CHAPTER – III
LEATHER INDUSTRY – AN OVERVIEW

Leather and Leather Products sector is one of the important sectors among the various constituent of the manufacturing sectors in India, mainly due to its contribution towards employment. It is one of the unique sectors which have the advantage of the both value addition and export potentials. It also contributes significantly to total manufacturing output and exports from the country. The post liberalization era has generated significant opportunities for the Indian leather industry. With global players looking for new sourcing options, India stands to gain a bigger share of the global market. The leather industry has undergone a dramatic transformation from being a mere exporter of raw materials in the sixties to being a producer of value added finished products in the nineties. Policy initiatives taken by the Government since 1973 have been, to a large extent, instrumental for such a transformation. India has a 2.6 % share in the global leather trade and this sector ranks eighth in terms of the country’s foreign exchange earnings from the industry. The composition of exports has also been changing, with more and more value added products being exported. Though India has distinct advantages in the leather industry in terms of availability of raw materials with the largest livestock population in the world, the tapped potential in the leather sector, particularly in the high end value chain is still limited. This untapped potential provides the sector significant opportunities for expansion and diversification. It is among top 10 foreign exchange earners for the country, strong Production Base-Annual Production about US$7.5 Billion. Annual export 2010-2011 US$ 4868 million in 2011-2012 3% share in global leather trade of US$137.96 billion.
Value added finished products presently constitute 80% from mere 7% in 1956-57. Nearly 70% production takes place in small and medium enterprises (SMEs). With an annual turnover of over US$ 12 billion, the export of leather products increased manifold over the past decades and touched US$ 5.58 billion during 2015-16, recording a cumulative annual growth rate of about 4.69% (5 Years).

Against this backdrop, an attempt is made in this chapter to give a comprehensive view of leather industry such as the Global scenario, Indian scenario, and Tamil Nadu Industry Profile

3.1 Global Scenario of leather industry:

3.1.1 Argentina

- Reasonably large local hide supply of good quality;
- Strong tradition in exports of quality leather, both crust and wet blue;
- Efficient leather goods manufacturing sector, and recovering shoe industry.

3.1.2 Brazil

- Strong domestic raw material supply and substantial supply from neighbouring countries;
- Strong domestic footwear and leather (especially travel) goods production; Good links to US footwear market, but exports affected by strength of domestic currency;
- Highly active in world export markets;
- Tanners are specialized and effective

1. Leather industry –an overview, retrieved from www.leatherindustry.com

Accessed on Sep 2015.
3.1.3 China

- Very large production of leather footwear, leather garments, upholstery, and other leather products;
- Very large and growing (but not adequate) domestic raw material supply;
- Large and fast-growing domestic market for footwear, premium leather goods and upholstery;
- Very large imports of leather mainly from India, the Republic of Korea and Italy;
- Potential limitations in water and energy supply;
- Major environmental issues emerging;
- The world’s largest pigskin supply and pigskin tanning industry;
- Pig skin supply badly affected in recent years by disease;
- Current government policy is to close smaller tanneries and those without effluent treatment.

3.1.4 Italy

- Strong innovation capacity;
- High dependence on imported raw materials;
- High levels of flexibility and versatility;
- Sizeable domestic (and regional – East Europe, North Africa) market;
- Industry growth in 2006 and 2007 despite high labour and other costs of doing business in the EU;
- Strong international connections;
- Good international image and fashion orientation;

3.1.5 Mexico

- Strong tradition in leather production;
• Due to isolation and protection against imports, the footwear industry entered the new millennium
• Hampered by lesser efficiencies than those of its main international competitors;
• Less successful in exporting to the US than its location would suggest; has benefited from automobile production;
• Some limitation in water supply.

3.1.6 Pakistan
• Good supply of raw material;
• Well established tanning centres in Karachi and Lahore with strong exports;
• Some clusters for gloves and garments (Karachi and Sialkot);
• Lower-quality garments made from imported lower-grade African raw materials;
• Some significant environmental issues.

3.1.7 Russia
• Historically strong sector with associated domestic culture that favours fur and leather garments, gloves, etc.;
• Rapid decline in the 1990s, but 21st century growth at about 20% per annum;
• Recovering domestic market;
• In spite of strong reservations about Russian data, it is expected that both domestic raw material supply and footwear manufacture will steadily increase.

3.1.8 Spain
• Easy access to European raw material;
• High level of design and innovation;
• Significant local manufacture of products using leather, especially if outsourcing to North Africa is added in; some water shortage issues.

3.1.9 The Republic of Korea

• Industry survives as a legacy of huge export-oriented footwear and garment production based on earlier cheap labour;
• Support from businesses that have moved footwear, garment and leather goods production elsewhere in Asia;
• High degree of dependence on imported raw materials;
• Expected expansion of large-scale industrial production, located close to urban centre, with associated environmental and public health risks.

3.1.10 Turkey

• Steady market share increase in world leather garment business;
• Significant imports of raw materials;
• Good international reputation for quality leather garments;
• Uneven results reflect the cyclical character of this segment of leather consumption as well as what was called the “carry trade” with Russia when for a number of years Russian buyers arrived with cash for goods.

3.1.11 USA

• Industry sustained by large export volumes of bovine wet blue;
• Significant manufacture of upholstery leather;
• Large demand for automotive leather upholstery affected by problems faced by the big three US car manufacturers.

There is no doubt that China has the scale, the labour and the market to retain and continue growing its leather business. While it is certain that the leather industry in China
will grow, it is now expected to see a decrease in its growth rate; it is also expected that exports will level out or even fall in some respects as domestic demand grows\(^2\).

**Figure-3.1**

*Share % of various countries in India’s Leather & Leather Products Export 2016*

3.2 Major Markets:

The major markets for Indian Leather & Leather Products are Germany with a share of 12.92%, USA 14.25%, U.K. 12.24%, Italy 6.97%, France 5.27%, Hong Kong 5.38%, Spain 5.60%, Netherlands 3.15%, China 2.77%, Australia 1.45%, UAE 4.50% and Belgium 1.45%.

These 12 countries together accounts for nearly 75% of India’s total leather & leather products export. European Union accounts for 56% of India’s total export of leather and leather products³.

3.3 Indian Scenario of Leather Industry:

The leather and leather products industry is one of India’s oldest manufacturing industries. That catered to the international market right from the middle of the nineteenth century, the demand for its products being both domestic as well as international right from the beginning. About 46% of the production in the sector is exported and it ranks eighth in the list of India’s top export earning industries and contributes roughly Rs. 10,000 crores per annum, i.e., about 4 % to export earnings. The sector accounts for 2.5 % of the global leather-related trade of Rs. 387,200 crores. An estimated 15 % of total purchase of leading global brands in footwear, garments, leather goods & accessories, in Europe, and 10 % of global supply is outsourced from India. The leather industry employs about 3.9 million people and has Annual turnover of Rs.25, 000 crores. The industry is also one with strong links with the social structure through caste and community. Thus a large number of people engaged in the industry (entrepreneurs as well as workers). In addition to these historical aspects of its evolution, the dynamics of the industry has been shaped to a large extent by export orientation from colonial times⁴. The sector is dominated by small-scale firms although there also a significant number of medium and large sized firms in all segments of the industry.

3. Facts & Figure Book, Council for Leather Export, 2015-16. Pg no.10.

The industry is concentrated in several leather clusters in four or five distinct locations in the country, with each cluster containing a wide variety of enterprise forms and organisational structure. Tamil Nadu is the biggest leather exporter (45%) of the country and its share in India’s output on leather products is 70%.

3.4 Map of Leather Industry:

3.5 Major Production Centre:

The major production centers for leather and leather products are located in

1. **Andhra Pradesh** – Hyderabad;

2. **Haryana** - Ambala, Gurgaon, Panchkula and Karnal and

3. **Karnataka** – Bangalore;

4. **Maharashtra** – Mumbai;

5. **Punjab** – Jallandhar;

6. **Tamil Nadu** - Chennai, Ambur, Ranipet, Vaniyambadi, Trichy, Dindigal;

7. **Uttar Pradesh** - Kanpur, Agra and Noida;

8. **West Bengal** – Kolkata;

3.6 Annual Production Capacity:

The leather industry is spread in different segments, namely, tanning and finishing, footwear and footwear components, leather garments, leather goods including saddler and harness, etc. The estimated production capacity in different segments is as under:
Table –3.1

Estimated Production capacity of the year (2012-2017) in Different Segments

<table>
<thead>
<tr>
<th>ITEM</th>
<th>CAPACITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hides</td>
<td>65 Mn Pieces</td>
</tr>
<tr>
<td>Skins</td>
<td>170 Mn Pieces</td>
</tr>
<tr>
<td>Leather Footwear</td>
<td>909Mn Pairs</td>
</tr>
<tr>
<td>Leather Shoes Uppers</td>
<td>100 Mn Pairs</td>
</tr>
<tr>
<td>Leather Garments</td>
<td>16 Mn Pieces</td>
</tr>
<tr>
<td>Leather Goods</td>
<td>63 Mn Pieces</td>
</tr>
<tr>
<td>Industrial Gloves</td>
<td>52 Mn Pairs</td>
</tr>
<tr>
<td>Saddlerys Harness</td>
<td>12.50 Mn Pieces</td>
</tr>
</tbody>
</table>

Source: Council of Leather Export 2012-2017 12th Five Year Plan

3.7 State wise Leather Industry in India:

3.7.1 Andhra Pradesh:

The State is a major producer of hides and skins in India, contributing about 19 million pieces per annum, which constitutes about 10 per cent of the country’s raw material. Most of this raw material goes to States like Tamil Nadu and West Bengal for processing. The major clusters are Hyderabad, Bhimavaram, Cuddapah, Eluru, Karim Nagar etc. The State is having about 450 slaughter houses. There are about 34 large and medium tanneries in the State producing about 40 million square feet of processed hides and skins per annum. Hyderabad and Nellore are the key leather production clusters in Andhra Pradesh.
3.7.2 Goa:

Madagao, Mapusa, Panaji, Zuari and Ponda are the important places for slaughter of animals in Goa. Madagao, a commercial city, which is 15 kms away from the capital city of Panaji is the only place for raw hides and skins business. The Mandi is near Gandhi market. All the raw hides and skins move from Goa to Tamil Nadu by road.

3.7.3 Gujarat:

The State of Gujarat is having shoe artisans in the Saurashtra region (also known as Kathiawad region due to the presence of kathi people). No special product is being made in the whole Saurashtra except the traditional farmer’s shoe called Bharwadi Deshi Joda, which is made only in vegetable leather. The districts are producing nothing special except local shoes like simple Derby, Oxford, Mozadi and casual designs. Chappal & sandals are being made for ladies and gents. Out of the total shoes made in the region, 75% are open shoes. Apart from that, a number of Leather Processing Units are functioning there in the region, as co-operative societies, supported by (DIC) District Industry Centre. These Tanneries are mostly producing Vegetable Tanned Leather.

3.7.4 Himachal Pradesh:

The leather industry in Himachal is located in Baddi, an industrial area which is upcoming mainly because of tax sops and single window clearance given by the State government for investments. Roughly 33 footwear units have registered themselves with the State’s Department of Industries to set up production units in this region. A few of these units have already set up production lines for the manufacture of footwear.

3.7.5 Karnataka:

Bangalore is an important cluster for leather garments (contributing 15% of India’s capacity), with some small units engaged in production of shoe uppers. In 2008-09, the
cluster exported Rs 269.1 crore worth of leather and leather products. Leather garments accounted for the largest share (51%), followed by leather footwear. Industry’s major concerns here are shortage of skilled manpower (mainly in leather cutting) and raw material availability.

**Kanpur** is a prominent centre for leather processing. About 200 tanneries are located in Kanpur. Kanpur tanneries specialize in processing hides into heavy leather (Sole, harness and Industrial leather). This is the only centre in India where saddlery products are manufactured. Agra has been the biggest centre for shoe-manufacturing in the country.

**3.7.6 Maharashtra:**

The leather industry in Western India is primarily located in the State of Maharashtra. Leather clusters at Andheri (East) in Mumbai, Kolhapur and Bhiwandi are mainly engaged in the production of leather shoe, sandals and leather goods. Maharashtra accounts for 32% of the country’s production capacity of leather sandals and 15% of leather goods.

**3.7.7 Odisha:**

Odisha’s position in industrial growth is not very remarkable and leather and footwear units have not developed substantially. There are no large and medium industries available in this sector. The major clusters are, Bhubneshawar, Behrampur, Cuttuck, Jatni, etc. Footwear industries are concentrated in cottage and small scale sector in this State. In the case of footwear component industry, there is no unit established in the State.

**3.7.8 Punjab**

Leather craft, especially the ‘Jootis’ or soft leather shoes, is a unique product from Punjab. These light slip-ons used to be embroidered in gold and silver thread, but are now
embellished with coloured threads. Punjabi Jootis are being produced all over Punjab by artisans. Punjabi Jootis are being produced all over the State by artisans. The major clusters are Patilala, Bhatinda, Muktsar, Malot, Abohar, Fazilka, Firozpur, Kotakpura, Gurdaspur & Amritsar. Products of each cluster have different characteristics in terms of shape, pattern, design and colour. There are about 4,000 artisan families engaged in manufacturing of ethnic footwear. Jallandhar is the major leather cluster in Punjab, with tanning as well as leather garment and goods manufacturing as the major production activities.

3.7.9 Uttar Pradesh

U.P. is one of the most important states in India holding sizeable population of live stock. A share of 22% of U.P. ranks 1st in case of Buffalo and 2nd in case of Cattle having a share of 12%. With regards to Goat and Sheep it has 4th and 5th position respectively. Thus, U.P. has a very strong raw material base and all types of main raw material for leather industry are available. Major production centers and Number of leather and leather products industries in U.P. are to the tune of approx. 11500 of which Kanpur and Agra are the two famous production centres in the world.

3.7.10 West Bengal:

West Bengal is one of the country's top states for export of finished leather goods. 70% of the country's leather goods are exported from West Bengal. Bata India Limited is India's largest manufacturer and marketer of footwear products. Bata India sells 60 million pairs of footwear products per year throughout India and in overseas markets such as USA, UK, Europe, and Middle East and Far East. It has 5 plants near Kolkata. Main plant is located in Bata nagar near Kolkata. Bata India secures its leather supply from two tanneries in Mokamehghat (Bihar) and Batanagar (West Bengal).
The number of manufacturing industries engaged in leather products is 538. West Bengal Leather Industrial Development Corporation provides market facilities for the leather products manufactured by small scale industries located in the state. The export market for leather products is very high for good quality leather footwear's and leather crafts and articles. The exports are mainly to European countries as Germany, Italy, UK, France etc.

3.8 Profile of Tamil Nadu State:

Tamil Nadu State is situated at the South Eastern extremity of the Indian Peninsula bounded on the north by Karnataka and Andhra Pradesh on the east by Bay of Bengal, on the South by the Indian Ocean and on the West by Kerala State.

Tamil Nadu is the fourth largest state of India. It is the seventh most populous state in the country and its main language Tamil has origins that date back to 500 BC. Chennai is the capital of Tamil Nadu and lies on the eastern coast line of India. Tamil Nadu is famous for its wonderful temples and monuments that have been built 1000s of years ago and has places that have been marked as heritage sites by the United Nations. In a 180 degree paradigm shift, this state with a rich historical importance is also one of the fastest developing centre for technology and trade.

It contributed 8.1% to India's gross domestic product (GDP) in 2013-14. Gross state domestic product (GSDP) of Tamil Nadu grew at a compound annual growth rate (CAGR) of 16.3% between 2004-05 and 2013-14, reaching US$ 141.1 billion in 2013-14.

Per capita GSDP of US$ 2,059.3 (at current prices) is nearly 48.2% higher than the national average of US$ 1,389.6\(^7\).

Tamil Nadu has a diversified manufacturing sector and features among the leaders in several industries like automobiles & components, engineering, pharma, garments & textile products, leather products, chemicals & plastics.

It ranks first among the states in terms of number of factories and industrial workers. Due to its achievements as an auto production hub, Chennai has been dubbed as the "Detroit of India".

It has well developed infrastructure with an excellent road and rail network, three major ports, 23 minor ports, and seven airports across the state providing excellent connectivity. In line with Vision 2023, it aims to step up infrastructure investment from 4-5 % of GSDP currently to 10% by 2015 and about 11.5% by 2019. Roads & highways, ports, railways, education and healthcare are likely to see major investment.

\subsection*{3.8.1 Demographic Information:}

According to the 2011 census, Tamil Nadu is the most urbanised state in India (49%), accounting for 9.6% of the urban population while only comprising 6% of India's total population. Service contributes to 45% of the economic activity in the state, followed by manufacturing at 34% and agriculture at 21%. Government is the major investor in the state with 51% of total investments, followed by private Indian investors at 29.9% and foreign private investors at 14.9%. Tamil Nadu has a network of about 113 industrial parks and estates offering developed plots with supporting infrastructure. It has been ranked first by the Economic Freedom Rankings for the States of India.

\footnote{Tamilnadu profile www.tamilnadu.com \ Accessed on Aug 2015.}
The Population of Tamil Nadu according to the 2011 census stands at about 72 million which is not as huge as compared to some of the other big states in the country. This also reflects in the fact that the density of the state is about 555 which is on the higher side greater than the national average by about 150 points. The state has a growth rate of about 15 percent which will continue to rise due to the rise in infrastructure and development index of the state as a whole. Thus the population of the state is rising considerably given the progress in the state. The literacy rate in the state is about 80% which is a very positive stat much above the national average but something the state has worked hard on. The statistics in the Tamil Nadu Census 2011 reveal facts that can be taken into consideration by the government in a bid to further its development. The sex ratio in the state stands at 995 which is a big positive as the number exceeds the national average.

The capital city which is also the largest city in the state of Tamil Nadu is Chennai. The languages spoken in the Tamil Nadu state includes Tamil. In total Tamil Nadu (TN) state comprises 32 districts. The ISO CODE assigned by International Organization for Standardization for Tamil Nadu state is TN8.

___________________
Table – 3.2

Rank of Tamil Nadu (among Indian States)

<table>
<thead>
<tr>
<th>Area of Tamil Nadu</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial Output</td>
<td>III</td>
</tr>
<tr>
<td>Value addition</td>
<td>II</td>
</tr>
<tr>
<td>No. of Factories</td>
<td>II</td>
</tr>
<tr>
<td>Total workers employed in factories</td>
<td>II</td>
</tr>
<tr>
<td>Foreign Direct Investment</td>
<td>II</td>
</tr>
</tbody>
</table>

Source: Tamil Nadu state profile Global Investors meet 2015

3.8.5 ECONOMIC & INDUSTRIAL PROFILE OF TAMIL NADU:

3.8.5.1 Existing Industrial foundations

Traditionally, Tamil Nadu is one of the well developed states in terms of industrial development. In the post-liberalization era, Tamil Nadu has emerged as one of the front-runners by attracting a large number of investment proposals particularly in recent times.

Today, Tamil Nadu is the third largest economy in India. Tamil Nadu is the second most industrialized state in India and 2nd largest Contributor to India’s GDP.
Table – 3.3

Gross State Domestic Product of Tamil Nadu

(in Rs crores at constant prices)

<table>
<thead>
<tr>
<th>Year</th>
<th>GSDP (Rs)</th>
<th>Growth Rate %</th>
<th>Share in India %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-05</td>
<td>2,19,003</td>
<td>11.45</td>
<td>7.37</td>
</tr>
<tr>
<td>2005-06</td>
<td>2,49,567</td>
<td>13.96</td>
<td>7.67</td>
</tr>
<tr>
<td>2006-07</td>
<td>2,87,530</td>
<td>15.21</td>
<td>8.07</td>
</tr>
<tr>
<td>2007-08</td>
<td>3,05,157</td>
<td>6.13</td>
<td>7.83</td>
</tr>
<tr>
<td>2008-09</td>
<td>3,21,793</td>
<td>5.45</td>
<td>7.74</td>
</tr>
<tr>
<td>2009-10</td>
<td>3,56,632</td>
<td>10.83</td>
<td>7.89</td>
</tr>
<tr>
<td>2010-11</td>
<td>4,03,416</td>
<td>13.12</td>
<td>8.20</td>
</tr>
<tr>
<td>2011-12</td>
<td>4,33,238</td>
<td>7.39</td>
<td>8.26</td>
</tr>
<tr>
<td>2012-13</td>
<td>4,47,944</td>
<td>3.39</td>
<td>8.17</td>
</tr>
<tr>
<td>2013-14</td>
<td>4,80,618</td>
<td>7.29</td>
<td>8.37</td>
</tr>
</tbody>
</table>

Source: Economy of Tamil Nadu

According to the publications of the Tamil Nadu government the Gross State Domestic Product at Constant Prices (Base year 2004–2005) for the year 2013-2014 is 4,80,618 crores, an increase of 8.37% over the previous year.
With the setting up of major automobile projects namely Ford-Mahindra, Hyundai Motors, Hindustan Motors, Mitsubishi, expansion plans of Ashok Leyland & TAFE. Tamil Nadu has always been a fore-runner in the industrial process, both in terms of industrial output and in encouraging various new large scale products. Having recorded an impressive growth in industry in the post-reform span, it is poised for further industrial development and expansion. At present, the state accounts for over 11% of India's industrial output.

Tamil Nadu’s strength lies not only in its traditional industries, but also in several new emerging industries. In its efforts, to develop a strategy for 17 industrial growth and development, the State Government is concentrating on promoting the development of industries in which the State already has a competitive edge and high impact industries in which advantages can easily be created. Some mature industries and emerging industry opportunities are highlighted below

### Table – 3.4

Tamil Nadu's share in Indian output (%) in the year 2015

<table>
<thead>
<tr>
<th>Sector</th>
<th>Output %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Component</td>
<td>25</td>
</tr>
<tr>
<td><strong>Leather Products</strong></td>
<td>30</td>
</tr>
<tr>
<td>Textiles</td>
<td>19</td>
</tr>
<tr>
<td>Electronics</td>
<td>18</td>
</tr>
<tr>
<td>Machinery</td>
<td>15</td>
</tr>
</tbody>
</table>

Source: [www.tamilnadu.com](http://www.tamilnadu.com)
3.8.6 MAJOR INDUSTRIES IN TAMIL NADU

- Mineral Based Industry
- Leather Industry
- Engineering Industry
- Pharmaceuticals Industry
- Cotton Textile And Hosiery
- Readymade Garments Industries
- Wood Products Industry
- Agro Based Industry
- Chemical And Petro Chemical Industry

3.8.7 Leather hub of Tamil Nadu:

The state accounts for 70 % of leather tanning capacity in India and 38 per cent of leather footwear and components. The exports from Tamil Nadu are valued at about US $762 million, which accounts for 45% of Indian leather exports. Hundreds of leather and tannery industries are located around Vellore, Dindigul and Erode its nearby towns such as Ranipet Ambur, Perundurai and Vaniyambadi. The Vellore district is the top exporter of finished leather in the country.

That leather accounts for more than 37 % of the country's Export of Leather and Leather related products such as finished leathers, shoes, garments, gloves and so on. The tanning industry in India has a total installed capacity of 225 million pieces of hide and skins of which Tamil Nadu alone contributes to an inspiring 70%. Leather industry occupies a pride of place in the industrial map of Tamil Nadu. Tamil Nadu enjoys a leading position with 45% share in India’s export. Central Leather Research Institute (CLRI), a CSIR research laboratory is located in Chennai, the state capital. Footwear Design & Development Institute (FDDI) is located at Irungattukottai near SIPCOT Footwear Park, Chennai.

Leather hub of Tamil Nadu

Presented below, the leather industries are functioning in Tamil Nadu in the following places which are called as leather hub of Tamil Nadu.

1. Chennai
2. Vellore District
3. Ambur
4. Vaniyambadi
5. Pernambut
6. Ranipet
7. Dindugul, Trichy, Erode.
3.8.7.1 No of leather units in Tamil Nadu:

The table shows No of units of leather sector has operated in Tamil Nadu\textsuperscript{10}

Table – 3.5

No of leather units in Tamil Nadu

<table>
<thead>
<tr>
<th>Sector</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational tanneries</td>
<td>750</td>
</tr>
<tr>
<td>Leather Garments</td>
<td>698</td>
</tr>
<tr>
<td>Upper/ Full shoes</td>
<td>497</td>
</tr>
</tbody>
</table>

Source: Tamil Nadu Global Investors meet 2015

Figure – 3.2

No of leather units in Tamil Nadu

10. Tamil Nadu State profile1, Global Investors Meet – 2015, Slide no.17.
In Tamil Nadu totally 750 operational tanneries, 698 leather garments, 497 upper full shoes industries are operated. In case, there is no tanneries operates without common effluent treatment plants. The following techniques are used for environmental challenges of leather industry in Tamil Nadu.

**Techniques used for Environmental Challenges of Leather Industry in Tamil Nadu:**

Raw effluent from tannery contains the waste and chemicals released during the washing, de-hiring and process of leather, which are the concerns for the leather industry. Now leather industries have been taken care of by adopting the new methods of salt less pickling, use of enzyme in the process and the costly Membrane Technology and Reverse Osmosis system in the leather industry which is called “Zero Liquid discharge” system, recycling and re-using the effluent water from the tannery discharge.

The Indian government has numerous laws in place that keep the leather industry always compliances to the latest environmental norms. State Pollution Control Boards have in the last few years taken stern action and even ordered closures of, and imposed fines on hundreds of tanneries for pollution infractions. Common effluent plants have been a major effort of both central and state governments, and have been established in all areas of where tanneries are clustered.

In Tamil Nadu all operational tanneries have either their own effluent treatment facility or connection to a common treatment plant. Tamil Nadu is thus doing well in terms of pollution control. The Tamil Nadu Pollution Control Board had mandated that no tanning cluster shall discharge any liquid waste.

The Effluent Treatment Plants (ETPs) and Common Effluent Treatment Plants (CETPs) in the leather industry mostly go in for expensive reverse osmosis treatment process of treated waste water, to be followed by mechanical evaporation of the reject.
Completion of Zero Liquid Discharge (ZLD) projects in Tamil Nadu has improved the situational dramatically. More than 95% process water can be recovered and reused\textsuperscript{11}.

<table>
<thead>
<tr>
<th>CEPT</th>
<th>Capacity (Cubic – Metre – day)</th>
<th>GoI Scheme</th>
<th>Likely date of commissioning</th>
<th>Agency of implementation</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>CETP, Valayampet Vanniyambadi</td>
<td>4000</td>
<td>Industrial Infrastructure Upgradation Scheme of DIPP</td>
<td>Under stabilisation</td>
<td>Ambur Economic Development Organisation</td>
<td>Project completed</td>
</tr>
<tr>
<td>CETP, Thuthipet, Ambur</td>
<td>2500</td>
<td>IIUS</td>
<td>Under stabilisation</td>
<td>AEDOL</td>
<td>Project completed</td>
</tr>
<tr>
<td>CETP, Malligaithope, Ambur</td>
<td>800</td>
<td>IIUS</td>
<td>Under stabilisation</td>
<td>AEDOL</td>
<td>Project Completed</td>
</tr>
<tr>
<td>CETP Ranitech Ranipet</td>
<td>3000</td>
<td>11\textsuperscript{th} plan ILDP scheme of Department of Industrial Policy and Promotion</td>
<td>2\textsuperscript{nd} quarter of 2011</td>
<td>Chennai Environmental Management Company of Tanners</td>
<td>work completed</td>
</tr>
<tr>
<td>CETP Melpudupet, Ranipet,</td>
<td>500</td>
<td>IDLP</td>
<td>2\textsuperscript{nd} quarter of 2011</td>
<td>CEMCOT</td>
<td>90% work completed</td>
</tr>
<tr>
<td>CETP Pernambut</td>
<td>1000</td>
<td>IDLP</td>
<td>1\textsuperscript{st} quarter of 2011</td>
<td>CEMCOT</td>
<td>Work completed</td>
</tr>
<tr>
<td>CETP SIDCO Phase I Ranipet</td>
<td>2500</td>
<td>IDLP</td>
<td>2\textsuperscript{nd} quarter of 2011</td>
<td>CEMCOT</td>
<td>Work completed</td>
</tr>
</tbody>
</table>

\textbf{Source: Hindu Survey}

\textsuperscript{11} Environmental challenges faced by leather industry retrieved from \url{www.aishtma.com}, accessed on May 2018.
3.8.7.2 Chennai:

Chennai is the biggest hub of the world leather industry. Tamil Nadu accounts for 45% of leather exports and about 70% of leather production in the country. The large scale presence of the Tanning industry has resulted in Tamil Nadu becoming a dominant production centre in the country for leather and leather based products. In Tamil Nadu 3.9 Million people are employed in the industries dealing with leather and leather based products.

With the expansion and huge investment coming up in this from the national and international reputed brands the employment opportunities in this sector is going to increase many fold. It is estimated that leather industry will require at least one million additional manpower in the next five years. The skill gaps at the level of designers, technologists and management professionals are more stark and demanding. It is where the prospective professionals can take advantage of the courses being offered by FDDI Chennai and opt for lucrative and promising career jobs.

3.8.7.3 Vellore district

Vellore district is one of the 32 districts in the Tamil Nadu state of India. It is one of the 6 districts which form Tiruvannamalai region of Tamil Nadu. It is one of the biggest districts in Tamil Nadu. Vellore City is the headquarters of this district. As of 2011, the district had a population of 3,936,331 with a sex-ratio of 1,007 females for every 1,000 males.

Vellore district has an area of 6077 km². Vellore district lies between 12° 15’ to 13° 15’ North latitudes and 78° 20’ to 79° 50’ East longitudes in Tamil Nadu State. The district is bound on the northeast by Tiruvallur District on the southeast by Kanchipuram District,
on the south by Tiruvannamalai District, on the southwest by Krishnagiri District, and on the northwest and north by Andhra Pradesh state. Major towns in the district include Ambur, Arakkonam, Arcot, Jolarpet, Pallikonda, Gudiyattam, Pernambut, Melvisharam, Ranipet, Sholingur, Tiruppattur, Vaniyambadi, Vellore, and Walajapet.

Kaveripakkam is a panchayat town in Vellore with the second largest lake in Tamil Nadu.

According to 2011 census, Vellore district had a population of 3,936,331 with a sex-ratio of 1,007 females for every 1,000 males, much above the national average of 929. A total of 432,550 were under the age of six, constituting 222,460 males and 210,090 females. Scheduled Castes and Scheduled Tribes accounted for 21.85% and 1.85% of the population respectively. The average literacy of the district was 70.47%, compared to the national average of 72.99%. The district had a total of 929,281 households. There were a total of 1,689,330 workers, comprising 153,211 cultivators, 254,999 main agricultural labourers, 106,906 in household industries, 845,069 other workers, 329,145 marginal workers, 21,897 marginal cultivators, 136,956 marginal agricultural labourers, 29,509 marginal workers in household industries and 140,783 other marginal workers.

BHEL - BAP, Ranipet factory (Bharat Heavy Electricals Ltd - Boiler Auxiliaries Plant) is a major heavy engineering unit of Tamil Nadu. There are three industrial estates, namely SIDCO at Katpadi, SIPCOT at Ranipet and SIDCO at Arakkonam. Leather based industry is the main industry in this district. Ambur, Vaniyambadi, and Ranipet are the main towns involved in the leather business. Asia's biggest explosives manufacturing company, Tamil Nadu Explosives Limited (TEL), is in Vellore at Katpadi. This is India's only government explosives company with more than a thousand employees. The company is headed by a senior Indian Administrative Service officer. Mr. Ravi Pratap Sinha (recruited from an explosives multinational corporation) served as the first GM (recruited
from MNC) of this factory. TEL reached to its highest production level during his leadership.  

3.8.7.4 Ambur

Ambur is a town and state Assembly Constituency in the Vellore District of Tamil Nadu, India. It is located on the banks of the Palar River on the Chennai-Bangalore National Highway.

According to 2011 census, Ambur had a population of 114,608 with a sex-ratio of 1,033 females for every 1,000 males, much above the national average of 929. A total of 13,235 were under the age of six, constituting 6,716 males and 6,519 females. The average literacy of the city was 76.08%, compared to the national average of 72.99%. The city had a total of 25,009 households. There were a total of 40,654 workers, comprising 163 cultivators, 519 main agricultural labourers, 982 in household industries, 35,411 other workers.

Ambur is home to a major part of India's leather tanning industry, earning it the nickname Leather City of South India. A few of India's largest and finest tanneries are located here, making it one of the leading exporters of finished and unfinished leather goods (such as shoes, garments, and gloves) in the country. Due to this, the leather industry occupies pride of place in the industrial map of Tamil Nadu and places it high in the rankings of the nation's exports.

Factories here manufacture shoes for world's leading footwear brand names like Effegi, Florsheim Shoe, Lumberjack, Cole Haan, Gabor, Primigi, Caterpillar, Lamborghini, Cloux, Fretzmen, Hi-Line, Hugo Boss, Marc, Nunn Bush, NXT and many more. Some of the prominent names that have set up manufacturing units here are Roshan NMA Carim Omer & Company, A. Abdul Shukoor & Company, Farida Group, Safura Group, SSC Group, Bonaventure Shoes, NMZ Group of Industries, TAW Group, KAR Group, NMH & Co., Florence, Irbaz Shoes, Mohib Shoes, ESAAR Group, Harmain Leather Exports, etc., and now FDIs (Foreign Direct Investments) have become very common, to name a few establishments ITARES (Italy Renzi Shoes) of Italy, Allen Solly of Switzerland etc. These companies provide a major chunk of employment to the local population which is skilled. Traders who supply shoe materials, chemicals to these companies have huge business opportunities over here.

Ambur has been recognized as 'Town of Export Excellence' for leather products by Government of India. "Ambur Trade Centre" has been constructed with financial contribution from Indian government and the leather industry which provides a platform for holding international exhibitions, conferences, workshops, and Leather Testing Services etc;

One of the problems that Ambur faces is polluted ground water which is not potable due to the chemicals released by the leather tanneries directly into the most-of-the-time-dry Palar River traversing across Ambur before the Common Effluent Treatment Plants that use Reverse Osmosis process were installed.

However, with strict measures taken by the State Government in the interest of public and to preserve the water table pollution-free, most of the companies have now
installed effluent treatment plants to treat the water from harsh chemicals such as hexavalent chromium, trivalent chromium, etc.

3.8.7.5 Vaniyambadi

Another centre famous for the leather industry is Vaniyambadi. Here again there are quite a large number of tanneries where items such as E.I. tanned goat and sheep skins, finished leathers are made, locally supplied and exported. There are also innumerable job tanners here. It is the best place for dealing in sheep items. We can say that it is the leather tanning centre with the largest number of tanneries in Tamil Nadu. No other centre has as many tanneries as Vaniyambadi does. there are more shoe units in Ambur which are supplying to the best shoe companies abroad. These two neighbouring centres are playing an important role in the development of the leather industry in the country.

3.8.7.6 Pernambut:

Pernambut is a town in Vellore district, Tamil Nadu State, India. Pernambut is 35 Kms away from Vaniyambadi. The town is famous for its Leather industry. This small town has about 35 tanneries where mostly items like buffalo hides and soul leathers are made for local supplies. Some are also exporting these items. Some shoe factories have also been established here. They are mostly doing job works. Much development is not seen here as perhaps there is nobody to guide them for adopting modern approaches for finance and industrial developments.

3.8.7.7 Ranipet:

Ranipet also known as Ranipettai is a suburb town and industrial hub of Vellore city in the state of Tamil Nadu in southern India.
According to 2011 census, Ranipettai had a population of 50,764 with a sex-ratio of 1,091 females for every 1,000 males, much above the national average of 929. A total of 5,124 were under the age of six, constituting 2,564 males and 2,560 females. The average literacy of the town was 81.%, compared to the national average of 72.99%. The town had a total of 11,764 households. There were a total of 18,243 workers, comprising 45 cultivators, 100 main agricultural labourers, 373 in household industries, 16,095 other workers, 1,630 marginal workers, 15 marginal cultivators, 29 marginal agricultural labourers, 95 marginal workers in household industries and 1,491 other marginal workers.

There are a number of large- and medium-scale leather industries making both finished leather and leather articles such as shoes and garments for export. There are other small-scale industries in Ranipet, mostly engaged in chemical, leather and tool making. These industries are the major lifeline for the town.

Ranipet was once glorified as fast developing industrial zone, but faced some repression. Ranipet indirectly suffered from Worldwide Economic 2008 repression as leather business and exports cater to Western Developed nations. Now it is in progress for development with a new Special Economic Zone at Nellikuppam, a suburb of Ranipet.

Ranipet houses AH Group And KH Group of companies. Nearly 400 small and medium leather units are placed in Ranipet.13

3.8.7.8 Dindigul, Erode and Trichy:

Dindigul is the 13th largest town in Tamil Nadu. Dindigul is known for its leather tanning Industry. It is still a well known centre as before for E.I. tanned goat and sheep skins as most of the tanners here are addicted to doing only this popular item due to various reasons. There are very few tanners in the chrome tanning and no tanner seems to be producing finished leather here. A reliable and traditional tanner who has inherited this trade from his forefathers told me that the present situation is not conducive for switch over to anything like full chrome, semi chrome or finished leather. The association also does not permit it as pollution is involved. Other problems such as labour and water are also there. The progressive policy of the government has not changed this tanning centre much. While the leather industry has suffered, textile industry has made a good development here in Dindigul. It is said that there are more than 250 spinning mills here.

Other popular centres are Trichy and Erode. There are many tanneries in Trichy where mostly high standard E.I. tanned goat skins are produced and in the Erode tanneries wet blue cow hides are the main items done. Only very few tanners do some other leather items.14