

SECTION 1 - INDUSTRIAL SCENERIO AT THE NATIONAL LEVEL

Livestock base

The leather industry in India owes its origin and growth to the strong and wide spread livestock base in the country. According to an assessment made in 1996, the world livestock population was 3194 million heads and India with 479 million heads accounted for 15% of world population. India ranked number one in cattle, buffaloes and goat population and four in sheep population. Almost 60% of the buffaloes in the world are in India. With an annual average rate of growth around 1.5% India is maintaining the lead position.¹

Availability of hides and skins

Hides (from cattle and buffaloes) and skins (from goats and sheep) the basic raw materials for leather industry are obtained from slaughtered and dead ovine and bovine animals. The quality of hides and skins depends upon the area from which they originate. India is known to produce some superior qualities of hides and skins. The goat skins of North Bihar and Bengal (The Ganges valley) possess very fine grain and are prized all over the world as the finest raw material for superior glazed kid leather.² The current annual availability of hides and skins is placed around 160 million pieces. It is estimated that 40 to 50 percent of cattle hides and 30 to 40 percent of buffalo' hides are obtained from fallen stock. In case of cattle hides, only 79 percent of the fallen stock are recovered. In buffaloes hides and sheep skins the recovery is around 90 percent.³ If the rate of recovery is improved there will be substantial increase in the overall availability of hides and skins.

High level of deterioration in quality necessitates imports

Due to ages old flaying, curing, storing and handling practices, a significant portion of the hides and skins become low grade by the time they reach the tanneries. Since high quality of leather is required for manufacture of products for export the Government have allowed import of all types of leather without any restrictions. In 1997-98, the leather industry has imported raw hides and skins worth Rs.167.84 crores, semi processed leather for Rs.18.95 crores and finished leathers to the tune of Rs.348.70 crores, totaling Rs.535.49 crores.

Socio - economic importance

The leather industry, by virtue of its strong linkage to rural agro-based families tending livestock, its role as a major employment provider to the masses- 15 million direct and 5 million indirect employment – and fourth largest foreign exchange earner – Rs.6955.78 crores through export of leather and leather products in 1998 –99 occupies a place of pride and prominence in the socio-economic firmament of the nation.

¹ Report on Capacity Utilisation and Scope for Modernisation in Indian Tanning Industry, Central Leather Research Institute, Chennai

² Theory and Practice of Leather Manufacture - K.T.Sarkar

³ Source same as footnote 1

Industry concentrated in a few states

Even though hides and skins are available all over the plains of the country, tanneries came to be established in Calcutta and Madras regions predominantly because export trading in hides and skins were taking place from these port towns which had a strong linkage to the British traders. These centers still dominate the scene. The statewise distribution of tanneries in the country is as under:

Table 1
TANNERIES IN INDIA-STATE WISE -1998

STATES	NO. OF TANNERIES	PERCENTAGE
Tamil Nadu	833	52.4
West Bengal	361	22.7
Uttar Pradesh	188	11.8
Punjab	79	4.9
Andhra Pradesh	24	1.5
Maharashtra	23	2.1
Karnataka	16	1.0
Bihar	17	1.1
Haryana	18	1.2
Other states	20	1.2
Total	1589	100.00

Source: Directory of Tanneries in India, compiled by Central Leather Research Institute, Chennai.

Emergence of product industry triggered by export oriented policies

A series of export oriented policy changes, driven by compulsions of deteriorating balance of payments position, coupled with shrinkage of leather industries in developed countries induced the growth of product industries, particularly in the eighties and nineties. These are:

- Ban on export of raw hides and skins and pickled hides and skins in 1973.
- Restriction on export of semi-finished leather.
- Relaxation of import policies and duties for import of technology, capital goods, chemicals and other inputs.
- Incentives for export of value added products.
- Ban on export of semi-finished leather in 1990.

Shrinkage of leather industry in developed countries another factor

Due to substantial increase in labor costs, tough pollution control regulations and shift towards hi-tech, less labor intensive industries, the developed countries started shrinking leather-based activities in seventies and eighties. These countries preferred to source their supplies from developing countries, extending the technology and know how. There were added advantages in price and choice of sources.⁴

Transformation from exporter of raw material to value added products

The period 1970 to 1990 witnessed the transformation of Indian leather industry from an exporter of hides and skins to that of finished products exporter. During this period (1972-73 to 1990 91) export of semi-finished leather declined from Rs.152.60 to Rs. 3.80 crores and export of finished leather and products increased from Rs. 31.40 to Rs. 2550.00 crores. This trend continued in the nineties also.

Predominance of SSI units – policy induced

SSI Units dominate the tanning sector as well as products sectors. This is due to the conscious policy of the government to protect the millions of artisans dependent on leather industry for their livelihood.⁵ Hence almost all items of leather industry were reserved for small scale sector. The products reserved for small-scale sectors are:

- Vegetable tanned hides and skins: semi – finished
- Chrome tanned hides and skins : semi – finished
- Sole leather, picking band leather, leather pickers and other accessories for textile industry, harness leather, leather shoes, shoe uppers, leather sandals and chappals, leather garments, suit cases and travel goods, purses, handbags, fancy leather goods, watch straps, cases and covers of all types, industrial gloves and washers and laces.⁶

For finished leather no reservation

No industrial license is required for processing of hides and skins from wet blue stage to finished leather. However, the location of industrial projects will be subject to Central or State Environmental laws or regulation, zoning and land use regulation. An industrial Entrepreneur Memorandum needs to be filed with the Central Government.⁷

Large-scale units permitted with heavy export obligation

Large- scale units are permitted to enter the field subject to licensing and export obligation of 75% of production. A few footwear units have been established on this basis.

⁴ Indian Leather 2010, published by the Central Leather Research Institute, Chennai

⁵ Same as above

⁶ Restructuring and Modernisation of SME Clusters in India, Mukesh Gulati, UNIDO, New Delhi

⁷ Technology Diagnostic Study of Leather Industry, Federation of Indian Chambers of Commerce and Industry, New Delhi

The impact of this policy framework is reflected in the table below:-

Table 2
STRUCTURE OF LEATHER INDUSTRY- PERCENTAGES – 1990

PRODUCT	COTTAGE/HOUSEHOLD	SMALL	MEDIUM
Tanning	-	80	20
Footwear	55	35	10
Garments	-	100	-
Leather goods	-	100	-

Source: Indian Leather 2010, published by CLRI, 1994

Creditable export performance

Besides catering to the domestic market mainly confined to footwear, the leather industry has been registering creditable performances in the export front also. After textile, gem and jewellery and engineering industries, leather industry earns valuable foreign exchange to the country. Its appreciable performance is presented in the table below:

Table 3
EXPORT OF LEATHER AND LEATHER PRODUCTS IN 1998-99

Product	Finished Leather	Leather Footwear	Footwear Components	Leather Garments	Leather Goods	Sanddlery & harness
Value in Rs. crores	1131.6	1238.4	1040.0	1572.8	1830.5	142.4
					Total	6955.7

Source: Council for Leather Exports, Annual Report, 1998-99

Future outlook

(a) Domestic market

The complexion of domestic market is likely to undergo a sea change with the advent of foreign brands of leather products, particularly, footwear, as the process of dismantling of import restrictions, as required by WTO, gains momentum towards free trade in 2003. But the domestic market is growing in footwear and leather goods. The Working Group on Leather and Leather Goods Industries for the VIII Five Year Plan had estimated that the domestic demand for footwear in 2000 would be 562 million pairs and leather goods 49 million pairs.⁸

⁸ Source same as footnote 4

(b) Export markets- prospects for footwear promising

While removal of restrictions on export of hides and skins and semi-finished leather, once again under WTO regulations (a beginning has been made in mid January 2000 by allowing export of semi- finished EI Tanned (goat) leather with 15% export duty) may improve export of semi-finished leather, external competition for leather products will intensify in the coming years. But in export of shoes and footwear components, India will be consolidating the gains made in the last few years and make big stride. Sri. M.Mohamed Hashim, Chairman of Council for Leather Exports said, “ The Kosovo crisis has had a far-reaching economic fall-out. As some of the small countries in the region servicing the mainline European shoe industry have been hit, the orders have come to Indian shoe factories. The brighter side of this development is that the Indian manufacturer is now being recognized for quality and timely delivery schedules.”⁹

Long way to go

Although India enjoys a share of 11% of the global manufacturing base of leather in quantum, the market share of the country in the world trade of around 70 million US dollars for leather and leather products, is about 2.5% only. It is way behind the target of 10% of world trade, fixed for 2000 by the Central Government.¹⁰

⁹ Leathers, July 1999 issue-a monthly publication of Council for Leather Exports, Chennai

¹⁰ Same as footnote 4

SECTION 2 - LANDMARK HISTORY AND PERFORMANCE OF THE LEATHER CLUSTER

Ancient industry

The art of tanning hides and skins and use of leather for various purposes in day to day life were known to Indian culture thousands of years ago. The history of leather manufacture in India can be traced back to ancient times as is evident from references to it in Vedic literature.¹¹ Marco Polo, the Venetian merchant traveler (1260 – 1270 AD) has mentioned that he has observed in India, mats in red and blue leather, exquisitely inlaid with figures of birds and beasts and skillfully embroidered with gold and silver.¹²

More than a century old in Ambur

The emergence of Madras as a major trading center for leather during the British rule inspired the people in the trade to put up tanneries. Since tanning required plenty of water, the river system nearer to Madras, namely, the Palar river basin was the natural choice. It had copious flow of clean water. The next requirement was transport to Madras, which was the gate way port for export of leather – a distinction that the port holds even to day after more than a century. Vaniyambadi, Ambur, Pernambut and Ranipet, which fulfilled the basic requirements, attracted the leather men. Vaniyambadi was the first center, followed by Ambur and in both places the business is more than 100 years old.¹³

Clustering due to community

From the days of Akbar, Muslim community was deeply involved in leather trade. Since the above said centers were Muslim settlements, tanneries became their obvious choice of business and industry. This community bias has been the major cause for the origin and growth of tanneries in centers like Dindigal, Trichi and Erode in Tamil Nadu. Leather became the core business of Muslim families and this led to clustering in Ambur.

Slow growth due to traditional processing

The process of evolution of leather tanning into mechanized industry has rather been slow in India and Ambur was no exception. For more than 50 years, tanning was essentially a manual operation. The process was known as vegetable tanning and the method was bark tanning. The transformation from household activity to mass production methods in separate premises engaging a group of workers took place in the forties. By mid forties there were about 20 such organised production centers which could fit into the definition of a tannery. It was in the fifties that mechanically

¹¹ Same as footnote 4

¹² Same as footnote 2

¹³ Interview with Sri. V.M.Khaleelur Rahman, Hony. General Secretary, The Ambur Tanners Association.

driven drum was introduced and tanning with wattle extract was extensively used.¹⁴ The vegetable tanning, otherwise popularly known as East India (E.I) tanning dominated the Ambur leather industry for the next 25 to 30 years. The phase of mechanization gained momentum in the seventies and eighties with the introduction of chrome tanning, necessitated by the increasing demand for chrome tanned leather in international markets.

Checked history of tanneries in Ambur

The checked history of Ambur tanneries is characterized by change of processes, external influences and internal compulsions. These are:

The period upto 1950 – slow but steady growth of business

- Characterized by export of raw hides and skins and semi finished vegetable tanned skins with more and more people entering leather business.

Set back fifties

- “ The 1951 dollar crisis resulted in heavy losses to many exporters and quite a few of them went out of business. The position of the trade deteriorated by the end of 1951 for want of foreign demand. Almost all the tanneries were closed due to heavy losses with the exception of a few tanneries, which could sustain the losses. Some tanneries were running with meagre production till 1957”¹⁵.

Sixties – period of revival and mechanisation

- The change over to machines for EI tanning coupled with revival of demand in export markets set the tanneries in the growth path.
- By mid-1967 there were 26 mechanised tanneries processing EI leather.
- Chrome tanning made an entry with 6 tanneries engaged in wet blue (chrome) processing.
- The job working concept appeared in leather business with 3 tanneries doing job work only.

Seventies and eighties – period of consolidation and tremendous growth

- The number of tanneries increased from around 40 in the beginning of 1970 to around 100 in 1990.
- Manufacture of finished leather for export and local markets and for shoe uppers gained strength.
- A handful of tanneries diversified into manufacture of shoe uppers and full shoes for export.
- Job working formed a significant portion of semi finished leather business

¹⁴ Interview with Sri. Shafiullah, a person who has been in EI tanned leather business for more than 50 years and currently running a tannery, Gul Mohamed & Co.

¹⁵ Memorandum submitted to the Central Wage Board of Leather Industry by the Ambur Tanners Association in December, 1967

Trouble some nineties

- Ban on export of semi finished leather in 1990 made deep inroads into the business and prosperity of tanneries.
- Failure to set up effluent treatment plants, inspite of repeated extension of deadline, resulted in the Supreme Court ordering the closure of tanneries which have not put up effluent treatment plants.¹⁶ 34 tanneries remained closed from mid 1995 for about 6 months.
- Sudden stoppage of cash flow due to closure and huge investment in effluent treatment plants (individual or common) severely drained the resources of tanneries
- After reopening many tanneries could not resume own processing of leather and hence, resorted to job working for merchants.
- 16 tanneries still remain closed due to their inability to put up effluent treatment plants with no prospect of reopening.
- The demand by Loss of Ecology Authority for payment of huge amounts as compensation to agriculturists affected effluents discharged by tanneries (The demand from tanneries in Vaniyambadi, Ambur, Pernambut and Ranipet centers in Vellore District is a whopping Rs.120.00 crores)¹⁷ is looming large over the heads of tanneries. This has dampened the hopes of a majority of tanners who were looking for light at the end of the tunnel.

Forward integrated units impressive growth and performance

A handful of progressive tanners who had consolidated their tanning operations and export of finished leather ventured into forward integration and put up factories for manufacture of shoe uppers for export. The first factory was established in 1972. To day there are 5 big groups running 15 shoe factories and another 9 medium sized units in Ambur which are making waves in international markets for shoes. This small group of visionaries has painted the brighter side of Ambur leather industry.

Export rejects give birth to tiny shoe making units

In the early stages, when the large shoe units were exporting mainly shoe uppers, there were not many rejections. Shoe uppers with minor defects were repaired and exported. In course of time when quality aspects became rigid and the demand for export of full shoes was picking up, large shoe units started selling defective shoe uppers in the local market. This development prompted the artisans in hand shoe making profession and some employees of large shoe units with ambitions of becoming self made entrepreneurs to buy export rejects of shoe uppers, make full shoes by a combination of manual and simple machine operations and sell them in the local market. In the last 10 to 15 years of this development, a new cluster within the cluster, namely, cluster of tiny shoe making units, with a strong linkage to large shoe making has emerged.

¹⁶ Supreme Court judgement dated 28.8.96 on the Writ Petition filed by the Vellore Citizens' Forum against the tanneries in the then North Arcot district.

¹⁷ Demand notices issued by the Loss Ecology Authority, Chennai to the tanneries in Vellore district for payment of compensation to agriculturists affected by effluents of tanneries.

Labor intensive shoe making leads to sub contracting

Export demand for shoes and components was continuously increasing. The large shoe making units did not consider it prudent to expand productive capacity beyond a certain level as export markets were generally unpredictable, particularly in fashion oriented items like shoes. For these and following reasons, these units have consciously encouraged sub-contracting units:

- Expansion of in-house production facilities required heavy investments in building and machinery.
- Since footwear manufacture is labor intensive, substantial increase in work force may lead to labor problems.
- Increase in overheads will push up costs.
- Orders in excess of own capacity can be accepted and executed.
- Lean periods, which are common in export business, can be overcome comfortably.

As a result of this shift a number of enterprising youngsters, some of them ex-employees of large shoe units put up job working shoe units. In the last five years, there has been appreciable growth of such units.

Finished leather exports continuing

Besides large tanneries, about 20 medium and small tanneries are also in the finished leather export business. The large units as well as other units export finished leather to countries like Germany, Italy, U.S.A., U.K. and France. Of the top 20 companies exporting finished leather from India, 3 companies are in Ambur. Their contribution alone works out to Rs. 68.75 crores in 1997-98 out of a total export of Rs. 1214.00 crores, which works out to 5.6%. If contribution of other exporters are also taken into account the performance of Ambur will be around 12%¹⁸.

Ambur- leader in shoe exports

The export performance of shoe units in Ambur is remarkable. The top ranking exporter in India is based here. The 9 large producers of shoes and components have a combined export turnover of Rs. 463.90 crores which is 20% of all India exports. If the foreign exchange earnings of other exporters are also taken into account, total export will be around Rs. 500.00 crores.¹⁹ On the whole there are positive signs that the shoe industry of Ambur will be making big strides in the coming years.²⁰

Pollution- decades old issue in tanneries in TN

Environmental degradation caused by effluents let out by tanneries in Tamil Nadu was worrying the State Government even when vegetable tanning was done. In

¹⁸ Export of Leather and Leather Products during 1997-98 published by the Council for Leather Exports, Chennai

¹⁹ Same as above

²⁰ Interview with Sri. M.Rafeeqe Ahmed, former Chairman, Council for Leather Exports and present President, AISHTMA, Chennai.

1939 itself, the then Provincial Government constituted a committee to suggest ways and means to treat the effluents let out by the tanneries. Since then a series of committees have been constituted by the State Government and time and again the tanneries were told to put up effluent treatment plants.²¹ Bereft of conviction or compulsion the tanneries never took the matter seriously.

Issue goes to Supreme Court

As the flow of water dwindled in Palar river due to construction of check dams upstream by Karnataka and Andhra Pradesh through which the river flows before entering TamilNadu, the level of pollution in Palar basin increased, affecting drinking water supply to a number of villages. Alarmed by this development the Vellore Citizens Forum filed a writ petition in the Supreme Court in 1991.

Tanneries left with no other alternative but to put up ETPs or CETPs

The SC admitted the petition and directed the tanneries not only in Vellore district but also in other parts of Tamil Nadu, to put up individual or common effluent treatment plants and comply with the standards prescribed by the Tamil Nadu Pollution Control Board (TNPCB) for treatment and discharge of effluents and disposal of sludge. Since effective steps were not taken by a large number of tanneries, inspite of repeated extension of time by the Supreme Court, the Court finally ordered closure of the tanneries, which did not put up ETPs. Sensing trouble, the large tanneries started construction of individual effluent plants when the case was in the SC, got approval of the TNPCB in time and avoided closure. By the time the CETP at Thuthipet was ready, and the tanneries completed the formalities to get connected to the CETP six months had passed from the date of SC order and about 35 tanneries remained closed during this period.

Water problem-fall out of pollution

Due to discharge of untreated effluent on surface and waterways for many years, the ground water in Ambur city and in the villages where the tanneries are located has been highly polluted. Consequently, tanneries are unable to use the ground water within the factory premises for processing hides and skins. They are now bringing water from open wells and borewells in the upstream of Palar river 8 to 10 Kms. away from factories. Even this water is deteriorating in quality as recharging of sub soil strata has been very poor in last few years due to decrease in rainfall and reduced flow in Palar river. If the same rate of depletion and deterioration continues, the tanneries will be facing serious water problems in the next five years.

²¹ Thol. Thozhil Vazham – a Tamil monthly on leather industry published from Chennai – June 1991 issue

SECTION 3 - SKETCH OF THE SME's, OTHER ENTERPRISES & INSTITUTIONS

Leather industry- mainstay of Ambur.

The economy of Ambur is inextricably mixed up with that of leather industry as other industries are conspicuous by their absence. But for the service industry and that too confined to tiny workshops to sharpen knives, motor rewinding, drums repairing there is no other organised industry for manufacture of machineries, components or accessories with the lone exception of a sole and leather boards making unit. The decline in the fortunes of the leather industry is sharply reflected in businesses like lodging and catering, real estates, textiles, electronics etc.

Tanneries located in and around Ambur

There are 28 tanneries within Ambur municipal limit. Other tanneries are located in the villages in the periphery of the town. Thuthipet village with 20 tanneries and adjoining Periarikkam village with 22 tanneries are the major concentrations. The remaining 41 tanneries (total being 111) are in other villages, all within a radius of five kilometres from the center of the town.

Structure of the Industry – Clusters within cluster

The leather and shoe industries and business can be broadly classified as under:

- Big groups having their own large tanneries fully equipped to process hides and skins from raw to finished stage, shoe units and own Effluent Treatment Plants (ETPs)- Category- I
- Tanneries capable of processing raw to finished leather with one or more finishing facilities, doing predominantly their own processing and occasionally job working and having their own ETP or connected to Common Effluent Treatment Plant (CETP)- Category -II
- Tanneries processing raw to EI tanned and raw to wet blue tanned leathers doing job work for others and connected to CETP- Category -III
- Merchant tanners who have no tanneries but doing leather business- Category - IV
- Small job working shoe uppers units working for big shoe units – Category -V
- Dry processing units, having one or more finishing facilities and mostly doing job work – Category -VI
- Tiny shoe units (cottage units) producing shoes out of export rejects of leathers and shoe uppers- Category-VII

Linkages

The inter category and intra category linkages are graphically depicted in the cluster map in Annex I

STATISTICAL PROFILE OF AMBUR LEATHER INDUSTRY

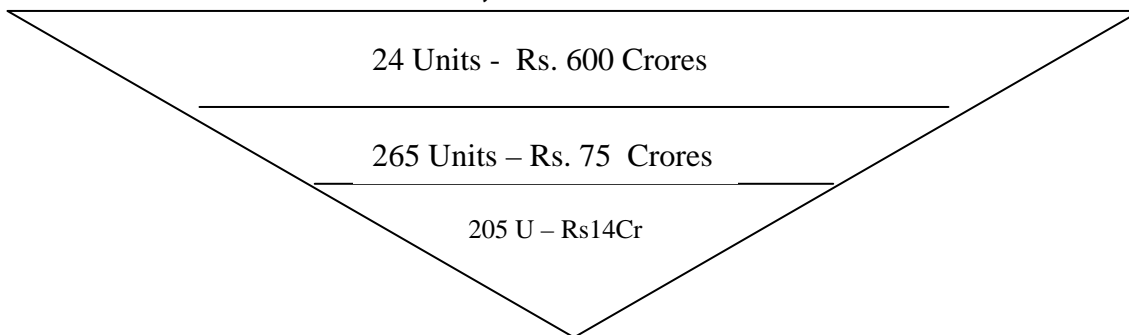
Cat.	No. of units	Products	No.of workers employed	Estimated annual turn-over (Rs.crores)
I	24	Finished leather Shoe uppers Full shoes	12,000	600.00
II	15	Finished leather	1,500	50.00
III	50	Semi-finished Leather	2,500	5.00
IV	200	Semi-finished And finished Leather	1,000	20.00
V	40	Shoe uppers	2,000	5.00
VI	15	Finished Leather	750	1.50
VII	150	Full shoes	750	7.50
Total			20,500	689.00

Source: Ambur Tanners Association
 Ambur Small Scale Shoe Manufacturers Association
 Export of Leather and Leather Products during 1997-98 published by
 The Council for Leather Exports

Inverted triangle pattern

The structure of the industry and the turnover pattern of different categories of units interestingly reveal an inverted triangle pattern as presented below:

3.0 SKETCH OF THE SMEs, OTHER ENTERPRISES AND INSTITUTIONS



(a) Local Institutions

The Ambur Tanners Association (ATA)

Extreme focus on labor issues

The primary objective of ATA, when founded in 1946 was safe guarding the interests of employers in labor matters. In the memorandum submitted to the Central Wage Board in December, 1967 it was stated that "there was no organisation to represent them (employers) before the labor welfare officers and other officials who took up the cause of the workers" and hence the ATA

was formed. All these years the activities of ATA have centered around labor issues and it is to the credit of ATA that it has maintained harmonious relationship with workers and their unions. Issues concerning wages, dearness allowance, bonus and other benefits have been amicably settled through negotiations and agreements at bipartite and tripartite levels.

Neglect of other services

Even though a number of other objectives have been narrated in the Articles of Association, ATA generally passed on issues relating to policies and procedures, taxation etc., to All India Skin and Hide Tanners and Merchants Association (AISHTMA) in Chennai. There have virtually been no other developmental activities except conducting seminars and workshops once in a while.

Some activities crisis driven

The promotion of Ambur Effluent Treatment Company (AMBURTEC), even though necessitated by the Supreme Court order closing down the tanneries, is a historical achievement of ATA. AMBURTEC in turn established two common Effluent Treatment Plants to overcome pollution problems and enable most of the tanneries to reopen.

Financially weak due to low level of membership

Out of 111 Tanneries in Ambur only 55 tanneries are members of ATA inspite of a very nominal subscription of Rs.200/- per month. According to Sri. Khlaleelur Rahman, Honorary General Secretary of ATA, many tanneries keep away from the Association to avoid implementation of agreements of the Association for increase in wages, bonus and other benefits to the workers. Due to inherent financial weakness, ATA has neither been able to own a building nor build up a strong secretariat.

Tamil Nadu Shoes and Leather goods Manufacturers Association

Inactivity drives members away

This Ambur based Association established in 1986 has members from near by centers also. Since tanners had their own Association and since product manufacturing units were not eligible to become members of ATA the manufacturers of shoes and leather goods formed their own Association. This Association was active for some time. For want of leadership the Association degenerated and became inactive. It is said that this Association once had a membership of more than 100 shoes and leather goods manufacturers. The membership has now dwindled to less than 50, obviously due to the inactivity of the Association.

Training programme in sewing – good start but a bad ending

In 1988-89, this Association conducted 6 months operatives training course in sewing for the footwear industry with the help of machinery provided by large scale shoe manufacturing units. Two batches of about 40 persons were trained. Due to poor management of the scheme, new trainees were not forthcoming to join the course and finally the scheme was wound up in 1990.

FDDI supported scheme also met with the same fate

In 1993, the Association revived the training programme with the help of Footwear Design and Development Institute (FDDI). This programme was started in separate premises, once again with sewing machines spared by large units. The expenses for engaging qualified instructors and conduct of the programme were partly funded by FDDI. This programme also became a victim of poor management and the facility was closed down after training four batches, with the number trainees declining sharply from the third batch.

The Ambur Small Scale Shoe Manufacturers Association (ASSMA)

Recently formed

About an year back, the owners of tiny shoe making units felt the need for an Association to safeguard their interests and work for the growth of the tiny shoe units. A small group of tiny shoe making units joined together and promoted the above Association in May 1999. Registered under the Societies Act, 1860 this Association at present has 110 members.

Leaders with ambitions and doing what little they could

The leaders of the Association are anxious to render useful services to the members through the Association. They have been helping the members to obtain sales tax registration, SSI registration etc., by engaging the services of an auditor on a common basis. They are also running an informal chit fund scheme to help the participating members to acquire machinery for increasing production. The Association has plans to create common service facilities to the members. It is yet to create a secretariat to manage its day today activities.

The Ambur Effluent Treatment Company (AMBURTEC)

Quick action saved many units

AMBURTEC a company registered under the Companies Act 1956, was promoted by ATA in 1987. AMBURTEC proposed to establish CETPs in the following five places in Ambur where there were concentration of tanneries:

- 1) Thuthipet
- 2) Maligaithope
- 3) Tharvali
- 4) M.C.Road
- 5) Mittalam

Tanneries which wanted to join the CETPs were required to become shareholders of AMBURTEC and their equity contribution was fixed on the basis of their production capacity for soaking raw hides and skins. Due to financial difficulties, the response to Tharvali, Mittalam and M.C.Road CETPs was poor and hence these proposals were dropped. Ultimately, the CETP in Thuthipet was commissioned in May,1995 and in Malagaithope in August 1998.The details of these CETPs are as under:

Details	Thuthipet	Malagaithope
No. of tanneries proposed	49	18
No. of tanneries actually connected now	44	8
Inflow of effluent planned (KLD)	2219	1100
Project cost (Rs. in crores)	4.14	2.55

Treatment charges

The tanneries now connected to CETPs are required to pay Rs.17.00 per month per Kg. of production capacity as declared at the time of admission, whether they work or not. They are not permitted to increase the production capacity not only by the CETPs but also by the TNPCB.

Nagging issues persist – TDS level a cause of worry

Both the CETPs are still struggling to fully meet the standards of effluent treatment. The major problem is in bringing down the Total Dissolved Salts (TDS) to the permitted level of 2100 mg/l. Of course, this is a universal problem faced by all wet-processing industries in the country. A new system suggested by NEERI, namely, High Rate Transpiration System (HRTS) is being experimented in Thuthipet CETP. If this system proves successful, there may be some relief from this problem. Similarly, disposal of sludge, which is classified as hazardous, is another problem facing the industries. Part of the responsibility to solve this problem rests with the State Government.

Presence of chrome

Only a handful of tanneries have effective chrome recovery plants. Others are using the ineffective peddle system to remove chrome in the effluent with the result the effluent received into the CETPs contain a high level of chrome. It is time that the tanneries realised the seriousness of the problem and put up chrome recovery plants in their units. There will be substantial saving in cost also.

(b) Outside institutions

The All India Skin and Hide Tanners and Merchants Association, Chennai (AISHTMA)

Apex institution of leather industry

This apex body of the tanning industry in India based in Chennai has three categories of members, namely, Associations of Tanners, Common Effluent Treatment Plants and individual tanners and merchants. At present, there are about 700 members from all over the country and membership keeps changing every now and then as members who fail to renew the membership are removed from the membership. As the custodian of leather industry AISHTMA is “ charged with the responsibility of promoting the interest of tanning industry, leather trade and other allied trades and industries”²² This is the main organization providing the link between the industry and trade on the one side and central and state governments on the other side. This 82 year old Association has been headed by stalwarts of leather industry from time to time.

Dissemination of information

AISHTMA keeps the members informed about changes in policies and procedures, national and international developments in the leather front, trade fairs in India, etc.

Role in policy making

AISHTMA was often consulted by the Central and State Governments on policy issues. However, the policy concerning export of semi-finished leather generated lot of heat in the Association. The for and against arguments on this issue reached the crescendo at the end of 1998. After vociferous and heated exchanges between members AISHTMA withdrew from the scene saying that henceforth it would not deal with policy matters.

Pollution control

AISHTMA has played a useful roll in the establishment of CETPs and IETPs in the leather sector in Tamil Nadu. It has also been helping tanneries to overcome teething problems faced by them in the operation and maintenance of effluent treatment plants by enlisting the services of technical institutions like CLRI, NEERI and UNIDO , RePO.

Support for research work

This cash rich Association (the excess of income over expenditure in 1997-98 was more than Rs. 17.00 lakhs as per the Annual Report) extends financial support to important projects, studies and research work done by CLRI , IULTCS, ILIFO and co-sponsors some of the programs of UNIDO, RePO and CLE.

Participation in trade fairs subsidized

²² Annual Report of All India Skin and Hide Tanners and Merchants Association, Chennai for the year 1998-99

Besides co-sponsoring trade fairs for leather and leather products organized in India by the Council for Leather Exports and India Trade Promotion Organization, ASHTMA makes block booking of stall space in trade fairs and offers the same to members on a subsidized cost.

Wattle extract distribution

Import and distribution of Wattle Extract to the industry for tanning on a no loss no profit basis is another major activity of this Association .

UNIDO

Pollution control in tanneries

The Regional Programme office of UNIDO for pollution control in tanning industry in South East Asia has done enormous work in promoting cleaner technologies in tanning industry all over India including Ambur. It is providing technical guidance and support to the CEPT's in Ambur in Operation and Maintenance.

Re-engineering in Thuthipet CETP

In order to overcome the design deficiency in the CEPT at Thuthipet, UNIDO has entered into an agreement with AMBURTEC in August 1999. Under this scheme modifications involving civil work and installation of additional machinery are being carried out in the CETP at a cost of Rs.100 lakhs, sixty percent to be borne by UNIDO and the balance by the Company.

Occupational safety and health of workers

UNIDO has further been conducting Workshops in Ambur for improvement of working conditions in tanneries, health and safety of workers doing hazardous jobs in tanneries. This Scheme is being implemented with the expertise of Sri Ramachandra Institute of Medical Sciences.

Pilot plant for chrome recovery and solar evaporation

In order to emphasize the need and importance of eliminating chrome in tannery effluent before it is taken up for further treatment and popularize the economics of reusing the recovered chrome, UNIDO has setup a pilot chrome recovery and reuse plant in one of the tanneries in Ambur. A tannery processing 900 tons of hides per annum will require a 7500 litres per day chrome recovery plant costing Rs.7.50 lakhs. By reusing the recovered chrome the tannery will be able to save Rs.4.50 lakhs per annum after meeting all operating expenses of the plant and depreciation²³. Similarly a pilot plant has also been put up in one of the tanneries in Ambur for solar evaporation of soak liquor.

Central Leather Research Institute (CLRI)

Premier research institute

CLRI is the premier and probably the largest technical institution in the country carrying on research as well as man power development for the leather industry. This institute established in 1953 has modern facilities and equipment for hides and skins processing, manufacture of various products and a most modern design studio for shoes designing. The institute also

²³ Tannery Modernisation Scheme, prepared by National Leather Development Programme, Ministry of Industry, Govt. of India

houses a modern testing laboratory. The library is one among the best in the country.

Transfer of technology

The institute has been having regular interaction with the industry for transfer of technology and benefits of research. Scientists from the institute visit the units if any unit requires its services to overcome technical problems or improve processing methods. A team of scientists was stationed in Ambur for about eight months in 1997-98 to familiarize the tanneries with cleaner technologies to reduce the load in the effluent discharged by the units to the CETP's. The institute is further holding an annual conference for institute / industry interaction.

Large scale units effectively use design studio

The design studio of the institute is fully utilized by the large shoe manufacturing units in Ambur. All the leading shoe manufacturers of Ambur are members of the Shoe Designers Club and get regular information on changes in materials used for shoe making, fashion trends, color preferences and techniques in shoe designing. They also have access to the CAD facilities in the design studio.

One way flow of services to SMEs

Even though the services of the institute are open to all units in the industry, big or small, the SMEs make use of the services of the institute only when the services are made available at their door steps. Rarely an SME goes to Chennai to avail the services of the institute except for carrying out certain tests arising out of business compulsions. A number of small tanners in Ambur expressed the view that a service center of the institute at Ambur would be helpful to them to get on the spot and quick solutions to their technical and processing problems.

Council for Leather Exports (CLE)

CLE is the designated body for promotion of export of leather and leather products. At the industry level, CLE, co-sponsors trade fairs organized by India Trade Promotion Organization (ITPO). The monthly publication of CLE 'Leathers' gives information on market trends, fashion forecasts, trade fairs, country profiles and policies and procedures concerning exports. CLE often takes trade delegations overseas to enlarge the markets and product range. Since quite a few leading exporters of leather and footwear are Ambur based, invariably someone from Ambur will be a part of any delegation.

Indian Leather Industry Foundation (ILIFO)

Yet another Association promoted by the industry with the basic objective of providing pollution related services to the industry. It trains people in skills of running effluent treatment plants put up by tanneries. It has conducted an

awareness programme in Ambur on workers' safety and occupational health hazards.

National Environmental Engineering Research Institute (NEERI)

All the CETPs in the leather sector are heavily depending upon NEERI and CLRI to overcome the problems faced by them in day to day operation and maintenance of the plants. They have also sought the help of NEERI to find a solution to vexatious problem of high TDS. For this purpose, the industry contributed more than Rs.4.00 crores to these organisations and the contribution of Ambur was more than Rs. 50.00 lakhs. Under this scheme, a team of scientists from NEERI and CLRI camped in Ambur for more than 6 months. The CLRI team propagated cleaner technologies in tanneries and the NEERI team modified the treatment processes in the CETP. It has also put in place the High Rate Transpiration System (HRTS) in the CETP to solve the TDS problem. The system is under trial.

(c) Other service institutions

The National Leather Development Programme (NLDP) has not conducted any programme or implemented any project in Ambur. SISI has conducted a few seminars under the auspices of ATA on energy conservation , garment manufacturing etc.

Lack of Technical Service Institutions

Inspite of Vaniyambadi, Ambur and Pernambut being a big leather belt in a radius of about 20 kms. there is a no private or public institution in any of these centers to provide testing facilities or technical services. If a tannery or foot wear unit wants to do any testing or get guidance to overcome technical or processing problems it has to go to CLRI or private test houses in Chennai. Due to distance and time factors, technical improvements have gone by default.

Suppliers and Service Organisations

(a) Machinery

Most of the machinery in the tanneries and shoe units are imported. Since the leading units are controlling business operations from Chennai, the agents for import of machinery are also based in Chennai as it has been mutually convenient to discuss about latest machinery offered by manufacturers, finalise purchases, place orders and follow up the deliveries, erection and commissioning. Similarly, for indigenous machinery also the manufacturers and agents are based in Chennai. The comfortable rail and road connections to reach Ambur within a few hours from Chennai have made it possible for the agents to provide servicing and training facilities to the customers by deputing their engineers and technicians from Chennai as and when the need arises. Repairs which do not require high technical skills are taken care of by the small workshops in Ambur. In fact, due to experience,

they have developed the technical expertise required to set right even sophisticated machinery.

(b) Chemicals

The tanneries consume more than twenty different types of chemicals in processing and in large quantities. Hence all leading manufacturers of chemicals, namely, BASF, Colourchem, Clariant, Indochem, have their agents and depots in Ambur. They also have their technical representatives stationed in Ambur to visit the consumers and give them the required advice and guidance for optimum and efficient use of chemicals and attend to problems arising in processing due to chemicals. In addition, there are number of private traders in all types of chemicals. There is no dearth of supply of chemicals or other inputs.

(c) Components, accessories, trims etc.

Shoe making units require large number of components, accessories and trims. The important ones are: lasts, cutting and clicking dies, thermocements, nails and tacks, leather board, soles (leather, rubber, resin, ,PVC) heels, welts, leather inserts, toepuffs/counters, eyelets, rivets, D-rings, buckles, laces, sockliners etc. There is one SSI unit in Ambur making rubber and PVC soles. There agents and traders in Ambur who can arrange supply of indigenous and imported makes of these consumables. The exporting units are of the opinion that some of the indigenous products are not of international quality and hence they resort to imports.

Quality of components – views and counter views

Sri. Raghu Gaitonde, Chairman, Gaitonde Group, leading manufacturers of shoes for local and export markets has said in an article, " The components industry serves as a vital link to having a healthy footwear industry in the country. To this end, we are still behind in terms of technology and products, which puts us at a disadvantage when compared to other countries. As a result, we are forced to import such components, especially soles and lasts, which make the price of the finished product uncompetitive." But Sri. Mani Almal, President, Indian Footwear Components Manufacturers Association put the blame elsewhere. He says, " Indian components are not competitive in terms of price and quality in the global market. To day the trade is globalised but the policies were formulated and customs duties were reduced on finished components without studying the impact on the domestic industry" ²⁴ Opinions and counter opinions apart, the fact remains, according to the footwear units in Ambur that that the quality is not upto international standards.

²⁴ Leathers, Nov. 1999 issue-a monthly publication of Council for Leather Exports, Chennai

SECTION 4 - ANALYSIS OF BUSINESS OPERATIONS

(A) Raw material-Commission Agents are the major conduits

The age-old system of collection, transportation and marketing continues to exist with minor changes. The establishment of common slaughter houses in municipalities and corporations is an improvement over the system. The general pattern of production, collection and marketing of hides and skins in India is in the following order:

- Primary producers in villages and urban areas
- Local shandis
- Local merchants who buy from shandis and slaughter houses
- Commission mundis/agents

There are more than 25 markets across the length and breadth of the country. The Commission Agents doinate these markets. The major markets are Chennai, Delhi, Bombay, Kanpur, Jalandhar and Calcutta. The tanneries in Ambur buy raw hides and skins from Commission Agents all over the country.

(B) Products and their markets

Semi-finished leather

With the exception of forward integrated large scale tanneries, all other tanneries process and sell semi-finished leather, that is, E1 tanned leather in crust form and chrome tanned leather in wet blue (WB) form. The major markets are Chennai, Mumbai, Delhi, Kanpur, Agra and Calcutta. The buyers, if they happen to be product manufacturers, carry out finishing processes on semi-finished leather, as required for the end uses, in their factories or elsewhere. Other buyers who are basically traders, convert such leathers into finished leathers, with one or more processes in job working dry units, to suit the market demands. The basic reasons for marketing leather in semi-finished form are :

- (i) Finishing processes vary according to the requirements of end use.
- (ii) Not all finishing processes are carried out on all leathers. Depending upon the type of leather required for a specific end use, semi-finished leather is subject to one or more finishing processes.

Finished leather for footwear industry and other products

Sale of finished leather in local markets is very limited against specific orders. However, in this sector there is a strong linkage between manufacturers and users of leather without intermediary commission agents.

Finished leather exports

There are a number of medium scale tanneries who have developed high quality finished leathers and doing well in export markets. Suede leather

export was very buoyant for more than a decade. Of late footwear and products made of suede leather are losing their charm and consequently there has been a sharp decline in demand for suede leather. This development has put many tanneries in a quandary. They are now in a dilemma and laboring hard to develop new types of leathers which can help them to regain the lost ground.²⁵

Agents are omnipresent

Commission agents in leather business are omnipresent. They take away a lion's share of the value added by leather industry-first in the supply of raw hides and skins and then in the marketing of semi-finished and finished leather.

Networking will be beneficial to the tanneries

In the long run, networking of primary sources of supply for hides and skins, tanneries and product industry will be beneficial for all sectors. But this is a stupendous task. It is however, possible to create an effective networking in the marketing of finished leather, if concerted efforts are made to-

- (i) Develop linkages with tanneries and product industries.
- (ii) Make available sufficient working capital to the tanneries as commission agents are currently functioning as indirect financiers to the tanneries.

The measures suggested above are based on the response of the tanners on the question relating to direct marketing.

Lack of finishing facilities another handicap

The high level of capital investment required for creating sophisticated finishing facilities has deterred the tanneries to go in for vertical production units. Due to this inbuilt deficiency in the structure of the tanneries, they continue to churn out low value added semi-finished leather. The tanners in Ambur lament that they have to take semi-finished leather to Vaniyambadi or Ranipet or some times to Chennai to carry out certain finishing processes to meet the requirements of the customers.

Why not somebody put up a finishing unit in Ambur

If there is so much scope for a modern finishing process unit, why not an enterprising person put up a unit in Ambur? To this specific question, the standard reply was that in the present situation nobody would like to put in huge money in any venture related to tanneries. Moreover, the investment for a modern finishing facility with latest imported machinery will be high. Given the reluctance of banks and financial institutions to lend to such projects it will not be possible for individuals to put up such a unit. Creating common processing facilities is the only solution and everybody is willing to chip in their share if somebody takes the initiative.

²⁵ Interview with Sri. M. Fayaz Ahmed of International Prime Tannery, leading exporters of finished leather.

Shoe uppers and shoes for export

Shoe uppers and full shoes are made exclusively for export markets by large - scale shoe units. These units are well equipped and tuned to meet the demands of foreign buyers in terms and quality, quantity and delivery. Moreover, the linkage with foreign buyers is so strong that the buyers provide the inputs for design and even depute their technicians to help the units to overcome technical problems if any. Ambur has a very strong presence in the shoes export market with leading brands like Floresheim, Florind, Numbush, and Sears from USA Ecco from Denmark and Portugal, Marks and Spencers, Fretzman and Salamender sourcing their supplies from the shoe factories here.

Shoes and other products for domestic market

The tiny shoe units produce shoes for local market making use of shoe uppers and leathers rejected by exporting units. These shoes are low priced. Some of them have their own retail outlets in Ambur. They also supply shoes to shops in other towns in Tamilnadu and neighbouring Bangalore through direct contacts and agents. Besides shoes, these units also make leather belts, hand bags and wallets in small quantities for local market.

Artisan element missing

The shoes manufactured by the tiny shoe units can neither be classified, as hand made shoes nor shoes of ethnic design. In fact, the design aspect is totally absent as they are made from factory rejected materials. These units are suffering from identity crisis.

Low profile domestic market

The domestic market continues to be low profile low end market with a high degree of price sensitivity. It consists of mainly sandals and chappals made of leather and synthetics. The retail footwear shop owners in Ambur said that leather has received a beating from synthetics, in the last 5 to 10 years, due its cheapness, durability and all weather usability. Moreover, the market is not very demanding or discernible in terms of fashions, design and esthetics. Climatic conditions, religious overtones, high cost of leather footwear and products and cheap substitutes are over riding factors inhibiting the growth of domestic market in a big way.

(C) Industrial Space

The large scale tanneries and shoe units have spacious land and buildings. The layout of the factories is well planned for smooth flow of materials and movement of semi-finished material from one process to another process station. The shoe uppers and shoes are made under the assembly line system with conveyors.

Other tanneries also have their own land and buildings. In many tanneries the buildings are very old, dilapidated and not planned properly.

Out of the 40 job working shoe upper units, around 50% are located in rented premises and some in the godowns of closed tanneries.

The tiny shoe units are functioning mostly in the backyards of owners residences or in 100 to 200 sq.ft. make shift sheds, shops or even houses.

Barring the large- scale units, all tanneries and shoe units are registered as SSI units with District Industries Center.

(D) Entrepreneurial Background, Labor and Training

Leather-All enterprises are family controlled

Historically, trading in hides and skins and later on trading in vegetable tanned leathers were family businesses. When business houses started industrial enterprises, the same tradition of family controlling spilled over to the industry. All most all enterprises are either proprietary or partnership concerns – new units emerging out of family partitions or partnership separations. The induction of descendents in business at a young age (mostly after graduation) is a normal practice. They learn by experience. Rarely someone from the owners undergo professional and technical formal education.

Job working shoe upper units-youngsters in the fore front

The job working shoe upper units have been set up mostly by youngsters in the age group of 25 to 35 years, some of them belonging tanners' families. Quite a few of them are technicians who have been working in large shoe factories. All these units are invariably proprietary concerns or partnership firms. A few of them, less than 10, have studied diploma/certificate course in footwear making. Others have learnt through experience.

Tiny shoe units-typically one man shows

The tiny shoe units are fully family concerns and essentially one man shows. Some of these owners have undergone formal training in specialized institutions for footwear making. Others have learnt by experience.

Finance-term loans and working capital needs

(a) Large units

The large tanneries and shoe units are well organized in financial planning. Their financial controls and accounting systems are upto date and hence they are able to provide the information, balance sheet and profit and loss account to the satisfaction of term lending institutions and banks and get the term loans required for acquiring new machinery and expansion and working capital for day to day operations. Being export oriented units they are effectively utilising the export credit facilities.

(b) Tanneries doing own local business and leather export

The tanneries in this category are less organized financially than the large - scale units. Most of these units have not availed any term loans in the recent past. However, they are making use of the banks for their working capital needs.

Banking operations in Chennai

Both the large-scale units and tanneries doing their own business have their banking operations in Chennai. They maintain a current account in the banks in Ambur, only to transfer funds from Chennai to meet day to day expenses.

(c) Merchant tanners --Doing business without much capital

The merchant tanners, who are basically traders without any stake in capital investment, depend heavily upon the commission agents for finance. They get everything in credit -- hides and skins from commission agents, chemicals and other inputs from suppliers -- and make payments as and when they receive payments for their produce which they sell mostly to commission agents in Chennai. The period of credit extends depending upon the business cycle of each trader, but generally from 3 to 6 months.

(d) Job working tanneries--Merchant tanners keep the wheels moving

These units depend solely upon the merchant tanners for their survival. They hire out the machinery and storage facilities in their tanneries to merchant tanners (every tannery has more than 5 to 15 merchant tanners as their regular tenants) who do the processing in rotation. The job working charge collected from the merchant tanners is the only income to meet the operating expenses. Arrears of job working charges and default in payments are issues often confronted by these tanneries.

Why they are not doing their own business being owners of tanneries? There is no convincing reply. Some say that they have had bad experiences in the past resulting in huge losses; some say banks do not give working capital and so on. The truth seems to be that they are used to this kind of practically less-risk-enough-income to meet expenses pattern of working.

(e) Tiny shoe units--institutional assistance for working capital wanting

These units operate on a cash and carry and part cash and part credit mode of business depending upon the customer. They do not seem to have any truck with the banks for term loans or working capital.

Business sans borrowing

The general climate in Ambur is against borrowing, be it term loan or working capital. The reasons cited by the concerned people are:

- (i) Religious customs prohibiting lending and collecting interest and vice versa. (Obviously this is a narrow interpretation)

- (ii) Closure of a number of tanneries, which borrowed heavily from banks and institutions leading to an impression that borrowing, is synonym with closure. (Once again a misconception. A study of sick tanneries in Ambur conducted by A. F. Ferguson & Co., at the instance of AISHTMA in 1993 had revealed that the major causes for sickness were:
 - a. Delayed and non-realization of export bills due to insufficient caution exercised while selecting the buyers, supply of inferior quality materials etc.,
 - b. Unscientific management practices.
 - c. External factors ²⁶

It is evident that they are trying to cover up their lack of ambition, vision and lukewarm attitude by these untenable reasons.

(E) Machinery and Production

(a) Machinery are fairly old

The machinery in most of the tanneries are very old, may be more than 20 years. Even in big tanneries the tanning section machinery are old and locally made, but the finishing machinery are fairly new- less than 10 years old. Imported machinery normally come with latest technology and innovations (computerization of operations reducing human intervention in settings and operations). They are prohibitively costly and beyond the reach of many tanneries, particularly small tanneries. Hence many tanneries have imported and installed reconditioned second hand machinery, mostly from Italy and Germany. The industry has not adopted any innovative changes in machinery, such as computer controlled chemical addition to drums, developed by CLRI. The layout of machinery in many tanneries is far from satisfactory. The top ten companies have been regularly updating and modernising the finishing process machinery to produce export quality leather for both exports and captive consumption in shoe units.

(b) Processing methods

E1 and chrome tanning

Hides and skins are processed under two different methods, namely, E1 tanning and chrome tanning. 90% of the leather processed in the world is under chrome tanning method because of the following advantages:

- (i) chrome leather can be made by a simple and short process
- (ii) Light weight and durable
- (iii) Heat and water resistance
- (iv) Easy to dye and finish
- (v) Soft and regains shape when pressure is applied and released ²⁷

²⁶ Source same as foot note 23

²⁷ Source same as footnote 2

Preparatory processes are same

Preparatory processes, namely, soaking, liming, unhearing, fleshing, deliming, bating and pickling are same for E1 and chrome tanning. Thereafter the processes are distinguished by the materials and chemicals used for tanning. After tanning, some of the finishing methods used are same for both types of leathers. The distinction lies in chrome tanned leather which is highly amendable for various types of finishes. The flow chart is given in Annexure II.

(b) Product manufacturing

Shoe uppers and full shoes - line assembled

So far as shoe uppers and full shoes are concerned, the large units as well as job working shoe upper units, follow the line a assembly system wherein a worker or small groups of workers perform a single operation and pass on the semi-finished product to the next operation manually or through conveyors.

Machine/man combination in tiny shoe units

The level of mechanization in small shoe units is very low. Even the few machines owned by them are locally fabricated, crude and improvised. These machines to some extent relieve the workers from physical strain. No doubt these machines improve labor productivity but the same cannot be said of quality.

(F) Labor – old work force with no regard for quality

Most of the tanneries are more than 25 years old. Hence the workers in these tanneries have acquired the necessary skills through on the job training. Casual workers who enter the tanneries as unskilled workers and helpers learn the skills from fellow skilled workers and become skilled workers and machine operators. The inherent disadvantage in this system of training is cascading of wrong methods and mistakes. But the scope for infusion of institution trained workers is very limited in tanneries due to under utilization of capacity and consequent negative growth of employment. Even the few vacancies arising are filled up by recruiting workers displaced from closed tanneries.

Infusion of trained and young workers imperative

While acknowledging the importance of workers training for improving productivity and quality, many tanneries express helplessness as the existing workers are not interested in training and even if trained there is no guarantee that they will follow what they have learnt. A workable solution for this ticklish issue may be found if the tanneries come forward with a reasonable voluntary retirement scheme (VRS) to replace the spent work force with young and trained workers.

Shoe units are different

The picture in the shoe units is different. Being export -oriented units, they cannot afford to be complacent on quality. In the absence of specialized institutions in

Ambur for training of operatives required by the shoe industry, these units have developed a system of in plant training where freshers who are employed as helpers and in other unskilled operations, are trained by Supervisors in the factory itself after working hours, in a separate training section. Generally, one person is trained in more than one skill so as to have flexibility in the deployment of work force in the assembly line depending upon the style of shoe taken up for production. But the job working shoe upper units and tiny shoe units normally recruit a few experienced workers for critical operations and train other workers under their direct supervision.

One place where women get preference over men

There are more than 50 operations in shoe making. Over the years the shoe factories have found out that women are more suitable than men to perform a number of operations which require patience, care and delicate handling. Hence, the number of women folk employed in shoe factories is around 75% in large factories and 80% in job working shoe upper units. This is a remarkable achievement in a place where the dominant community is Muslim and Muslim households seldom send their daughters to work in factories. It is said that when the first shoe factory in Ambur was started by Sri. T Abdul Wahid (The founder of the big TAW Group of tanneries and shoe units which has been the home of a number of leading industrialists of Ambur to day) he consciously employed women workers amidst protests from his community. But he was steadfast and withered opposition and resistance with his influence. If today thousands of young girls are employed gainfully and supporting their families the credit should go to that great visionary.

Wages and other benefits

The wages and workloads, bonus and other statutory benefits in tanneries are governed by bilateral agreements. Traditionally, trade unions have been strong in tanneries and hence they have been able to get reasonable wages and other benefits from employers. The shoe factories are lagging behind in this aspect and hence the wage levels are comparatively low in these units.

Workers training facilities not sustained

While everybody in the industry talks about the importance of workers training, the training programmes conducted by the Tamil Nadu Shoes and Leather Goods Manufacturers Association have not been sustained. Enquiries reveal that the programmes failed because of the inefficiency of the programme managers. In the absence of formal training facilities, the large units have developed their own training outfits, within their factories. The need for training facilities is currently not felt. But without systematic training, achieving high standards of labour productivity and quality are impossible.

Abundant facilities for supervisory and managerial training

There are a number of institutions in Chennai offering certificate, diploma, degree and post graduate courses in all areas of leather processing and leather products manufacturing including designing and marketing. CLRI is the lead institution. Other specialised institutions are :

- Central Footwear Training Institute, Chennai
- NSIC Training Center, Chennai
- Indian Institute of Leather Products, Chennai
- National Institute of Fashion Technology, New Delhi

Some of the engineering colleges and polytechnics also offer degree and diploma courses in leather technology.

KAR Polytechnic, Ambur

The KAR Polytechnic is the only institution in Ambur offering Diploma Courses. Owned by a prominent leather industry group, the polytechnic is conducting Computer and Electronic Courses and two courses in leather, namely, Footwear Technology and Leather Technology with an intake of 45 students in each course. These courses are useful to develop supervisory cadre of personnel in leather industries. The polytechnic is not offering any short term course or training programme for shop floor level operatives.

High level of absorption of technologists in Ambur leather industry

A recent survey conducted by the CLRI has revealed that 48% of tanneries in Tamil Nadu are being run with qualified leather technologists (diploma/degree). Of the total 1329 qualified personnel in footwear industry, the maximum number, namely, 31.9% are employed in Ambur. ²⁸

²⁸ Source same as footnote 1

SECTION 5 – ASSESSMENT OF ORGANISATION AND LINKAGES IN THE CLUSTER

Static Cluster

The SME segment of the cluster has remained static for decades. The growth and development achieved in the sixties and seventies have not been sustained in the subsequent decades. This is mainly due to the failure of the managements to adapt themselves to the changing trends in technology, markets and products. They continued as producers of predominantly semi-finished leather, which is basically a raw material. A few among them boldly diversified into footwear and reaped the benefits of forward integration. But others never learnt a lesson from the success of their fellow entrepreneurs. There was lot of scope for diversification into other products, namely, leather garments, goods etc. There were capabilities also. But somehow the transformation has not taken place.

Growth of one section weakened the linkage

When some of the tanneries diversified into manufacture and export of shoe uppers and made good progress, they got alienated from their erstwhile colleagues in the industry. It was not by design but due to socio economic reasons. The linkages at the communal level remained intact but snapped at the business level. They could have encouraged other tanneries to supply finished leather for their products and given them the know-how to produce such leathers. On the other hand the tanneries could have approached them, obtained their orders and guidance for processing. The discussions with a cross section of tanneries on this subject lead to the conclusion that personal ego has been the major contributing factor for the absence of linkages.

Association has not played a proactive role

The obsession of the Ambur Tanners Association with labour issues and neglect of development of the industry is a major reason for this lopsided growth of the industry. Had the Association played a proactive role there could have been a balanced growth, healthy linkages and overall development.

Modernisation and diversification

The globalisation of Indian economy and WTO regulations demanding free trade in leather sector by the year 2002 will subject the Indian leather industry to formidable challenges in the coming years. These are:

- Entry of multinationals with strong brand image will sweep the domestic market and cash in on the emerging trends in the demand for leather products.
- Due to inherent strength in labor productivity and higher level of technology China will increase its strong hold in international markets and make the going tough for India.
- The demand for finished leather is shrinking with a corresponding increase in demand for products.

- Developing countries will be resorting to more and more non – tariff barriers indirectly

The future prospects of the cluster, therefore lies in modernisation and diversification of products. The is true of other clusters also. Hence the Government of India have recently launched the Tannery Modernisation Scheme. Announcing the scheme on January,18, 2000, the Commerce and Industry Minister Sri. Murasoli Maran said, "The scheme aims to fulfill the much needed and much awaited financial assistance to existing tannery units for undertaking modernisation programme and better capacity utilisation." This is the most opportune time and opportunity for the cluster to get over the past mistakes and begin a new chapter of progress. ²⁹

Testing and quality control

Testing and quality control have so far not been realised as integral functions of industrial management, partly due to lack facilities in the cluster and partly due to poor awareness. Hence these aspects should be given due importance in any effort aimed at improving the overall performance of the cluster.

Low level of labor productivity in shoe units

In shoe factories the average production per worker per day is 3-4 pairs. Whereas in Korea a worker produces 7-8 pairs and in Japan 12-13 pairs. ³⁰ Even after discounting for the high level of modernisation in these countries, particularly Japan , it is obvious that void in labour productivity needs to be bridged to improve our competitiveness in world trade. The low productivity has nullified the advantage that the country has in low wages.

Developing shoe designing essential

Shoe making shall become the core activity of the cluster in the coming years. But lack of shoe designing facilities and expertise are stumbling blocks. The full potential of the cluster in this area of specialised activity can be realised if the required infrastructure is developed in this center.

Brand building

The large scale units are already making concerted efforts to build brand image in EU and USA. They have already got a feasibility study conducted by MacKency & Co. They feel that the required support is not forthcoming from the Government in the form of grants³¹. Unless subsidised brand building exercise can not be undertaken as the cost involved is phenomenal. For the small scale units involved in shoe making brand building in the domestic market will be a rewarding exercise.

²⁹ The Hindu dated 19.1.2000

³⁰ UNIDO Report on Tamil Nadu Leather Clusters

³¹ Interview with Sri. M. Safeeque Ahmed of Shfeeque Shameel & Co leading exporters of leather and shoes. Also Hony. Secretary of Finished Leather Manufacturers and Exporters Association, Chennai

Tiny shoe units should aim for niche markets

The tiny shoe units are in a nebulous situation. They are neither artisan oriented nor mechanized production units. Their heavy dependence on export rejected semi finished raw material has created a negative image for the in the market place. How to get out of this image is a difficult question to answer; and much more difficult to find a solution. If their designing capabilities are enhanced and hand crafting is introduced in their operations there are possibilities of this sector emerging with a different image and creating niche markets in the domestic and export arena.

SWOT analysis

The SWOT analysis of the cluster will be useful for a clear understanding of the capabilities of the cluster to face the challenges ahead.

STRENGTHS

- Existence of more than sufficient productive capacity in tanning.
- Easy availability of labour.
- Managements with business background.
- Exposure to export markets.
- Presence of qualified leather technologists in the field.
- Comfortable availability of raw materials and other inputs.
- Massive institutional support for technical services, designing, manpower development and marketing.
- Exporter-friendly government policies and machinery.
- Well established linkages with buyers in EU and USA.

WEAKNESSES

- Low level of modernisation and upgradation of technology.
- Low level of labour productivity due to inadequate formal training.
- Horizontal growth of tanneries.
- Absence of product industries.
- Lack of modern finishing facilities for leather.
- Difficulties in accessing to testing, designing and technical services.
- Environmental problems.
- Resigned attitude of managements' due to recent setbacks.

OPPORTUNITIES

- Abundant scope to supply finished leather to multinationals setting up shop in India.
- Becoming sub-contractors to large units.
- Product diversification.
- Growing international and domestic markets.
- Untapped and unconventional markets in Latin American and African countries.

THREATS

- Entry of multinationals in domestic market.
- Stiff competition from other countries.(The performance of global competitors in leather and leather products indicates that there are atleast 5 countries viz,

China, Indonesia, Thailand, Vietnam and Brazil, which are more competitive than India.)³²

- Non- tariff barriers.
- Improving quality to international standards.
- Adapting to fast changing fashion trends.

³² Paper presented in LERIG 2000 Conference in CLRI, Chennai in Jan. 2000

SECTION 6 - RECOMMENDATIONS AND STRATEGY FOR CLUSTER DEVELOPMENT

Even though Ambur is basically a homogeneous leather cluster in terms products, the different segments within the cluster exhibit different attitudes and approaches for development. The strategy should therefore, be based on the needs of different segments and their capabilities to absorb and translate the inputs into tangible results. The strategy can be broadly divided into two major parts, namely-

- Critical Infrastructure Balancing,(CIB) and
- Focussed Developmental Activities (FDA)

CRITICAL INFRASTRUCTURE BALANCING

There are four major schemes of infrastructure which should be implemented as joint sector projects with the active participation and support of the industry, Central and State Governments and other institutions mandated to increase export of leather and leather products from the country.

(i) Water supply for industrial and domestic use

At present neither the Municipality nor the Panchayats in which the tanneries are located are in a position to supply water for industrial use. In fact, they are finding it difficult to meet the domestic needs, particularly drinking water. The problem will become acute in the next five years. Hence a massive integrated scheme for water supply covering the town and villages in the periphery of the town should be planned and executed at the earliest. Since schemes of this type and size take considerable amount of time and efforts to plan and execute the proposal should be mooted now itself.

(ii) Discharge of industrial effluents into Bay of Bengal

In the long term interest of the industries and hundreds of villages in the Palar basin it is desirable and imminent to transport the industrial effluents in the basin through pipeline to the Bay of Bengal and discharge it 15 kilometers inside the sea. A proposal to this effect has already been mooted by the Tamilnadu Water and Drainage Board and put up to the State Government. It is learnt that the industry has already wetted this proposal and came forward to contribute its share. This scheme should also be considered seriously.

(iii) Common finishing facilities

A sizeable number of the tanneries continue to produce semi finished leather. Unless they switch over for production of finished leather in the immediate future and to product industries in the medium term their survival will be at stake. The major bottleneck in this change over is sophisticated finishing facilities. Every tannery cannot afford to have all modern finishing facilities. It is necessary also. A common finishing facility to cater to the needs of all tanneries in Ambur is the answer. The tanneries are willing to contribute their share. The initiative should come from the

ATA and backed by Central and State Governments, AISHTMA and financial institutions like SIDBI.

(iv) A modern testing laboratory

This is a long felt need of not only the leather industry in Ambur but also the neighboring clusters, Vaniyambadi and Pernambut. Even Ranipet leather cluster which is slightly far off can make use of this facility. This facility should also be promoted on the lines of common finishing facility with the co-operation and support of the industry in the other centres and in collaboration with CLRI. In course of time this facility can be upgraded to provide design and technical services and function as an effective linkage between industry and research institutions.

FOCUSSED DEVELOPMENTAL ACTIVITIES (FDA)

The proposals for the different categories of units will be as under:

Category I

- Motivating the units to go in for ISO 9001 and 14001 certification
- Brand building in international markets- Awareness Seminars in Chennai
- Diversification of markets and products
- Waste minimisation , energy conservation and cost control
- Chrome recovery and reuse

Category II

- Process upgradation
- Machinery improvement and balancing
- Entry/expansion of export markets for leather
- Product diversification
- Quality awareness and certification
- Waste minimisation , energy conservation and cost control
- Chrome recovery and reuse

Category III

- Motivation to do own business
- Waste minimisation , energy conservation and cost control
- Chrome recovery and reuse

Category IV

- Formation of an Association of merchant-tanners
- Inter-acting with banks for working capital through their Association
- Quality awareness
- Developing healthy marketing practices and avoiding under cutting of prices

Category V

- Promoting a common institution
- Improving labor skills and productivity through systematic training
- Relocating assembly line to improve productivity
- Pattern making for shoes
- Training for identification of defects and preventing them on-line

- Developing designing skills, pattern making
- Entry of local/export markets
- Common service facilities

Category VI

- Motivation to do own business
- Setting up of product units
- Export of leather

Category VII

- Quality improve through education and spot training
- Improving labor skill and productivity through training
- Upgradation of methods of manufacture and machinery
- Use of better quality components,soles etc.
- Developing designing, pattern making skills with an artisan touch
- Waste minimisation
- Common service facilities
- Building brand image and common marketing

These proposals when fully implemented are expected to yield the following results:

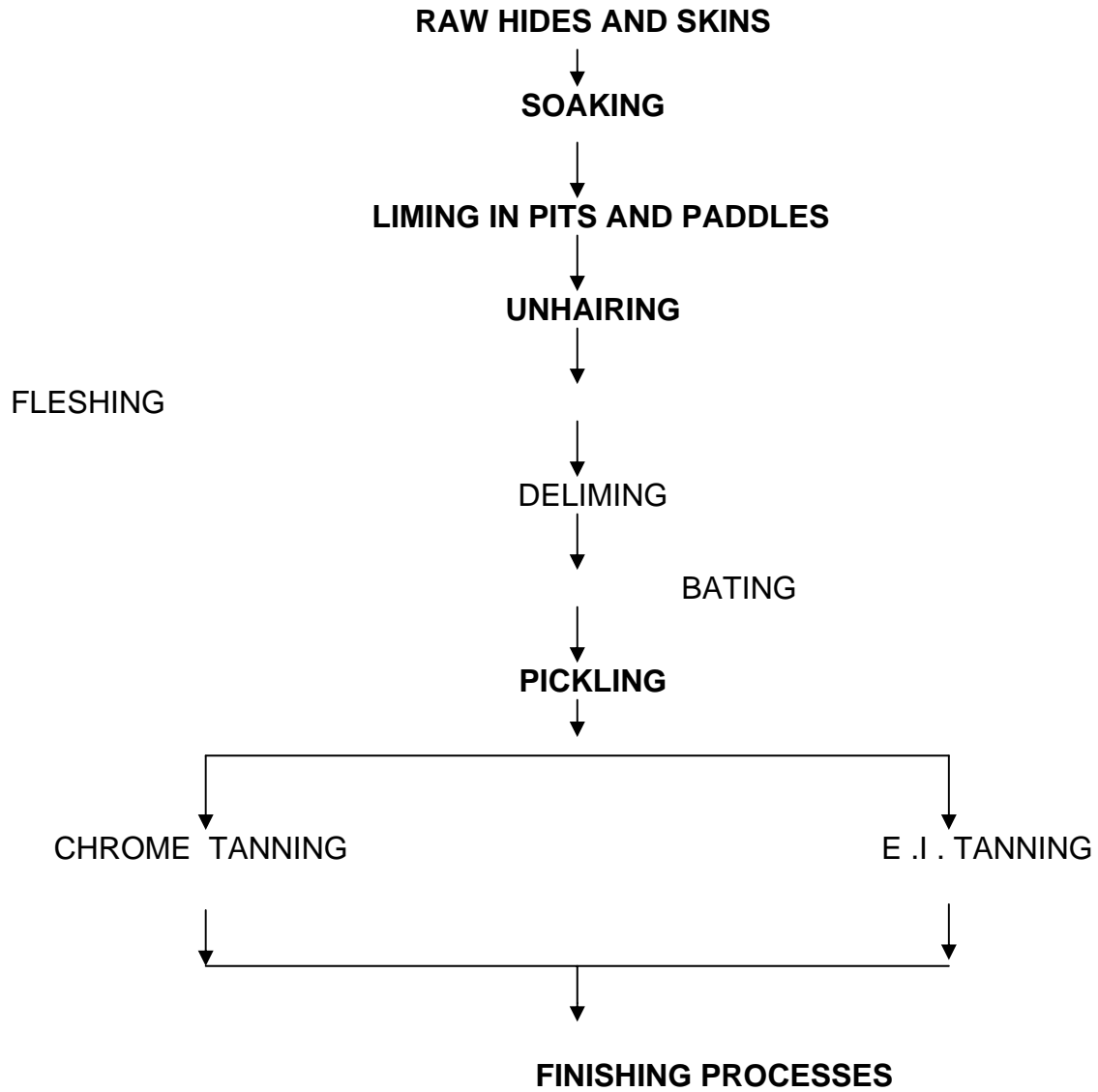
- Meaningful linkages among various segments in the cluster
- Overall improvement of competitive capacity
- Improvement in business turnover and profitability
- Emergence of institutions which can sustain the developmental activities
- Motivation for other clusters to follow cluster development approach

CONCLUSIONS

The major weakness of the cluster is lack of dynamic institutions which can act as effective change agents. It is difficult to change existing institutions which have been adopting a passive attitude to developmental activities for decades than building new institutions . Among the tanneries, the job working segment looks like a spent force and unresponsive. Motivating this segment to shed the lukewarm attitude and assume an aggressive posture of growth is going to be a difficult task. The carat and stick policy may work. Beneath the general sluggishness. there seems to exist a hidden strength which gives the hope that this cluster will succeed at the end of the day.

PROCESS FLOW CHART

PROCESS FLOW CHART FOR LEATHER MANUFACTURE



DESCRIPTION OF PROCESSES IN LEATHER MANUFACTURE FROM RAW HIDES AND SKINS

(Based on K.T.Sarkar's Theory and Practice of Leather Manufacture and information given by tanners)

Soaking: The objects of soaking:
(a) Cleaning the hides/skins (removing the dirt, blood and most of the salt used in curing)
(b) Softening and swelling the fibres
(c) Dispersal and removal of interfibrillar proteins

Liming: The purpose of liming is to prepare the hides/skins for unhairing and attain adequate opening of the fibre structure.

Unhairing : Removal of hair on the surface of the hide/skin.

Fleshing: Some flesh and fat adhere to the hides and skins even after liming. The flesh which swells in the lime liquor is scraped off at this stage.

Deliming: When hides and skins have been unhaired and fleshed, they are in a swollen and plumped condition and full of lime. The removal of lime from the hides/skins is deliming.

Bating: The main object of bating is to make grain surface of the hide/skin clean, smooth and fine. Other objects of bating are to make the final leather soft, pliable and stretchy.

Pickling: Pickling is a process of acidification of the delimed and bated pelts and is considered to be a highly important preparatory operation before tanning, especially chrome tanning of pelts.

Degreasing: The process of fat and grease removal before tanning is degreasing.

Tanning: Tanning is the process of converting the putrescible raw hides and skins into a substance which does not putrefy, dries out soft, and does not swell when wetted back. In other words tanning is converting hides and skins into leather.

Retaining: In the first stage tanning is done moderately. Depending upon the softness and other characteristics required in the end the tanning process is repeated again. This is called retaining.

The following finishing operations are common for both chrome tanned and EI tanned leather. Depending upon the end use one or more processes will be undertaken.

Splitting/Shaving: In order to reduce the thickness to the required extent, the leather is either split into layers or shaved.

Neutralisation: The process of deacidification of the excess or easily liberated strong acid in leather, prior to dyeing, retaining and fatliquoring is called neutralisation.

Dyeing:	In order to get the required shade the leather immersed in dyestuff of the required shade. For uniformity of shade the process is carried on in drums.
Fatliquoring and stuffing	Treatment with oils and fats prevents the leather fibres from sticking together during dyeing. Proper treatment with oils and fats gives the leather full and soft handle, flexibility and additional strength. The application of oils and fats to the leather is done by stuffing or fatliquoring.
Sammying:	After removing from the drum the leather is squeezed to remove the excess moisture.
Setting:	The grain character of the skin is enhanced by the setting operation.
Staking:	The dried leather is softened by means of vibratory staking action.
Toggling:	The leather is pulled in all directions to increase the surface area and then passed through a conditioning chamber so that the stretched area and shape are retained.
Buffing:	The residual flesh is removed by emery coated rollers.
Plating:	The buffed leather is plated to flatten the grain.
Spraying:	The leather is coated with binders, pigments and other ingredients to cover small natural defects, thereby enhancing the final look of the leather.
Glazing:	The sprayed leather is given high gloss shine with glass stones.

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