# **GEOGRAPHY OF TAMILNADU**

### **UNIT-IV**

# INDUSTRIES - COTTON TEXTILES-CEMENT-SUGAR-CHEMICAL-PAPER INDUSTRY AND AUTOMOBILES

#### **COTTON TEXTILES**

As per the latest government data, Minister of **Textiles** disclosed that there are 1399 operational, non-small scale **industry** (Non-SSI) **textile** mills in the country. **Tamil Nadu** topped the list with 752 mills followed by Maharashtra (135), and Andhra Pradesh (112 mills).

The **Tamil Nadu Handloom Weavers' Cooperative Society**, popularly known as **Co-optex**, is a cooperative of traditional handloom weavers of the Indian state of Tamil Nadu. This is under the control of Department of Handlooms, Handicrafts, Textiles and Khadi (Tamil Nadu) of Government of Tamil Nadu. The organisation owns a number of shopping outlets in Tamil Nadu. To-Optex also has an international arm, Co-optex International which exports its products to Germany, France, Netherlands, Belgium, Spain, Switzerland, Canada, Greece, Hong Kong, U.K. South Africa and the U.A.E.

**G. Kuppuswamy Naidu** was one of the earliest Indian entrepreneurs. He established Lakshmi Mills Company, a major textile yarn and cloth manufacturer, in 1910 in Coimbatore, India.

The company has three composite textile units in <u>Coimbatore</u>, <u>Palladam</u> and <u>Kovilpatti</u>. The promoters of the mill were also instrumental in starting various textile machinery companies notably LMW and medical and educational institutions. The unit in <u>Coimbatore</u> in Papanaickenpalayam is also a well-known landmark.

The Indian motorsport legend <u>Sundaram Karivardhan</u> was the grandson of the company's founder and one time managing director. The group companies also promote various sports notably Hockey, Motorsports and Horse racing

The handloom industry is one of the most ancient cottage industries in Salem district of Tamil Nadu, India. [1][2][3] Salem was one of the primary handloom centers of south India. [4] Sari, dhoti and angavasthram are made out of silk yarn and cotton yarn. [5] In the recent past, home furnishing items are also woven, mainly for export purposes. More than 75,000 handlooms [6] are working and the total value of cloth produced per annum is estimated at Rs.5,000 crores

The Southern India Mills Association, often known by the acronym **SIMA**, is a Textile mills association established in 1956 in Coimbatore, India. SIMA works to create an environment conducive to the growth of textile industry in national as well as southern states. SIMA's goal is the growth of India's Textile industry..

#### **CEMENT**

Tamil Nadu Cement Corporation

### History

- Tamil Nadu Cement Corporation Limited (TANCEM) was incorporated on 1 April 1976 to take over and operate the existing cement plant in <u>Alangulam</u>, <u>Virudhunagar</u> with an authorized share capital of Rs. 18 crores. [11]
- In February 2021, <u>indeed</u> reported that Tamil Nadu Cement Corporation Limited (TANCEM) is employing about 300 employees<sup>[2]</sup>

#### **TANCEM Products**

Tamil Nadu Cement Corporation Limited (TANCEM) has four vertical business:

- Cements It manufacture and supply "ARASU" branded "Arasu Cements" O.P.C Cements (Grade 43 and 53) and "ARASU Super Star" branded P.P.C cement
- Asbestos Sheet It manufacture and supply "ARASU" branded "Arasu A.C Sheets" Asbestos Sheet
- Stoneware Pipes It manufacture and supply "ARASU" branded "Arasu S.W Pipes"

# TANCEM Operation

#### **Cements Plants**

Tamil Nadu Cement Corporation Limited (TANCEM) has 2 cement plants: Alangulam Cement Works and Ariyalur Cement Works.

Alangulam Cement Works:

- Location <u>Alangulam, Virudhunagar, Virudhunagar District</u>
- Commencement 1970 71
- Products ARASU brand 43 Grade OPC/PPC Cements, Portland Pozzalana Cement (PPC), Ordinary Portland Cement (OPC) [43 Grade]

### Ariyalur Cement Works:

- Location Ariyalur
- Commencement 1979
- Capacity 5 lakhs tonnes per annum

#### **Asbestos Sheet Plants**

Alangulam Asbestos Sheet Plant:

- Location Alangulam, Virudhunagar, Virudhunagar District
- Commencement October 1981
- Products ARASU brand AC Sheets
- Capacity 36000 tonnes per annum

### **Stoneware Pipes Plants**

- Location Vridhachalaam, Cuddalore District
- Commencement 1962
- Capacity 600 MTs per month

Tamil Nadu Sugar Corporation Limited

#### History

 Tamil Nadu Sugar Corporation Limited (TASCO) is incorporated on 1974 for take over and operate existing troubled sugar producers

# TASCO Operation

Tamil Nadu Sugar Corporation Limited (TASCO) has two plants Arignar Anna Sugar Mills and Madura Sugars (shut down).

# **Madura Sugars Mills**

- Location Pandiyarajapuaram, Madurai
- Status Closed for long time due to low sugar cane receiving

# **Arignar Anna Sugar Mills**

Subsidiary of Tamil Nadu Sugar Corporation Limited (TASCO)

- Location Kurungulam Melpathy, Thanjavur Taluk, <u>Thanjavur District</u>
- Commencement 1976 1977
- Capacity 2500 TCD

# **Perambalur Sugar Mills**

- Perambalur Sugar Mills is sugar mill of Perambalur Sugar Mills Limited, a Subsidiary of Tamil Nadu Sugar Corporation Limited (TASCO)
- Location Eraiyur, Permbalur
- Commencement 1975
- Capacity 2500 TCD

#### **CHEMICAL INDUSTRY**

Napko. Coimbatore **Tamil Nadu** India. View **Company** Data. Kanya **chemicals**. Kanyakumari **Tamil Nadu**. Thirumalai **Chemicals**. Mumbai Chennai. Sona Sulphates. Erode **Tamil Nadu**. Rajeswari **Chemical Industries**. Tirunelveli **Tamil Nadu**. AGRIPRO EXIM. Madurai **Tamil Nadu**. V V Tex Chem. Madurai **Tamil Nadu**. Pandian **Chemicals**. Madurai

#### PAPER INDUSTRY

The Tamil Nadu Newsprint and Papers Limited (TNPL)<sup>[2]</sup> was established by the Government of Tamil Nadu<sup>[3]</sup> to produce newsprint and writing paper using bagasse, a sugarcane residue. The Government of Tamil Nadu listed the paper mill in April 1979 as one of the most environmentally compliant paper mills in the world under the provisions of the Companies Act of 1956. The factory is situated at Kagithapuram 11.0488°N 77.9977°E in the Karur District of Tamil Nadu and Manapparai, Trichy district of Tamilnadu. The registered office of the company is located in Guindy, Chennai.

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# **Tamil Nadu Newsprint and Papers Limited**

### History

The Company commenced production in the year 1984 with an initial capacity of 90,000 tonnes per annum. TNPL has started the commercial production of newsprint on its new Paper Machine No. 2 from January 1996. The machine was supplied

jointly by Voith Sulzer Paper Technology<sup>[4]</sup> and its licensee in India, Larsen and Toubro Limited and has opened up new vistas for newsprint making. The machine is designed to run with 100% bagasse. Over the years, the production capacity has been increased to 2,45,000 tonnes per annum and the Company has emerged as the *Largest bagasse based Paper Mill in the world* consuming about one million tonnes of bagasse every year. The Company is in the process of implementing the Mill Expansion Plan for increasing the capacity to 4,00,000 tonnes per annum from July 2010.

### Technology / process

TNPL has ventured with nearby sugar mills such as Sakthi Sugar Mills for continued supply of Bagasse for the Paper mill where Steam will be provided to the sugar mill in exchange of bagasse. [5]

### Quality standards

TNPL has obtained the ISO 9001 – 2000 certification from **RWTUV**<sup>[6]</sup> of Germany for development, manufacture and supply of Newsprint and Printing & Writing Paper. TNPL uses automated process control facilities for various process till final packing and despatch. It is implemented by The Online Integrated Information System (OIIS) a mini ERP package developed by <u>CMC Ltd</u> for integrated flow of information from all the sections of the company covering production, materials, finance, marketing etc. The TNPL using Enterprise resource planning (ERP) business management software to integrate all facets of an operation, including product planning, development, manufacturing, sales, marketing etc., (from 2012 itself).

TNPL's in-house Research and Development facility is recognized by the <u>Department of Scientific and Industrial Research</u> (DSIR) New Delhi. The R&D department has sophisticated state-of-the art instruments and equipments. TNPL has recorded Customer Satisfaction Index (CSI) of about 7.01 to 7.50.

#### **Environment Protection Measures**

TNPL is accredited with ISO14001:2004 certification for an effective environmental management system. By using bagasse as primary raw material, TNPL preserves over '40000 acres of forest land from depletion every year'.

# **TNPL Effluent Water Lift Irrigation Society (TEWLIS)**

Under the TNPL Effluent Water Lift Irrigation Scheme, the farmers will be provided treated effluent water for irrigation purpose. TNPL uses a state-of-the-art sludge treatment system for treatment of Effluent water. The treated effluent water is used

to irrigate about 1,250-acre (5.1 km<sup>2</sup>) of dry land with about 250 farmers who belong to the TNPL Effluent Water Lift Irrigation Society. TNPL's effluents have to comply with the norms set by the Tamil Nadu Pollution Control Board.

### **TNPL Plantation Programme**

As per the National Forest Policy, 1988, forest based Industries should raise the raw material needed for meeting their own requirements. In accordance with the law, TNPL has embarked upon development of a plantation in the year 2004–05 and launched two plantation schemes, namely Farm Forestry and Captive Plantation.<sup>[7]</sup>

### Farm Forestry

Under the farm forestry scheme, the Company motivates and facilitates the marginal and small farmer to take up pulpwood plantation. The salient features of the Scheme are a supply of quality planting material at subsidized cost, arranging credit facilities for the needy people through banks, providing timely technical advice through a team of qualified professionals, and buy back arrangement with minimum support prices or prevailing market rate at the time of felling, whichever is higher, and harvesting and transport of pulpwood from the farmer's field to Factory at company's cost.

### Captive Plantation

In the captive plantation scheme, Captive plantations are raised in the lands belonging to the Company, Government Departments, and Educational institutions and in the large land-holding individuals on a revenue sharing basis or on a lease rental basis. The minimum criteria for captive plantation is that the land should be a block of 25 acres (100,000 m<sup>2</sup>) & above in a single location whereas less than 25 acres (100,000 m<sup>2</sup>) is also considered only in the case of adjoining lands of existing captive plantations, provided the adjoining areas should be contiguous to the existing plantation. TNPL enters into a MoU with the owners of such lands for raising a Captive Plantation and undertaking the responsibility of land development, establishment of plantations, maintenance of plantation and harvesting the pulpwood at TNPL's expense. The land would be taken either on long term lease spanning over a period of 6 to 30 years lease or on a gross revenue sharing basis. In the revenue sharing pattern, if the plantation is raised in a barren land, the produce is shared between TNPL and the landowner on a 70:30 basis and in case of wet lands, the revenue sharing pattern is 60:40. In the case of lease mode, the lease rent for a barren land is Rs. 1000/- per acre, whereas for an irrigated land it is Rs. 3000/- per acre every year paid to landowner and the entire product is taken by TNPL.

In the last five years of operation (2004–05 to 2008–09), TNPL has raised plantation in 37,556 acres (151.98 km<sup>2</sup>) involving 8235 farmers in twenty eight districts in

Tamil Nadu under the Farm Forestry scheme and 2,735 acres (11.07 km<sup>2</sup>) under the Captive Plantation Scheme. In all, TNPL has established pulpwood plantations in about 40291 acres (as on 31 March 2009). [8]

### Clonal Propagation and Research Centre (CPRC)

To cater to the need for a huge amount of planting material to the tune of 15 million plants to cover 15,000 acres (61 km²) every year, TNPL established a state-of-the-art clonal propagation and research centre (CPRC) to achieve self-sufficiency in planting material and production of quality clonal/seedling plants with a capacity of 15 million plants per annum. [9] The clonal production centre was started with a mini clonal hedge garden of 4000 sq.m, a mist chamber of 8000 sq.m, 5300 sq.m of hardening chamber and 20000 sq.m of open nursery with updated technological innovations as per international standards. The clonal production center was established at an outlay of about 50 million. This is considered to be a milestone in the plantation activities and assures quality planting material availability throughout the year The above plantation schemes are being implemented throughout Tamil Nadu through 10 regional offices in Karur, Manaparai, Tirunelveli, Karaikudi, Pudukottai, Namakkal, Trichy, Tanjore, Jayangondam and Panruti providing advice and technical assistance to tree growers.

### Forestry research and development

TNPL has partnered with the <u>NAIP-ICAR</u> sponsored project titled "A value chain on industrial Agro-forestry in Tamil Nadu" for Promotion of tree husbandry with improved short rotation clones/genotypes through contract farming. Forest College & Research Institute (FC & RI), Tamil Nadu Agricultural University, Mettupalayam is the Consortium Leader of this project. This project is being implemented for raising 500 acres (2.0 km²) of cluster plantation in 10 Taluks covering 5 Districts in Tamil Nadu.

### Solid waste management

- Fly ash generated at the power boilers is being sold to the cement plants
- Effluent sludge is being sold to the Board manufacturing units
- <u>Lime sludge</u> generated is being recycled in the Lime Kiln

TNPL has obtained the prestigious ISO 14001 Certification from RMTUV, Germany for "Successfully establishing and applying environmental management system for development, manufacture and supply of paper". This certification duly acknowledges TNPL's commitment for environment protection and sustained efforts to minimise the overall environmental impact.

- TNPL has commissioned the <u>Bio-methanation</u> plant, which generates around 23000 m<sup>3</sup> of biogas (methane) per day, to be used as fuel in the lime-kiln in replacement of <u>furnace oil</u>. The biogas e replaces around 10–12 KL of furnace oil per day in the lime-kiln. During the year 2003–04, the bio- methanation plant generated 4145,000 m<sup>3</sup> of <u>methane</u> gas and replaced the use of furnace oil worth Rs. 24.8 million
- TNPL obtained the *3 Leaves Award*<sup>[11]</sup> under the Green Rating project of the <u>Centre for Science and Environment</u>, New Delhi during October 2004, in recognition of the Environment Management System.

### Energy management policy

TNPL has installed its own power generating facility to make it 100% self-sufficient through the installation of 61.18 MW Power Generating equipments (TG Sets) installed at the paper mill site. The surplus power generated is being exported to the State Grid. TNPL also generates green power through the 18 MW wind farm installed at Devarkulam and Perungudi of Tirunelveli district. The entire power generated at the wind farm is being exported to the State Grid. The wind farm capacity has been enhanced to 21.75 MW in March 2004 by installing 3 wind turbine generators of 1250 kW capacity each. It has installed a Bio-methanation plant to generate methane gas from the effluent water (bagasse wash water) and use it as fuel as substitute for furnace oil in the lime kiln saving 10 KL of furnace oil every day. During the year 2004-05 TNPL generated 3412,000 m<sup>3</sup> methane gas from its biomethanation plant and used the same in lime-kiln replacing 1886 KL of furnace oil valuing Rs. 20 million. The confederation of Indian Industry has recognised the biomethanation project implemented by TNPL as an Innovative Project. This project contributes to sustainable development in terms of generating in-house renewable energy and reducing green house gases.

# Clean Development Mechanism (CDM) projects in TNPL[

# Registered CDM project

- Methane Extraction and fuel conservation Project
- 6.75 MW Small Scale Grid Connected Wind Electricity Generation Project

# Methane extraction and fuel conservation project

TNPL commissioned a special kind of reactor concept for the "high rate" anaerobic treatment of wastewater called the Upflow Anaerobic Sludge Blanket (UASB) reactor which uses anaerobic granular sludge bed technology. The most common Bagasse Wash Water (BWW) treatment system used in India consists of a pond or a lagoon treatment system, which undergoes anaerobic digestion that releases a

significant amount of greenhouse gases (GHG) into the atmosphere. In addition, the project also involves a system for utilization of extracted biogas which gained CDM benefits for the project from the closed reactor as fuel in a <a href="lime kiln">lime kiln</a>, which had been using furnace oil (fossil fuel). Installation of a closed reactor by TNPL for anaerobic digestion of BWW will have many environmental and sustainable development benefits. [13]

- 1. Replacement of the current wastewater treatment system by a closed anaerobic digester will mitigate large quantities of CH<sub>4</sub>, a potent GHG, from being emitted into the atmosphere.
- 2. Controlled environment in which the BWW is treated will reduce strong odours being emitted from theputrescible and degradable components of BWW.
- 3. By recovering the resulting biogas in the form of CH<sub>4</sub> and using it as a renewable in-house fuel for heating equipment, the project activity will contribute to the development of renewable sources as per India's Sustainable Development objectives.
- 4. The furnace oil which would be replaced by the biogas has a sulphur content of 3.49%. This would result in the emission of sulphur dioxide (SO<sub>2</sub>) gas which is responsible for acid rain.
- 5. The use of domestically available biogas as an energy resource helps conserve foreign exchange, apart from creating local rural employment opportunities, by reducing the need to import fossil fuels to meet the country's growing energy requirements.
- 6. Furnace oil saving will reduce the associated CO<sub>2</sub> (GHG) emissions. By registering with UNFCCC for CDM benefit, TNPL became the first paper mill in the country that has registered a CDM project with the UNFCC in waste management. [114]

6.75 MW Small Scale Grid Connected Wind Electricity Generation Project



Wind generators of TNPL (Extreme Right) located at Devarkulam, Tirunelveli District of Tamil Nadu, India.

TNPL has gained CDM benefits by generating green energy through renewable wind energy. The project activity involves the installation, operation and maintenance of seven grid connected wind electricity generators (WEG) owned by the project proponent, TNPL. The electricity generated from the seven WEGs will be exported to the Tamil Nadu state electricity board (TNEB) grid. The seven WEGs have been installed in two phases. The first phase involved installation of four NEG Micon 750 kW WEGs and the second phase involved the erection of three Suzlon Energy WEGs of 1.25 MW. All seven WEGs have been installed in the Thirunelveli district, in the state of Tamil Nadu, India.

On 30 March 2001, TNPL commenced operations for the first phase of the project with the installation of the four 750 kW WEGs. The second phase of the project has commenced operations in March 2004. All 7 machines supply and sell power to the Tamil Nadu Electricity Board (TNEB) grid.

By displacing the electricity from fossil fuel based electricity generating systems, average estimated  $\underline{GHG}$  reduction from the project activity is expected to be 14431 tons  $CO_2$  per year.

**Savings from CDM projects** 

S.No	Title of the project Implemented	Year of Implementation	Total CO2 reduction (MT)	Total Annual Saving (Rs Million)
1	Registered CDM project I: Methane Extraction and fuel conservation Project	2003	40000	32.64
2	Registered CDM Project II: 6.75 MW Small Scale Grid Connected Wind Electricity Generation Project	2004	14000	11.424

3	CDM project III under validation: "Energy Efficiency Improvement in Recovery boiler." [17]	2008	145000	118.32
4	CDM project IV under validation: 13.75 MW – Grid connected wind electricity generation project at Devarkulam by TNPL. [18]	2007	30000	24.48
5	CDM project V under validation is : Methane extraction and utilization as fuel Biogas – II	2008	27000	22.032

# TNPL's products

The paper produced by TNPL is eco- friendly as the pulp is manufactured out of renewable raw material and is subjected to <u>Elemental Chlorine Free</u> (ECF) bleaching. As the paper is acid free, it has a longer colour stability and enhanced permanency in terms of strength characteristics. TNPL caters to the requirements of multifunctional printing processes like sheet-fed, web offset, and digital printers. The paper reels have uniform profile with strength properties to cope even with high speed machines. TNPL manufactures Printing and Writing Papers in substances ranging from 50 <u>GSM</u> to 90 GSM. Newsprint is normally manufactured in 49 Gsm reels and directly sold by the company to the various newspaper establishments such as <u>The Hindu</u>, <u>Malayala Manorama</u>, Ananda Bazaar Patrika and so on. Printing & Writing paper (PWP) is manufactured in reel and sheet forms with the Gsm (Grams per square meter – basis weight of the paper) varying from 50 to 80. Various sizes of reels and sheets are also cut to suit the customer requirements. Some of the major end-use segments of PWP are printing applications, note books, computer stationery, office stationery, etc.

# • TNPL Ultra White Maplitho

- Radiant Printing
- Hardbound Notebook
- TNPL Offset Printing
- Cream wove
- Copy Crown
- TNPL Copier
- Students' Favorites
- Super Print Maplitho
- Perfect Copier
- Ace Marvel

### Export network

TNPL is also exporting about 18% of the PWP production to 20 countries around the World.

- Australia
- Egypt
- Greece
- Indonesia
- Jordan
- Kenya
- Malaysia
- Myanmar
- Nepal
- Nigeria
- Philippines
- Singapore
- Sri Lanka
- Sudan
- South Africa
- Taiwan
- Turkey
- U.A.E
- U.K
- U.S.A.
- Yemen

Symbolic of TNPL's commitment to the environment, the ""World Wide Fund for nature (WWF)" has entered into a pact with TNPL to use the "Panda" logo in TNPL's branded products.

#### Awards and accolades

### **Environmental Strategy of the Year Award**

TNPL won the Environmental Strategy award for the year 2011 at the PPI Annual Awards ceremony at Brussels.

### **Green Business Leadership Award**

In recognition of its environmental conservation initiatives, the Tamil Nadu Newsprint and Papers Limited (TNPL) has been awarded the *Green Business Leadership Award*<sup>[19]</sup> in the Pulp and Paper Sector for the year 2009–2010.

The TNPL Managing Director, T.K. Ramachandran, received the award from the *Union Minister for New and Renewable Energy*, Farooq Abdullah, in the presence of TERI Chairman and eminent environmentalist R.K. Pachauri in New Delhi recently. The TNPL was adjudged the best performer at the national level in the Pulp and Paper category in EVI Green Business Survey conducted by The Financial Express and Emergent Ventures India, an integrated climate change company with the Indian School of Business, Hyderabad as the knowledge partner.

# The Energy & Resources Institute (TERI) Corporate Award

TNPL has been awarded second prize in the prestigious "TERI Corporate Environmental Award 2008" [20] at 7th TERI Corporate Awards Ceremony: 31 May 2008, New Delhi in recognition of its various initiatives taken in Corporate Environment Management

# **Excellence in Corporate Governance**

The Institute of Company Secretaries of India (<u>ICSI</u>), New Delhi has conferred on TNPL, the "ICSI National Award of Excellence in Corporate Governance" for the year 2004 in the Public Sector category . This is the first time such a prestigious award in Corporate Governance has been given to a State Public Sector Undertaking. So far, in the last two years, only major Central Public Sector Undertakings, viz. ONGC and IBP got the award.

# Best Paper Mill 2001-02 and 2007-08

TNPL has been given the prestigious award **Paper Mill of the year 2001–2002 & 2007–08**<sup>[21]</sup> for TNPL's overall performance, approaches for meeting social obligations, ensuring global competitiveness, sustainable development & technology options by the Indian Paper Manufacturers' Association, New Delhi.

#### **Certificate of Excellence**

TNPL won the Certificate of Excellence in Productivity, Quality, Innovation and Management from the "Institute of Economic Studies", New Delhi.

### **Ecosystem protection**

Need to take more attention for environmental protection. However near outside people are getting heavy noise due to the new plant. Requested to them to take necessary action to keep the outside people environment safely. Recognising TNPL's concern for the environment, the Rotary Club of Chennai (East) and Earth Care bestowed the "Dr M.S. Swaminathan Award for Environment Protection 2002" on TNPL.

### **Export award (by Ministry of Commerce, Govt of India)**

TNPL has secured the CAPEXIL "SPECIAL EXPORT AWARD" for eight consecutive years for its outstanding export performance during the year 2003–04. The Government of India has given "TRADING HOUSE" status to TNPL recognising the export performance. TNPL has been bestowed the "Niryat Shree Award" by Federation of Indian Export Organisation (FIEO) for the high degree of excellence it has demonstrated in exports.

### Rating by CRISIL and ICRA

Credit Rating Information Services of India Ltd (CRISIL) has reaffirmed the rating of "FAA+"<sup>[22]</sup> for TNPL's Fixed Deposit Program, indicating the high degree of safety. ICRA Ltd has reaffirmed the highest rating of "A1+" for TNPL's Commercial Paper program.

#### Fortune India 500

TNPL was ranked 300th in the Fortune India 500 list published in 2020. [23]

### Safety award

TNPL was awarded the commendation award on "CII Leadership & Excellence in Safety, Healthy & Environment (SH&E) year 2002" during the month of February 2003.

# **Energy award**

TNPL won the National Energy Conservation Award for the year 2001 from Government of India, in recognition of its outstanding achievement in energy management.

# **Best Corporate Citizen**

Loyola Institute of Business Administration (LIBA) Chennai has adjudged TNPL as the "Best Corporate Citizen 1999" and bestowed the Mother Theresa Award by recognising its

- Outstanding social commitment
- Exploring eco-friendly technology
- Professional Management
- Customer friendly and community caring enterprise.

### Talent Expo

Talent Expo is Mega Inter School Art and Literary event conducted by TNPL as a part of Corporate Social Responsibility. This is conducted by TNPL every year successfully. Talent expo consists of 20+ events like Quiz, villupaatu, essay writing, Poster making, Semi-classical Dance and many more. In 2018, nearly 64 schools had participated from all over Tamil Nadu, in that TNPL PUBLIC SCHOOL had won the Overall Championship. Talent Expo – 2018 is the 18th Edition.

### Criticism / controversy

On **14 September 2009**, <sup>[24]</sup> General Farmers' Association of Pugalur, the Pugalur Consumer Protection Council and the Pugalur Channel Aycutdars' Association have alleged that the TNPL had released the effluents "on a large scale" into the channel. The "excessive" discharge resorted to by the TNPL on that day has caused consternation among the public in the area who "are afraid of the ill effects of the effluents" that flowed down the channel.

#### Areas affected:

- Punjai Thottakurichi
- Punjai Kadambankurichi
- Nanniyur Pudur
- Thalavapalayam
- Ayyampalayam

Vangal areas in Karur district. On the other side of the TNPL paper mill, areas such as

- Moolimangalam
- Moorthypalayam

have also been affected due to the pollution caused by the TNPL. Moreover, the agricultural lands in the Karur District is well affected. The area around the Paper mill is seems to have some bad smell.

TNPL's reaction

Reacting to the claims, the TNPL has claimed that no water or effluent was being let into the Pugalur Channel as alleged. TNPL Managing Director Mohammed Nasimuddin informed that "The TNPL has implemented a Mill Development Plan at a capital outlay of Rs. 6 billion mainly for incorporating various environmental improvement measures such as switching over to Elemental Chlorine Free Bleaching and reduction in water consumption. In this system the use of chlorine is totally eliminated and the bleaching is carried out only by <a href="mailto:chlorine-dioxide">chlorine dioxide</a>"

#### Trivia



### Chemical recovery boiler at Pugalur

- First CDM project in world in Pulp and Paper industry
- First CDM project in India in the Waste Management Sector registered with UNFCCC
- Largest <u>Bagasse</u> based Paper Mill in the world consuming about one million tonnes of bagasse every year
- The only paper mill in India assisted by the World Bank
- By using bagasse as primary raw material, TNPL preserves over 40,000 acres  $(160 \ km^2)$  of forest land from depletion every year
- TNPL has installed Tallest Chemical Recovery Boiler of large capacity in India

#### TNPL cement business

TNPL has started its new 600 TPD Cement Plant production in January 2013 at a cost of Rs 1 billion. It will supply under the brand "TNPL Cement Ltd".

### TNPL electricity business

TNPL has captive power plant of 103.63 MW capacity.

### TNPL tissue paper business

TNPL will commence its new 100 TPD Tissue Paper Plant production at a cost of Rs 2 billion.

### TNPL De-inking Plant

TNPL will set up a de-inking plant with a capacity of 300 TPD at an investment of Rs 1.75 billion. TNPL

### TNPL privatisation and shareholding

- In the wake of new policies of <u>Government of India</u> such as <u>Liberalization</u>, <u>Globalization</u> and <u>Privatization</u> the <u>Government of Tamil Nadu</u> had started to implement <u>Liberalization</u>, <u>Globalization</u> and <u>Privatization</u> scheme in TNPL.
- As the first step towards <u>Liberalization</u>, <u>Globalization</u> and <u>Privatization</u> <u>Government of Tamil</u> <u>Nadu</u> listed TNPL shares in following organizations
  - Bombay Stock Exchange
  - National Stock Exchange of India
  - National Securities Depository Limited
  - Central Depository Services Limited
  - Debenture Trustees Vijaya Bank
  - TNPL became a share market listed company from the year 1997.
  - Presently Government of Tamil Nadu holds 35.32% (Out of 100%) of Equity shares in TNPL as of 31 March 2012 as per [1]
  - <u>Government of Tamil Nadu</u> declared TNPL as "Other Companies" List from previous "Government of Tamil Nadu's Public Sector Undertakings" List after the year 1997

# TNPL Management

- Thiru. Gnanadesikan, IAS Chairman
- Thiru S. Sivashanmugaraja, IAS Managing Director
- Thiru. Nagappan Director

- Thiru. Soundarakumar, I.A.S Director
- Thiru. Rita Harish Thakkar, I.A.S Director
- Thiru. N. Narayanan Director
- Thiru. V. Chandrasekaran Director
- Thiru. Shanmugam Director

The Above details as per tnpl.com

Automotive industry in Chennai

<u>Chennai</u> is nicknamed the "<u>Detroit</u> of Asia" (or the "Detroit of India" ) due to the presence of major automobile manufacturing units and allied industries around the city. The 4-wheeler vehicles in Chennai is the base of 30% of <u>India</u>'s <u>automobile industry</u> and 35% of its automobile component industry. Besides the commercial industry, the <u>Heavy Vehicles Factory</u> (HVF) has been established in <u>Avadi</u> to produce military related vehicles. <u>Avadi</u> also boasts of the <u>Combat Vehicles Research and Development Establishment (CVRDE</u>), a new <u>engine</u> testing facility.

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#### **Automotive Manufacturers**

### Tyre Manufacturers

Company	Plant Locations
Alliance Tire Company	<u>Gangaikondan</u>
Apollo Tyres	<u>Oragadam</u>

Company	Location		Products
Ashok Leyland	Chennai port <sup>[6]</sup>	I	Buses, haulage vehicles, special application vehicles, diesel engines
<u>Ashok</u> <u>Leyland</u> - <u>Nissan</u>	Pillaipakkam <sup>[7]</sup>	I	Dost truck
<u>BMW</u>	Chengalpattu <sup>[8]</sup>	I	BMW 3 Series, BMW 5 Series, BMW 7 series, BMW X1, BMW X3
<u>Caterpillar</u>	<u>Thiruvallur</u>	<u>(</u>	Off Highway Trucks, HEX, Back-Hoe Loader, Skid Steer Loader
<u>Daimler</u>	Oragadam <sup>[9]</sup>	Ī	BharatBenz trucks, Mercedes-Benz buses
Design Edge Technologies	Ambattur <sup>[10]</sup>		3D CAD modelling,Automotive PLM, Tool Automation for CAD, P
<u>Ford</u>	<u>Maraimalai</u> <u>Nagar<sup>[11]</sup></u>	I	<u>Ikon, Fiesta, Mondeo</u> (discontinued), <u>Fusion, Endeavour, Figo, Ecos</u>
Mahindra & Mahindra	Mahindra World City	F	Research and development for automotive and farm sector [13]
Force Motors	Mahindra World City	F	Engines for BMW <sup>[14]</sup>
<u>Fiat Chrysler</u> <u>Automobiles</u>	RMZ Millenia Business Park -1, Perungudi	F	Engineering Office <sup>[15]</sup>
<u>Hindustan</u> <u>Motors</u>	<u>Tiruvallur</u>		Trekker (discontinued), Landmaster (discontinued), Contessa (discontinued)

<u>Hyundai</u>	<u>Irungattukottai<sup>[16]</sup></u>	Accent, Elantra, Getz (discontinued), i10, i20, Verna, Santro, Sonata
Integral Coach Factory (ICF)	<u>Perambur</u>	Railway coaches
<u>Mitsubishi</u>	<u>Tiruvallur</u>	Lancer, Lancer Cedia, Pajero, Montero, Outlander
<u>Nissan</u>	<u>Oragadam</u>	Micra, Teana, X-Trail, Datsun Go
Groupe PSA	Chennai One SEZ, OMR Chennai	Research & Development, Programs & Projects, Global Purchasing Engineering, Quality, KD Excellence Center & Product [20]
Citroën India	Tiruvallur	Citroën C5 Aircross
<u>Renault</u>	Oragadam	Logan, Pulse, Scala, Fluence, Duster, Koleos, Kwid
	<u>Tiruvottiyur<sup>[21]</sup></u>	Classic, <u>Bullet</u> , Bullet Continental, Bullet Sixty-5, <u>Thunderbird</u> , Bullet 200, Fury, Explorer, Silver plus, Mofa, Interceptor 650, Conti
Royal Enfield	Oragadam	
	Vallam	
TAFE Tractors	<u>Sembium</u>	Tractors
Wrightbus <sup>[22]</sup>		Buses

<u>Valeo</u>	Vallam	5 0 0 0 viper motor manufacturing facility 1 2 3 1
<u>Yamaha</u>	Vallam Vadakkal	4 5 0 0 0 0 0 Bikes 1 2 4 1
CNH Industrial (India) Pvt. Ltd - (New Holland Tractors)	Porur	4

Rridgestone	Oragadam	
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<u>Bridgestone</u>	<u>Oragadam</u>
CEAT	<u>Sriperumbudur</u>
JK Tyres	Sriperumbudur
Michelin	Thervoy Kandigai
MRF	Arakkonam, Tiruvottiyur

# Auto-components Manufacturers

Auto component companies have their manufacturing plants in and around Chennai include

• Avalon Technologies

- Ashley Alteams
- Bavina Industries
- Bharat Forge
- BorgWarner
- Brakes India
- Brembo
- Caterpillar
- <u>Delphi-TVS Diesel Systems</u>, [25] Ennore Foundries
- Faurecia
- Federal-Mogul
- Design Edge Technologies
- Hidromas
- India Pistons
- Iochpe Maxion
- JKM Daerim
- Hella
- Hyundai Wia
- Hyundai Mobis
- Korea Fuel Tech
- Lear Corporation
- Leo Primecomp

- Machino,
- Mando Corporation
- Motherson Sumi,
- Rane
- SEW Eurodrive
- Simpson & Co.
- Sundaram Clayton
- Wabco
- Takata
- <u>TI Cycles</u>
- Tube Products of India
- TVS Motors
- <u>Valeo</u>
- <u>Visteon</u>
- Wheels India
- YAPP Automotive