haryana are the three States which have per capita income higher than Tamil Nadu. Among the southern States, Tamil Nadu's per capita income was higher than that of Kerala (Rs 19,463), Karnataka (Rs 18,041) and Andhra Pradesh (Rs 16,373).

### Poverty Levels

The estimates of poverty made by the Union Planning Commission in 1999–2000 show that 21.12 per cent of the State's population lives below the poverty line, this is less than the all-India average of 26.10 per cent. The percentage of population below the poverty line in Tamil Nadu in 1973–4 was 56.51 per cent indicating a decline by 35.39 percentage points during this time period. Moreover, in 1973–4, the population below the poverty line was higher than the all-India average of 54.93 per cent and Tamil Nadu was sixth among major States in terms of below the poverty line population.

Agriculture has been the mainstay of the State economy since independence with more than 65 per cent of the population depending on this sector for a living.

There are strong links between agriculture and economic growth. Agriculture spurs demand for inputs such as fertilizers, pesticides and machinery, and on the supply side it provides raw material for agro-based industries such as cotton textiles, sugar and vegetable oils. However, in the process of development, the share of agriculture in the net State domestic product (NSDP) gradually declines due to higher productivity and production in the non-agricultural sectors. In Tamil Nadu, the contribution of agriculture (inclusive of crop, livestock, fisheries and forestry) to NSDP has been declining over the last few decades.

Tamil Nadu has historically been an agricultural state and leading producer of agricultural products in India. Tamil Nadu agriculture is heavily dependent on the river water and Monsoon rains. Tamil Nadu is also the leading producer of kumbu, corn, rye, ground nuts, oil, seeds and sugar cane in India. At present Tamil Nadu is India's second biggest producer

Whereas agriculture accounted for 53.27 per cent of NSDP in 1950–1, it accounts for only 16.65 per cent in 2001–02. On the other hand, the share of the secondary and tertiary sectors has increased from 13.72 per cent and 33 per cent, respectively in 1950–1 to 34.04 per cent and 49.31 per cent in 2001–02. There was a decline in the primary sector at the national level from 49 per cent to 27.5 per cent during the same period.

The relatively greater decline in the State is to be ascribed to the lack of sustained growth in agriculture. The growth of the agriculture sector in the 1990s was 3.95 per cent as against 5.3 per cent in the 1980s. On the other hand, the annual growth rates in the manufacturing and tertiary sectors improved from 4.52 per cent and 6.72 per cent in the 1980s to 5.35 per cent and 7.12 per cent in the 1990s.

### **Challenges**

There is a need for improving the agricultural growth to meet the challenges like rising food demand, increase in industrial raw material requirements and providing many gains in employment in agriculture through galvanizing potentials of agriculture. Tamil Nadu did well in irrigated agriculture, while rainfed agriculture has not been given adequate attention in terms of infrastructure development, technology and extension delivery system resulting in low agricultural growth and high level of poverty. Coverage of High Yielding Varieties was higher during early phases of green revolution and increased tremendously in the irrigated environment compared to rainfed environment.

There are deficits in supply of certain agriculture commodities like pulses, oilseeds and cotton. Increase in pulses production is marginal and the state has to depend on imports to meet the demand. Cotton production in the state declined at the rate of 2.38 per cent per annum during the last two decades mainly due to decline in area by 2.57 per cent. Productivity growth of cotton is marginal (0.20 per cent) and average productivity of cotton in the state is lesser than the national average particularly due to large scale cultivation under rainfed condition. Major oilseeds such as groundnut and gingely exhibited declining tendency in terms of area and production.

The area under fallow lands has increased over the years due to various reasons. The current fallows are on the increase from 12.02 lakh hectare in 1970s (9.2 per cent) to 15.03 lakh hectare in 2002-03 (11.6 per cent) ; area sown more than once tended to decrease from 13.21 lakh hectare in 1970s to 6.01 lakh hectare in 2002-03. The gross cropped area which reached the maximum in 1970s with 74.56 lakh hectare sharply fell to 51.91 lakh hectare in 2002-03.

### **Constraints**

Marginalization of land holding, high variability in rainfall distribution, inadequate capital formation by the public sector, declining public investment on agriculture, declining net area sown, over - exploitation of ground water and inadequate storage and post harvest facilities affect the agricultural performance in the state.

The state supports seven per cent of the country's population but it has only four per cent of the land area and three per cent water resources of the country. Of the total gross cropped area, only 50 percent of the area is irrigated in Tamil Nadu. Similarly, of the total area under food grains, only 60 percent of the area is irrigated. Nearly, 52 per cent of area is under dry farming conditions in Tamil Nadu apart from stable cropping intensity which is hovering around 120 per cent over the period. In spite of the above constraints, the State has made a tremendous performance in the production of crops, which is attributed mainly to the productivity increase.

## Strategies

The strategies of the Government to achieve the goal in Agricultural sector are;

- Adoption of alternative cropping strategies derived for agro-climatic zone based cropping pattern evolved by TNAU to raise remunerative crops and to ensure maximum utilization of available land and water aiming to increase cropping intensity.

- As a part of Alternative Cropping Strategy, cultivation of Jatropha, Sugar beet and Sweet sorghum are aiming at, as announced by the Hon'ble Chief Minister on Contract farming basis through approved Industrial entrepreneurs for the production of Ethanol and Bio diesel. These crops are highly remunerative and can be grown in moderately fertile lands with comparatively less water.

- Taking up cultivation in vast tract of waste lands through Massive Comprehensive Waste Land Development programme as announced by the Hon'ble Chief Minister.

- Much emphasis on dry land development integrating Watershed Development and Waste land Development programme

- Adoption of dry land development technologies and crop production technologies for dry land crops to step up the productivity.

- Identification and promotion of relevant technologies to bridge the gap between the potential yield and actual yield of major crops.

- Speedy transfer of technologies to the farming community through ICT (Information and Communication Technology).

- Conduct of Seminars, Workshops and Intensive Pre-season campaigns involving line Departments to enthuse and assist farmers to harvest good crops and to get good profit.

- Efforts to provide technologies and advice on Agriculture, Horticulture soil and moisture conservation, Animal Husbandry etc., under one roof.

- Introduction of Contract farming system for Maize, Oilseeds, Pulses and Cotton in potential districts with assured buy back arrangements at pre-announced price or prevailing market price if it is high. The main objective of the programme is to ensure expansion of area under these crops and to motivate farmers especially SF / MF farmers to get assured remunerative price for the produce.

- Ensure availability of quality seeds on enhanced SRR through Public Private Partnership.

- Massive adoption of integrated nutrient management and integrated pest management technology with emphasis on eco-friendly Agriculture Development.

- Much focus on restoration of soil through organic farming approach and to promote vermi composting, compost making through plueorotus, green manuring etc.

- Efforts to provide site specific macro and micro nutrient recommendations on the basis of soil test village-wise fertility Index.

- Promotion of micro irrigation to maximize water use efficiency.

- Empowerment of women by revitalizing TANWA groups.

## **Manufacturing Industry**

Tamil Nadu is one of the major industrialised states in India; it contributes over 30% to India's automotive and auto component sector. Tamil Nadu is one of the favourable destinations for IT/ITeS industry. During 2005-06, IT/ITeS exports from Tamil Nadu was worth Rs13,960 crore, growing by 29% against the previous year. The textile industry of Tamil Nadu plays a pivotal role in the country's textile industry. Textiles sector is one of Tamil Nadu's high growth sectors, which generates over 4-5m employment. It is expected that state's textile industry will be worth of US\$40-50 billion by 2015, which would generate additional 5m jobs in the state. The state accounts for 16 per cent of the total number of factories in the country. It also has a well developed manufacturing sector with a high value addition in the factories.

### **Key Industries :**

In the post liberalisation era, the state has emerged as one of the front-runners in attracting investment proposals. Tamil Nadu is in the top quartile in the total number of enterprises in the country with a consistent growth rate of 19 per cent.

### **Automobile sector:**

With about 110 key players in the world's automobile industry located in Chennai, Tamil Nadu holds 35 per cent of auto components installed capacity in India. Exports from Tamil Nadu are about \$ 240 million, which constitute 27.5 per cent of the total exports of the country. The auto component industry of the state has witnessed an investment of about \$ 800 million in recent years.

Many heavy engineering and manufacturing-based companies are centered in and around the suburbs of Chennai (nicknamed, "The Detroit of Asia"). Chennai boasts the presence of global vehicle manufacturing giants like Ford, Renault, Nissan, Caterpillar, Hyundai, BMW and Mitsubishi as well as domestic heavyweights like MRF, TI cycles of India, Ashok Leyland, Royal Enfield, Mahindra & Mahindra, TAFE Tractors and TVS. Everything from automobiles, railway coaches, battle-tanks, tractors, motorbikes and heavy vehicles are manufactured in Tamil Nadu.

### **Cotton textiles, Hosiery and Readymade garments sector**

Tamil Nadu is one of the world's leading cotton textile centres. The state contributes more than 25 per cent to the country's exports of cotton yarn and fabrics. It continues to maintain its leading position in the industry and number of multinationals such as Wal-Mart, Tommy Hilfiger, GAP, Diesel etc. have made the state a global sourcing hub for readymade garments owing to the comparatively low production costs and high quality of output. With the phase out of the Agreement on Textile and Clothing (ATC), the state is well positioned to significantly increase its textile exports.

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. The city of Tirupur (Coimbatore district), in Tamil Nadu is the largest garment exporter in India and sometimes referred to as Textile valley of India. In 2004, the export turnover from the town was more than Rs.50,000 million (\$1,100 million). Some 7,000 garment units in the town provides employment opportunity to 1 million people.

56% of India's total knitwear exports come from Tirupur. The Export Import Policy of 2002-2007 acknowledges Tirupur for its contribution to the export efforts. Next to Tirupur, the town of Karur generates around \$300 million a year in foreign exchange through home textile exports such as bed linens, kitchen linens, toilet linens, table linens and wall hangings. Madurai and Kanchipuram is very famous for handloom sarees. This handloom sarees are on sale all over India. Tamil Nadu, Karnataka, and Kerala are the main states for wholesale sarees. This sarees manufacturing raw materials are purchased from Salem and Coimbatore.

### **Cement sector**

Tamil Nadu is leading producer of Cement in India, it is the home for leading cement brands in the country such as Chettinad Cements(Karur), [pic]

Dalmia Cements (Ariyalur), Ramco cements (Madras Cement Ltd), etc., There is a ACC cement factory located in Madukarai outskirts of Coimbatore.

### **Engineering sector**

The engineering industry in the state consists of a network of nearly 3,000 units and employs a skilled workforce of more than 250,000, making high quality inputs such as castings and forgings and a wide variety of ancillary products. Efforts are being made to boost further development of this industry by enabling formation of industry clusters.

With modernisation of agriculture and rise in standard of living of the middle class, the demand for pumps is growing at a fast pace. Coimbatore Pumps and Motors manufacturing cluster with over 1,000 units are meeting almost 40 per cent of the country's requirements of pump sets. Coimbatore pumps are being exported for over 25 years. The industry has demonstrated tremendous flexibility by incorporating design changes to suit the site conditions. It has maintained quality, reliability and performance.

### **Leather processing sector**

The state has 70 per cent of the total installed capacity of hide and skin. It has a dominant presence in the leather and leather-based industries. The State Government is geared to provide all possible capital subsidies and infrastructure support by setting up industrial estates and common effluent treatment plants.

### **Fireworks and Safety matches sector**

The town of Sivakasi is a leader in the areas of printing, fireworks, and safety matches. It was fondly called as Kuttu Japan or "little Japan" by Jawaharlal Nehru. It contributes to 80% of India's production of safety matches as well as 90% of India's total fireworks production. Sivakasi provides over 60% of India's total offset printing solutions and ranks as one of the highest taxpaying towns in India. Sivakasi also is a 100% employed town, putting it in the company of very few towns in India.

### **Chemicals and Petrochemicals sector**

The chemicals industry has grown rapidly in India and overseas. The state traditionally has a strong base in the chemicals industry. Manali, situated on the outskirts of Chennai has emerged as a major petrochemicals complex.

### **Agro-based sector**

Owing to the ideal climatic conditions a strong agrobased food industry has emerged in the state. The state is a world leader in agricultural production with a high yield per hectare of sugarcane, rice and groundnut. The Madurai-Dindigul belt in Tamil Nadu has favourable climatic conditions for the cultivation of a variety of fruits and vegetables. The floriculture industry is likely to get a thrust with the area around Coimbatore, Dharmapuri and the Nilgiris being earmarked as locations ideal for the cultivation of flowers such as rose and chrysanthemum. Of these, Coimbatore has been identified as an intensive floriculture zone.

### **Tourism Industry**

In 2003, 40 different tourism projects with a total investment of US\$ 423.4 million have been sanctioned and are in progress. In terms of investment in the tourism sector, the state ranks among the top five in the country. Tamil Nadu, is the most prominent state of India.

The capital, Chennai is a cosmopolitan city and the capital of the state. Tamil Nadu is a bastion of Hinduism, whose past endures into the present. Temples with towering spires called gopurams are a common feature of this state, seldom seen anywhere else in the country. Temples in Tamil Nadu were the fulcrum of society and even today art forms that have their origin in religious worship continue to colour daily life. Notable among these are splendid bronzes of deities, painting on glass and Bharatnatyam. Kanchipuram, also called Kanjeevaram, is famous throughout the country as the center where lustrous silk sarees are woven. Likewise Thanjavur is an important center for bronze figure casting. Mahabalipuram has a vast wealth of sculptures. In contrast to the temple heritage Pondicherry is known for long a French colony. Yet another facet of this surprisingly diverse state is two hill stations Ootacamund and Kodaikanal. Both are little patches of England, being much loved by the expatriate population of the Raj. Both places provide delightful relaxation during an extended tour of the south, having a wide range of hotel accommodation. The cuisine of Tamil Nadu, more or less totally vegetarian, has become enormously popular all over the country

### **Animal Husbandry, Fishing & Forestry sector:**

#### **Animal Husbandry:**

The total livestock population of the State which stood at 259.39 lakhs in 1997 had increased by 1.01 per cent when compared to the previous 1994 census. However, the total livestock population in the State as per the provisional figures of the Livestock Census 2004 was at 249.42 lakhs, recording a marginal decline of 3.85 per cent over that of 1997 census. The bovine (cattle and buffalo) population in the State had witnessed a steady decline between 1982 and 2004. While sheep population showed signs of variation, the goat population had steadily increased during the reference period. The poultry population at 865.91 lakhs in 2004 had recorded an increase of 137.16 per cent over the previous

census. The State ranks second in poultry population in the country and accounts for 17.7 per cent of the total poultry population in India

#### **Egg Production and Per capita Availability:**

Tamil Nadu is one of the leading States in egg production and export. The eco-friendly backyard poultry rearing is practised along with commercial poultry farming in the State. The egg production in the State which improved from 3784 million numbers in 2003-04 to 6395 million numbers in 2004-05 marginally declined to 6223 million numbers in 2005-06. Consequently the per capita availability of egg per annum has declined from 102 numbers in 2004-05 to 97 numbers in 2005-06. A central-state shared poultry development programme (80 : 20) is being implemented in the Poultry Farm at Kattupakkam with a total outlay of Rs.74.69 lakhs and at District Livestock Farm, Hosur with a total outlay of Rs.85.00 lakhs.

#### **Fish Production:**

Overall fish production during 2005-06 was estimated at 5.46 lakh tonnes, which represented an increase of 38.2 per cent over the estimated production of 3.95 lakh tonnes in 2004-05. More than 70 per cent of total production is accounted for by marine fish. As a result of urbanisation and growth in population and consumption, the demand for seafood has increased. The State has introduced Fisheries Development Mission to enhance production of fish and to sustain livelihood and to generate employment for coastal and rural poor. To meet the growing demand, the main focus is on the production of both marine and inland fish through innovative and scientific methods in reservoirs, tanks and ponds.

#### **Electronics sector**

Electronics manufacturing is a growing industry in Tamil Nadu. Companies like Nokia, Flextronics, Motorola, Sony-Ericsson, Foxconn, Samsung, Cisco, and Dell have chosen Chennai as their South Asian manufacturing hub. Products manufactured include circuit boards and cellular phone handsets. Ericsson also has a Research and Development facility in Chennai. Big EPC companies have set up their Engineering centres which include Saipem I Project Services Ltd, Technip, Foster Wheeler, Mott Meadonald, Petrofac and Technimont, Austrian company "Austrian Energy and Environment" have also a design office here besides local giant ECC {Larsen & Toubro}. Sanmina-SCI is the latest company to invest in Tamil Nadu to create a state of the art manufacturing facility. Nokia Siemens Networks has decided to build a manufacturing plant for wireless network equipment in Tamil Nadu.

#### **Mineral-based sector**

The mineral wealth of the state comprises granite, limestone and lignite. Neyveli Lignite Corporation has the country's biggest opencast mechanised lignite mines, mining 24 MTPA of lignite and generating 2,490 MW of power. The state's limestone reserves stands at 1,473 million tonnes. There are 12 major cement plants functioning in the state. The major players are Tamil Nadu Cements (TANCEM), Dalmia Cements, Madras Cements, India Cements, Grasim Industries, Associated Cement Companies and Chettinad Cements.

## Export and Import

Chennai and Tuticorin are the major ports in Tamil Nadu. Nearly 13% of Indian exports and imports are done by Tamil Nadu Ports.

### Service Sector :

Tamil Nadu witnessed a substantial growth in IT, ITES, BPO and IT hardware manufacturing sectors. The Information Technology (IT) is the fastest growing segments of Indian industry both in terms of production and exports. In FY2005-06, the IT industry has grown by 31.4% and reached US\$29.6 billion from US\$22.5 billion in 2004-05. The domestic market revenues increased to US\$6 billion, a growth of 25% over the previous year, and the exports grew by 33% to reach US\$23.6 billion. The Indian IT-IT Enabled Services (ITES) industry has also shown a good growth rate of 33% in exports in FY06 to reach US\$23.6 billion compared to the same in the previous year.. The IT software and services increased to US\$13.3 billion, a growth of 33% over the previous year; the ITES-BPO segment grew by 37% as the revenues reached US\$6.2 billion, the engineering services and product exports reached US\$4 billion in FY06 from US\$3.14 billion in FY05.

Chennai is the second leading software exporter in India, after Bangalore. India's largest IT park is housed at Chennai, jointly made by Ascendas India Ltd, a Singapore-based company engaged in providing business space solutions, and Tamil Nadu Industrial Development Corporation (TIDCO)

From Tamil Nadu, the software exports have grown by 32% and touched Rs14.12 billion in FY06. The IT sector in Tamil Nadu has immense depth and range. Its depth and range can be gauged from the wide-based portfolio of its export basket. The portfolio consists of application software and system software, which has the highest share with around 70%; ITES and BPO with a share of 13%; communication software, VLSI Design and web solutions with a share of 8%; IT consultancy with a percentage contribution of 6% and product development with a percentage contribution of 3%. In Tamil Nadu, the number of software units is also growing rapidly. So far, 1,437 software companies have established their facilities in the state. The increasing number of players, both national and international, has chosen to establish their business establishments and manufacturing facilities in Tamil Nadu, shows a firm indicator that Tamil Nadu has emerged a preferred destination for domestic as well as Foreign Direct Investment (FDI).

As computed from the available data for the IT sector in Tamil Nadu, net sales for the year ending March 2006 has increased by 28% compared to the same in the last year. And net sales for the quarter ending June 2006 has also shown an increase by 17% compared to the same period in the previous year.

### Business Process Outsourcing Services:

Chennai is now emerging as the most preferred destination for high-end BPOs in financial services, healthcare and other back-office services for multinational companies. Companies like Congruent Solutions (back-end services for California-based retirement funds), Secova eServices (HR service provider for US clients), Lason India (data processing for healthcare and financial services clients in the US) and OfficeTiger (outsourcing of creative works) have set up centres here to take advantage of Chennai's "quality talent pool and infrastructure". Stanchart, eServe (Citibank), ABN AMRO and World Bank have also chosen the city for their back-office functions. In the recent surveys, Chennai has been rated as the most attractive city for Offshoring Services.

**Knowledge Process Outsourcing:**

Chennai is also the preferred destination for companies outsourcing their high-end knowledge intensive operations. Testimony to this is the presence of major market research companies such as Frost & Sullivan and equity research companies such as Irvna in Chennai. This is the next high growth area that Chennai is witnessing.

A technological and industrial park (designated as a Special Economic Zone) was originally planned to be set up in Nanguneri, in the Tirunelveli district with an investment of Rs. 6,000 crores (US\$ 1.6 billion). However, recently developmental plans point to a re-orientation of this project to Tuticorin.

**Infrastructure****Transportation**

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. Though the present transportation system is substantial, it needs to be developed further to keep pace with the rapid increase in use. Tamil Nadu is served by an extensive road network in terms of its spread and quality, providing links between urban centers, agricultural market-places and rural habitations in the countryside.

**Roads & Rail**

There are 24 national highways in the state, covering a total distance of 2,002 km. The state is also a terminus for the Golden Quadrilateral project that is scheduled to complete in 2008. The state has a total road length of 167,000 km, of which 60,628 km are maintained by Highways Department. This is nearly 2.5 times higher than the density of all-India road network. It is currently working on upgrading its road network, though the pace of work is considered slow.

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, Pondicherry, a major portion of Karnataka and a small portion of 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, Madurai and Tiruchirapalli. Chennai has a well-established Suburban Railway network and is in the process of developing a metro.

As a permanent solution to the traffic congestion problem of Chennai city, this Government has decided to implement the Metro Rail Project at a cost of about Rs.9,000 crores. The project, comprising of two rail corridors, will have a total length of 49 Kms and will commence operations within 5 years. The detailed project report for this project has been prepared by Delhi Metro Rail Corporation and submitted to Government recently. A provision of Rs.50 crores is made in this Budget to undertake the preliminary works for this special scheme.

**Developments in Road & Rail Infrastructure**

Tamil Nadu Road Development Company Ltd (TNRDC) is a 50: 50 joint venture between TIDCO and Infrastructure Leasing & Financial Services Ltd (IL&FS). Tamil Nadu was the first State in the country to setup a genuine public - private partnership venture for infrastructure development in the year 1998. TNRDC was set up with the objective to catalyze private sector participation and investment in road sector and mandated to initiate commercialization of operations and maintenance of road assets.

With the objective of converting all single lane State Highways into double lane roads, road widening and improvement works in 1,518 kms of State Highways have been undertaken at a cost of Rs.410 crores during 2006-2007. Remaining 3,052 kms of State Highways will be converted into double lane roads in the coming years. A total provision of Rs.2,698 crores has been made in the Budget 2007-2008, as the capital outlay on development of roads and bridges. In addition, a sum of Rs.829 crores has been allocated for proper maintenance of roads.

During 2001-2006, only 9 Railway Over Bridges (ROBs) were completed. In contrast, in 2006-2007 alone, this Government has accorded administrative sanction for 25 ROBs at an estimated cost of Rs.410 crores. In 2007-2008, another 39 ROB works will be sanctioned and taken up for execution at a cost of Rs.500 crores

To enhance quality of urban infrastructure in Tamil Nadu, the World Bank has approved a loan of \$300 million to implement various schemes in the state,

### **Air Links**

Tamil Nadu has a major international airport, Chennai International Airport, that is connected with 19 countries with more than 169 direct flights every week. This is currently the third largest airport in India after Mumbai and Delhi and has a passenger growth of 18%. It also has domestic airports at Coimbatore, Trichy, Tuticorin and Madurai make several parts of the state easily accessible. 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.

### **Development in Air ports**

In recent times, there has been a rapid growth in air transport in our State. Therefore, the State Government has been considering the options of expansion of the existing Chennai Airport or a new Airport near Chennai. In addition, the expansion of Coimbatore, Madurai, Trichy and Tuticorin Airports is very essential to handle the increasing air traffic in these airports.

New Airport, the greenfield airport project would come up on 4,820.66 acres of land and expansion of the existing airport would be done on 1,069.99 acres in and around Meenambakkam, at an overall estimated cost of Rs2,000 crore

### **Ports**

Tamil Nadu has three major ports at Chennai, Ennore and Tuticorin, as well as one intermediate port, Nagapattinam, and seven minor ports, Rameswaram, Kanyakumari, Cuddalore, Colachel, Karaikal, Pamban and Valinokkan of which 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 is an artificial harbour situated on the Coromandel Coast in South-East India and it is 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 400,000 vehicles by 2009 to be used by Hyundai, Ford and Nissan Renault.

Ennore Port was recently converted from an intermediate port to a major port and handles all the coal and ore traffic in Tamil Nadu. The volume of cargo in the ports grew by 13 per cent over 2005.

The Tuticorin Port is expanding its facilities at the cost of US \$1.6 billion. The Sethusamudram Shipping Canal Project will transform the Tuticorin port into a transshipment hub similar to those in

Singapore and Colombo. The ports are in need of improvement and some of them have container terminals privatized.

The Container Terminal in the Port of Chennai happens to be the oldest container terminal in the country. The terminal was formally taken over by P&O Ports and operations commenced on 30th November 2001. At the time CCT took over operations of the terminal, Chennai port was handling 350,000 TEUs per annum.

South India Port Market share percentage – 2006

### **Power Infrastructure:**

The Tamil Nadu Energy Development Agency (TEDA) is a Tamil Nadu government promoting renewable energy sources and energy conservation activities. The agency has largely been responsible for instigating the tremendous growth of Tamil Nadu in the development of wind power. Tamil Nadu is in the forefront of all other Indian states in installed capacity. The once-impoverished village of Muppandal benefited from the building of the nearby Muppandal wind farm, a renewable energy source, supplying the villagers with electricity for work.

Wind farms are being built along the 19 km road between Muppandal and Kanyakumari, a town lying between the Bay of Bengal, the Arabian Sea and the Indian Ocean. These areas generate about half of India's 2,000 megawatts of wind energy or two percent of the total power output of India.

Tamil Nadu at this time is the only state to have a formal Bio-Diesel Policy to use jatropha crops as a source of biofuel and to distribute wasteland to the poor farmers for the planting of these crops.

### **Tamil Nadu Electricity Board :**

Over 50 years (1957-2007) Tamil Nadu Electricity Board (TNEB) has powered the State of Tamil Nadu to become one of the most progressive states in our Country in socio-economical aspects as well as in all the fronts (viz.,) Agriculture, Industrial Production and Service Sectors.

TNEB is one of the best performing Power utilities

- Revenue collection efficiency is at 99%
- Transmission and Distribution loss is low at 18%.
- Maximum Windmill Capacity – 3456 MW (4th in the world ; 1st in India )
- Incidence of power theft is very low

TNEB's growth over 50 years (1957 to 2007)

- Consumer base from 4.30 lakhs to 185.82 lakhs.
- Installed capacity from 256 MW to 10,098 MW
- Number of sub-stations from 89 to 1148.
- Number of Electrified Towns, Villages and Hamlets from 1813 to 63177.

- Number of Agriculture Pump sets from 33,440 to 18,01,972.
- Per capita consumption from 21 units to 960 units.
- Peak demand from 172 MW to 8803 MW.
- Gross Energy generation from 1053 Million Units to 63,038 Million Units.

#### TNEB's Many FIRST's at National Level

##### First in Developing

- Wind Power generation in the Country
- The High Head Hydro-Electric Scheme- Pykara Hydro Station.
- Cascading type Hydro-Electric Station in the hilly area- Kundah System.
- Cascading Low Head Barrage Power Houses across Cauvery River.
- Pumped Storage Hydro-electric Scheme to meet the Peak Power Demand - Kadamparai PSHES (400 MW).
- Power Line Carrier Communication (PLCC) in grid operation.
- Wireless Communication System to attend Fuse off Call – Chennai Metro.
- First in completing All Village Electrification.
- First in bringing out valuable Power Engineers Hand Book.

#### Financial infrastructure

Chennai is the financial capital of south India. The financial services sector offers tremendous opportunities. All national and international banks have offices in the state and are geared up to boost industrial investment. Tamil Nadu is in the top quartile in the country in terms of bank credit flow. The per capita bank credit flow in the state is 54 per cent higher than the national average.

#### Communications

The state offers state-of-the-art telecommunications infrastructure for high-speed large volume data transfer, video conferencing etc. The infrastructure includes 2,138 telephone exchanges with an installed capacity of 4.6 million lines. Tamil Nadu is part of the global telecom network. It has 1,603 telecom exchange with over 1.4 million lines with integrated communication facilities linking it to all parts of the world. The entry of international giants like US Wheat and Skycell into the market should give the much needed boost to this sector and provide basic and value added services in the state. Cellular and radio-paging services have been recently introduced in major cities like Chennai, Coimbatore etc. in the state. Given below are some important telecom services provided in the state, especially in Chennai (Madras) city.

#### NATURAL RESOURCES

##### Mineral Resources:

Tamil Nadu has rich mineral resources and also contributes a higher percentage to the nation.

Mineral	Reserves (in tonnes)	National Share
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%

### Heavy Mineral Sands

The coastal districts of Kanyakumari, Tirunelveli, Thoothukkudi, Ramanathapuram and Nagapattinam are endowed with high quality heavy mineral placers such as Garnet, Ilmenite, Rutile, Leucoxene, Monazite and Zircon. They have wide use in pigment, refractory, ceramic industries and Nuclear Industry.

The Estimated reserves are about 23 million tonnes of Garnet, 98 million tonnes of Ilmenite, 5 million tonnes of Rutile, 2 million tonnes of Monazite and 8 million tonnes of Zircon. The major players are the Indian Rare Earths (IRE), a Government of India Undertaking, V.V. Minerals, Beach Mineral Company, Transworld Garnet and Indian Ocean Garnet Sand. Tata Iron and Steel Company (TISCO) have entered into MoU with Government of Tamil Nadu in June 2002 for establishing a Titanium-di-Oxide (TiO<sub>2</sub>) plant with a project outlay of Rs. 2,000 crores. They have commenced their prospecting operations.

### Lignite

Tamil Nadu is endowed with the biggest deposits of Lignite in India . The total reserves are about 30275 million tonnes. Neyveli Lignite Corporation (NLC) has led the development of large industrial complex around Neyveli in Cuddalore district with Thermal power plants, Fertilizer, Brequetting and Carbonisation plants. Further investigations in and around Mannargudi, Jayamkondam and Srimushnam areas have revealed the existence of Lignite as in Neyveli.

### Magnesite

One of the world's best Magnesite deposit occur in the State. The major deposits occur in Salem , Namakkal, Coimbatore and Erode districts. The Magnesite reserves in Tamil Nadu are about 73 million tonnes. Magnesite is used mainly for refractory purposes and in chemical industries. The major Salem district based players in this field are Tamil Nadu Magnesite (TANMAG), a State Government organisation, Burn Standard, a Government of India organisation and Dalmia Magnesite.

### Graphite

Tamil Nadu is having deposits of export worthy flaky Graphites. It is distributed in sizable quantity in Sivagangai, Ramanathapuram, Madurai and Tirunelveli districts. The total reserves of Graphite are about 2 million tonnes. This Graphite on beneficiation can yield a concentrate of more than

“80% of fixed carbon”. This is suitable for manufacture of Graphite crucibles which are used in the smelters of the steel industry. Tamil Nadu Graphites Limited (TANGRAPH) is the State Government Undertaking, involved in the mining of Graphite.

### **Quartz, Feldspar**

The State is endowed with high grade deposits. Quartz and Feldspar are exported to several parts of the world. Their deposits occur in Tiruchirappalli, Salem , Coimbatore , Madurai Tirunelveli, Erode and Dindigul districts. The reserves of Quartz and Feldspar are about 38 and 7 million tonnes respectively. Quartz is used in electronics and optical industries, while Feldspar is used in Ceramic industries.

### **Limestone**

Tamil Nadu ranks seventh in the country in terms of production of Limestone. Lime stone based Cement and Chemical industries have been flourishing for the past three decades as cement grade limestone deposits are abundant in the State. They occur in the districts of Perambalur, Tirunelveli, Thoothukkudi, Virudhunagar, Salem , Karur, Namakkal, Dindigul, Coimbatore and Madurai. The total limestone reserves are about 1,473 million tonnes. There are 12 major cement plants functioning in the State. The major players are Tamil Nadu Cements (TANCEM), Dalmia Cements, Madras Cements, India Cements, Grasim Industries, Associated Cement Companies and Chettinad Cements.

### **Granite**

Tamil Nadu is endowed with vast resources of Granite of different colours and shades. The total reserves of granite are about 710 million cubic metres. Granites are used in building facading, flooring, decorative & ornamental uses and in Monuments. Kunnam Black of Tindivanam, Paradiso of Dharmapuri, Jubrana of Pudukkottai, Kashmir White of Madurai are popular varieties in the international market. Black Granite occurs in the districts of Kancheepuram, Vellore, Villupuram, Dharmapuri, Salem and Erode. Other coloured Granites occur in Dharmapuri, Pudukkottai, Madurai, Salem and Namakkal districts. The major players are the Tamil Nadu Minerals (TAMIN), a Government of Tamil Nadu Enterprise, P.R.P. Granites, Gem Granites, Pallava Granites, Rani Granites and Enterprising Enterprises.

### **Iron Ore**

The State possess good reserves of iron ore of Magnetite variety in parts of Salem, Namakkal and Tiruvannamalai districts. The total reserves of Iron ore deposits are about 530 million tonnes, which offer good scope for commercial exploitation.

### **Bauxite**

Bauxite occur in the Kodaikanal, Palani, Yercaud and Kolli Hill ranges in the State. The reserves are about 26 million tonnes. Madras Aluminium Company (MALCO) a company of Sterilite Group is based at Mettur manufacturing Alumina

### **Oil and Gas**

Oil and Natural Gas Corporation (ONGC) is operating in both off-shore and in-shore in Tamil Nadu. Finds of Oil & Gas have been made in the Nagapattinam and Ramanathapuram basins. Off-shore exploration of oil has commenced recently. Coal bed Methane and Underground Coal Gasification exploitation are new areas under study.

## Industrial promotion by government of Tamil Nadu

### TANSIDCO:

Tamil Nadu Small Industries Development Corporation Limited (TANSIDCO), an undertaking of Government of Tamil Nadu, functions with the specific objective of playing catalytic role in the promotion and development of Small Scale Industries and hastening the industrial dispersal throughout Tamil Nadu. Development of industrial estates with infrastructure facilities and provision of work sheds & developed plots. Provides various schemes for the development,

- Raw Materials Supply Scheme
- Marketing Assistance Scheme
- Export Assistance Scheme
- Guidance to Entrepreneurs

State Industries Promotion Corporation of Tamil Nadu

State Industries Promotion Corporation of Tamil Nadu (SIPCOT) Limited, a fully government owned premier institution, established in the year 1972, has been a catalyst in development of small, medium and large scale industries in Tamil Nadu.

Bargur	Perundurai
Cheyyar	Pudukottai
Cuddalore	Ranipet
Gangaikondan	Siruseri
Gummidipoondi	Sriperumbudur
Irungattukottai	Madurai
Nilakkotai	Thoothukudi
Oragadam	

SIPCOT's role in assisting the industrialisation of Tamil Nadu is not merely quantitative but qualitative too. Instead of accelerating the pace of industrial growth in already crowded areas, SIPCOT, as a nodal agency, ensures that dispersal of financial incentives results in spurt of industrial growth in backward and hitherto under-developed areas. To ensure a good impact with the available limited resources, SIPCOT has created Industrial Complexes and Parks, strategically located in seventeen places, which occupy a place of pride in the states industrial map.

### SEZ and FTZs

Tamil Nadu Industrial Development Corporation Ltd has taken the lead to set up a Special Economic Zone (SEZ) at Nanguneri in Tirunelveli district for export production. Three agro-export zones are being set up in the state to boost exports. Madras Export Processing Zone (MEPZ) is one of the seven export processing zones set up by the Government of India. The state had approximately 15 per cent of the 100 per cent Export Oriented Units (EOUs) present in the country in 2003. To provide an impetus to

growth in the IT/ITES, biotech and industrial sectors, the state has created industrial complexes and parks. There are 26 industrial parks in the state, five of which cater to biotech. IT parks such as TIDEL Park in Chennai have proved to be highly successful providing office space to a number of international software giants. Automobile giants such as Ford and Hyundai have established operations at the Irungattukottai industrial park. A number of private entities such as Mahindras have developed industrial parks. The Mahindra Industrial Township provides facilities that are at par with the best in the world.

### **Concessions / Incentives available for industries**

#### **Special subsidy for mega projects**

An industry set up anywhere in Tamil Nadu having an investment of Rs.50 crores and above and below Rs. 100 crores is eligible for a Capital subsidy of Rs. 25 lakhs. An industry set up anywhere in Tamil Nadu with an investment of Rs. 100 crores and above and below Rs. 200 crores is eligible for a subsidy of Rs. 50 lakhs. An industry set up anywhere in Tamil Nadu having an investment of Rs. 200 crores and above is eligible for a Subsidy of Rs. 100 lakhs.

#### **Special concessions for super mega projects**

1. They will be eligible for Sales Tax deferral / waiver for 14 years. The Company can exercise its option either to avail deferral /waiver.

2. The limit of only one revision of the Eligibility Certificate as stipulated in Government Letter Ms. No. 1414, Industries (MIG-2) Department dated 14-12-1990, will not be applicable to Super Mega Projects. They are permitted a maximum of Five number of revisions of the Eligibility Certificate. The Eligibility Certificate indicates the investment made in fixed assets upto the date of its issue and represents the Eligibility Limit for availing Sales Tax Deferral / Waiver at any point of time. Once the "Investment Limit" and "Time Limit" for making the investment as specified for 'Super Mega Project' are reached, the Company will be eligible for the concessions.

3. These companies can continue to avail sales tax deferral / waiver upto the specified period of 14 years, even if the quantum of Sales Tax Deferral / Waiver availed reaches the limit of 100% of the value of installments in fixed assets the Super Mega Project before 14 years.

4. If the quantum of Sales Tax Deferral / Waiver availed by these companies does not reach the limit of 100% of the investment in fixed assets for the Super Mega Projects by the end of the 14th year, they can continue to avail Sales Tax Deferral / Waiver for a further period not exceeding 7 years or till the limit of 100% of the value of the investment in fixed assets for the Super Mega Project is reached, whichever is earlier.

5. The deferred sales tax will be repayable in 5 equal annual instalments as follows: Sales Tax deferred in Year 1 will be repayable in 5 equal annual instalments from Year 15 to Year 19 ; Sales Tax deferred in Year 2 will be repayable in 5 equal annual instalments from Year 16 to Year 20 and so on. The deferred amount repayable in any particular year will be paid in 4 equal quarterly instalments before the last day of each quarter. Existing Industries taking up expansion / diversification, at their existing plant location / sites or at new sites, for which investment in fixed assets exceeds Rs.1500 crores (excluding the investment already made) within a time frame of 5 years (relaxable upto 7 years in special cases), will also be eligible for the concessions referred to in sub-paras (i) to (v) in para 2 above, provided they satisfy the additional turnover norms for expansion / diversification.

### **Investments in Tamil Nadu:**

The investments of FDI and domestic players contributed a huge rise to the economy of the state with investment in different sectors, considered as the growing sectors of the economy.

Estimate of investment in Tamil Nadu (US\$ million) (2004)

Investment Strengths

Business-savvy state government; responsive local administration; good railways, ports and telecom network; adequate road connectivity; availability of low cost labour through out the state.

### **R&D, Software development and BPO hub**

The emergence of Chennai as an IT hub and the availability of a quality workforce have enabled the city in particular and the state in general to emerge as a centre for R&D in the country. The presence of a large number of engineering institutions, including IIT Chennai and Anna University have further augmented the state's claim as a prominent centre for R&D activity. Companies such as Temenos (world leader in banking software) have invested to the tune of US\$ 15 million in R&D facilities in the state. Kone, the Finnish elevator giant is now sourcing all its software development from Chennai. Airbee Wireless, a US based software company, has invested US\$ 1 million to set up an R&D centre in Chennai. Software majors such as Cognizant, TCS and Infosys have set up software development centres in Chennai. BPO outfits for a number of multinationals such as ABN AMRO, Standard Chartered and World Bank now operate from Chennai. The city also has the largest medical transcription facility in Asia.

### **Investment overseas by Tamil Nadu based companies**

Sundaram Fasteners, the first ISO 9000 certified subsidiary of the TVS Group has invested US\$ 5 million approximately, and plans to invest up to US\$ 12.5 million. Sundaram Fasteners is the first company in the Indian engineering industry to set up a manufacturing unit in China. The initial capacity of the plant is 6,000 tonnes and the company aims to generate 25 per cent of the export revenues from this plant. The company also plans to buy the UK based forging company Dana Spicer. Another group company, the two-wheeler manufacturer, TVS Motors, is planning to set up an unit in Indonesia. strategy to gradually shift the export base from South Korea to India to capitalise on lower shipping costs to Europe and Latin America and reduce delivery cycle times.

### **Key Players to Economy in Tamil Nadu**

#### **Bharat Heavy Electricals Ltd (BHEL)**

Bharat Heavy Electricals Ltd is one of the largest engineering and manufacturing enterprises in the country and is ranked among the leading power manufacturers in the world. BHEL has 14 manufacturing plants and a number of service centres spread across the country and overseas. BHEL offers a wide spectrum of products and services for various sectors such as power, transmission, industry, transportation, oil & gas, telecommunications, non-conventional energy systems etc. One of the foremost manufacturing facilities of BHEL is the Tiruchirappalli (also known as Trichy/Tiruchi) Complex. It comprises a high-pressure boiler plant, seamless steel tube plant and boiler auxiliaries plant.

**Caltex**

Caltex commenced operations in the country in 1936 through a joint venture between Chevron Corporation and Texaco Inc. The company's manufacturing and refining operations are through its LPG bottling plants at Chennai and Madurai, its import terminal with refrigerated link at Tuticorin and a 51 per cent stake in Caltex Spic India Ltd. Caltex Gas India Pvt Ltd has a turnover of US\$ 43.5 million with investment of US\$ 100 million approximately, and has an employee strength of 270.

**Caterpillar India Pvt Ltd (CIPL)**

Caterpillar Inc., USA is a global manufacturer of construction and mining equipment, diesel & natural gas engines and industrial gas turbines, with 105 plants, spread across 21 countries with a turnover of US\$ 20.15 billion. Caterpillar India Pvt Ltd is a wholly owned subsidiary of Caterpillar Inc., formed after the acquisition of the Earthmoving Equipment Division of Hindustan Motors in 2001, for an estimated US\$ 71 million. The company manufactures construction and mining equipment. It has its manufacturing facility in Thiruvally, 50 km from Chennai.

**ABN AMRO**

The bank set up its BPO division, the Global Support Centre (GSC), in Chennai in 2002. At present, GSC employs 275 individuals, who handle ABN AMRO's trade and cash management transactions and is planning to double the headcount to 500. The bank's BPO operations have been able to achieve growth in cash lockbox (700 clients) and international netting (10 clients). The Dutch-based ABN AMRO Bank proposes to invest US\$ 1 billion in India through selective acquisitions.

**Amalgamations Group**

The Amalgamations Group is one of the country's largest light engineering conglomerates with 34 plants, 12,500 employees and revenue of US\$ 475 million. The group comprises 43 companies in manufacturing, trading & distribution and services & plantations. The group is known for its well-equipped plants and world-class technologies. The group has a major presence in diesel engines, agricultural tractors, auto components, batteries, cutting tools and paints. The subsidiaries include TAFE, Higginbothams Pvt Ltd, India Pistons Ltd, Amco Batteries Ltd, among others.

**Ashok Leyland**

Ashok Leyland, a company under the Hinduja flagship, has a prominent presence in India's commercial vehicle industry with a reputation for reliability and ruggedness. The innovations made by the company have gone on to become industry norms. It is the first automobile company in the country to win the ISO 9002 certification in 1993. At 70 million passengers a day, Ashok Leyland buses carry more people than the entire Indian rail network. The sales turnover of Ashok Leyland stood at US\$ 811.1 million in 2003-04.

**Madras Rubber Factory:**

MRF, is a major manufacturing company located in Chennai, India. MRF is mainly involved in making vehicle tyres. It is India's largest tyre manufacturing company, and among the dozen largest worldwide; it exports to more than 75 countries. Established in 1946 by K. M. Mammen Mappillai, the company has grown to become a INR 30 billion enterprise. It is also involved in a range of other activities via subsidiaries. Funskool India, a joint venture between Hasbro and MRF, is a major toy manufacturing company in the country. MRF Pretreads offers world class precured tyre retreading service, and MRF Musclex is involved in making conveyor belts. It is presently under the leadership of Vinoo Mammen, son of the late K.M. Mammen Mappillai.

**Sterlite Industries Ltd**

Sterlite Industries (India) Ltd (SIIL), is a leading producer of copper in India. Sterlite, a part of Vedanta Resources, a London listed metals and mining major with Aluminium, Copper and Zinc operations in India and Australia, continues to seek improvements in its business, having set benchmarks to LME grade A standards in Copper products manufacturing. It has a turnover of Rs12,351 crores

**Southern Petrochemical Industries Corporation Ltd**

Southern Petrochemical Industries Corporation Ltd (SPIC), a company with interests in fertilizers, pharmaceuticals, engineering services, industrial enzymes, and agri biotech, founded in 1975, it has been providing products and services that feed nourish and protect agriculture and rural ecosystem. The sales of the year 2006 crossed Rs 6.2 billion.

**EI DuPont India (EIDI)**

EI DuPont India is a subsidiary of EI DuPont de Nemours and Company, USA. It is engaged in formulation and trading of crop protection products, engineering polymers, specialty fibres, specialty chemicals and polymers. The company started its operations in 1994 with an investment of US\$ 80 million at Madurai.

**Electronic Data Systems (EDS)**

Electronic Data Systems was formed as a 100 per cent subsidiary of EDS Corporation in 1996. With a revenue of US\$ 21.8 billion, EDS ranked seventy-ninth among the Fortune 500 companies in 2003. EDS has established its head office at Chennai and has three facilities in the state. It started its software development operations in 'Tidel Park', an IT park developed by the State Government and is one of the largest in the country. The company plans to expand its BPO operations to Chennai.

**Ford Motor Company India**

Ford Motor Company India was established with an investment of US\$ 351.1 million under single window policy at Maraimalai Nagar, near Chennai in 1995. With a total workforce of 900, the company is currently manufacturing three models with a number of variants and is one of the key players in the Indian automotive industry. Ford Endeavour captured over 40 per cent of the emerging SUV market within six months of its launch. The company plans to export vehicles from the Chennai plant to various destinations, owing to the incentives offered by the State Government. The Ford Ikon is India's largest exported car in the mid-size car segment.

**Hyundai Motor India Ltd**

Hyundai Motor India Limited (HMIL) is a wholly owned subsidiary of Hyundai Motor Company, South Korea and is the second largest and the fastest growing car manufacturer in India. HMIL presently markets 20 variants of passenger cars in six segments. Hyundai Motor India, continuing its tradition of being the fastest growing passenger car manufacturer, registered total sales of 299,513 vehicles in calendar year (CY) 2006, an increase of 18.5 percent over CY 2005. In the domestic market it clocked a growth of 19.1 percent a compared to 2005, with 186,174 units, while overseas sales grew by 17.4 percent, with exports of 113,339 units.

HMIL's fully integrated state-of-the-art manufacturing plant near Chennai boasts some of the most advanced production, quality and testing capabilities in the country. HMIL is setting up its second plant, which will produce an additional 300,000 units per annum, raising HMIL's total production capacity to 600,000 units per annum by end of 2007.

### **Chennai Petroleum Corporation Ltd (CPCL)**

Chennai Petroleum Corporation Ltd, widely known as Madras Refineries Ltd (MRL), is one of the largest and most integrated refineries in south India producing fuel products, lubricants and additives. The company's principal activity is to operate refineries at Manali and Cauvery Basin. It has an employee strength of over 1,650 and recorded a total turnover of US\$ 2,055 million in 2003-04 as against US\$ 1,782 million in the previous year, registering an increase of 10 per cent approximately. CPCL was honoured with the Green Tech Environment Excellence Award in 2002-03 for Environment Management at the Manali refinery.

### **Cognizant Technology Solutions India Pvt Ltd**

Cognizant Technology Solutions India Pvt Ltd, a subsidiary of Cognizant Technology Solutions Corporation, is a leader in software development, integration and maintenance services that links e-business with core information systems for companies worldwide. The company started its operations in India at Chennai in 1994. With a workforce of over 2,700, Cognizant operates under a high quality onsite/offshore model that enables better, faster and more cost effective development and deployment of large-scale systems across a wide range of transaction intensive business needs. The company holds SEI CMM Level 5, ISO 9001, P-CMM Level 5 certification for its performance and quality.

### **Computer Associates (CA)**

Computer Associates is one of the leading providers of IT management solutions and services. CA in India is involved in providing software products and services with 6 offices in all the major cities since its inception in 1997. The company recorded a total turnover of US\$ 64 million approximately, in 2003-04. The company set up its Global Technical Support Centre at Chennai in 2000, which is involved in providing technical support its global clientele. The centre currently operates with an employee strength of over 200 skilled professionals.

### **Lakshmi Machine Works (LMW)**

Lakshmi Machine Works, established in 1962, is a leading manufacturer of textile machinery. LMW has 60 per cent market share in the domestic textile spinning machinery industry. It has diversified into CNC Machine Tools and is a brand leader in manufacturing customised products. LMW Foundry manufactures precision castings for industries, both domestic and global. The group's presence has grown over the years, with a market presence not only in developing countries but also in Europe. It has won the Top Export Award in textile machine exports for the past seven years.

### **Madura Coats Ltd (MCL)**

Madura Coats Ltd (MCL), a subsidiary of Coats Viyella Plc, UK is a market leader in sewing and embroidery thread with 50 per cent market share in the organised sector. MCL supplies its products to clients such as Clairborne, Lee, Levis, Gap, Nike, Adidas, Tommy Hilfiger, among others. The company has an employee strength of 13,700. It operates through three business units: Coats India, Madura Textiles and Intrad. MCL is involved in sourcing textile products from handloom and smallscale sectors of India for export markets.

### **Matsushita Electric**

Matsushita Electric is Japan's leading consumer electronic company with brands such as Panasonic and National. The company has two of its production plants in Chennai, Indo Matsushita Carbon Company Ltd which manufactures carbon rod for dry battery and Indo Matsushita Appliances

Company Ltd (IMACO) which manufactures products such as rice cooker and mixer grinder. Both plants obtained ISO 14001 certification in 1998. The company has invested US\$ 12 million approximately, under single window policy of the Government to expand its operations.

### **Muruguppa Group**

Muruguppa is a diversified business group with interests in plantations, chemicals, financial services and abrasives. The group comprises 29 Strategic Business Units (SBUs) and is spread across 11 states in the country. It has a focused interest in the agriculture sector with business specifically in fertilisers, pesticides and sugar. Some of the subsidiaries include Carborundum Universal Ltd, Cholamandalam Investment & Finance Co Ltd, Coromandel Fertilisers Ltd, EID Parry (India) Ltd, Godavari Fertilisers & Chemicals Ltd, Parry Agro Industries Ltd and Tube Investment of India Ltd. The group is a pioneer in the Indian bicycle industry and in developing neem-based applications. The company is also a leader in ceramic sanitary products.

### **Neyveli Lignite Corporation (NLC)**

Neyveli Lignite Corporation, a public sector enterprise, was established in 1956. The company is involved in the production of lignite, urea and the generation of power. It has three opencast mines and three pithead thermal power generating stations. NLC serves as an important source of energy for state electricity boards in the southern states. Power generation accounts for 90 per cent of the company's revenues.

### **Orchid Chemicals and Pharmaceuticals Ltd**

Orchid Chemicals and Pharmaceuticals Ltd specialises in the manufacture of bulk cephalosporin antibiotics. The company is the largest producer in the country and has also established itself as a leader in its production in the global market. The company has a bulk drug facility at Alathur, which has a manufacturing capacity of over 500 tonnes of oral and sterile cephalosporins. It has dedicated plants for most of its products. It is setting up a US\$ 10.3 million formulations facility at Irungattukottai. The company recorded a turnover of US\$ 147.3 million as compared to US\$ 111.8 million in the previous year.

### **Sanmar Group**

The Sanmar Group, with its corporate headquarters at Chennai, has set the benchmark for global partnerships in chlorochemicals, speciality chemicals, engineering and life insurance. The group also has a presence in shipping and software. It has significant holdings across its businesses and is managed by over 600 highly qualified managers. The group entered into its first international joint venture in the 1960s with B F Goodrich, USA, forming Chemicals and Plastics India Ltd. At present, its turnover stands at US\$ 206.5 million approximately, with 25 businesses and manufacturing units each spread across ten locations in the country.

### **Scope International**

Scope International, Chennai is a wholly owned subsidiary of Standard Chartered Bank, UK operating in shared services centres. Despite being a relatively late entrant in the BPO business, it has emerged as one of the top five back offices in the country for international companies. The company has adopted the Six Sigma quality methodology in the organisation to create a highly effective metrics driven performance culture. Scope has grown to over 3,000 employees in a short span of one year.

### **TVS Group**

The TV Sundaram Iyengar Group (TVS Group), established in 1911, has a turnover of over US\$ 1 billion and is the largest manufacturer of automotive components in the country with a workforce of over 5,000. Some of the major subsidiaries include TVS Motors, Brakes India, Lucas TVS Ltd, Sundaram Fasteners and Wheels India. The group produces auto-electricals, diesel fuel injection systems, braking systems, automotive wheels, axle fasteners, powder metal components, radiator caps, two wheelers and computer peripherals. It has the largest distribution network for automotive products in the country. The group has over 29 companies under its umbrella and holds diverse business interests. The subsidiaries, TVS Motors, Sundaram-Clayton Ltd (Brakes Division) and Sundaram Brake Linings Ltd have bagged the Deming Award for their performances.

### **Premier Instruments & Controls Ltd (Pricol)**

Premier Instruments & Controls Ltd was established in 1974 at Coimbatore and commenced manufacturing operations in 1975 in the precision engineering field of automotive instruments. At present, it is a leader with 53 per cent share in the automotive instruments market. In 1997, exports accounted for 12 per cent of the company's turnover with exports to USA, Canada, Mexico, South America, Europe, Turkey, Egypt, the Middle East, Asia, Australia and New Zealand. Pricol is certified ISO 9001 since 1993 and QS 9000 since 2001. It has initiated Total Quality Management (TQM), Total Productive Manufacturing (TPM), Supply Chain Management (SCM), Enterprise Resource Planning (SAP R3 ERP) and Collaborative Product Commerce (CPC –Windchill).

### **Saint-Gobain Glass India**

Saint-Gobain Glass India is a subsidiary of Compagnie de Saint-Gobain, France and is the second largest producer of laminated and toughened glass. With an initial investment of US\$ 108.4 million, the company started operations at Sriperumbadur, near Chennai, in 2000. The company has a capacity of 650 tonnes per day of clear, tinted and reflective glass. It also has the second largest market share in the country. The company was certified ISO 9001 in 2000 for its Quality System and ISO 14001 in 1996 for its Environmental Management System. It produces the widest range of products, number of which are manufactured for the first time in India. The company began exports within 55 days of commencement of production and almost half the production was being exported by 2000. It plans to export 30 per cent of its total production, shipping more than 2,500 containers per annum through the Chennai port.

### **Visteon**

Visteon Corporation, USA, a Fortune 500 company, is one of the largest automotive suppliers in the world. It started its operations with two projects on a 50 acre facility at Maraimalai Nagar, near Chennai, in 1999. The Chennai operations comprise Visteon Automotive Systems India Pvt Ltd (VASI), manufacturing climate control systems, instrument clusters and a range of automotive plastics and Visteon Powertrain Control Systems India Pvt Ltd (VPCSI), an export oriented unit, manufacturing starter motors and alternators. With a total investment of over US\$ 120 million under single window policy of the Government, it currently has a workforce of over 700.

### **World Bank**

The World Bank commenced its BPO operations at Chennai in 2001 with an initial workforce of 80. At present, its employee strength stands at 180 and aims to expand its operations from basic processing to value-added work. The size of the commercial bonds portfolio is estimated at US\$ 100 billion approximately. World Bank plans to outsource IT work worth US\$ 10 million to its Chennai centre through its Indian partners, Satyam Computers, HCL Technologies and MegaSoft.

**Xansa**

Xansa is an international business process and IT services company creating and delivering process and technology solutions. The company's services include business and technology consulting, IT implementation, IT outsourcing and BPO. Xansa has recently commenced its BPO operations at SIPCOT in Chennai. The Chennai campus spread over 27 acres, has the potential to house up to 6,000 employees. The company made an initial investment of over US\$ 47 million under single window policy of the Government.

**SWOT Analysis:****Strength:**

The State has the traditional cultural aspect and economy. It is good in its infrastructure and has the proper law and order regulation.

- The Government initiative in all fields
- Natural resources
- Self sufficient in the needs
- High money transaction
- Taxation benefits for small scale and export industries
- FDI – Growth zone
- Major contributor to Indian Economy.

Above all, Tamil Nadu is India's most advanced technological society with high literacy rate, the world-class institutions, larger middle age group and human resource with an excellent quality of life.

**Weakness:**

As it is always known for water scarcity, it is a major problem concerned to the state and lack of proper utilization of the reservoirs.

- Adapting the policies of Government
- Lack of network connectivity to rural areas
- Far from major domestic markets of North India
- Waste management system and recycling
- Lack of entertainment and recreation facility
- Lack of administration in the Tourism Industry
- Improper steps in controlling the poverty level

**Opportunities:**

- The greatest opportunity is the export market of the state with the huge number SEZ coming up with billions of investment from FDI.
- The completion of sethusamudram project would show a very different scale of scope in the domestic and the global market.

**Threats:**

- Agricultural developments and production are getting reduced.
- Pollution level in the city of Chennai is becoming very high with the large number of two wheelers.
- As International money transactions are high, there are increasing illegal activities in the society.
- Environmental problems including deforestation, ecosystems and water bodies are a concern to the future.
- Competition from neighbouring states like Andhra Pradesh, Karnataka, Maha Rasta in particularly in IT and ITeS sector

**State Policy**

The state policy aims to facilitate the creation of foreign and local ventures through investor friendly and transparent decision-making processes, harmonious industry relations and attractive incentive packages. The state is keen to consolidate its existing manufacturing strength and tap the business opportunities emerging in the IT/ITES and biotech sectors.

The objectives of the policy framework are:

- To achieve a growth rate of 8 per cent during the Tenth Plan (2002-07)
- To encourage new manufacturing capacity based on improved competitiveness, hereby promoting foreign direct investment towards the manufacturing sector
- To consolidate the existing industrial base and promote their growth
- To increase focus on infrastructure construction by establishing strategic public-private partnerships

**Infrastructure Policy**

The state has sought private participation in the infrastructure sector. An Infrastructure Fund' has been set up in order to facilitate public-private partnerships in this sector. The fund has been endowed with an initial corpus of US\$ 4.1 million and will finance a number of infrastructure development initiatives.

**Investment Climate:**

Tamil Nadu has been able to attract a significant portion of the total FDI inflow in the country. The state recorded US\$ 281 million of FDI in 2002, 8.3 per cent of the total FDI in the country. The state

has taken a number of measures to enhance its image as a favourable destination for investment. Various steps have been taken to ease entry of investors in the state. Some of the steps taken are:

- Tailor made packages for investment over US\$ 62 million in fixed assets
- Exemption on entry and sales tax on imports of manufacturing units
- Capital subsidies and exemption in Electricity Tax to companies investing in fixed assets. Subsidies increased to 150 per cent for new industrial units located in government industrial parks
- Incentives for patent registration through a one-time reimbursement for the process
- Infrastructure subsidy, particularly to attract investment in water treatment

The Government of Tamil Nadu has established single window system to accord all pre-project clearances at the state level. The investor is merely required to file an application to a 'guidance' unit that subsequently secures state approvals from various agencies. The single window system is two-tiered with:

- State Level Investment Promotion Board (SIPB) to monitor and expedite all mega projects exceeding investment of US\$ 20.5 million
- Project Approvals Authority (PAA) to monitor the projects with investment less than US\$ 20.5 million

### **E-Governance**

A 'Special Working Group' (SWG) on e-Governance, under Tamil Nadu Information Technology Council (TNITC) has been set up to streamline government functioning. Transparency is to be sought by linking government databases to public domains. Legislation has been introduced to make interoperability between governments mandatory.

Towards uninterrupted power supply

The state has one of the lowest power tariffs for industrial and domestic use. Investment in the power sector has been one of the highest among all states. The state is targeting a 30 per cent enhancement in its capacity by 2007. One of the few states to articulate a policy for non-renewable energy generation

### **IT Policy**

The Government of Tamil Nadu is keen to tap the opportunities in IT/ITES. Tamil Nadu is one of the first states in the country to bring out an ITES and Biotech Policy.

A number of measures have been undertaken to attract investment in these areas:

- 'Destination of Choice Fund' to highlight the advantages of investing in these sectors
- Relaxation of the Floor Space Index regulation for IT parks
- 50 per cent exemption on stamp duty and the registration fee for purchase of land/building
- A scheme of cash per job created for ITES companies

### **Biotech Policy**

Biotechnology is also an emerging sector in the state. The Government has envisioned the creation of Biotechnology Enterprise Zones (Bio-Valleys similar to Silicon Valley). The state proposes to forge alliances between industry and centres of research to enhance and consolidate existing knowledge. It is setting up an 'Emerging Technology Fund', which would target biotech companies within and outside the park.

### **Tamil Nadu in Global Front:**

Chennai Trade Centre, a jewel for the new generation trade and business

Tamil Nadu has been fast emerging as one of the progressive state in the industrial map of India. Chennai, the capital city has seen a dramatic rise in international business operations and Trade Promotion. Recently, the BT-Gallup Survey shows Chennai as the 2nd best destination in India for Business Entrepreneurs.

To meet the ever-growing needs of the international trade and business, the TAMIL NADU TRADE PROMOTION ORGANISATION has been set up. It's a joint venture of India Trade Promotion Organisation, Govt. of India and Tamil Nadu Industrial Development Corporation (TIDCO), Govt. of Tamil Nadu.

The Chennai Trade Centre is set up at a prime location in the Chennai metro at Nandambakkam, over 25 acres of land with four modules of 4,400 sq. metres each of exhibition halls and support services to be built in a phased manner. The Trade Centre is architecturally and technically designed to be a "state-of-the-art" Exhibition Complex. The air-conditioned halls have no pillars or columns, are thus eminently suitable for multi-purpose use of organising exhibitions, conferences, conventions and conducting other trade, commerce and industry-related events.

### **Tamil Nadu's economic growth - Harvard Institute for International Development**

With worldwide revenues from e-commerce activities put at a staggering US dollars 3.2 trillion, the Tamil Nadu IT industry, 'by intelligently leveraging its inherent strengths, can secure a decent share of the lucrative Internet software market and eventually emerge as an e-commerce leader'. Adverting to the 80 million-strong Tamil-speaking population worldwide, such a large market provides local IT firms here (in Tamil Nadu) the major advantage of economies of scale.

Harvard study has predicted that Tamil Nadu is well poised to emerge as the top IT State in India as well as a gateway to SE Asia.

### **Tamil Nadu India's silent power house**

India's silent power-house, rated as one of the most attractive destinations for foreign direct investment (FDI) in the country. Role of the government had put added responsibility on the States to ensure facilitating economic environment to quicken the pace of implementation of projects since all factor market were either in the State List or in the Concurrent List. One immediate effect of reforms was that the States had got back the major responsibility of industrial development.

Since 1995, Tamil Nadu had gone from producing no cars to being the production base of three top ranking international automobile producers and also becoming one of the leading contenders in the

field of information technology and software development in the country, on the verge of becoming a regional gateway to Asia in the field of information technology and be counted among the top ranking manufactured goods exporters in India with export earnings exceeding US \$ 10 billion per annum by the year 2006.

### **Tamil Nadu..... Global Player**

Tamil Nadu is considered as a developed state in India. The state achieved inclusive growth and balanced economy. Tamil Nadu's performance par with other states and better than the national performance all sectors. Tamil nadu is creating industrial friendly atmosphere to attract investors. In past three there is a substantial growth in Tamil Nadu's economy and it is performing well in manufacturing and service sectors. Tamil Nadu is utilliing its strengths and developing new strategies to attract the investors. Tamil Nadu is facing severe competition from neighbouring states like Karnataka and Andhra Pradesh.

Development of any state is depend on it social and economic growth. If we observe the social factors like literacy rate, Law and order and Health its performance is very good. These factors play vital role to create a healthy atmosphere for investments.

The social factors are clearly showing that the state is performing in these sectors. To achieve this growth Tamil Nadu has took proper actions in early 1970. The literacy rate in 1971 is just above 30% but now it is literacy rate is more than 72%. The state poverty rate is almost 21% which is lesser than 5 percentage points to the average India's poverty rate. The state economy can be predicted by the per capita value. Tamil Nadu is ranking second in per capita income with an average annual income of Rs 23358.

Tamil Nadu's performance in manufacturing sector is exceptionally good. The state account for 16% of total no of factories in the country. The state contribution to the national GDP in the year 2005-06 is 199550.45crores, registering a growth of 8.5%.

This growth helped Tamil Nadu attract the Multinational companies to Chennai. In last five years it attracted many global companies. Hyundai invested 900 million US \$ in automobile sector, Ford Motors started its operation in Chennai with \$ 380 million, US based Heavy industrial and mining equipment company Caterpillar invested US\$ 71 million, UK based ports infrastructure company P&O ports invested US\$ 190 million are started its operations from this state. These companies are not just invested millions of dollars just because of Tamil Nadu's infrastructure of states industry policies. Tamil Nadu is attracting IT and ITeS companies and strengthen its position in global software market. The soft ware MNC's like Dell and electronic industries like Nokia , Motorola , Sony Ericsson also started its operations from Tamil Nadu.

These companies are expecting best resources in terms of human resources, geographic location and more over availability of suppliers. Tamil Nadu early decisions in develop in industry sector helped the state to attract these companies.

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