Diagnostic Study of Leather and Leather Products Cluster of Chennai

By

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CONTENTS

KEY ABBREVIATIONS

BDS	:	Business Development Services
BMO	:	Business Management Organisation
CFTI	:	Central Footwear Technology Institute
CLE	:	Council for Leather Exports
CLRI	:	Central Leather Research Institute
CAGR	:	Compound annual growth rate
CETP	:	Common Effluent Treatment Plant
DFID	:	Department of International Development, UK
EDII	:	Entrepreneurship Development Institute of India
ETP	:	Effluent Treatment Plant
ERP	:	Enterprise Resource Planning
FDDI	:	Footwear Design & Development Institute
FDI	:	Foreign Direct Investment
GoI	:	Government of India
GTZ	:	Deutsche Gesellschaft fur Technische Zusammenarbei(German Technical Co-operation)
IBRD	:	International Bank for Reconstruction and Development
IILP	:	Indian Institute of Leather Products
IL&FS	:	Infrastructure Leasing & Financial Services Ltd
ILPA	:	Indian Leather Products Association
IFLMEA	:	Indian Finished Leather Manufacturers and Exporters Association
ILIFO	:	Indian Leather Industries Foundation
ISF	:	Indian Shoe Federation
JVs	:	Joint-Venture
MSE	:	Micro and Small Enterprise
MLE	:	Medium and Large Enterprise
NICs	:	Newly Industrialising Countries
NIFT	:	National Institute of Fashion Technology
PPP	:	Public Private Partnership
MLE	:	Medium and Large Enterprise
MLMF	:	Madhavaram Leather Manufacturer's co. Pvt. Ltd.
MSME	:	Micro, Small, and Medium Enterprises
NICs	:	Newly Industrialising Countries
PTA	:	Pallavaram Tanners Association
PTIET	:	Pallavaram Tanners Industrial Effluent Treatment Company
DS	:	Diagnostic Study
SIDBI	:	Small Industries Development Bank of India
SME	:	Small and Medium Enterprise
WEG	:	Wind Energy Generator

EXECUTIVE SUMMARY

The Context

This "Diagnostic Study" (DS) broadly identifies and prioritises areas of intervention to develop a vibrant, sustainable, and self-sustaining market for Business Development Services (BDS) in the leather and leather products cluster of Chennai.[ii]

This study a) presents an overview of the Global and National circumstance vis-à-vis the leather and leather products sector; b) profiles the Chennai cluster; c) encapsulates the circumstance and dynamics of the existing BDS market; and d) unfolds the scope and mandate of necessary interventions for catalysing growth of a sustainable market for BDS in a manner as to help the cluster convert existing Comparative Advantage in terms of various factor conditions into sustainable Competitive Advantage, with a thrust on ***cost / productivity, compliance, and market-access related advantage***.

The methodology adopted in the study included structured (particularly with regard to the tables presented in the text of this document) as well as informal interaction with firms, public and private BDS providers, and BDS facilitators Business Management Organisations (BMOs), that is, industry associations.

The Global Scenario

Comparative Advantages in terms of factor conditions such as raw material availability and low labour cost, coupled with environmental considerations have contributed to a shift in the processing segment of leather sector value chains towards Developing Countries and NICs[iii]. Global import of leather and leather products (including non-leather footwear) amounted to a total of USD 116.55 billion by 2006. The major global exporters are China, Italy, India, Brazil, Indonesia, Spain, Korea, and Vietnam.

Other than some EU countries like Italy and Spain, most European countries serve as final export destinations. In addition, key customers as well as consumer categories in the global value chain of leather and leather products are located in the USA, Australia, and Japan. Progressively, Hong Kong/China are also large global importers of semi-finished and finished leather- for value addition and export. In recent years India has been accounting for about 2.5-3 per cent of global trade[iv] and Brazil about 3.5 per cent. China accounts for over 22 per cent, Italy 16 per cent, and Romania, Republic of Korea, Indonesia and Taiwan between 1.5 - 2.5 per cent each.[v] China, Vietnam, Indonesia and Thailand's growth in the sector is also ascribed to thrust on footwear, mainly due to facilitation of Foreign Direct Investment (FDI) and Joint Ventures (J.V.s).

Pakistan is an emerging and rapidly-growing competitor in this segment. China's exports grew by 8 per cent particularly in the travel goods, handbags, wallets (HS: 4202) segment alone- slightly higher than Indian trends at the rate of 6.8 per cent over the same period.[vi]

India has also reflected the global recessionary trends in recent months. Currently, both production and export orders are believed to be decreasing drastically. The “precarious” position of the sector is reflected in the Index of Industrial Production for Dec. 2008 wherein industry’s production output has grown on an yearly basis by -2 per cent in Dec. 2008, and the leather sector recorded amongst the largest sectoral decline of -11.4 per cent![vii]

National Scenario

The annual exports of the sector from India is over Rs. 14, 913 crore (about USD 3 billion). Production of leather and leather products in India is estimated at over USD 6 billion. The sector employs 2.5 million persons. The country has an indigenous technology base with design capabilities.[viii] This sector is also among the top export earners of the country. While the export basket comprises footwear and components, goods, garments, saddlery and harness, and also finished leather, domestic market oriented products include footwear and assorted leather goods.

The trends towards value addition progressed over last two decades. The export basket today comprises only finished leather and products. A regulatory condition, that is, a ban on export of semi-finished leather has also propelled value-added growth since the mid-80s.

The skewed structure of the industry in India, viz., towards a largely unorganized and small enterprise segment is by virtue of the erstwhile policy of reservation - of bulk of this industrial sector for the small-scale sector. Smaller size of operations and also various limitations on FDI policy in terms of equity and repatriation norms had (in the past) limited FDI and JV’s. This was even while South-East Asian countries including China facilitated rapid relocation of industry from developed countries. This stunted growth trends vis-à-vis potential. Subsequently, however, in India, export based incentives were provided to industry and investment norms liberalized, catalyzing growth.

Firms in the sector are concentrated in clusters in Tamil Nadu, U.P., West Bengal, Punjab, Delhi, and neighbouring areas. These clusters have distinct features. Agra is, for instance, a leather products cluster, while Kanpur (like Chennai) is a leather as well as leather products cluster. In terms of geographical coverage of value activities, while tanning is broadly distributed among Tamil Nadu (55-60 per cent), Kanpur (12-15 per cent), Kolkata (18-20 per cent), and Jalandhar (5-7 per cent), the footwear industry is concentrated in the clusters of Agra, Kanpur, New Delhi and surrounding areas of Haryana and UP, Chennai, Ambur, and Ranipet. Last year, despite weak trends amongst competitors, the product category of specific relevance to the Chennai cluster, that is, footwear with leather uppers (HS: 6403) had recorded high positive growth rates.[ix] As a matter of fact, India experienced the highest growth levels of 16.8 per cent even in the case of leather apparels and accessories (HS. 4203), while China and Italy experienced negative growth rates.

Profile of the Chennai cluster

Chennai including nearby districts in the State of Tamil Nadu account for about 36 per cent[x] of the Indian leather industry's total exports. About 650 tanneries are located in the state and about 6 per cent of the world supply of finished leather is manufactured in Tamil Nadu. The clusters in Tamil Nadu are largely located in Chennai and in nearby districts; for example, Ambur, Ranipet, Vaniambadi, Trichy, Erode and Dindigul.

The cluster in Chennai region in Tamil Nadu has several advantages over other leading clusters such as Kanpur and Agra in terms of convenient access to large (also imported) raw material and tannery base, and port facilities. The presence of headquarters of lead support institutions, relatively more dynamic Business Management Organisations (BMOs), and also initiatives by the lead firms have catalyzed FDI and international J.V. linkages facilitating technology and knowledge transfers from abroad. Constant upgradation of Common Effluent Treatment Plants (CETPs) is also underway. Notably, clusters in Tamil Nadu have been under intense pressure for increasing compliance levels.

About Rs. 5385 crore (about USD 1.1 billion)[xi] worth of leather and leather products produced in Tamil Nadu is exported through Chennai. The Chennai cluster alone contributes to about a fifth of this estimate or over Rs. 1000 crore in terms of exports, while it produces a total of about Rs. 2000 crore worth of leather and leather products.

The sector in Tamil Nadu as a whole is perceived to directly provide employment to at least about 1,70,000 persons.[xii] The *tanning segment provides employment to about* 15,000 persons in Chennai (Tamil Nadu as a whole about 70,000); and the product manufacturing segment (largely footwear and components) to about 25,000 persons (100,000 in Tamil Nadu).

The overall annual export turnover of the sector in the country is pegged at about Rs.14,913 crore (about USD 3 billion), and the annual production of leather & leather products in India is about USD 6 billion. Production in Tamil Nadu (Chennai and nearby clusters contributes to about 36 per cent (about USD 2 billion or Rs. 10,000 crore). Exports from India have grown at a CAGR of about 8.6 per cent in the last five years. [xiii] The table following provides a summary profile of the cluster at Chennai.

A statistical table is given as Tabulation B in Annexure – I.

Core or Principal Cluster Actors

A study of the export basket of Chennai indicates that about 32 per cent of export composition comprises finished leather. Footwear and footwear components contribute for 52 per cent of total exports. Leather goods and garments together account for hardly about 14 per cent (see Annexure 1).

The enterprise stakeholders may be visualized as follows:

Enterprise stake-holders (principal/core and support firms)	• The cluster has about 150 MSME tanneries in operation. The cluster has about 300 SME product manufacturing firm of which about 50 are in shoes and the rest largely into goods and garments. There are also 700 tiny firms largely into goods and components. The cluster also has 4 large integrated product manufacturing firms involved in production activities. • In terms of supplier firms, there are 5 large manufacturers and suppliers of chemicals in the cluster, 10 SME manufacturers and suppliers. It also has about 45 component suppliers of which about 15 are also into manufacturing.

In this cluster, tanneries are involved in making semi-finished and finished leather.[xiv] Tanneries either have individual ETPs or are connected to CETPs. There are 2 CETPs in Chennai (and 14 in Tamil Nadu and also over 130 individual ETPs). Four large integrated tanneries are located in Chennai alone. The larger integrated firms have group turnover in the range of Rs. 80 crore - over Rs. 500 crore.

Some tanneries process raw hide and skin up to wet-blue stage while others process wet-blue to finished leather. Finished leather is directly exported and the remaining is value-added for export by product manufacturing units in the cluster, besides being sent to other centres in India. Procurement of hides and skin is from slaughter houses in Chennai, carcass recovery centres established by the CLRI, and from traders across the state. Larger firms import basic raw material. Other inputs such as machinery and equipment, chemicals and packaging material are sourced through manufacturers and traders in the cluster.

Product manufacturing firms are more into men’s shoes than safety footwear (unlike clusters such as Kanpur). The typical value per pair exported ranges between 10-30 USD. Chennai based large integrated firms are mostly into footwear (e.g., K.H. Group, Forward Leather, Farida Group); some into goods - e.g., AV Thomas and Co. SME and tiny product manufacturers procure inputs from tanneries in the region.

Many SMEs also have hides and skin processed into leather on job work basis in small tanneries. The tanneries secure their raw material hides and skin from hide merchants/ commission agents and slaughter houses in and around the cluster. Some specific varieties of cows and bovine hides and skin are imported directly and through importers.

Overview of the BDS market

The BDS market for operational BDS in terms of taxation and audit, finance (access to conventional institutional credit), legal services related to labour (through BMOs) is relatively strong and well established. Further, some necessary but more strategic BDS related to technology transfer, design, testing, and skill up gradation are utilised by industry, but these are in-effect subsidised services through government support institutions. A culture of dependency and availing subsidised and free services prevail particularly amongst smaller firms. Some services are embedded in terms of inputs by machinery and dyes and chemicals suppliers.

The supply side in terms of various operational and strategic BDS is also strong in a developed metropolis like Chennai where service providers have a wide-array of demanding firms across different sectors to provide many necessary generic services. A gamut of specialised institutions is also present due to the high critical-mass of the cluster in Chennai.

The supply side in terms of various strategic BDS in the area of procurement, productivity (ERP[xv] and lean manufacturing), QMS,[xvi] and socio-environment certification, energy/power, business planning is also relatively strong, but is typically availed of only by a few large firms in the cluster.

In the context of the BDS market development in the cluster, constraints may be viewed more in terms of scalar typologies of firms and broad value-chain activities, that is, tanning and product manufacturing respectively. This is particularly because constraints as well as BDS needs vary according to product categories. Also, many of the medium and large firms are integrated and produce a mix of products.

There also prevails a lack of awareness (particularly amongst SMEs) on the efficacy of using such services. Also, SMEs are not consolidated in a manner as to jointly avail some services in a more cost-effective manner. Many BMOs in the cluster, however, offer services beyond advocacy, indicating scope for their evolving into more BDS canalizing and facilitating platforms.

In spite of the presence of a large number of pro-active government institutions, linkages with industry have scope for improvement. Dependence on such institutions for subsidised provision of services has also restricted the inclination towards paying for related BDS.

In the absence of a more detailed market assessment, in this DS, precise demand of BDS has not been quantified but assessment of services being used and its usage level and services in demand (not adequately met by existing BDS providers) have been considered vis-à-vis different broad value-chain activities and enterprise scalar-typologies.

To evaluate demand as well as map the supply side, services have been grouped broadly into several specific categories:

Environmental compliance (e.g., services addressing costs of compliance -power and energy, cleaner production technologies)	Procurement (e.g., services vis-à-vis optimal National and global sourcing along the value chain, appropriate instruments, procurement warehousing services)
Skill development and training (e.g., design, shop-floor operator training, result-oriented entrepreneurship development training	Technology upgradation (e.g., dissemination, services vis-à-vis evolving and establishing joint/common facilities on a PPP mode, infrastructure-display facilities)
Productivity (e.g., ERP, MIS, lean manufacturing)	Market access and “brand” promotion (e.g., services related to market warehousing abroad, consortia marketing)
Finance (e.g., access to appropriate and non-asset based but business viability/plan based collateral-free	Infrastructure (e.g., industrial and social-infrastructure)

institutional credit, foreign-equity/venture capital, group-financing instruments for micro players)	
Socio-environmental certification (e.g., SA 8000, ISO 14000)	Advocacy (e.g., more appropriate orientation of/effective synergies with PPP options, advocacy in terms of appropriate orientation of duty-drawback rates)

These services are more strategic and have direct influence on the performance and competitiveness of firms.

Evolving sustainable competitive advantage, and strategic growth trajectory of the Chennai cluster

The leather and leather products cluster of Chennai is closely integrated with global value-chains. Global cost and compliance related competitiveness is the key particularly in the context of the relatively high-value products. Domestic demand, but for footwear, is not significant. In addition, by virtue of firms operating on the higher-end of the value chain, issues such as compliance in the socio-environmental context assumes utmost significance. Evidently, global competition exists both in the premium-segment as well as the low-end segment.

The competing economies in the sector range from China, Italy, and Brazil to Vietnam and Romania. Chennai could spear-head growth in India's global market-share from prevailing low levels of hardly 2.5 per cent over the last decade. The inter-ministerial group of the DIPP has identified several critical challenges while envisaging interventions in the 11th plan period: compliance to environmental norms; inadequate capacity; availability of raw material; meagre flow of investment even FDI[xvii]; and infrastructure gaps. Such constraints are also specifically addressed over the envisaged scope of interventions elucidated in this DS.

In addition to these identified constraints that are rather generic across clusters in India, there are several specific constraints and interventionary options to enhance competitive advantage in the context of stakeholders in the cluster at Chennai through inducing new and appropriate BDS providers, instruments/services, as well as developing relevant markets.

Tanning: In the tanning segment, constraints in terms of availing BDS for the optimal sourcing of consumables like dyes, and to an extent chemicals, as well as raw material (hides and skin) are evident. Constraints on the procurement front are apparent in terms of absence of warehousing options in Chennai.

Further, many micro and small tanners experience constraints with regard to access to institutional finance to secure inputs, e.g. working capital to procure raw hides and skin or finance for unit upgradation. Many of them, therefore, remain as jobbers to larger firms. Upgrading plans are also constrained.

An important emerging constraint is seen in the uncompetitive operation of Reverse Osmosis (R.O.) or Zero Liquid Discharge (ZLD) plants upon implementation of Common Effluent Treatment Plants (CETPs).[xviii] The cost of operating the R.O. plant (or ZLD-CETP) in Pallavaram by the Pallavaram Tanners Industrial Effluent Treatment Co. (PTIET) alone could impose a burden to the extent of 4-5 per cent of the annual cost of production (or 40 per cent of profits) of micro or small jobbers. The cluster entrepreneurs are yet to explore BDS options in terms of alternative sources of energy to fuel the power-intensive individual ZLD-ETPs or ZLD-CETP plants.

Further, gaps are evident in SMEs vis-à-vis larger tanning units in terms of adopting Management Information Systems (MIS) to monitor and control processes along the intra-firm value chain and enhance productivity. Limitations are also evident in terms of adoption of Cleaner Production Technologies as well as other technologies of the Central Leather Research Institute (CLRI) by MSME tanners. Along a similar vein, many quality as well as productivity enhancing technologies and equipment offered by machinery and equipment suppliers (such as vacuum drying) are beyond the reach of MSE tanners. Largely, MSE tanners are yet to avail of necessary BDS and explore joint-action in terms of establishing such facilities on a PPP mode.

Thus gaps in the procurement function, access to credit, in terms of appropriate financing instruments, high costs of environmental compliance, inadequate emphasis on adoption of Cleaner Production Technologies, and inadequate productivity and technology upgrading initiatives are evident constraints that need to be addressed by strategic BDS linkages and initiatives. Markets for BDS are adversely affected more by the lack of awareness from the demand side rather than capacity gaps on the supply side.

Product manufacturing (footwear and components, and issues with goods/garments):

Constraints and pressure-points in this segment are evident in terms of limitations by way of access to credit by micro-jobbers (sub-contractors) as well as SMEs seeking working capital and growth funds; access to constant warehousing options in markets abroad to secure entry and offer required volume supply to importers.

There is also inadequate information on indigenous machinery and technology, scant thrust on IPR[xix] (particularly patents, trademark related) initiatives, and limitations (particularly, on the part of SMEs) in pursuing productivity enhancing measures (lean manufacturing processes and ERP in business).

In addition, gaps also prevail in terms of development of indigenous capabilities in design for lack of skilled personnel in the footwear and goods segment. Limited initiatives by SMEs to pursue code of conduct compliance initiatives in terms of certifications by way of SA 8000 and ISO 14000 add to the lacunae.

Besides, financing of enterprises through outside-equity and Venture Capital options is a virtual gap in the leather industry. As a matter of fact, while there are several international private equity funds none of them have been seriously approached. Financial partnerships are yet to be explored, concomitantly stunting growth prospects as firms are typically dependent on asset-based institutional finance which is restricted to the extent of collateral offered.

Social-infrastructure gaps in terms of worker-hostels for out-of-city/state workers are also a critical limitation adversely affecting the cost structure of firms (by way of high transport/lodging cost

The following matrix summarizes critical constraints in the cluster and the most significant areas identified for intervention through sustainable BDS.

Sr. No.	Value-chain activity	Critical constraints (and BDS market gaps)
1.0	Tanning (accounting for about 32 per cent of cluster exports and output)	• Environmental compliance: High cost of environmental compliance particularly vis-à-vis power costs in individual and common Effluent Treatment Plants (ETPs) **- inadequate awareness on related BDS options due to the non-energy intensity of most value chain activities** • Procurement: Dis-optimal sourcing of dyes (source-wise), dis-optimal sourcing of chemicals (credit purchase-wise), inadequate warehousing initiatives (in Chennai and abroad) to conveniently source/stock hides and skin - **gaps in availing related BDS due to information-limitations in terms of related instruments and service providers** • Finance: Poor access to appropriate and adequate institutional credit facilities (term as well as working capital facilities) - **gaps in linkages with related BDS providers and instruments, inadequate outreach by service providers** • Productivity: Weak management information and control systems in business, particularly in the context of MSEs **– inadequate appreciation of benefits of availing related BDS (e.g., ERP, MIS); limitations in outreach of service providers** • Technology upgradation: Weak initiatives to upgrade (in terms of expensive) technology, and enhance productivity (e.g., vacuum drying) perhaps on a joint/PPP mode by MSEs) **– capital-intensity of related options affect provision of related BDS** • Constraints in terms of non-deployment of Cleaner Production Technology processes by MSEs - **inadequate appreciation of benefits of availing related BDS**
2.0	Product manufacturing (largely footwear and components, accounting for about 52 per cent of cluster exports and output)	• Finance (debt): Poor access to appropriate and adequate institutional credit facilities (term as well as working capital facilities) , particularly by MSEs[xx]**- gaps in availing related BDS due to information-limitations vis-a-vis related instruments and service providers** • Procurement: Inadequate "convenience" infrastructure to source the multitude of components from one location – **limitations in terms of BMOs availing necessary BDS**, **inadequate information on the range of related PPP options** • Technology upgradation: Inadequate infrastructure – display facilities of equipment-technology options of domestic manufacturers **- limitations in terms of BMOs availing necessary BDS**, **inadequate information on the range of related PPP options** • Training/Skill upgradation: Shortage of skilled operators (though recessionary conditions are encouraging scaling-down of expansion plans); inadequate indigenous / in-house designer development initiatives – **inadequate BDS initiatives to source, train and supply fresh (and competitive) workers to industry** • Market access and brand promotion: Gaps in terms of initiatives to explore direct market access (warehouses abroad, consortia), particularly by SMEs and larger firms **– limitations in terms of awareness on the range of available**

		public and private BDS providers and instruments • Finance (equity): Inadequate links with equity and venture capital providers (Medium and Large – MLE firms) – **gaps in terms of links with related service providers and instruments** • Social infrastructure: Inadequate accommodation facilities for outstation/state labour (MLEs)
3.0	Garments and goods manufacture (relatively small segment with several cross-cutting issues with the footwear related segment)	• Finance: Poor access to appropriate and adequate institutional credit facilities (term as well as working capital facilities), particularly by MSEs • Procurement: Inadequate “convenience” infrastructure to source the multitude of components from one location • Inadequate infrastructure – display facilities of equipment-technology options of domestic manufacturers • Skill upgradation: Shortage of skilled operators; inadequate indigenous / in-house designer development initiatives; result-oriented Entrepreneurship Development Programmes (EDPs) to generate appropriate entrepreneurial start-up’s (particularly, in the goods and components segment) **– gaps in outreach of existing specialized BDS providers** • Market access/brand building: Gaps in terms of initiatives to explore direct market access (warehouses abroad, consortia)

Envisaged Scope of interventions with emphasis on sustainability and multiplicative effects

In order to develop a sustainable BDS market, the intervention strategy would focus on stimulating demand and strengthening the supply side in identified strategic areas. Business relationship between users and service-providers would also have to be catalysed. According due consideration to the project time-frame as well as likely deployable resources, activities that have a critical role and have potential for cluster-wide replication have been identified - in key value-chain activities. Broadly, for relevant services, private as well as public BDS providers have also been identified and their capacities assessed.

As BMOs in the cluster could evolve into providing more value-added services to members, and in the interest of sustainability of interventions, initiatives are envisaged to be pursued through them to the extent feasible. Further, synergies with several existing BDS facilitating platforms and institutions are also expected to contribute towards sustainably developing BDS markets. Benefits from interventions to create a market for relevant BDS will be disseminated through BMOs over seminars, newsletters/websites.

The market (ability-to-pay issues) for such BDS is to be also developed by means of orienting many services through networks of firms – BMOs, and sustainably constituted SPVs[xxi] and consortia. As the demand for several strategic services is relatively poor amongst MSMEs in the cluster, initiatives would also be directed towards phased-subsidisation of the cost of certain services.

The contribution from the BDS project may be visualized in terms of organizing awareness generating seminars, preparation of business plans for certain strategic BDS initiatives such as grant/loan/equity syndication of WEGs[xxii], raw material banks, the provision of certain new BDS such as lean manufacturing and ERP for SMEs on a demonstration basis, etcetera. No support is envisaged for the few specific industrial infrastructure related initiatives.

Demonstration interventions from different public service providers and government of India (GoI) schemes have been envisaged to encourage SME to seek BDS and encourage public-private dialogue and interaction.

Many of the envisaged activities involve provision of substantial guidance by the EDI[xxiii] team to local BDS providers over implementation. This may involve

- providing assistance in terms of evolution of SPVs and consortia to consolidate SMEs and to make them more receptive to BDS,
- developing capacities of BMOs to offer/catalyze BDS to SMEs,
- Experience sharing and hand-holding for business plan preparation and implementation vis-à-vis procurement optimization, energy related interventions.

- Establishing appropriate credit instruments and linkages, and competitiveness augmenting facilities under different PPP schemes, amongst others.

A summary of the scope of necessary intervention is presented in Section 5.3 of this DS.

1.0 INTRODUCTION

1.1 Background

Objective of the DS was to design and implement interventions for development of a market for Business Development Services (BDS) in the leather and leather products cluster of Chennai. Such promotion of market oriented BDS in identified SME clusters is a component of the project supported by IBRD, DFID, KfW and the GTZ.

The project strives to (i) evolve an enabling framework for financing of SMEs by banks; (ii) assist banks by way of better access to long term finance for lending to the SME sector; (iii) mitigate banks' risks related to SME lending and reducing transaction costs; and (iv) strengthen SMEs access to market oriented BDS as to help them improve their profitability and competitiveness.

Contemporary and historical experiences exemplify that a well-developed market for BDS can stimulate growth of SMEs, increase its outreach and ensure sustainability. To promote market oriented BDS among several SIDBI identified clusters in the country; EDI has been selected as the implementation agency for the BDS component; particularly in Kolkata (leather and leather products), Chennai (leather and leather products), and Ahmedabad (dyes and chemicals).

This DS provides an overview of the global and the national circumstance of the leather and leather products sector; presents a mapping of the cluster and perceived and articulated requirements of SMEs for different services. Presence and the capacities of BDS providers as well as services being provided by them, the critical gaps therein and possible interventions for promotion of market oriented BDS have been dealt with. Interventions have been prioritised and an intervention plan has been evolved.

1.2 Methodology

The study adopted a methodology involving both primary as well as secondary data/information collection and compilation. As part of primary data collection, face-to-face meetings were conducted with stake holders and focus-group discussions were held.

For the diagnostic study, over 35 core leather and product manufacturing firms, 3 machinery manufacturers and suppliers, 3 chemicals and dyes manufacturers, raw material suppliers, and about 21 private and 13 public service providers were directly approached. The related 7 industry associations involved in directly providing or canalising BDS were also covered.

Several Focused-Group Discussions (FGD) were arranged with office-bearers of BMOs and service providers. Further, interactions were held with some key representatives of FIs such as the Indian Bank and the State Bank of India with significant exposure to firms in the cluster.

2.0 CLUSTER FRAMEWORK

2.1 The Cluster

The leather clusters of Chennai produces (a) semi-finished and finished leather (b) leather footwear component (c) men's footwear (d) leather goods and (e) leather garments. The cluster is situated in the Chennai metropolitan area. The major tannery pocket is in the region between Chennai airport and Tambaram. This includes Pallavaram, Chromepet, Pammal, and Nagelkeni. Another important tannery pocket is in Madhavaram. The SIPCOT industrial estate at Irungattukottai is the location of footwear manufactures.

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2.2 Production process

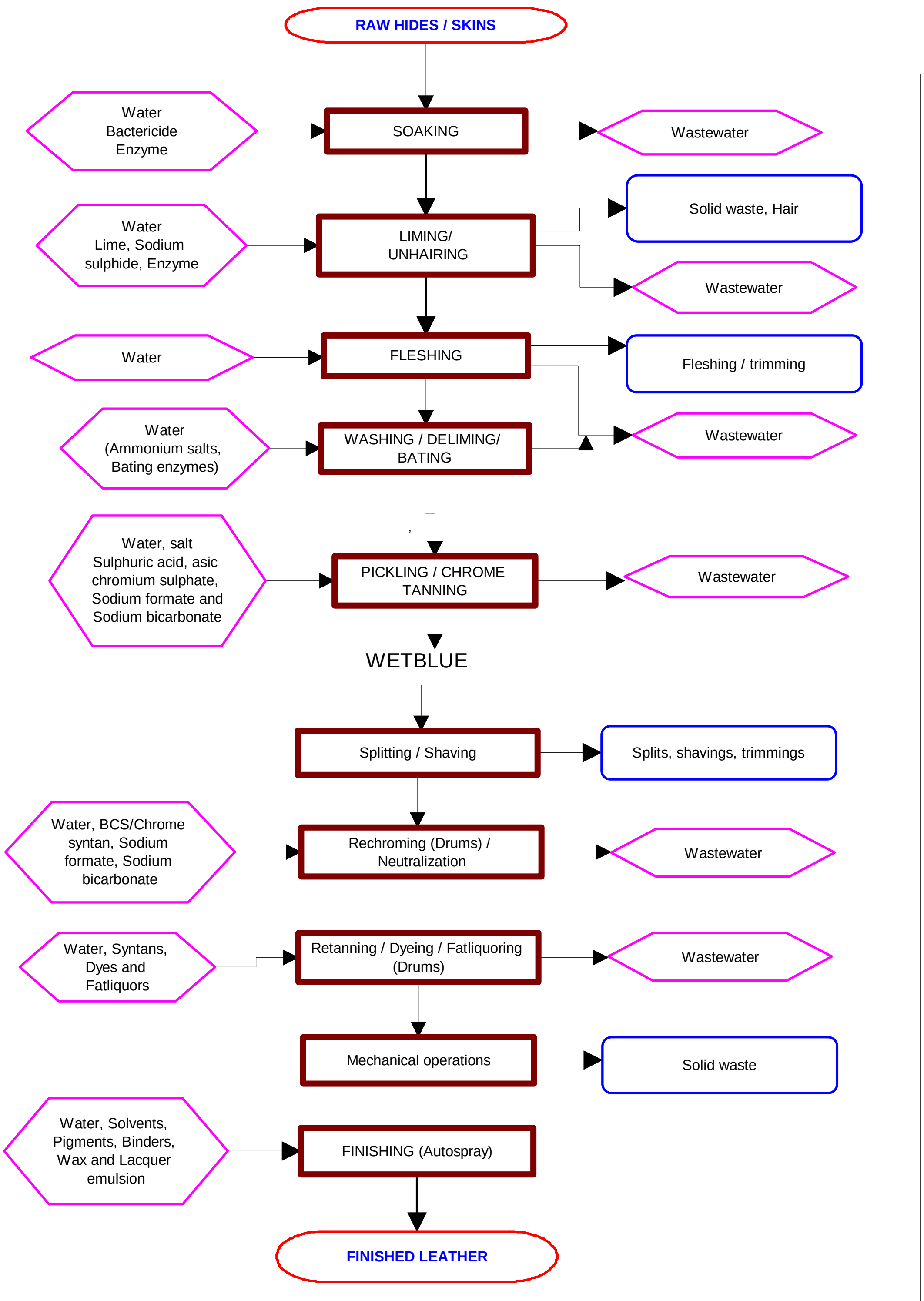
2.2.1 Leather

Manufacturing leather involves several processes. Raw material for leather production, namely, raw hides and skin are sourced by tanneries in wet-salted condition. The following are the processes and activities pursued in a tannery:

1. Soaking: The wet-salted hides and skin are soaked in plain water with chemicals which aid the re-hydration of hides and skin. The salt is thus dissolved in soaking water. A large amount of water, more than 20 cubic-meters per tonne of hides, is required in this activity.
2. Liming and un-hairing: The soaked hides and skin are taken for liming in which compact fibrous material is loosened so that the chemicals used in the following operations penetrate well into the fibrous matter using sodium sulphide and lime. In the same operation, the hair is removed from the hides and skin.
3. De-liming and bating: The limed pelts (hides and skin) are then subjected to de-liming to remove the lime and to clean the hides and skin by further removing unwanted components from the hides and skin.
4. Fleshing: The excess flesh present in the hides and skin are removed by a fleshing machine.
5. Pickling and chrome tanning[xxiv]: The pH of the pelts is reduced in order to avoid undesired swelling and facilitate penetration of non-toxic trivalent chrome. Tanning is completed using mild alkalies chrome. The output is called *wet-blue*, i.e., semi-finished leather.
6. The hides are then split and shaved to desired thickness. The shaved hides are re-tanned using synthetic tanning agents. The re-tanned hides are treated with fat liquors to impart flexibility and softness. Along with the fat liquors, dyes are added to dye the leather. These chemicals are fixed using formic acid. This completes the wet operations.
7. The dyed leather is set in a machine to make the surface flat and vacuum dried. After drying, the leather is subjected to mechanical operations, namely, staking, buffing and toggling. The leather is then finished using pigments, binders and feel modifiers by spraying. The leather is then plated to make the surface smooth.

8. The finished leather is then measured and packed for shipment to leather product units or for export.

Process flow chart of finished leather



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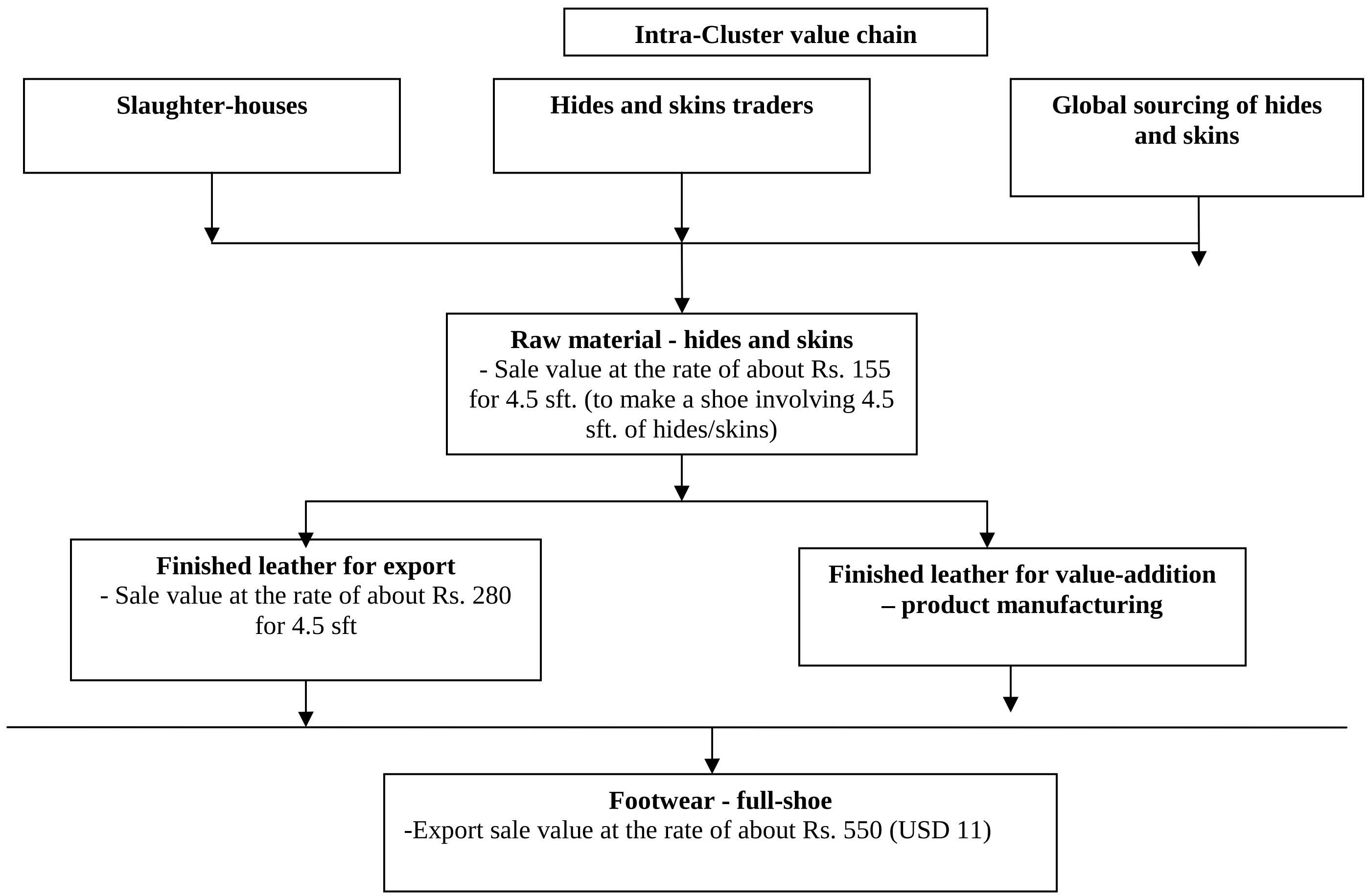
2.2.2 Footwear

Apart from designing and pattern making, the main operations involved in shoe manufacturing comprise clicking, closing, lasting, and finishing. The flow diagram explaining is appended as annexure. During the clicking process, uppers and lining materials are cut for upper parts; upper closing involves sewing together upper and lining parts and preparing the whole uppers for the subsequent manufacturing stage. This is followed by shoe-bottom preparation where all the parts such as soles, insoles, and heels, etc. are prepared to get stitched with the uppers and finally, finishing is done which involves putting the completed uppers on last (to give desired shape), connected (stitched or pasted) with shoe-bottom parts, finished (roughening, polishing), and packed.

2.2.3 Value Chain

From non treated leather to end product the value addition is as follows



Annual cost of production in terms of raw material e.g. hides and skin / finished leather accounts for about 35-40 per cent of sale value, and intermediate inputs (chemicals and dyes / components) are in the range of 20-25 per cent. These, in total, account for about 65 per cent of sale value in the case of both leather and product manufacturing enterprises. Labour costs as a proportion to total expenditure is about 7-10 per cent. Finishing inputs (e.g., packaging) proportion is not significant. Overheads in terms of power and fuel, interest on debt, marketing and administrative elements account for about 15 per cent of costs. Concomitantly, the profit margin on sale of firms operating at about 70 per cent of installed capacity is about 10 per cent.

Variation may arise depending on efficiency in sourcing, and quality or variety of hides and skin and other inputs used

Table 1: Core cost-structure of Firms

Product	Average sale price/unit value	Raw Materia l	Dyes and chemicals (and compliance costs[xxv] for finished leather mnf.) / Components	Labour	Overhe ads and Profits
Finished Leather	**Rs 48 per Sft.**	**35-40**	**20-25 (compliance costs of about 10 per cent in the case of jobbers but upto 3-4 per cent in the case of own-product manufacturers)**	**7-10 (own manufacturers 7 and about 10 for typical jobbers)**	**20-25**
Footwear	**USD 11**	**35**	**25**	**10**	**20-25**
Product	**Average sale price/unit value**	**Raw Materia l**	**Dyes and chemicals (and compliance costs[xxvi] for finished leather mnf.) / Components**	**Labour**	**Overhe ads and Profits**

2.3 Evolution of the cluster and Important Programmes

2.3.1 Evolution of the cluster

The cluster has evolved from a trading and exporting centre of hides and skin into that of semi-finished leather and moved onto become product manufacturing cluster over the period of a century.
The cluster had evolved in the latter half of nineteenth century with a strong trading community of locals exporting hides and skin to Europe for value addition. The community was based in North Arcot (now Vellore) district. EI (East India) tanning was introduced by the British in the early twentieth century. Subsequently, the first few tanneries were established manufacturing semi-finished leather for export and for domestic market.

A ban on exports of low value added items (mid-1980s) and the large base of leather manufacturing already available contributed to transition to finished leather and product manufacturing. Removal of SSI reservation in several product categories and encouragement of FDI in the early twenty-first century is leading to consolidation/increase in scale, and knowledge transfers from abroad. Policy has also encouraged technology upgrading in the 2000s by means of investment subsidies, and also basic/specialized/compliance related infrastructure facilities through PPP schemes (since 1996). Trade liberalization on import of capital goods and consumables, duty exemption for import of effluent treatment equipment, reduced import tariffs on other inputs, as well as export based incentives facilitated the transition.

By 2003-4, small scale industry reservation for leather products was largely withdrawn and foreign direct investment (FDI) inflows were witnessed into some clusters like Chennai. Further, the last two five-year plans have witnessed implementation of a Rs. 400 crore modernizations and infrastructure plan, with schemes offering investment subsidy for technological up-gradation.

Schemes in terms of Market Development Assistance, Public Private Partnership (PPP) to correct gaps in factor conditions (specialized or basic infrastructure including compliance infrastructure) and investment subsidies for technology upgradation and modernization offered by the Government also helped.[xxvii]

Critically, the cluster in Chennai has advantage in terms of factor conditions – access to inputs (tannery base), port facilities , labour : and cluster hardware in terms of access to support firms and services providers related to training , R& D and exports.Favorable factor conditions in Chennai have been critical in making it the headquarters of support institutions such as CLRI and the CLE. The export oriented policy and schemes of the Government facilitated industry growth towards competitiveness coupled with strong linkages with global value-chain leaders.[xxviii] The region also has the largest tannery base in the country. Good factor conditions have helped attract FDI and JVs.

The state government has also played a facilitator role by developing parks and estates, which served as an additional investment incentive.

In addition to these circumstances 14 – 15 of such lead firms in Tamil Nadu at least with head or branch offices in Chennai are integrated leather tanning units cum product manufacturing units also sub-contracting to the large job-working segment and have taken the lead in establishing joint venture ties, market linkages and facilitating technology transfers. Complementing all this has been relatively higher levels of active clustering/social-capital reflected in joint initiatives by firms and their associations (along with institutions) in market development, establishing dedicated parks with specialized infrastructure as to attract FDI, and tanneries connected to CETPs with assistance under Central Govt. PPP schemes.

Some of the critical drivers of growth of the cluster may be summarised as below

- conducive basic factor conditions,
- appropriate policy and regulatory environment at the National level in terms of encouraging FDI, (since decades)
- ban on export of semi-finished products,
- removal of product reservation norms,
- fixation of appropriate duty-drawback rates as to facilitate export competitiveness, free import of raw hides & skins, semi-finished and finished leather,
- delicensing of integrated tanneries converting raw hides & skins to finished leather,
- reduction of tariffs on imported machinery and chemicals, and
- De-reservation of leather shoes which were earlier reserved for manufacturing by small-scale industries.[xxix]

2.3.2 Some Important Interventions

The cluster has received support under a gamut of developmental projects as given below.

UNIDO project facilitates technology for compliance initiatives: Cluster organizations have benefited by support from a UNIDO Project. The project was in operation during 1996-7 – 2001-2 in the cluster. This project had made substantial interventions in terms of establishing ILIFO which continues facilitating environment (and particularly, labour) compliance in industry. The latter is specifically by way of BDS on ETP related areas.

National Leather Development Programme (NLDP): The NLDP was a UNDP supported programme for development of the Indian leather sector. A National programme, it addressed all value chain segments. The programme concluded in 2004 and involved creation of facilities and introduction of technologies as to have a demonstrative effect on other tanneries.

Indian Leather Development Programme (ILDP): Subsequent to interventions under the NLDP, the DIPP introduced the ILDP (9th plan period) as to build upon initiatives pursued under the latter. The Tannery Modernisation Scheme launched in the 9th plan continues in the 11th plan. The programmes of the DIPP comprise other schemes encompassing human resources development and brand promotion.

The Tannery Modernization Scheme: which had an outlay of about Rs. 290 crores in the 10th five year plan suffered from poor utilization largely due to administrative lacunae in terms of delayed announcement and allocation of budget for the scheme. Under the 11th five year plan period from 2007 an amount of about Rs. 250 crores has been allocated.

While in the 10th five year plan hardly 25 percent of the allocated budgetary outlay was utilized by the industry, the 11th five year plan has already witnessed utilization (sanctioned amounts) of about 40% (Rs. 100 crores). About 50% of the utilized funds under the scheme are been availed by enterprises in Chennai and nearby clusters. *The* *recessionary trends as well as necessary investments on CETPs have dampened the enthusiasm of industry in availing assistance towards greater levels of upgrading.*[xxx]

UNIDOs consolidated programme for development of SMEs: UNIDO has launched a consolidated programme since 2007 in Chennai. The project indicatively involves an outlay of about Euro 1 million for the development of leather and leather products SMEs in Chennai and nearby clusters. The project is also working in the auto-component segment (Chennai, Pune, NCR region), besides leather and leather products; (Chennai region and Shantiniketan). The project has already pursued initiatives in terms of identification of training needs of associations as well as shop-floor workers.

The project imparts assistance in investment and technology promotion by way of profiling members of BMOs for b2b match-making. The project also helps in dissemination of credit guarantee options as practised in Italy, and also explores promotion of private-equity services. About 22 firms have been audited from the technology and training needs perspective and workers trained in India and Italy. The project is also exploring development of a sub-contraction exchange database and promotion of trade-links. The project is expected to be completed by 2010. The BDS canalised under the project are largely subsidised and paid for by the project.

International technology audit/benchmarking of sample cluster firms has been pursued under UNIDO's consolidated programme for development of SMEs. The Italian leather industry is acknowledged to be the product and process technology leader in the globe. Italian BDS experts have been leveraged under this project to identify technology gaps amongst cluster firms.

In the footwear segment, gaps have been identified, for instance, in terms of productivity, quality, precision and cost related to die making. The proposed upgradation needs have been identified in equipment technology including electronic programmable skiving machines, use of thermo folding machines, and die less cutting machines. Training has been provided to many firms on availing such technology. Enterprises are expected to upgrade subsequent to this initiative. Large firms are already upgraded and availing many such options, but the gap is particularly evident in the context of smaller firms.

In the leather processing segment Italian BDS have appreciated the standards deployed in larger firms. The yield of finished leather, for instance, is believed to be near Italian standards in such firms. However this is not the case in medium and smaller units. Interventions to deal with this and other identified gaps such as frequent defects in finished leather (poor dyeing level ness, scarce mechanical resistance etc.) are being pursued. Initiatives such as; training by Italian experts and demonstration workshops to showcase the benefits of appropriate technology are being explored. Training initiatives under the project are believed to contribute towards enhancing processing methods and machinery-capacity utilization.

2. 3. 3 Global Scenario

Global import of leather products had grown at 8.77 per cent between 2002- 2006, amounting to USD 116.55 billion by 2006. Other than some European countries like Italy, Spain; most European countries serve as final export destination. Other key customer/consumer are located in USA, Australia and Japan.

Global sourcing of inputs is today a common phenomena. Progressively Hong Kong/China has emerged as a leading global importer of semi- finished and finished leather for value addition and re-export. China's share in global imports rose from about 11 to over 17.50 per cent between 1994 & 2004. Today China accounts for over 22 per cent, Italy 16 per cent, and Romania, Republic of Korea, Indonesia and Taiwan between 1.5 – 2.5 per cent each.[xxxi]

Some major exporting economies are China, Italy, India, Brazil, Romania, Taiwan, and Vietnam. Countries like Italy operate at the top end of the chain with high value exports and high unit-value realization. Their advantages are in design and styling, ability to produce quality leather out of even relatively poor raw material by application of unique process technology and brand equity.A comparative perspective of unit value realization for footwear by Italy, India, Brazil and China is revealing – The average unit value realization of Indian footwear is USD 9.89 per pair, while that of the Chinese is USD 5.07 per pair, Brazilian is USD 8.53 per pair, and Italian is high at USD 24.78 per pair.

Over the years, there has been trend of global manufacturing relocation based on labour cost, environment factor and enabling business condition. Production and export in many European countries, including Italy have declined in recent years. Imports from the Far East are progressively catering to domestic demand. Italian production is oriented towards meeting foreign demand. The tanning segment in countries like Italy faces high costs of environmental compliance. The cost of compliance in Italy is about USD 4.2 per cubic meter of effluent treated. While in India it has been about USD 0.9 per cubic meter. In the case of product manufacture, the decline in production of footwear in such countries is also on account of rising wage levels. In fact, much of the domestic market requirements of Italy are met by cheaper imports from countries like China.

2.3.4 National Scenario

The annual production of leather & leather products in India is about USD 6 billion or about Rs. 30,000 crore. The sector employs 2.5 million persons. The export turnover of the country in the sector stands at over 14,913 crore or about USD 3 billion. Exports comprise footwear and components of 42.44 per cent, finished leather of 22.05 per cent, leather goods of 22.57 per cent, leather garments of 9.89 per cent, and saddlery and harness of 3.04 per cent.

The Indian leather sector is truly intregrated to global value chain. Europe Union consumes about 60 per cent of India exports, followed by USA and Hong Kong 12 per cent each and others such as Australia, Canada, UAE, and Korea account for less than 2 per cent. About 20 per cent of hides and skin required by the industry are also globally sourced from the USA, Europe and the Middle-East. The Chennai cluster firms have globalised their input sourcing options in terms of chemicals from Germany, machinery and equipment from East Asia and the EU and hides and skin from Africa, the Middle East and even from the West.

The leather industry structure in India is predominantly unorganized and decentralized and production is in localized clusters.

Table 2: Key Leather and Leather Products Clusters in India*

Indian States[xxxii]	Clusters	Main product/Output
Tamil Nadu	Chennai, Ambur, Ranipet, Vaniymbadi (Chennai region), Trichy, Erode, Dindigul	Leather and footwear in Chennai and Ambur. Largely, leather in other locations
Uttar Pradesh	Kanpur and Agra	Leather, footwear, saddlery in Kanpur and footwear in Agra
West Bengal	Kolkata	Leather, leather goods
Maharashtra	Mumbai	Footwear
Punjab	Jalandhar and Ludhiana	Leather, non-leather footwear

** Hyderabad (leather), Delhi and Bangalore (leather garments) also has a manufacturing base in the sector. Mumbai has a base in footwear.*

In terms of geographical coverage of value activities, while tanning is broadly distributed among *Tamil Nadu (55-60 per cent)*, Kanpur (12-15 per cent), Kolkata (18-20 per cent) and Jalandhar (5-7 per cent), the footwear industry is concentrated in the clusters of Agra, Kanpur, New Delhi and surrounding areas of Haryana and UP, Chennai, Ambur and Ranipet. The clusters in Tamil Nadu evidently are, by far, the most significant contributors to exports and foreign exchange. The states of Uttar Pradesh and West Bengal follow. (Also see Annexure I).

2.3.5 Vital Statistics

Total turnover of the Chennai cluster is estimated at Rs 2,000 corers. Above 35 per cent of the output is in footwear component, 32 per cent in finished leather and 7and 8 per cent each in goods and garments categories a minimal amount also in the gloves category. The cluster is estimated to export goods worth Rs 1000 crores. The cluster is growing at 10 to 15 per cent and employment is growing 5 to 10 per cent last to 3 to 4 years. Profit margin is estimate in 10 to 15 per cent but has stagnated over the last few years.

Principal" firms in the cluster comprise of both tanneries as well as product manufacturing firms. The output of both these segments, that is, finished leather as well as leather products are largely exported. Chennai has about 150 tanneries in operation largely in the Pallavaram / Pammal regions. Some tanneries process raw hide and skins up to wet blue stage while others process wet blue to finished leather. Some tanneries are forward integrated into footwear or footwear components, and goods/garments. While no estimates may be made, a large proportion of small tanneries in Chennai are perceived by industry experts[xxxiii] to be largely only job-workers of large exporters. The cluster has about 50 footwear manufacturers.[xxxiv] Around 250 SMEs are involved in garments and goods, manufacturing by there are based in Chennai. So is the case with the 700 odd tiny product manufacturing firms in the sector. In the case of the footwear segment, these include firms making i) footwear ii) footwear components. Enterprises are more into men's shoes and fashion than safety footwear (unlike clusters such as Kanpur). The range in terms of value per pair exported varies between 10-30 USD.

CURRENT STATUS OF THE CLUSTER

1. Total people employed in the cluster (Approximately)

    a. Tannery segment 15,000
    b. Manufacturing segment 25,000
    Total employment 40,000

2. Major products of the cluster

    - Semi finished & Finished leather
    - Men's foot-wear
    - Leather Goods (gloves, belts, ladies hand-bags, travel goods, etc.)
    - Leather Garments (jackets, sports-wear, fashion-wear)

3. Total number of units (Approximately)

a.	Tannery (4 big, 58 SME, 88 Micro)		150
b.	Product Manufacturer (SMEs)		300
	Shoes	50	
	Goods &garments	250	
c.	Goods &Components		
	Tiny Un-organized units (micro)		700
d.	Large integrated manufacturer firms		4
e.	Component suppliers & Manufacturer		45
	Suppliers	30	
	Manufacturer	15	

4. Turnover of the cluster (Approximately)

a.	Finished leather	620 crores (50% export)
b.	Shoes manufacturing	700 crores (50% export)
c.	Goods & Garments Manufacturing	280 crores
d.	Large integrated units'	over 80 crores/unit
e.	Component manufacturing	340 crores

Forward linkage firms: Forward linked firms include domestic market traders, merchant exporters/importing agents. Many SMEs and all large firms do not use this channel, but directly export. Tiny product manufacturers largely cater to the domestic market through traders while SME product manufacturers employ all 3 channels – some directly exporting, some indirectly, and others catering to the domestic market through traders. SMEs invariably have a mix of export and domestic market orientation.

Backward linkages: The tanneries secure their raw material hides and skin from hide merchants/ commission agents, and slaughter houses in and around the cluster. Some specific varieties of cow and bovine hides and skin are imported- directly and through importers. There are about 5 large manufacturers and suppliers of chemicals in the cluster and about 10 SME manufacturers and over 50 traders. The 5 large players include MNCs such as Clariant, BASF, LANXESS, and TFL (Together for Leather). With regard to other backward linkaged firms, machinery manufacturers and suppliers are represented by about 15 manufacturers in Chennai and a total of 30 in Tamil Nadu. There are a total of at least 15 SME component manufacturers out of a total of 45 suppliers based largely in Chennai.

Support institutions[xxxv] and public BDS providers such as; the Footwear Design and Development Institute (FDDI); the Central Leather Research Institute (CLRI), and the Central Footwear Training Institute (CFTI) are the primary training service providing organizations. There are related polytechnics and technical schools such as the Institute of Leather Technology (ILT) and universities such as the Anna University offering Diploma, Degree, and Ph.D programmes in Leather Technology. R&D and design lab services are largely offered by the CLRI and the FDDI. In addition, the National Institute of Fashion Technology (NIFT) also provides training and BDS in the area of design.

The CLRI also canalizes grants for R&D and technology up-gradation for industry. SIPCOT and SIDCO are two institutions involved in providing basic industrial infrastructure to firms in the cluster. The National Environmental Engineering Research Institute (NEERI) established in Chennai in 1969 has been involved in establishing norms on environmental compliance at the behest of the Supreme Court. The TNPCB consults the institution on compliance standards and related issues relevant to the leather cluster. BDS revenue of this institution is, however, negligible.

Some related BMOs (industry associations) include the All India Skin and Hide Tanners Manufacturers and Exporters Association (AISHTMA), Indian Finished Leather Manufacturers and Exporters Association (IFLMEA), Indian Shoe Federation (ISF), the Pallavaram and the Madhavaram Tanners Association, and the Tamil Nadu Small and Tiny Industries Association (TANSTIA). Many industry associations play a proactive role in terms of initiatives beyond mere advocacy. There are 14 Common Effluent Treatment Plants (CETPs)[xxxvi] implemented by SPVs of BMOs Two significant CETPs (in Tamil Nadu) are located in Chennai, in Pallavaram (a large CETP) and in Madhavaram respectively.

A key non-governmental BDS providing organisation in the field of environmental (and social) compliance is the Indian Leather Industry Foundation (ILIFO) providing BDS in the area of environmental and OSH compliance. Two institutions facilitating market development and FDI promotion services include the export promotion authority (CLE) and the generic state Government's foreign investment promotion authority (TN Guidance Bureau) respectively.

The cluster also has a strong base of operational and strategic private BDS providers. In addition, Chennai is blessed with several service providers with international links including the trade and investment promotion offices as well as Chambers of Commerce related to different countries.

The enterprise categories have been already presented in previous sections.

Some finished leather produced is exported while the balance is consumed by product manufacturing firms in the cluster and other locations in the Country.

3.0 STUDY AND INTERVENTIONS FOR DEVELOPMENT OF A MARKET FOR BDS

The BDS market (particularly from the demand side) for several strategic areas is very weak. With regard to the demand for services, there is a virtual lack of awareness amongst SMEs about the efficacy of utilising BDS. Other than operational BDS in terms of taxation, audit and loan syndication, most strategic BDS including technology transfer and skill training from institutions such as the CLRI and the FDDI is heavily subsidised.

But for the few lead larger firms, SMEs typically have never availed fee-based services in necessary strategic areas. BMOs are however working closely with industry and providing/catalysing some necessary strategic services in the area of procurement as well as marketing. Otherwise much of regularly used services are typically embedded or bundled. For instance, suppliers of chemicals, equipment and agents/customers abroad are providing embedded services in terms of training and design.

In terms of supply of BDS, there are several public support institutions providing free/subsidized services. The provision of subsidized/free services by some public service providers has distorted the market and dissuades industry from purchasing quality services on commercial terms for developing sustainable competitive advantage and competitiveness. Some more generic constraints affecting development of market-oriented BDS vis-à-vis leather cluster stakeholders are encapsulated in the table following.

Table 3 : BDS market constraints vis-a-vis Chennai leather and leather products stakeholders

Demand -side onstraints	Supply-side constraints	Constraints vis-à-vis Transaction
• SMEs do not perceive the value of or need for many services (e.g., ERP, MIS, socio-environmental certification) • Inadequate capacity/willingness to pay for appropriate (particularly because of subsidised provision of many strategic services like technology transfer, training by public service providers) • Inadequate information base on the gamut of necessary services (e.g., energy, CDM, business planning for market access/procurement, appropriate finance) as well as on service providers	• Inadequate efforts to link up with the conservative and typical family-business operated firms in the segment • Inadequate efforts to build capacities to meet the wide-gamut of evolving services required by cluster SMEs • While there is no dearth of availability of basic operational (taxation, labour related) BDS capacity-constraints are evident in terms of several strategic BDS services (e.g., scope to lever on government schemes/institutions, PPP options for BDS provision, international trade-desks for market assistance)	• Many SMEs in the sector are not aware of the sources for identifying quality private BDS in strategic areas (e.g., TANSTIA-FNF, ITCOT to an extent) • Inadequate levels of confidence amongst firms vis-à-vis practical utility of a gamut of service products and providers • SMEs not habituated to paying reasonably for BDS – many have in-effect been subsidised by organisations such as UNIDO, DIPP • SMEs habituated to public provision of BDS

• While BMOs and their SPVs serve as consolidated platforms to receive (and share) costs of several BDS, more capacity-building of these and other networks is required for increasing receptivity towards more necessary BDS	• Inadequate information base vis-à-vis options to leverage upon public BDS/PPP and other schemes of different government bodies to make BDS facilitation more attractive	

3.1 Demand of BDS

An assessment of demand for services has been pursued in the context of specific value-chain activities in the cluster. Those services that are (relatively) widely employed have been considered as typical services availed. For purposes of assessment of demand and perceived need, only those services have been considered and listed those are in high demand and could substantially influence performance of cluster firms.

In order to achieve meaningful impact within the project time-frame, focus has been accorded to some critical aspects. The following tabulation elucidates on and presents an assessment of typical services availed, the extent of usage, and assessment of demand for services.

Table 4 : Demand for and availment of BDS

Value-chain activity	Typical services availed	Extent of usage	Perceived demand/need by way of services
Leather (MSE tanneries)	In-effect subsidized technology transfer from CLRI	M	• Services facilitating optimal sourcing of consumables (dyes/chemicals from India/abroad with appropriate credit institutions/instruments) • Energy/power cost optimisation/reduction in operation of ZLD-CETPs • Access to non-asset based finance • Services vis-à-vis deployment of Cleaner Production Technologies • Services facilitating technology upgradation (possibly under a PPP mode)/sans collateral requirements • Productivity related (IT-MIS)
	Taxation and audit related services	H	
	Production and shop-floor maintenance	L	
	Environmental compliance (joint ETPs)	H	
	Labour (salaries, legal issues, working conditions – through BMO AISHTMA)	H	
	Testing and certification services	H	
	Access to conventional finance (project preparation, loan syndication)	M	
	Use of agents for export marketing	M	
Leather (MLEs - Medium and larger firms)	In-effect subsidized technology transfer from CLRI	H	• Services facilitating global warehousing for raw material hides and skin in India and abroad • Energy/power cost optimisation/reduction in operation of ZLD-ETPs • Services facilitating optimal sourcing of consumables (dyes/chemicals from
	Environmental compliance (individual ETPs)	H	
	Taxation and audit related services	H	
	BDS provided by ITPO[xxxvii]/CLE for participation in fairs abroad; use of importing agents abroad	H	
	Quality and ISO 9000 certification	M	

	Maintenance services	H	India/abroad with appropriate credit institutions/instruments)
	BDS vis-à-vis Cleaner Production Technologies	M	
	Productivity related (ERP, MIS)	M	
	Labour (salaries, legal issues, working conditions – through BMO AISHTMA)	H	
	Testing and certification services	H	
	Access to conventional finance (project preparation, loan syndication)	H	
	Quality certification (ISO 9000)	M	
Product manufacturing (MSEs)	Taxation and audit related services	H	• Access to appropriate institutional credit on non-asset based terms • Quality certification (ISO 9000) • Socio-environmental certification (SA 8000, ISO 14000) • Training of staff on design (footwear, goods, garments) • Services facilitating start-up's (EDPs to also facilitate diversification/value-addition) • Market facilitating warehouses abroad • Productivity related BDS (ERP, MIS, lean manufacturing) • Fresh supply of trained shop-floor workers • Social infrastructure for the labour force
	Market linkages – Agents	H	
	Training services – shop-floor workers and supervisors	M	
	Access to conventional finance (project preparation, loan syndication)	H	
	Testing services	H	
	BDS provided by ITPO/CLE for participation in fairs abroad; use of importing agents abroad	H	
	Design services	M	
	Use of agents for export marketing	H	
Product manufacturing (MLEs)	Quality and ISO certification	M	• Market facilitating warehouses abroad (some firms) • Productivity related BDS (ERP, MIS, lean manufacturing) • Fresh supply of trained shop-floor workers • Social infrastructure for the labour force • Training of staff on design (footwear, goods, garments)
	Socio-environmental certification (SA 8000 and ISO 14000)	M	
	Productivity related BDS	M	
	Market linkages – Agents	L	
	Training services – shop-floor workers and supervisors	M	
	Labour (salaries, legal issues, working conditions – through BMO AISHTMA)	H	
	Access to conventional finance (project preparation, loan syndication)	H	
	Testing services	H	
	BDS provided by ITPO/CLE for participation in fairs abroad; use of importing agents abroad	H	

3.2 Supply of BDS

Services in the BDS arena in the cluster may be visualised in terms of their being provided by three categories of service providers, that is,

(i) Public service providers who offer their services on largely non-commercial terms. These are typically government support institutions (but also include a few private NGOs and trusts such as the TANSTIA-FNF Service Centre-essentially a BDS facilitator)

(ii) Business Management Organisations (BMOs) or industries associations and their SPVs to implement joint-projects for compliance and competitiveness

(iii) Private Service Providers who operate for profit and offer services on commercial terms.

Operational BDS are widely availed of, and the supply base ensures their availability at competitive rates (for example Rs. 2-3,000 per annum for CAs services by an MSE). Supply in certain strategic areas such as training and design is also conveniently available, but effectively subsidised by public service provision. Also, fee based services by cluster firms in strategic areas such as productivity, environmental certification, and quality certification is largely availed of only by large and a few medium-sized firms.

The pressures of environmental compliance has encouraged even MSEs to come together and establish networks (SPVs) of local associations to jointly avail large environmental compliance services (establishment and operation of CETPs), and jointly avail of relevant BDS. Nevertheless, this has also been partly subsidised through agencies such as the DIPP[xxxviii] and the UNIDO. Medium and large firms also avail of BDS services to jointly-implement specialised infrastructure such as a footwear components park. Therefore:

The industry has been benefited by (in-effect) subsidised services offered by support institutions such as the CLRI, FDDI, CLE, and the CFTI. Also, many of the other BDS in the areas of raw material (consumables) inputs as well as machinery and equipment are usually embedded and bundled services. Some of the key service providers are profiled hereunder.

(I) Public (largely Government) service providers

There is a plethora of government support institutions providing free/subsidized services. Some of them are considered in this sub-section.

Central Leather Research Institute: The Central Leather Research Institute (CLRI) is a National laboratory functioning under the ambit of the Council for Scientific and Industrial Research (CSIR), Ministry of Science and Technology (MoS&T), Government of India (GoI). It is amongst the largest leather research institutions in the world, with more than 520 scientists on rolls. It provides services ranging from education in leather technology and footwear manufacturing, research, and consultancy, to testing services. Shoe Design and Development Centre (SDDC), an arm of the CLRI provides BDS in design. This Centre has CAD facilities and a fashion studio. The SDDC has established a world-class testing laboratory for leather, footwear and its components. CLRI has also entered into collaborative terms with SATRA Footwear Technology Centre, UK, and an internationally acknowledged testing centre for footwear and allied products. The CLRI typically deploys the services of private BDS in the areas of project report preparation, ERP, and IT services over its training and consultancy interventions for the benefit of cluster firms. Out of its annual budget of about Rs. 34 crore, about Rs. 6 crore is collected as BDS revenue for provision of services largely (over Rs. 4.3 crore) to cluster firms in the Chennai region and nearby districts. About 50 per cent of its BDS related incomes are secured from its testing services, about 20 per cent from consultancy, training and technology-transfer initiatives, and about 30 per cent as fees for studies and interventions sponsored by the government (e.g., the HRD mission).

BDS of institutions such as CLRI is widely availed by the industry, especially in areas such as testing & training interventions. However, technology transfer particularly in the areas of eco-benign technologies and cleaner production are yet to be widely absorbed by smaller firms. Greater dissemination and demonstration initiatives of related technologies are expected to enhance BDS off-take from this dynamic institution. The proposed action plan in this report accommodates such interventions.

Council for Leather Exports (CLE): The CLE established in 1984 serves as the dedicated export promotion authority for leather and leather products firms. It has regional offices in other locations but is headquartered at Chennai. It is involved in assisting B2B linkages of firms[xxxix] with export markets and also in several PPP schemes related to export oriented infrastructure and compliance. Membership fee is charged on the basis of export turnover. BDS in terms of canalising assistance under the Market Development Assistance (MDA) scheme, Market Access Initiative (MAI) is provided by the institution. BDS amount in total (all-India estimates are about Rs. 15.5 crores per annum out of which about Rs. 14 crore is generated by way of government grant and the balance of about Rs. 1.5 crore is collected from Industry. The contribution from Chennai based firms would be (indicatively) hardly 60 per cent of this estimate or about Rs. 90 lakh. The total administrative expenditure of the institution is about Rs. 2.57 crore of which over Rs. 1.64 crore would be the outlay for the Chennai office manned by over 40 staff and professionals. Out of such schemes, activities ranging from road shows abroad, participation in fairs, to appointment of agents abroad (in Brazil and Spain, for instance), information dissemination services to members through its monthly journal “Leathers” are pursued and grant-in-aid/subsidy canalised for benefit of members. Its journal provides information in terms of fashion forecasts and market as well as policy trends. The CLE typically avails of technical services of BDS providers such as agents, event managers abroad.

Indian Trade Promotion Organisation (ITPO): Under the aegis of the Department of Commerce, Ministry of Commerce and Industry, the ITPO has a significant operation from Chennai, particularly vis-à-vis the leather and leather products firms. At least 300 firms from the Chennai region are serviced every year. The India International Leather Fair (IILF) organised at Chennai with a budget of Rs. 5 crore, and fairs related to footwear and goods/garments respectively at Delhi and Kolkata respectively are some of its market promotion initiatives in India. In addition, the organisation also markets the fairs at Hong Kong and Shanghai. The administrative expenses of the establishment in Chennai are in the range of hardly Rs. 1 crore per annum. The total BDS gross revenues earned by the Chennai office providing such services to Chennai cluster firms is in the range of about Rs. 5 crore.

Footwear Design and Development Institute (FDDI), Chennai: Footwear Design and Development Institute (FDDI) offers short term courses and plans to start offer post graduate diploma courses and graduate diploma courses in Chennai soon. It also offers design services through a product development centre. The institution operates under the aegis of the Ministry of Commerce and Industry, GoI, and offers programmes on footwear Technology and Management and also provides testing facilities. It had 3 professional staff and about 10 full-time students till recently. Recently, it has started using rented premises to groom about 30 students over long-term programmes. Large facilities are under implementation at Sriperumpudur to annually train about 60 students in U.G. and P.G. courses. About 10-12 exporting units avail its fee-based training, testing and design facilities and annual fee paid by users is Rs. 6 lakh for company sponsored training and Rs. 7 lakh earned by job-work and design incomes for its services.

National Institute of Fashion Technology (NIFT): In the context of the leather and product sector, the facilities of the NIFT in Chennai largely offer footwear related programmes. Its bachelor's course on design and accessories involves about 30 students every year. About Rs. 2 lakh worth of BDS incomes are generated by providing BDS to about 5 firms every year.

Institute of Leather Technology (ILT): The ILT is a State Govt. institution conducting programmes for the development of human resources. It also offers diploma courses, also with support of faculty from the CLRI. It provides subsidized training for about 60 candidates annually for industry.

No other direct BDS is provided for firms in the cluster.

National Small Industries Corporation (NSIC): The institution is a public sector undertaking in operation in Chennai since 1956. The specific BDS provided by this institution to leather and leather products firms has been in the area of insurance of export credit, organising fairs such as "Technomart", offering marketing support for government purchases, offering info-mediatory services (tender and trade information, J.V. opportunities), and operates a raw material assistance scheme. In terms of core BDS revenue generation through activities in the Chennai office, the revenue accrued by way of service provided to SMEs (in general) including from the raw material assistance scheme (e.g., aluminium related inputs to engineering related firms in Chennai) is about Rs 3.5 lakh per annum. In the case of aluminium, in the national perspective, the institution bulk procures about 1800 TPA (Rs. 18 crore) and supplies to small firms with a service charge of 0.25 per cent. The Chennai region accounts for about 800 TPA of this volume. The service charge generated on this account is about Rs. 2 lakh. Over BDS services encouraging MSEs to participate in government purchase tenders, the institution charges Rs. 4000 for relevant certificate and generates income to the tune of about Rs. 1.5 lakh per annum. The organisation has 3 full-time professional staff on its rolls. No leather and leather products sector firms are availing specific services from this dynamic institution.

Anna University: A.C. Tech. established in 1948 has a Dept. of Leather Technology. The department has a capacity to train 40 B.Tech students and 10 M.Tech students in leather processing and footwear technology. Academic programmes are offered with assistance from CLRI faculty. Other fee-based and subsidized BDS to the cluster is negligible. The thrust of this academic institution (the Dept. of Leather Technology) is on developing a skilled pool of (supervisory and technical) manpower for the industry

C**entral Footwear Training Institute (CFTI)**: An arm of the Ministry of MSME, GoI, the CFTI is today more autonomous. It offers diploma courses in leather technology and footwear manufacturing. The institution offers courses only in the area of footwear. In the case of longer term programmes, the courses are in-effect subsidised by the government to the tune of about 50 per cent. In the case of some short-term programmes (e.g., State Government sponsored programmes for backward classes and minorities), the activity is almost completely subsidised. Of the Rs. 3 crore annual budget of the institution, about 50 per cent is collected by way of fee. There is no industry sponsorship of students. Other than such academic, technical, and practical training of technicians and personnel, the BDS offered directly by the institution to firms is by way of (Rs. 3.5 lakh per year of) services in terms of job-working, design, and pattern development for footwear firms. [xl] The institution has 43 full and part-time professional staff-members on its rolls.

National Environmental Engineering Research Institute (NEERI): The NEERI was established in Chennai in 1969. The institute has been involved in establishing norms on environmental compliance at the behest of the Supreme Court. The headquarters of the institution was established in Nagpur in 1957. The institution functions under the ambit of the Ministry of Science and Technology and has been providing BDS in the areas of effluent treatment, waste disposal, environmental engineering and plant design. However, income from fee based services is negligible in recent years. The TNPCB consults the institution on compliance standards and related issues relevant to the leather cluster.

Small Industries Development Corporation of Tamil Nadu (SIDCO)/ State Industries Promotion Corporation of Tamil Nadu (SIPCOT): SIDCO facilitates provision of industrial estates for MSEs in the state. Several leather cluster firms are benefited by their service. The SIPCOT largely provides similar assistance by way of establishing parks for MLEs. Some such facilities have SEZ status. The Footwear Components Park at Sriperumbudur is an illustration of the assistance secured by the cluster by such institutions.

Trade and Investment Promotion Offices of other countries (Netherlands Business Support Office (NBSO), UK Trade and Investment): While many SMEs in other clusters have explored/successfully established/operate warehouses in The Netherlands (in Rotterdam – "the gateway to Europe") and/or Belgium, the leather and leather products cluster firms in Chennai have not availed of the free BDS provided by organizations such as the NBSO supported 100 per cent by the Dutch Government. The agency has been contributing by way of promoting Dutch FDI into India (facilitating leads and BDS e.g., in the field of chemicals, service sector firms). It does not use any private BDS and has a two person team to man its office at Chennai. The annual budget of Rs. 60 lakh for its facilitation services is provided by the Dutch Government. The office is working closely with the Netherlands Foreign Investment Agency and can provide BDS in terms of promoting inward FDI into The Netherlands, for instance, in terms of establishment of a warehouse.

The UK Trade and Investment department functions under the aegis of the British Government. They have a long-standing presence in Chennai and are occasionally involved in some projects related to the Chennai cluster for the benefit of UK based firms. They have recently pursued a study vis-a-vis environment friendly technologies for leather through the services of a private MNC BDS provider Price-Waterhouse Coopers. They have vertical facilitating b2b information and match-making services. The BDS involved fees estimated to the tune of Rs. 6 lakh.

(II) Industries' Associations

Indian Finished Leather Manufacturers & Exporters Association (IFLMEA): IFLMEA registered as an association since 1989 under the Indian Societies Act, 1961, represents the interests of finished leather manufacturers and exporters with about 125 members, mostly from Chennai and nearby regions. The member profile comprises some 10 per cent large firms, and the rest SMEs. Other than advocacy role, the association organizes workshops and conducts research essential for development of the finished leather industry. It also publishes a journal, "Leather Trends" and works in collaboration with CLRI in making Modeurop (a European colour forecasting body) leather collection. The members of the association contribute to at least 75 per cent of the finished exports from the region. The association has an annual budget in the range of Rs 25 lakh. This is mobilized as annual membership fee (Rs 7,25,000) and Rs. 18 lakh collected as fee for services provided. Such services are in terms of stall sales at the ITPO organized IILF, allocation of seats at the Anna University, and revenues from delegations abroad. No private BDS service is availed of. It, however, provides services to members jointly with the assistance of the public BDS provider the ITPO.

Indian Shoe Federation: Indian Shoe Federation (ISF) involves footwear and footwear components manufacturers. The association has 110 members mainly from the Chennai and nearby regions. Other than advocacy it is involved in initiatives such as sale of developed stalls in the ITPO led India International Leather Fair (IILF), and also organizes a footwear components exhibition. Through such services the association generates BDS revenues to the tune of Rs. 8 lakh per annum. Its other main source of revenue is membership fees amounting to Rs. 12 lakh per annum. No outside BDS is really availed of. It however works closely with the public BDS provider, the ITPO. The association has also taken the lead to evolve an SPV that has established a footwear components park.[xli]

Tamil Nadu Small and Tiny Industries Association (TANSTIA): The association has about 1800 members including individual firms as well as 30 odd district-level industries associations, 30 product associations, and 76 industrial estate associations. In fact, leading regional associations such as the Coimbatore District Small-Scale Industries Association (CODESSIA) and the Madurai District Small-Scale Industries Association are also members. The annual net income of the association is about Rs. 90 lakh of which about Rs. 20 lakh is generated as membership fees, Rs. 8 lakh is the surplus generated from (grant) subsidy received from the government as well as stall-charges collected (total Rs. I00 lakh) from members for providing BDS in terms of organizing a large b2b fair in Chennai, the rest of income is secured as rental income from space let-out and hiring-out of its seminar hall for training as well as other purposes. BDS provided is in terms of advocacy, organizing fairs, and organizing capacity-building seminars. Firm level BDS is catalyzed through its service providing arm the "TANSTIA-Friedrich Neumann Foundation (FNF) Service Centre."

All India Skin and Hide Tanners Merchants Association (AISHTMA): The Association AISHTMA is an apex body to which various district and Regional Associations are affiliated. The association comprises over 350 members (today) largely from Chennai and nearby districts. The association has also taken a lead in evolving SPVs amongst industry for establishing CETPs and labour conciliation/wage revision. It also facilitates joint procurement and distribution of various raw materials such as vegetable tannins among its members. The private BDS that it occasionally imparts are in the areas of legal issues vis-à-vis labour issues.

Pallavaram Tanners Association (PTA): Pallavaram is today under the ambit of the Chennai Metropolitan Development Authority. It is a pocket of about 150 tanners who are members of the BMO PTA. Over the years the city has extended as to make this tannery pocket a virtual residential area. The PTA's BDS to members is largely restricted to advocacy and establishment of an SPV to establish and operate a CETP. No private BDS is provided. Advocacy has also ensured that basic infrastructure like roads are constructed and repaired by the local municipality.

Madhavaram Tanners Association (MTA): The association represents the interests of 65 members. The significant BDS offered to members may be visualized in terms of the association supporting the CLRI led initiatives such as the technology mission. Here the association had pursued various initiatives for the betterment of shop-floor conditions and work practices. Interventions included HRD, skill development, and addressing tannery-worker health and safety issues. This BMO had also taken the lead in establishing a CETP through an SPV (the Madhavaram Leather Manufacturers Pvt. Ltd. - MLMF). The association had also taken the initiative of establishing a leather service centre.

Indian Leather Products Association (ILPA): The ILPA head-quartered at Kolkata has a small operation in Chennai. The association has about 30 SMEs as members with approximately equal representation by goods and garments sector firms. The BMO works in close association with the CLE. and meets its operational expenditure through the mobilization of annual membership fees to the tune of Rs. 2, 10, 000. It does not provide nor avail of any specific BDS but for availing CLEs assistance for benefit of member firms.

BDS by BMOs: In essence, the BMOs have taken several initiatives to correct factor conditions on a PPP mode. The consortium of shoe manufacturers, for instance, is the SPV of industry that has implemented a footwear components park on PPP basis. BMOs therefore have a track record of providing or catalyzing BDS services to industry and enhancing SME competitiveness through “active” clustering initiatives. BDS by BMOs may be visualized in terms of industry associations in the cluster playing a proactive role in terms of initiatives beyond mere advocacy. They establish basic and high tech physical infrastructure – training institutions, parks and CETPs on a PPP mode. Co-ordination levels with Govt. stakeholders are evidently high. In essence, there is a relatively high level of active clustering initiatives amongst stakeholders. For instance - SPVs / consortia amongst SMEs to establish and operate Common Effluent Treatment Plants with part Govt. support on a PPP basis; and the lead associations such as AISHTMA works jointly with regional / national labour unions and the Govt. Labour Commissioner (co-ordination mechanism) to periodically revise / fix minimum wages. Co-operative initiatives are also evident on commercial fronts. For instance, the association AISHTMA sources (imports) about Rs. 200 million worth of vegetable tannins used as inputs by some member firms individually. Positive scale-economies are reaped by such joint initiatives.

The table following presents a summarily tabulated profile of BMOs.

Table 5 : Profile of BMOs vis-à-vis catalysation / provisioning of BDS

Activity along the value-chain (member profile)	BMO	Membership (Extent of industry representation)	Capacity-assessment (Independent office; Newsletter / website; Professionals in staff)	BDS mix	Annual fee realised from members for services – other than membership fees (membership fees)
Tanning	IFLMEA	-125 members (largely SME and large exporters)	-Possess independent office space and seminar hall -4 administrative staff -Website	-Advocacy on EXIM issues, environment -Provision of stalls in the India International Leather Fair (IILF) -Leading trade (marketing/sourcing delegations) -Seminars and training; fashion show during the India International Leather Fair[xlii]	-BDS by way of stall provision at IILF, seat allocation in Anna University (leather technology course), and delegation to North Africa last year generated about Rs. 14 lakh (Rs. 7,25,000 as membership fee)
Tanning, product manufacturing, associations like PTA	TANSTIA	-30 from the leather and leather products sector (total 1800 members) -tannery association (PTA); there are 30 other product associations and 76 industrial estate associations serving as members	-Possess independent owned office space -Website	-Largely advocacy -Core BDS in terms of organising “Access 2008” a fair with a budget of Rs. 1 crore	-Rs. 1 crore largely from sale of stalls to members (membership fee of about Rs. 20 lakh)[xliii]
Tanning	PTA	-150 members (largely MSEs)	-Hired office -Just one full-time clerk	-Largely advocacy -Established one SPV PTIET for operating a CETP	-No BDS revenue (membership fee of Rs 1,50,000)
Tanning	MTA	-65 members of which about 20 are job-working firms	-Own office space with administrative staff	-Largely advocacy -Established one SPV PTIET for operating a CETP -Under technology mission pursued by CLRI catalysed services in terms of tannery health, safety issues, skill development -Established a leather service centre (facilitating joint-use of expensive m/c)	-About Rs. 4 lakh by way of BDS revenue (about Rs. 65,000 as membership fee)
Tanning, trading	AISHTMA (including traders)	-350 members including tanners, smaller industry association in Tamil Nadu	-Independent owned office space -13 full-time administrative staff	-Advocacy particularly on labour and environmental issues -Wage revisions/fixation in	-Rs. 20 lakh as service charge for operating a raw material bank (membership fee of Rs. 5,25,000)[xliv]

				consultation with the govt. -Import of wattle extracts or benefit of members	
Footwear manufacturing	ISF	-110 members into footwear and components manufacturing	-Possess independent office space -3 administrative staff	-Advocacy -Established one SPV and implemented a footwear components park -Organise exclusive footwear components exhibition (generating a surplus of Rs. 3 lakh)	-BDS revenue of Rs. 12 lakh per annum (membership fee of Rs. 8 lakh)
Goods, garment manufacturing	ILPA	-30 members with 50 per cent each into leather goods and garments manufacturing respectively	-No permanent dedicated office infrastructure -One staff member	-Largely advocacy initiatives -Works in close co-ordination with the ILPA	-Negligible BDS in other areas (Rs 2,10,000 as membership fees)

(III) Private BDS providers

Chennai does not have a supply shortage vis-à-vis operational as well as strategic BDS providing private service providers. These may also be in terms of those offering services on the labour legislation front. Similarly, while no estimate could be made vis-à-vis the number of CAs providing operational BDS in terms of taxation, audit, and loan syndication, evidently the services of none of the 100 odd Cost Accountants pursuing independent practice and with capability to offer more strategic BDS in areas such as cost control have been focused . So also is the case with more strategic services that may be obtained from professionals such as Company Secretaries (e.g., BDS in terms of IPOs).

Leading suppliers of chemicals and dyes supply free but embedded services to over 80 non-job working tanneries and cost of embedded services is typically added upfront (with equipment costs) in Chennai. Suppliers of sophisticated and imported machines provide free training to operators though such cost is added upfront over sale. There are several of small service providers offering services related to maintenance and repairs of machines, and on more strategic areas such as ERP (largely availed by larger integrated firms) on commercial terms. There are many service providers in areas ranging from socio-environmental certification (again largely availed of by larger integrated firms), pollution related compliance – ETPs, and infrastructure plan preparation for PPP projects. These providers too provide service on relatively commercial terms.

"*About 250 largely individual and small BDS providers offering both operational as well as strategic BDS are networked and providing services through BDS facilitating platforms such as the TANSTIA FNF Service Centre. This service centre effectively serves as a Private BDS facilitating platform. Exact number of private unorganized BDS* *providers providing basic operational BDS services like audit, tax planning, custom consultants etc. are not available*

Some of the key private service providers in areas of strategic interest to the cluster firms are presented as under:[xlv]

Indian Leather Industry Foundation: The Indian Leather Industry Foundation (ILIFO) focuses on environment related aspects of leather and allied industries, and has pioneered related BDS for over a decade. The services provided by the Foundation include: BDS to the tanning industry to meet compliance requirements, services to the product sector for improving productivity and quality, organizing training programmes, etc. It also publishes a newsletter. ILIFO was established by the industry when UNIDO's "Regional Programme for Pollution Control in the Tanning Industry in South East Asia" was launched in 1996. It has been pursuing related initiatives since.[xlvi] ILIFOs annual budget in the range of Rs. 40 lakh is generated completely through BDS provision to SMEs (through SPVs) as well as larger firms (directly). Last year BDS services abroad helped raise revenue-income to about Rs. 1.2 crore. The organization also deploys the services of 7 odd outside BDS experts on assignment basis.

Industrial and Technical Consultancy Organisation of Tamil Nadu (ITCOT): The ITCOT has been involved in preparing project plans for several initiatives by leather cluster stakeholders. These include those related to upgradation of CETPs, leather footwear SEZ in Sriperumbudur, as well as a footwear components park. ITCOTs annual expenditure of Rs. 6 crore is met with through revenues from BDS provision of Rs. 7.5 crore (about 50 per cent being oriented towards SMEs). This TCO earns its incomes completely by way of BDS provision and has declared dividend to its shareholders to the tune of about 30 per cent last year. The organization has about 60 professional staff ranging from lawyers, technological experts, and Chartered Accountants, to Social Scientists. It provides services related to project planning, QMS[xlvii], energy, infrastructure, valuation, and the like, to at least a 100 firms a year with about 50 per cent of these being SMEs or their SPVs. Interventions are reasonably priced vis-à-vis global BDS providers in similar areas such as E&Y, KPMG, and PWC.

TANSTIA-FNF Service Centre: This service centre established by the TANSTIA and the Friedrich Neumann Foundation (FNF) / Friedrich Naumann Stiftung today has almost 40 per cent of its annual budget subsidized by the FNF. The organization provides BDS to SMEs in the areas of organizing specialized training programmes, and in effect also serves as a private BDS facilitating platform.

Chennai Environmental Protection Management Company of Tanners (CEMCOT):[xlviii] The CEMCOT is the apex SPV of 6 sub-SPVs for implementation of R.O. plants (that is ZLD-CETPs) in different clusters in Tamil Nadu. The project under implementation involves an outlay of Rs. 184 crores and is supported to the extent of over 50 per cent by the DIPP, 15 per cent by the State Government (subject to a ceiling of Rs. 20 crores), and 35 per cent (or Rs. 60 odd crores) from beneficiary firms. The

CEMCOT has a budget of about Rs. 5.4 crore (3 per cent) as project implementation expense and for the BDS it provides.

Special Purpose Vehicles (SPVs) of BMOs (Common Effluent Treatment Plants): There are 14 Common Effluent Treatment Plants (CETPs) and more than 100 individual Effluent Treatment Plants operational and catering to the tanneries in Tamil Nadu. Two significant CETPs are located in Chennai – in Pallavaram and Madhavaram. The objective of the CETP is to collect, convey, treat and discharge the effluent. Every CETP is a separate company, managed by a Board of Directors and a Chairman. These have been operational for a decade. Similar assistance is now provided for establishing Reverse Osmosis (R.O.) plants. The SPVs of PTA and MTA operating these CETPs at Chennai are the Pallavaram Tanners Industrial Effluent Treatment Co. (PTIET) Ltd. and the Madhavaram Tanners Environmental Protection Co. (MTEPC) Ltd.

Pallavaram Tanners Industrial Effluent Treatment Co. (PTIET): The PTIET evolved in 1989 as an SPV of the PTA. It represents the interests of about 130 members who avail the services of the CETP. The SPV has an annual budget in the range of Rs.3.5 crores. This is mobilized as fee for provision of services. The outside private BDS services that it avails of are in terms of inputs and guidance from the ILIFO, the costs of which are in-built in the project cost for implementation of ZLD-CETPs.

Madhavaram Leather Manufacturers Pvt. Ltd. (MLMF): The MLMF that is operating the CETP at Pallavaram represents the interests of 16 members. The SPV has an annual budget in the range of Rs 1 crore. This is mobilized completely as fee of Rs. 1 crore for services provided. Such service charge for provision of compliance related BDS is to essentially meet operating expenditures. The outside private BDS that it avails of are in terms of inputs and guidance from the ILIFO, the costs of which are in-built in the project cost for implementation of ZLD-CETPs.

Society General de Surveillance (SGS) lab: The global BDS provider in the area of testing and inspection has a major presence in Chennai. The organization has large testing facilities located at Gurgaon and Chennai. The organization commenced operations in Chennai in the late 80s. In addition to fee based BDS in terms of testing and inspection, the organization also offers training and awareness generation seminars on several areas. The facility at Chennai is staffed with about 400 personnel. The BDS revenues accrued from the leather related sector (largely) at Chennai alone is estimated at about Rs. 5 crore per annum. In addition revenues from other services such as training and factory assessment (also) paid completely by user firms are to the tune of about Rs. 50 lakh per annum. The organization caters to the requirements of at least 200 firms from Chennai every year.

South India Producers Association (SIPA): The organization is a reputed NGO working largely with producer groups and micro-enterprises. It was registered in 1985 and offers BDS in terms of capacity-building and marketing across Tamil Nadu. It facilitates export marketing of products availing the network of fair trade organizations across the world and also possesses its own product showroom facilities. It works closely with organizations such as the Khadi and Village Industries Commission (KVIC) and the Development Commissioner – Handicrafts. It is also the nodal centre in Tamil Nadu for Hewlett Packard's CSR initiatives to IT enable (capacity-build) micro enterprises – a service that could be particularly leveraged for micro leather sector firms. Major donors for its capacity building and training initiatives of about Rs. 50 lakh a year are NABARD and DC – Handicraft. Programmes offered vary from skill upgradation to business management. A major source of BDS related incomes is by way of it providing export-marketing assistance of products to the tune of Rs. 3 crore per annum. The total BDS provided amounts to about Rs. 3.50 crore. The surplus generated is about 20 per cent on marketing related BDS and about 50 per cent by way of conducting subsidized programmes. The total number of beneficiaries from the intervention of this BDS provider is about 3500 artisan families networked through/with producer groups as well as 60-70 micro-enterprises with less than a handful (3 firms) in the leather goods segment. The annual operational expense (administration and salaries) of the organization is about Rs. 90 lakh and it operates with about 20 full-time professionals, even while availing of a dozen odd part-time trainers, technology providers in different sectors.

Bharatiya Yuva Shakthi Trust (BYST): The BYST is a National institution registered as a trust and provides assistance to MSEs in the form of loans, business mentors, training, networking, and marketing. Nationally it has supported 1500 such entrepreneurs since 1991. In Chennai, the BYST has assisted about 500 entrepreneurs with credit links without collateral. The institution's BDS provision is financed by means of a service charge (of about 3 per cent) collected on the loan amount directly provided or (now) facilitated through leading FIs such as the Indian Bank. The office at Chennai has an annual budget of about Rs. 25 lakh and is manned by 4 professionals. The revenue earned annually by means of BDS provision is about Rs. 8 lakh. Less than Rs. 0.50 lakh is generated by way of BDS provision to cluster firms. This dynamic institution is self-sustainably supported by way of interest incomes generated from its corpus.

Institute for Financial Management and Research – Small Enterprise Finance Centre (IFMR – SEFC): The SEFC of the IFMR is involved in pursuing research to facilitate provision of appropriate financial instruments and services to Indian SMEs. Activities and administrative overheads are supported by the Kothari group / ICICI. The institution is also working on evolving appropriate financial instruments for leather and leather products SMEs through study. Work is particularly in the areas of channel finance, trade finance, and services are 100 per cent subsidized by private sources such as the Kothari group and the ICICI Bank. Links with the cluster are marginal. No outside BDS is availed of. In-house professional carry out research, as well as training activities. This institution has come forward to pursue a study and offer a training programme "Innovative Financing Instruments for Leather and leather products SMEs".

Netherlands Management Co-operation Programme (NMCP): The NMCP is a programme sponsored by Dutch agencies to provide BDS to SMEs in developing countries like India. International experts visit India for conducting short-duration interventions. Till date about 15 such BDS providers have provided BDS to SMEs in

Chennai. However, the leather sector has benefited in terms of availing BDS with regard to membrane technology for a firms ETP.

Institute of Cost and Works Accountants of India (ICWAI)[xlix]: The ICWAI (South Indian Regional Centre - SIRC) largely caters to the needs of professional education to students. There are over 1800 registered Cost Accountants in Chennai, but only about a 100 of them are into private practice providing BDS to industry. BDS to leather cluster firms by the institution is negligible. Few representatives from cluster firms seem to have participated in some of its training programmes related to cost control and cost management, project risk management, and the like. Nonetheless, its services, as also that of its private practicing professional's services (particularly in areas such as cost control, inventory management over optimizing procurement initiatives) have scope to be leveraged to cluster firms' benefit.

Consultancy Development Centre: Activities of this BDS development Centre in Chennai are partly (about 50 per cent) subsidized by the Department of Scientific and Industrial Research (DSIR). The annual budget is in the range of about Rs. 5 lakh and is largely used for capacity building workshops (for example, on scope for consulting opportunities and relevant bids) for the 120 members from the region. The Centre operates from ITCOTs office and has no full-time office bearers or staff. There is scope for leveraging the services of the largely private BDS providers registered with the centre for benefit of the cluster.

Productivity related BDS (ERP, Lean manufacturing): There are several private BDS providers in Chennai involved in productivity related interventions. The KANZEN Institute Asia-Pacific (KIAP), for instance, is a global management consulting company that has pioneered in supporting implementation of Lean Manufacturing. The firm has been providing services towards quality improvement and problem solving. KIAP has supported over a hundred organizations of diverse sizes in India and abroad and has conducted over 400 process improvement (Kaizen) workshops enabling firms to adopt two fundamental concepts of Zero Waste and Zero Defects to enhance competitiveness.

Others: There are a few other service providers whose roles are yet to be leveraged by the Industry. The Chennai office of the Indo-Italian Chamber of Commerce and Industry (IICCI) provides services to industry in Chennai in terms of bridging information gaps with regard to Italian firms, promoting inward as well as outward FDI between India and Italy. The institution also provides services in terms of translation, arranging b2b meets, facilitating visits of Italian delegations into the region as well as visiting of leading Indian delegations to Italy. There is however, no BDS offered to the leather related cluster in Chennai despite its potential to assist in identifying Italian designers, catalyzing ties, and experience-sharing vis-à-vis Italian compliance initiatives and options in the sector.

The following table presents major service providers, typology of critical services provided by them, fee earned, as well as firms availing services in terms of numbers

Table 6: Contemporary availment of BDS by leather and leather products firms

(A) Some key Govt. institutions related to the leather and leather products cluster at Chennai

Sr. No.	Name	Services	Annual fee from the private sector firms in the cluster	Firms availing services
1	CLRI	Testing, training, technology transfer, design	Rs. 430 lakh	At least 150
2	CLE	International market access	Rs. 90 lakh	150
3	NSIC	Marketing, procurement – raw material assistance, Govt. tender procurement	-Nil; Rs. 3.5 lakh (not from cluster firms)	None from the leather and leather products segment
4	SIDCO/SIPCOT	Infrastructure	-	About 50
5	Anna Univ.	Training	Nil	NA (a dozen odd lead firms do come in for campus recruitment)
6	CFTI	Training, design job-work	Rs. 3.5 lakh (design, job-work)	About 10-15 every year
7	FDDI	Training, design	-Rs. 7 lakh (design, job-work) -Enterprise sponsored training of about Rs. 6 lakh per year	About 10-12 firms
8	NEERI	Environmental compliance	Negligible	Negligible
9	ITPO	International market access	Rs. 500 lakh	150
10	NBSO	Outward and inward-FDI	Nil	Nil
11	NIFT	Training, design	Rs. 2 lakh	About 5 firms
12	ILT	Training	Nil	NA (a dozen odd lead and medium-sized firms do come in for campus recruitment)
13	UK Trade and Investment	Studies, match-making – for the benefit of UK based firms	-Recently completed a study on the sector for use by British firms exploring trade and investment -Rs. 6 lakh of BDS availed of from a local MNC	NA-Not Available (BDS for use of/by UK firms)

(B) Some key private BDS providers' vis-à-vis the leather and leather products cluster at Chennai

Sr. No.	Typology (e.g., Service Provider)	Services	Annual fee from the Private Sector	Units availing services
1	Environmental compliance (ILIFO and CLRI)	Strengthening of CETPs/individual ETPs – project guidance	Average at least Rs. 40 lakh[1]	150
2	Business plan preparation (ITCOT)	Usually physical infrastructure and common facilities	Average Rs. 15 lakh	Varying - at least 20
3	Environmental compliance (CEMCOT)	Infrastructure project implementation	Average Rs. 20 lakh per year implementation fee for CETPs in Chennai	About 150
	Environmental compliance (PTIET/MLMF)	Operation of CETP	About Rs. 4.5 crores per annum	About 150
4	Productivity (private BDS)	ERP, Lean manufacturing	Average Rs. 30 lakh	6
5	ISO 9000 quality-systems consultants	Certification	At least Rs. 3 lakh	At least 5
6	Socio-environment related compliance	Certification	About Rs. 5 lakh	At least 3
7	CAs/Private BDS/BYST	Tax, audit, and individual loan syndication	At least Rs. 100 lakh; BYST generates hardly Rs. 0,50 lakh from services for the leather segment	Over 450
8	Marketing BDS (SIPA)	Export marketing	-Total BDS of at least Rs. 70 lakh service charge per year but hardly about Rs. 1 lakh from the leather related sector.	3-5
9	Testing (SGS, FDDI, CLRI)	Testing and certification	At least Rs. 650 lakh	At least 200
10	Design (FDDI, CLRI, Private)	Product design	NA	At least 100
11	Training and skill-upgradation (	Typically sponsored by the government, fee paid by students	NA	At least 100 firms pick-up trained students

(C) Some key embedded services providers

Sr. No.	Typology	Services	Annual fee from private sector firms (per annum in Rs. Lakh)	Firms availing services
1	Chemical suppliers	Shop-floor training on use; certification; credit	Embedded services	About 80 tanners (many others are pure jobbers)
2	Large buyers; importers abroad	Design specification to cluster product exporters	-	100
3	Machinery manufacturers and suppliers	Training; knowledge dissemination on equipment and process technologies	-	Given recent growth trends, estimated to be at least 200 every year
4	BMOs	-As indicated in table 7	-As indicated in table 7	-As indicated in table 7

Gaps are evident particularly in terms of certain strategic areas related to indigenous design development, cost-effective power and energy, evolution and implementation of projects on a PPP mode with Ministries other than the Ministry of Commerce and Industry, adequate access to institutional credit, productivity enhancement.

There is also gaps vis-à-vis the outreach of existing service providers as is evident from the tabulation presented below.

Table 7: Capacities and penetration (outreach) of some existing BDS providers

Table A : Capacities and penetration of some existing key BDS providers and facilitators[li] vis-à-vis the leather and leather products cluster (Government BDS providers)

Service / BDS Provider	CLRI	CLE	SIDCO/SIPCOT	FDDI	ILT	Anna Univ.	NSIC	ITPO	CFTI	NIFT	Trade and invest. promotion offices (e.g., NBSO, UK Trade and investment)
Advocacy	L	H	L	L	L	L	L	L	L	L	L
Raw material selection/procurement	L	NA	NA	NA	NA	NA	L (though providing service to other industries)	NA	NA	L	NA
Product and process - technology upgradation	M	L	NA	L	L	L	L	L	L	L	NA
Training/ Skill Upgradation	M	L	NA	M	M	M	L	L	M	M	NA
Quality	M	L	NA	M	L	M	L	L	L	L	NA
Socio-environmental compliance (labour and pollution issues)	M	L	L	NA	L	L	L	L	L	L	L
Design development	M (being now addressed by a project under implementation)	NA	NA	M	L	L	L	L	L	M	L
Patent (incl. GI) procurement	H (leather processing technologies alone – largely; EI Tanned	L	NA	L	L	L	L	L	L	L	L

	Leather)										
Legal issues related to labour/HRD	NA	NA	NA	NA	L	NA	NA	NA	NA	NA	NA
Finance/loan syndication	NA	NA	L	NA	NA	NA	L	NA	NA	NA	NA
MIS/ERP	NA	NA	NA	NA	NA	L	NA	NA	L	L	L
Taxation (excise, customs etc.)	NA	NA	NA	NA	NA	L	NA	NA	NA	NA	NA
Access to Finance	NA	NA	L	NA	NA	NA	L	NA	NA	NA	NA
Basic book-keeping and accounts/audit	NA	NA	NA	NA	L	L	NA	NA	NA	NA	NA
Market development and marketing	L	H	NA	L	NA	NA	L (though providing to MSMEs in other sectors)	H	L	L	L
Specialised (common facilities) and basic (physical) industrial infrastructure creation	L	H	H	M	L	L	L	L	L	L	NA
Other (specify)	-	-	-	-	-	-	-	-	-	-	-

Table B: Capacities and penetration of some existing BDS providers and facilitators vis-a-vis the leather and leather products cluster (BMOs)

Service / BDS Provider	AISHTMA	ILFMEA	ISF	PTA/MTA	ILPA[lii]	TANSTIA
Advocacy	H	H	H	L	M	M
Raw material selection/procurement	M	L	L	L	L	L
Product and process - technology upgradation	L	L	L	L	L	L
Training/ Skill Upgradation	L[liii]	M	M	L	L	L
Quality	L	L	L	L	L	L
Socio-environmental compliance (labour and pollution issues)	M	M	L	L	L (pollution issues addressed through dedicated SPVs)	L
Design development	L	L	L	L	L	L
Patent (incl. GI) procurement	L	L	L	L	L	L
Legal issues related to labour/HRD	H	L	L	L	L	L
Access to finance/loan syndication	L	L	L	L	L	L (low vis-à-vis sector through TANTIA-FNF Service Centre)
Productivity - MIS/ERP	L	L	L	L	L	L (though provided through TANSTIA-FNF Service Centre)
Taxation (excise, customs etc.)	M	M	M	L	M	L
Basic book-keeping and accounts/audit	L	L	L	L	L	L
Marketing and market development	M (through close co-ordination with the CLE and the ITPO)	M (through close co-ordination with the CLE and the ITPO)	M (through close co-ordination with the CLE and the ITPO)	L	L	L (low vis-à-vis sector through organising "access" fairs)
Specialised (common facilities) and basic (physical) industrial	M (taken lead towards evolving	L	M (SPV for footwear	M (taken lead towards	L-M (the MTA has established	L

infrastructure creation	IILP, SPVs of CETPs)		components park)	establishing SPVs of CETPs)	dedicated common facilities to share expensive equipment)	

Table C: Capacities and penetration of some existing BDS providers and facilitators vis-a-vis the leather and leather products cluster (Private Service Providers) (contd.)[liv]

Service / BDS Provider	ILIFO	TANSTIA-FNF Service Centre[lv]	ITCOT	CEMCOT (and sub-SPVs PTIET, MTIET)	BYST	SIPA	IFMR	SGS	IICCI (Indo Italian Chamber of Commerce and Industry-International chambers)
Advocacy	H (inputs to BMOs on compliance related advocacy, PPP assistance)	L (for MSEs generally, not specifically for the leather and product sector)	L	L	L	L	L	L	L
Raw material selection/procurement	L	L	L	L	L	L	L	L	L
Market access and market development	L	L (not many cluster firms aware of/availing services)	L	L	L	L	L	L	L
Product and process - technology upgradation	L	L	L	L	L	L	L	L	L
Training/ Skill Upgradation	L	L	L	L	L	L	L	M (use of chemicals, EU standards)	L

Quality (ISO 9000) certification and testing	L	L (not many cluster firms aware of/availing services)	L (not many cluster firms aware of/availing services)	L	L	L	L	H	L
Socio-environmental compliance (labour and pollution issues)	H	L	L	H (Environmental compliance)	L	L	L	L	L
Design development	L	L	L	L	L	L	L	L	L
Patent (incl. GI) procurement	L	L	L	L	L	L	L	L	L
Legal issues related to labour/HRD	L	L	L	L	L	L	L	L	L
Access to finance/loan syndication	L	L (not many cluster firms aware of/availing services)	L (not many cluster firms aware of/availing services)	L	L-M	L	L (Research BDS)	L-M	L
Productivity - MIS/ERP	L	L (not many cluster firms aware of/availing services)	L (not many cluster firms aware of/availing services)	L	L	L	L	L	L
Taxation (excise, customs etc.)[lvi]	L	L	L	L	L	L	L	M	L
Basic book-keeping and accounts/audit[lvii]	L	L	L	L	L	L	L	L	L
Specialised (common facilities) and basic (physical) industrial infrastructure creation	H (Environment related)	L	H	L	L	L	L	L	L

In the case of services provided by public service providers there is an element of subsidy embedded in the costing of relevant services. The same is illustrated in the table below.

Table 8: Who does – Who pays matrix

BDS	Who Does	Who Pays	Notes
Procurement	AISHTMA	100 per cent user firms	IFLMEA offers such services to a lesser extent (e.g., sourcing tour for hides and skin to North Africa)
Environmental Compliance (E.g., ISO 14000)	CLRI, ILIFO	100 per cent user firms	-
Environmental Compliance (establishment of individual and common ETPs)	ILIFO, SPVs, CLRI	50-65 per cent by the government in case of CETPs; balance by beneficiary firms	Subsidy of 20 per cent is available and used by MLEs
Social compliance (E.g., SA 8000 certification)	CLRI, ILIFO, private BDS	100 per cent user firms	-
Quality systems (E.g., ISO 9000 certification)	CLRI, private BDS	100 per cent user firms	-
Testing	-CLRI -SGS -FDDI	100 per cent user firms	However, but for the SGS, facilities have been established on/with government / grant-in-aid assistance[lviii]
Productivity (ERP, lean manufacturing)	Private BDS	100 per cent user firms	-
Market Access[lix] (particularly exports)	CLE, ITPO (in close association with BMOs); agents (embedded services)	Usually 80 per cent by user firms: about 20 per cent govt. grant	In addition to reimbursement of participation expenses, as per MDA scheme of MoC, certain services like promotion, coordination, etc. are supplied free of cost
Access to credit/capital	CAs, Private BDS, Tanstia-FNF (also routing subsidy canalised through CLRI initiatives); BYST	100 per cent by user firms	Largely through independent private BDS than larger institutions
Technology upgradation: Product and process development	-CLRI (particularly, leather processing related initiatives) -Chemical suppliers -Machinery suppliers	100 per cent by user firms	In-effect subsidised service by CLRI; Cost of service is embedded in the cost of chemicals and dyes and equipment
Skill Upgradation and training	FDDI, CFTI, CLRI, and progressively IL&FS	100 per cent by user firms	In-effect subsidised fee charged. Fees are sometimes paid in kind (space and material for

			training provided by client firms who are to absorb trainees)
Design development	CLRI, FDDI, private designers often from Europe (foreign buyer), NIFT	100 per by user firms (foreign buyers provided embedded service)	Indian institutions provide in-effect subsidized services
Industrial infrastructure and common facilities (plan preparation)	ITCOT, SIDCO/SIPCOT	100 per cent user firms; some projects of ITCOT paid by government	-
Infrastructure (project implementation)	SPVs of BMOs	60-65 per cent by the government and balance by SPV members	A significant part of the capital expenditure has however been contributed by the government (DIPP)

3.3 Summary Learning

The tabulations indicate that public and private service providers' offer specialised services and all areas are not covered under their umbrella. Limitations are largely evident. Primarily, awareness on the constraints facing the cluster firms and accordingly the services required by them needs to be enhanced. This will enable service providers be it public, private or BMOs, to enlarge their range of services and address critical constraints and gaps at the cluster firms. Appropriate identification of required services and subsequent capacity building in the areas would lead to development of a sustainable market of business development service providers.

It has also been observed that private business development service providers have scant linkages with BDS facilitating platforms such as the TANSTIA-FNF Service Centre, the BYST, the SIPA, as well as various professional bodies and international chambers. Such networking needs to be strengthened.

Amongst the public BDS providers, the role of organisations such as the NSIC as well as that of trade and investment promotion offices of relevant countries are yet to be effectively synergised. Amongst the BMOs, the services of dedicated BMOs such as that of the IFLMEA as well as that of the PTA, in particular, need to be broad based so that more number of cluster firms benefit. Also, their revenue-base from BDS provision is relatively low in comparison to that of the AISHTMA whose major BDS revenues are from service offerings on the procurement front.

4. ANALYSIS OF BUSINESS OPERATIONS

4.1 Tanning

- **Procurement constraints:**
  Constraints in the procurement function may be visualized in terms of optimal sourcing as well as *gaps in availment of BDS providers and appropriate instruments.* Gaps in this strategic area may be visualized in terms of: (i) procurement of consumables[lx] (ii) procurement of core raw material hides and skin.[lxi]

  Enterprises in the cluster are not optimally sourcing dyes and chemicals. For instance, evidently the price at which non-reactive leather dyes are exported from Ahmedabad is about Rs. 165 per kg. (FOB) while the price paid by Chennai firms to large MNC dyes and chemicals manufacturers and suppliers (such as BASF, Clariant, and LANXESS) is over Rs. 300 per kg. There is, evidently, a high mark-up in prices levied by such suppliers- in turn, adversely affecting the operating costs of firms in the cluster.[lxii]

  As a matter of fact, even chemicals are (typically) sourced dis-optimally by most firms in the cluster. For instance, over Focus Group Discussions (FGDs) conducted as part of this DS, evidently, firms such as BASF were willing to offer a 10 per cent discount on cash purchase of a minimum volume of Rs. 40 lakh per month, while those such as LANXESS offer a (higher) 20 per cent discount. Exploiting this opportunity may require cluster firms to work through BMOs, or perhaps after consolidation into smaller networks, and upon twinning the BDS of service providers such as the NSIC (whose services[lxiii] have been hardly availed of by firms in the cluster). As a matter of fact, the options with regard to the modus-operandi of optimizing the procurement function through such BDS should be BMO and enterprise-profile (e.g., cash-rich or cash-poor circumstance) specific.

  As a matter of fact, the options with regard to the modus-operandi of optimizing the procurement function through such BDS should be BMO and enterprise-profile (e.g., cash-rich or cash-poor circumstance) specific.

  Along similar vein, while a significant proportion of raw hides and skin are imported, there is a virtual dearth of facilities in terms of warehouses in the cluster or abroad. Customs Bonded Warehouses in the cluster could facilitate traders and exporters of raw hides and skin from abroad to stock their material and offer the same in lower volumes to Chennai based tanneries. Material could also be taken back if not sold. While the CLE has space of about 2 acres in an industrial estate in the region and has been prima-facie considering this option, BDS is evidently required[lxiv] in enhancing warehousing facilities for sustainability in business. Such warehouses in other locations in the region and country could facilitate further optimization of the procurement function, and help cluster firms avoid carry large stocks of such inventory upon import.

Further, there is a gap in terms of appropriate sourcing of some skins such as sheep-skins due to absence of own-warehouse (leased operation facilities) in countries that have a good supply of quality raw material such as Nigeria or (through) the Republic of South Africa.[lxv] Quality assurance as well as container cost optimization is yet to be realized by tanners in this context. The IFLMEA and CLE have led a delegation of tanners to Nigeria to explore sourcing options.

- **Environment – progressively high cost of compliance particularly in terms of power and energy (inadequate awareness on related BDS options due to the non-energy intensity of most value chain activities):** The tannery segment has been striving extensively to meet compliance requirements in terms of emission of hazardous solid and liquid waste. Environmental compliance norms are particularly stringent in Tamil Nadu where tanneries are installing Reverse Osmosis (R.O.) plants as to meet the High Court directives to achieve zero liquid discharge as to relieve the pressure on local ground-water resources. In addition, safe disposal of solid waste from ETPs and CETPs using Secure Land Fills is also to be complied with. Such compliance requirements (unique in the country) impose a heavy burden in terms of compliance costs on tanneries.[lxvi]

  Over 50 tanneries in Chennai and nearby district clusters have installed reverse osmosis plants in their individual ETPs to recycle the treated effluent and have thus been able to obtain clearance from statutory authorities. However, MSEs, particularly, find the relevant cost of operation already high, and with installation of R.O. facilities, prohibitively expensive. A Common Effluent Treatment Plant (CETP) at Pallavaram (now a part of the Chennai Metropolitan Development Authority) and one at Madhavaram serve to reduce environmental hazards. The Pallavaram Tanners Industrial Effluent Treatment (PTIET) Company and Madhavaram Leather Manufacturers Co. (MLMF) serve as the SPVs of respective industry associations. They have been operating the CETP for years. Reverse Osmosis facilities are being established.[lxvii]

  Wind power as an option has not been explored till date. The reason for this gap on the energy front (renewable or otherwise) may be ascribed to the fact that the value chain activities in the sector except for effluent treatment are not energy intensive. Industry and relevant service providers have had no necessity to interact despite the fact that firms in other energy intensive activities such as in textiles spinning have made Tamil Nadu by far the largest exploiter of wind energy (in the Country). For the leather sector, however, it is important as this would help address the high cost of power.

  As a matter of fact, the constraint as well as gaps with regard to relevant BDS is also obvious in the case of individual ETPs operated by medium-sized and larger tanneries. Also, no firm or networks of firms in the sector have, till date, leveraged on

CDM[lxviii] benefits. The pro-active ILIFO, while playing a dedicated role as a service provider on the environmental front has yet to catalyze services related to renewable energy options, particularly those that are competitive (coupled with fiscal incentives such as depreciation benefits offered as part of Central Government policy) and sustainable.

Enterprises in the cluster have not explored BDS in terms of alternate and potentially competitive energy options despite the state of Tamil Nadu leading in implementation of Wind Energy Generator (WEG) projects in India.[lxix]

- **Constraints in terms of adoption of cleaner production and eco-benign technologies:** Wastewater is generated while converting raw skins and hides into finished leather (water is used as a medium for removal of unwanted material from hides and skin), chemicals as well as salts yielding BOD, COD, TDS and suspended solids. Cleaner production/processing technologies could contribute by way of reducing pollutants and discharge into ETPs[lxx] (thereby reducing costs of operation and compliance), and also result in improved quality of finished leather. Stakeholders had also articulated on gaps in the area of adoption of Cleaner Production Technologies developed by the CLRI.

  Some medium and larger-sized tanneries incorporate practices that minimize water and chemical use in the leather finishing process. Nonetheless, MSEs have been typically reluctant to avail of related BDS due to lack of information on the issues as to when such initiatives, that mean making investments in infrastructure and equipments will pay-back. However, interventions such as these are expected to result in about 25-30 per cent reduction in waste-water generation, as well as in TDS.

  Several of the eco-benign process technologies of the CLRI that are particularly relevant to medium-sized and large tanneries, mainly remain in laboratories. Adoption of these technologies may enhance the compliant image of cluster tanneries as well as reduce processing costs. There is evidently a need to optimize process technologies through demonstration initiatives[lxxi] in a few tanneries as to encourage others to emulate.

  Some processes and technologies may be considered in the area of counter current soaking, lime liquor recycling, reuse of re-lime liquor, pelt wash liquor and fleshing water, use of enzymes for un-hairing, pickle liquor recycling, chrome recovery and reuse, reuse of supernatant liquor from chrome recovery units, avoidance of re-chroming while using chrome syntans, float measurement control in all wet operations, use of chemicals which has less neutral salt content, and process control in wet operations – float, temperature, and duration of operations.

- **Constraints in the realm of policy orientation and advocacy:** The cluster firms have been largely working in close co-operation with the Ministry of Commerce and Industry and to an extent with the Ministry of Science and Technology. Also PPP initiatives have been largely restricted to physical infrastructure creation on pollution as well as industrial infrastructure (components-park front). Limitations are evident in terms of interaction with the Ministry of MSME (Office of the Development Commissioner or DC-MSME), line departments such as the Department of Science and Technology (DST) and the National Science and Technology Entrepreneurship Development Board (NSTEDB).

Many of the PPP schemes related to establishment of technology up-gradation /competitiveness enhancing CFCs, skill-up gradation schemes are yet to be availed of by cluster firms. Also, scope to redress advocacy (e.g., in the fixation of drawback rates)[lxxii], and the incorporation of renewable energy projects (e.g., WEG projects) as eligible for fiscal assistance on a PPP basis exist. In fact, cluster BMOs in clusters such as Tirupur have succeeded in several such initiatives.

- **Constraints in access to credit (inadequate links with related BDS providers also due to limited out-reach from the supply side):** Limitations in access to appropriate, for instance, collateral-free institutional credit (to facilitate adequate working as well as investment capital) is glaringly evident in the context of tanneries in the cluster. Perhaps not a single MSE firm in the cluster has secured assistance from local Financial Institutions (FIs) with guarantee cover from the CGTMSE.

  Additionally, in the context of micro job-working firms without formal credit limits with FIs, no mechanism/instrument has yet been developed to facilitate cheaper institutional credit. *There are limited linkages with the public and private BDS providers in Chennai in this context.* The constraint is reflected by the fact that many such players resort to credit purchase of consumables (chemicals and dyes) from MNC and other suppliers. The extent of credit ranges from 60 days to 120 days. This imposes a burden in terms of at least 10-20 per cent higher costs on procurement of such inputs. Also, while BMOs in some other clusters[lxxiii] in the State are progressively playing a pro-active role in terms of financial intermediation, BMOs in the leather sector are yet to offer such value-added services to industry.

- **Productivity issues (gaps in terms of awareness on benefit of availing related BDS):** MSE entrepreneurs in the tannery segment are yet to be exposed to basic IT and MIS tools to enhance their managerial efficiencies and decision-making capabilities. Even a majority of medium-sized tanneries are yet to explore options in terms of ERP. Many larger firms in the cluster have, nevertheless, effectively and fruitfully deployed such systems in their tanneries.

  ERP systems as established in some medium and larger tanneries in Chennai facilitate comparison of standard with batch-wise costs. Computerized analysis of process charts in each stage of operation facilitates management control and also “drop” (viz., rejection) analysis. The extent and costs of chemicals (e.g., fat liquors, re-tanning chemicals) used in different stages of operation could also be carefully monitored through such MIS.

The demand side constraints in terms of availing necessary BDS may be viewed in terms of inadequate consolidation amongst smaller firms to jointly-avail (and share/spread costs) of such BDS as well as *inadequate dissemination of* information *on the benefits of using such service* (ideally through BMOs).

- **Technology up-gradation (and, where feasible, common facilities):** While the Chennai leather and leather products cluster is blessed with agglomeration economies in terms of presence of the headquarters of the globally renowned CLRI as well as a wide network of imported machinery suppliers, the capital-intensive nature of several machinery and equipment (e.g., vacuum drying) has dissuaded smaller tanneries from exploring up-grading initiatives. The scope for upgrading technology through establishing common facilities even on a PPP mode with fiscal assistance from the Government has not been significantly explored. This is despite the fact that in other non-leather clusters in the State, BMOs (in Coimbatore, Sivakasi, etc.) have successfully explored such initiatives.

  There is a perceptible gap in skill-sets and information base amongst operational as well as strategic BDS providers associated with the leather sector. Business plan preparation for PPP projects which could draw assistance from specific Ministries and Departments of the GoI are also lacking. An institution ITCOT, has however, overtime, made little progress along the lines of developing some level of skill-expertise in relevant areas.

4.2 Product manufacturing (particularly, footwear and components)[lxxiv]

Several constraints and strategic issues needs to be addressed (particularly by MSMEs) through availing of BDS options.

Access to credit: There are serious gaps in terms of access of micro-sized job-working vendors to institutional credit. Many of them resort to informal markets and incur costs of upto 5 per cent a month to repay this informal finance. In fact, even larger SMEs suffer from working capital constraints which affect their growth potential and capacity-utilization. Few (if any) firms have availed of assistance provided by the support FIs in terms of collateral-free credit. This is despite the fact that there are dedicated branches of institutions such as the SBI (leather and international branch) to cater to the needs of firms in the sector.

In fact, most firms have a two month lean period every year (between “seasons” abroad) during which they have to perforce meet fixed costs including that of labour. Adequate working capital credit in terms of relatively cheap institutional credit could even help micro-jobbers explore alternative markets in a scenario of recession. Many such micro jobbers are (over the last 3 odd months) operating at hardly 50 per cent of their usual capacities. Some dynamic micro-firms are already exploring options with BDS providers such as the BYST.

Market access and brand promotion: While the cluster is at the top-end of the National value-chain, the dynamic firms are yet to effectively promote own brands or even realize greater market access abroad. Internationally, even large firms are essentially sub-contractors to global brands and marketers. In order to facilitate greater market access and presence in buyer-countries in the West, the pro-active CLE had earlier considered a project to establish a warehouse abroad. However, the initiative did not take-off (also) due to gaps in terms of a strong SPV to help implement the project. Large firms in many clusters in India have warehouse operations in locations such as Belgium/Holland and the Netherlands. Some large leather goods manufacturers have also opted for the flexi-warehouse option in the USA.

Nevertheless, despite available assistance under the MAI scheme, cluster stakeholders are yet to successfully explore options to establish warehouses abroad. Cluster firms have scope to promote their products /brand as efficient sub-contractors on the basis of their strong orientation towards environmental compliance in terms of ZLD in tanneries. Gaps in terms of links with various public BDS (trade and investment promotion offices) who could facilitate related initiatives are also evident.

Procurement and technology up gradation - infrastructure: Footwear manufacturers experience logistical time and cost constraints in terms of sourcing several components required to make even a footwear sample to forward to importers for approval. Components are sourced from different locations across the city dealers, representatives, and manufacturers.

Another gap is in terms of information on machinery and equipment technologies developed by several machinery manufacturers (particularly those related to leather goods) in the country. Many related stakeholders had pointed out the gaps in terms of centralized facilities for provision of services by these component and equipment-technology providers who offer several embedded/bundled services. These range from training to inputs on technology choice. While PPP schemes for establishment of such facilities exist, cluster stakeholders have not explored related initiatives.[lxxv]

Constraints of BDS linkages for value-adding start-ups: While some of the leading institutions with technical expertise such as the CLRI, conducts EDPs and related Awareness Camps in the leather and leather products sector, there is need for more grass-root implementing agencies to be involved in such initiatives to encourage value-added start-ups, particularly in terms of more MSE focused start-ups.

This initiative could also encourage existing firms to diversify to related areas as a risk reducing option. While the Ministry of Science and Technology supports initiatives in terms of Technology EDPs, specialized local institutions in the cluster such as the ITCOT as well as the TANSTIA-FNF Service Centre are yet to offer tangible services on this front.

Inadequate thrust on IPR issues : Firms in the leather and leather products sector are yet to explore options in the broad area of product patenting. As a matter of fact, but for a few lead firms, enterprises have not even gone in for trademarks. The development of brand equity is yet to be realized. This implies inadequate initiatives towards indigenous R&D and design development initiatives – the CLRI is today establishing a large design facility to bridge this gap. The patenting initiatives by the CLRI, the only stakeholder that has extensively utilized the option is largely in the leather processing than product manufacturing stage.

Training and skill up gradation (gaps in efficacy linkages between available government assistance schemes and BDS provision): Manufacturing of footwear is labour intensive. For a firm with a capacity to manufacture a 1000 pairs of shoes a day, manpower requirements at the shop-floor is of about 260 workers (largely, about 170 involved in stitching). Dedicated initiatives by institutions are required to train supervisors and middle level technicians.

There remains scope for services provided by dynamic institutions such as FDDI and/or CFTI in terms of enhanced initiatives towards generating a pool of skilled and fresh shop-floor personnel. Nonetheless, these as well as IL&FS are progressively exploring initiatives to address this bottleneck.[lxxvi] Initiatives of institutions such as the IL&FS have an edge in terms of developing labour force in product sectors other than the footwear segment.[lxxvii]

As an initiative to develop indigenous design capabilities, BDS of institutions such as the CLRI are yet to be adequately leveraged. Customized skill upgrading training in the area of design footwear as well as other products could be supported with training related assistance from institutions such as the DST/NSTEDB with their STST scheme. The absence of efficacy linkages between available government schemes and local BDS leaves gaps in in-house design development capabilities of industry.

Policy advocacy:[lxxviii] Policy advocacy in terms of appropriate fixation of duty-drawback rates has been a major thrust of stakeholders in dynamic clusters such as Tirupur (knitwear cluster). Scope to enhance focus on related advocacy efforts in the case of the footwear as well as other product segments does exist. Also initiatives by service providers such as the TANSTIA-FNF in terms of awareness generating studies and seminars such as on the impact of WTO and innovative and non-conventional financing instruments (catering to unique working capital and other needs of the industry) is yet to be twinned.

The industry has sought relief in terms of revision of draw back rates to the higher pre-revised levels of 2007-8, enhancement in duty-free import limit from the existing 3 to 5 per cent of FOB export turnover, increased weightage for leather products from 1.25 to 2.5 per cent under the Focus Product Scheme and extension of the Focus Market Scheme to EU & the USA (under the ambit of the Dept. of Commerce, Ministry of Commerce and Industry).

Productivity issues (gaps in terms of awareness on benefit of availing related BDS): Constraints are particularly evident in terms of relative gaps by way of non-utilisation of

BDS services in the area of enhancing productivity. It is perceived that productivity per worker in the footwear segment in competing countries like China is more than double that in India.

The adoption of lean manufacturing practices is believed to have contributed towards high productivity levels in China. International benchmarking indicates that conversion of the traditional batch-and-queue production system into continuous flow (lean) will double labour productivity across the system while cutting production throughput costs (as well as inventory stocking) by 90 per cent. Such systems are also expected to significantly reduce the lead time to service global orders.

Along similar lines, except for a few of the larger firms, none of the product manufacturing SMEs has explored ERP systems that could contribute to better systems and profitability.

Constraints on the socio-environmental compliance front: Compliance in the socio-environmental context is being increasingly considered by customers abroad. Compliance is also required in terms of meeting consumer health and safety legislations abroad - such as CE labelling for safety shoes. Global sub-contractors and suppliers - the lead as well as SME firms in the Chennai cluster are expected to be competitive not only in terms of prices, quality, and efficient-delivery but must also conform to environmental and labour related social standards. Typically, many of the larger exporters in Chennai comply with "codes of conduct" requirements of importers in the West. The larger product particularly footwear manufacturers are subject to periodic auditing by buyers.

Nonetheless, other than the larger players, few SMEs in the cluster have explored code of conduct compliance initiatives in terms of certification by way of SA 8000 and ISO 14000.

Design capabilities: Constraints prevail in terms of development of indigenous design capabilities. Only CLRI has taken initiatives towards extensive development of indigenous design capabilities. Product designs as well as relevant patenting initiatives are typically the prerogative of value-chain leaders in developed countries. This ensures that value-accruals are in effect inclined more towards these players abroad than to Indian product manufacturers. NIFT has been offering related BDS, and the CLRI is establishing a large facility with BDS inputs from the NID.

In this context, links with local and National BDS facilitators such as the IICCI, or the subsidized BDS providing Senior Expertise Services (SES), Germany is hitherto limited.

Financing with equity: Financing of various enterprises with outside-equity / venture capital is not explored in the leather industry. While there are several international private equity funds, none of them have been seriously approached by leather sector players. Joint-ventures for financial partnerships are yet to be explored. This makes the firms typically dependent on institutional finance which is essentially restricted to the extent of collateral offered. Few firms but for companies like the AVT have even explored the equity route to access cheap capital by means of being listed on the Indian capital market through the IPO route.

Social-infrastructure: The gaps in terms of social-infrastructure specifically for out-of-city/state labour are viewed as a major constraint by many medium as well as larger sized players. In fact, many product manufacturing firms spend high amounts on transporting the out-station labour force onto factory sites. Therefore, parks with integrated social-infrastructure (hostels/dormitories) are a convenience as well as compliance initiative.

Also, many firms with foresight envisage the need for ISO 14000 and SA 8000 compliant infrastructure that could be evolved (ideally) on a PPP basis. Tirupur has successfully pursued such initiatives on a PPP mode.

4.3 Summary Matrix on Constraints

The matrix presented below summarises the constraints experienced by stake-holders pursuing particular activities.

Table 9 : Value-chain activity - constraints matrix

Sr. No.	Core intra-cluster value-chain activity	Short and long term constraints that may be addressed by appropriate orientation of BDS services and markets
1.	Leather tanning	-High cost of environmental compliance in terms of power costs in individual and common Effluent Treatment Plants (ETPs) -Dis-optimal sourcing of dyes (source-wise), dis-optimal sourcing of chemicals (credit purchase-wise), inadequate warehousing initiatives (in Chennai and abroad) to conveniently source and stock hides and skin -Poor access to appropriate and adequate institutional credit facilities (term as well as working capital facilities) -Weak management information and control systems in business - particularly in the context of MSEs -Weak initiatives to upgrade (in terms of expensive) technology, and enhance productivity on a joint/PPP mode (e.g., vacuum drying) -Inadequate initiatives to upgrade productivity - in terms of even basic MIS (particularly by SMEs) -Constraints in terms of deploying Cleaner Production Technology processes
2.	Footwear (and Components) manufacture	-Poor access to appropriate and adequate institutional credit facilities (term as well as working capital facilities) - particularly by MSEs -Inadequate "convenience" infrastructure to source the multitude of components from one location -Inadequate infrastructure in terms of display facilities of equipment-technology options of domestic manufacturers -Shortage of skilled operators; inadequate indigenous / in-house designer development initiatives -Gaps in terms of initiatives to explore direct market access (warehouses abroad, consortia) -Inadequate links with equity and venture capital providers -Inadequate accommodation facilities for out-station/state labour[lxxix]
3.	Garments and goods manufacture (many constraints are cross-cutting issues vis-à-vis the footwear segment)	-Limited access to appropriate and adequate institutional credit facilities (term as well as working capital facilities) – particularly by MSEs -Poor "convenience" infrastructure to source the multitude of components from one location -Gaps in infrastructure by way of display facilities of equipment-technology options of domestic manufacturers -Gaps in availability of skilled operators; inadequate indigenous / in-house designer development initiatives; result-oriented EDPs to generate appropriate start-up's (particularly in the goods and components segment) -Limitations by way of direct market access initiatives (warehouses abroad, consortia) -Poor accommodation facilities for outstation/state labour

The constraints in terms of linkages with relevant new BDS providers, strengthening and appropriately orienting the services of existing public as well as private BDS providers by facilitating their interventions, and their capacity-building in some areas, need to be addressed.

5.0 SUMMARY BRIEF ON ENVISAGED INTERVENTIONARY SCOPE AND MANDATE

The project will essentially address developing the market for BDS in several critical areas that have been listed above.

Developing market-oriented BDS necessitates market assessment encompassing:

- demand assessment of services required by SMEs;
- services being provided by existing providers;
- bridging gaps in service provision, and
- Facilitating a natural business relationship between service providers and firms.

Vision and Mission

"*The anchoring of well defined and well developed interventions will facilitate enabling conditions for better organic linkages between cluster enterprises and BDS providers on a sustainable framework, enhancing employment conditions and addressing poverty issues through catalyzing skill training related BDS as well as initiatives oriented towards micro job workers in the leather products sub sector.*

The integrated outcome of interventions will lead to sustainable and over arching objective of increased competitiveness of SME through cost reduction, productivity improvement, and environment compliance as well as market access related advantages."

5.1 BDS for the tannery segment

The tannery segment has been the critical segment and, therefore, the constraints of this segment need to be addressed on a war-footing. While in some cases interventions will not be cluster-wide but pursued on firms that *enter the project* directly, the demonstration interventions will encourage more firms to pursue similar initiatives, thereby serving to develop the market for such BDS.

Several of the envisaged BDS services envisaged for the tannery segment are virtually "new" in the cluster context. Stakeholders have been broadly exposed to the benefits of some of these services. Nevertheless, extensive orientation and business planning efforts will structure interventions under the project. Successful provision of services through certain identified BDS providers will serve as a demonstration to others, and encourage more stake-holding firms to come forward to avail of services in a commercial mode.

The constraints on the procurement front, both regarding consumables such as dyes and chemicals as well as raw hides and skin need to be addressed- where necessary through evolution of appropriate financing mechanisms such as raw material banks.[lxxx] Use of the warehousing option in India as well as in countries abroad could also enhance efficiency in the procurement function.

Also important is the need to establish (and operate!) the R.O. plants in a manner that will maintain the competitive edge of the tanning sector. Without WEG connectivity, the cost of compliance will induce severe strains on the costs and profitability of tanneries (particularly on the MSE segment) and affect their very competitiveness. Appropriate interventions on the power and energy front (catalyzing WEG connectivity to CETPs as well as individual ETPs) along with advocacy on relevant fronts for PPP assistance is a critical need. BDS on all these areas are a dire requirement.

Further, efficiency in terms of MIS and productivity enhancement, specifically amongst SMEs needs to be ensured. Large firms in the cluster have explored such options but smaller firms have been largely out of ambit. This is mainly because of gaps in information on the benefits of availing related BDS through institutions such as SIPA as well as other private service providers.

The capacity utilization of many small tanners is low (and many of them operate largely as job-workers), particularly, on account of constraints in terms of appropriate access to credit in terms of working capital as well as for modernization. BDS on this front may be catalyzed through inter-weaving the roles of concerned private service providers, the BYST, as well as that of the Tanstia-FNF Service Centre. Implementation of Cleaner Production Technologies as well as other technologies of public BDS providers is a dire need. CLRI on a demonstration basis could encourage other firms to explore such options, serving to develop a market for such services. This could be more on a commercial basis. Common facilities on a PPP mode could help MSEs adopt several of the expensive technologies offered by institutions such as the CLRI as well as machinery and equipment-technology suppliers representing their counterparts in developed countries (e.g., Italy) as well as NICs (e.g., Taiwan). BDS on this front may be provided by service providers such as the ITCOT as well as a cadre of other private service providers proposed to be groomed / trained by the EDI over project implementation.

A few of the strategic BDS interventions particularly in the area of evolution of industrial infrastructure or actual establishment of common facilities could extend slightly beyond the project time-frame given the complexities involved. However, many of these are of most significance when assessed against the factors of competitiveness and compliance of firms.

Procurement (optimal sourcing and necessary credit linkages): Optimizing sourcing initiatives along the national and global value-chain would require BDS providers related to sourcing and supply as well as those facilitating access to credit facilities. In order to meet the mandate of sustainability of interventions, BMOs will also be evolved in procurement services. In some cases (relatively larger member SMEs of IFLMEA), BDS may be provided to BMOs directly, while in others, it may be more appropriate to work through a smaller consortium which could supply inputs to BMO (e.g., PTA, TANSTIA) members. In both the options a service fee on the service imparted by BMOs could serve as a revenue model to provide other value-added services to members, and also strengthen their secretariat.

The services of private BDS providers with or without NSIC's (their raw material assistance scheme) and SIDCO's (for warehouse space on relatively softer-lease basis) involvement may be considered. The intervention will also involve introduction of new (embedded/bundled service providing) BDS providers such as leading non-reactive dyes exporters from Ahmedabad[lxxxi] and subsequently BDS to explore cash purchase of the consumable chemicals from local suppliers and service providers such as BASF and LANXESS. The benefits are expected to prompt more firms to use relevant BDS to optimize their procurement function, reduce relevant cost, and enhance profitability.

Procurement (global sourcing): BDS in the procurement function may also be envisaged in terms of facilitating global sourcing initiatives.[lxxxii] There is evidently scope for establishment of procurement warehouse(s) by larger individual firms as well as SPVs/consortia of firms in Africa (e.g., in Nigeria for sheep-skins, or South-Africa[lxxxiii]). It is necessary to rope in the services of private service providers as well as public service providers such as the ITPO[lxxxiv] and the NSIC into such initiatives. This initiative will effectively introduce new BDS and instruments vis-à-vis joint global-sourcing facilities of inputs (the costs of operating a warehouse alone may be shared while inputs may be procured and held individually by firms). The intervention will facilitate development of a market for such BDS would also be easy. Cost-optimization by SME tanners for establishing similar warehouses in other countries on account of reduction in sea-freight container cost would also be easy.

Procurement (infrastructure): The gaps in procurement facilitating infrastructure facilities, such as; warehousing, may be addressed by means of establishment of raw material hides and skin customs bonded warehouses in Chennai. This could facilitate convenient stocking by foreign suppliers of such raw material into India. The CLE is to take the lead in implementing one demonstration project in Chennai on its own facilities. However, the services of public BDS providing institutions such as the CLRI coupled with specialized private BDS providers could (also) facilitate successful initiatives in future. The roles of other service providers such as the NSIC and that of the SIDCO and SIPCOT may be appropriately synergized. The initiative would serve to introduce a new BDS instrument and help in evolution of a market for more such facilities in the region and also such services in other locations / clusters in Tamil Nadu.

Environmental compliance[lxxxv] cost optimization (through BDS on the power & energy front): The high costs in terms of power costs, particularly in the operation of ZLD-CETPs may be addressed through availing BDS inputs in terms of WEG connectivity on a PPP mode[lxxxvi]. The PPP element (in terms of leveraging grant-in-aid on capital expenditure) is important for most firms in related SPVs being MSEs without the necessary resources for the capital intensive (but recurring cost negligible) WEG option. The capacities of the environment and compliance related BDS provider, ILIFO will be developed over project conception/business plan preparation as well as implementation. Interventions in this area will mean involvement of BMOs AISHTMA and the PTA[lxxxvii], and their specific SPV, that is, PTIET. A demonstration project involving implementation of WEG facilities in the CETP at Pallavaram could serve to encourage many of the 13 other CETPs in and around the Chennai region. The project would depend on BDS from the ITCOT and Tanstia-FNF Service Centre, as well as WEG technology-equipment suppliers. CETPs in some other regions in the country could also explore similar BDS. During the intervention period, the capacities of related BDS providers will also be developed in terms of preparing related common project/business plans.

The intervention is expected to result in considerably reduced costs of compliance (at least 50 per cent of cost of power in CETP operation accounting for 4-5 per cent of annual cost of production or 40 per cent of profits of typical jobbing tanneries) for at least 100 MSE tanneries, contributing towards ***sustainability and competitiveness of MSE leather processing*** activities in the cluster. [lxxxviii]

Along similar vein, the 130 odd individual ETPs operated by some medium and large firms in Chennai and nearby districts will be introduced to the competitive option of independent establishment of WEGs. Considerably reduced cost of compliance for at least 10 individual medium-to-large sized tanneries (who enter the project) that are largely located in the regions /districts near Chennai will have a multiplier effect. Following successful intervention, similar firms in the region as well as other clusters in the country will be encouraged to explore related initiatives.

The scope of BDS towards establishment of WEGs may be visualized in terms of business plan preparation for debt / part grant-in-aid (where realizable) financing and decisions with regard to appropriate size, scale, and technology in operation. Tamil Nadu allows installation of WEGs for generating power for captive consumption by industries. If a WEG of 1.5 MW capacity is installed, it would generate about 38 lakh units of power per year at currently available locations in the State. The same amount of power will be allowed by the TNEB for consumption by the generator, say a CETP or ETP, unit for unit. For a CETP/ETP (e.g., the one in Pallavaram) of 3000 cubic metres per day capacity, if two wind energy generators are installed, it would meet upto 80 per cent of their power requirement. The capital cost of a WEG of 1.5 MW capacity is Rs. 10 crore. Its operating cost would be about Rs. 17 lakh per year. Manufacturers and suppliers provide embedded service in terms of operation and maintenance of the plant for a period of 20 years.[lxxxix]

In simple terms, for a total equity investment of Rs.10 crore (for a 1.5 Mw WEG) the indicative annual net return is Rs. 122.46 lakh (deducting O&M charges of only about 1.7 per cent of capital expenditure). This implies an investment and equity pay-back period of over about 8 years. However, with fiscal assistance in terms of grant-in-aid on capital expenditure, the pay-back period on equity by SPV members would be obviously reduced (to hardly 3.5 years if fiscal assistance to the tune of 50 per cent is realized) as to make the project far more bankable. [xc]

Environmental compliance (BDS in Cleaner Production Technologies): BDS provision in the area of compliant and cost optimizing process technologies may be viewed in terms of demonstration of cleaner production technologies in MSE tanneries. Private BDS providers and CLRIs expertise will be roped in for the same. The intervention will essentially facilitate chemical and water use optimization and instill appropriate shop-floor practices to reduce pollutants and discharge into CETPs. The impact on firms that enter the demonstration interventions will encourage more MSE firms to explore such options.

In order to demonstrate advanced eco-benign process technologies[xci] BDS of the CLRI will be roped in for a demonstration intervention in a larger tannery incorporating the complete range of eco-benign technologies. The demonstration is expected to enhance receptivity to services offered by the CLRI and develop the market for its services. Positive impact on the firm that enters the demonstration intervention will encourage more enterprises to leverage such services.

Policy advocacy: BDS in this area will be offered through close involvement of cluster BMOs. BDS on the advocacy front may be visualized in the areas of incorporation of generators using renewable WE options into PPP schemes[xcii] of the Central Govt,[xciii] and appropriate PPP assistance for SPVs to implement technology-upgrading CFCs.

As an illustration on an advocacy initiative, the AISHTMA has already approached Government agencies for PPP support for specific interventions.[xciv]

Finance - Access to (adequate) collateral-free institutional credit: Access to adequate collateral-free institutional credit (in terms of individual financing) for MSME tanners; and establishing an association-led Mutual Credit Guarantee Fund[xcv] (joint-financing) option for micro job-working units of PTA who do not possess working capital facilities may be facilitated through appropriate BDS. Private BDS providers in co-ordination with the CGTMSE and usual financiers like Indian Bank, SBI, and other related institutions may be availed depending upon the preference of the individual firms.

This intervention will not only facilitate introduction of a new instrument and service provider, but will also facilitate BMOs to evolve into providing services in terms of financial intermediation. The intervention should help reduce the impact of high cost of informal credit on micro and small enterprises, and enhance performance of small tanners in terms of access to adequate institutional credit for operations (also to procure inputs for own than mere jobbing operations).

Productivity: Micro tanneries may be introduced to basic and appropriate IT and MIS. Demonstration ERP may be pursued in larger tanneries. Both these initiatives are expected to serve as a demonstration to encourage replication by other MSE and job-working tanneries in the cluster.

Scope of BDS in appropriate MIS[xcvi] may be viewed in terms of the fact that globally various tailor-made softwares are employed to bring in efficiency in SMEs that can afford expensive software and trained manpower. But most micro enterprises can ill-afford these expensive softwares and manpower. To build this gap the envisaged training programme will demonstrate how existing Microsoft packages can be employed. Broadly, the curriculum covers the following:

- MS Outlook – calendaring and scheduling daily activities,
- Contact and information management,
- Creating a data-base of clients,
- Panning of projects, and
- Daily operations management.

Other critical tools covered may be viewed in terms of
- Production planning and control,
- Delivery schedule and inventory management;
- MS Excel for preparation of financial statements;
- Preparation of Profit and Loss statements;
- Tracking expenses fortnightly, monthly, quarterly, half yearly and annually;
- Tracking cash-flows;
- Analysis of different reports graphically;
- General accounting, inventory, and HR management.

Scope of BDS in ERP related interventions may be considered in terms of implementing ERP systems in an enterprise involving training and implementation of an ERP package as well as support and maintenance for a period of 6 months to a year. This will bring in best practices in shop-floor management. ERP software helps address needs particularly in the area of productivity- methods to handle small volumes cost-effectively, facilitate productivity of labour and material, and help in terms of good information systems to support performance management.

Relevant softwares that are developed are customized to the needs of individual firms. Software packages in the context of tanneries typically address aspects such as raw hides/skins (raw accounting, raw yield, raw costing), wet blue (control of inventory, yield from wet blue - finish, costing by order), production planning and control (throughput time, sample control, delivery performance), production (labour productivity, control of work-in-progress), quality (control of rejections), chemicals (chemical consumption, costing by order), process (standardisation of process), crust (control of WIP), spare parts/materials (spares consumption, non-moving items, control inventory), maintenance (preventive maintenance, machine availability, cost of maintenance). The Operating Systems on which softwares operate are often windows. The BDS project implementation cycle usually has the following stages: system study, customizing the software, prototype presentation, freezing system specifications, installation of software, training of users, pilot runs, and full-blown data entry.

Technology upgradation (where feasible through common facilities): BDS initiatives in this area will involve encouraging individual and more critically, wherever relevant, joint upgradation of firms. Initially, awareness seminars by the CLRI and machinery suppliers, and interface between these stakeholders with BMOs and focus groups of firms (willing to explore individual/ joint-upgrading initiatives) will have to be explored. The scope of deploying expensive productivity/quality enhancing equipment such as vacuum drying facilities as common facilities will be explored. The EDI team will assist in the evolution of SPVs and consortia of firms to explore interventions to the extent feasible on a PPP mode. Private BDS will also be availed of for necessary business plan preparation for individual as well as consolidated/joint initiatives.

In order to address capacity gaps on the supply-side, a training programme for BDS providers on evolution of SPVs, and relevant business plan preparation oriented to specific schemes of the Government of India will be offered (by the EDI team). Some of the schemes that local BDS providers will be oriented towards include that of the DIPP/DCMSME/Minorities Development Corporation/NSTEDB-DST. This initiative will help evolve a cadre of well-groomed private BDS facilitators in the area of evolving, drafting, and implementing PPP business plans.

5.2 BDS for the footwear and components segment (cross-cutting issues/activities along with the goods and garments segment)

BDS in the footwear and components segment[xcvii] may be envisaged on several fronts:

Finance - Access to credit[xcviii]: Interventions on this front would involve facilitating access of micro-sized job-working vendors of leather product SMEs as well as large manufacturers to institutional credit. Canalizing appropriate collateral-free institutional credit would also be addressed. This intervention could also be catalyzed by means of introducing and twinning the BDS services offered by the BYST, Private BDS providers, as well as that of BDS facilitators such as the TANSTIA-FNF Service Centre. Interventions in this context have to be pursued in close co-ordination with leading Financial Institutions (FIs) that is, the Indian Bank and the SBI, other related FIs, and importantly, with the CGTMSE headquartered in Mumbai.

Evidently, few firms in the segment have availed of assistance with CGTMSE cover. Many firms (micro job-workers or small firms) are typically cash-strapped either for working capital or for term loans for expansion and growth. Interventions on this constraining feature need to involve BMOs. The involvement of BMOs will be in terms of preliminary identification of firms that require necessary assistance. Subsequently, the identified BDS providers will support interventions in terms of appropriate business plan interventions. EDI's role will lay emphasis on facilitating interface between firms, their banker's as well as the CGTMSE. BMO's involvement will help in ensuring continuous benefits from the initiative by enhancing its result-orientedness.

Market access and brand promotion: BDS would facilitate establishment of warehouse abroad for marketing facility with Government of India assistance under the Market Access Initiative (MAI) scheme. This will involve integrating the services of private service providers, the ITPO, and Trade and Investment facilitation offices of the relevant country working through specific leather product SPVs. Similar BDS is to be roped in for evolution and implementation of consortium export marketing programme of leather goods and garments firms.

Procurement and technology upgradation – infrastructure: Establishment of a centralized footwear component warehouse/specialized leather-goods machinery display centre in Chennai will involve evolution of SPV as well as business plan preparation. This would be achieved through the services of private BDS providers in close association with machinery and component manufacturers and suppliers.

Conduct of Technology EDPs for leather goods manufacture: Services of BDS providing institutions ITCOT and TANSTIA-FNF will be oriented towards conducting technology EDPs to encourage start-ups in the sector. No support is envisaged for this initiative from the *BDS project*. Assistance is expected from STST scheme of the DST-NSTEDB. Public and private BDS providers/facilitators in the cluster will be henceforth sustainably linked to EDP sponsoring institutions as to help them automatically pursue related initiatives in future.

IPR and patenting: BDS in this arena is envisaged in terms of study followed by a dissemination-seminar on scope for product and process related patenting (including, trademarks) for the leather and product sector. The initiative is to be led by the CLRI, and private service providers in co-ordination with the Patents and GI office. The initiative also has close relationship with the indigenous design development initiatives of the CLRI.

Training and skill up-gradation: Skill-training for new workers (from under-privileged sections in rural areas) for footwear and other product manufacture could be facilitated through service providers such as the IL&FS/CFTI/FDDI ensuring supply and absorption of trained labour. This initiative will directly contribute towards poverty alleviation as well as address the shortage of skilled labour-force in the industry. In both these areas of skill development and productivity related technical assistance services, public BDS providers are working in the cluster. Nonetheless, roles need to be appropriately oriented. While recession has already hit the job-workers of some of the larger leather goods players, many enterprises particularly in the footwear segment are still concerned about the shortage of the labour force. Even a SME footwear or goods manufacturer with a turnover of Rs. 10-20 crore is typically on the look-out for employment of 150-250 fresh labour.

The existing capacity for developing skills has scope to be improved, specifically in terms of imparting practical skills relevant to fresh shop-floor functionaries. Employability and relevant practical training is most critical across firms in different product categories. For instance, clicking and closing operations constitute generic skills across manufacturing of different product category and hence high demand for skilled manpower at the shop floor level is perceived for these operations. An option being initiated by the IL&FS, CDI with assistance from the Ministry of Rural Development is along these lines. The technical expertise of some dynamic institutions such as the CFTI will be sought. As per the IL&FS led option, the training cost for identifying and imparting relevant skills is in the range of Rs. 17,500 per trainee (as approved by the FDDI, the Ministry of Rural Development, and the DIPP). The support received from the

Ministry of Rural Development (for rural BPL candidates) is Rs. 9500 per person, and in effect, about Rs. 7000 per trainee is contributed by industry (largely in the form of space and consumables offered over training).

Customized skill up-grading training in the area of design may be catalyzed through the CLRI with support from the DST-NSTEDB under its STST schemat. The market for such BDS is evident and could contribute towards initiatives towards development of indigenous BDS in design capacity.

Policy advocacy:[xcix] Appropriate policy advocacy in terms of PPP assistance under the Industrial Infrastructure Development (IID) scheme as well as the Industrial Infrastructure Upgradation Scheme (IIUS) for demonstration initiatives may be explored. Advocacy may also be visualized in terms of evolving appropriate financing instruments for MSMEs.

Productivity: Chennai has the advantage of several service providers in the field of ERP as well as acknowledged experts in lean manufacturing related BDS. The scope of BDS on this front is specialized.

Relevant BDS is expected to improve the processes through the underlying core philosophy of kaizen to meet the three core objectives of Quality, Cost and Delivery. Key results and benefits of adopting LEAN steps are as follows:

Step	Process Results	Business Benefit
Ensure Flow and Create Pull	- Reduced cycle time - Reduced throughput time - Reduced inventories - Reduced waste	- Increase in throughput - Faster Delivery. - Less space requirement. - Improved cash flow - Increase in Productivity
Improve equipment and system reliability	- Less Production Downtime - Improved Product Quality - Reduction in process uncertainties	- Increased plant capacity - Increase in Productivity - Higher customer satisfaction. - Cost Reduction
Implement Zero Defect Systems	- Fool proof defect prevention - Inspection & Rework Eliminated - Reduced Rejections & Scrap % - Improved Process Capability	- Increase First Pass yield - Higher customer satisfaction
Install harmonized support systems (Synchronization)	- Improvement in performance of support activities - Alignment with Throughput process	- Improved service quality - Reduced customer complaints - Cost Reduction

Socio-environment compliance: Interventions to encourage “joint” quality and compliance certification of MSEs would involve introduction of relatively new BDS product ISO 14000 and SA 8000 certification amongst smaller firms through services of private BDS providers. Demonstration initiatives are expected to encourage other firms in the cluster to take up the initiative in similar fashion on commercial basis.

Design development (indigenous, as well as inventory of global service providers): The intervention will involve joint availment services of international goods and garments designer BDS providers through the SES, Germany/NMCP will be explored and introduced to the cluster. These are partly subsidized services available to Indian SMEs. Networks evolved by ILPA as well as ISF members may explore such services jointly, meeting relevant expenditure.

Investment promotion (equity and venture capital options for medium and lead firms): BDS initiatives towards introducing Private Equity (PE) and Venture Capital in the leather industry may be envisaged in terms of:

- providing assistance in preparing investment proposals;
- evaluating the financial capabilities of concerned firms;
- identifying funds that show interest in the leather and leather products sector;
- projecting the attractiveness of the investment opportunity to potential private equity investors;
- initiating direct discussion between the Indian-cluster firm and the PE investor;
- facilitating discussion on repatriation (currency, fixed/variable return etc.) and exit;
- Assisting in the draft of joint-venture/equity financing option. Successful demonstration in a few firms would help develop a market for relevant BDS.

Socio-environment compliant integrated social and industrial infrastructure: The services of private BDS providers are to be directed towards establishment of a socio-environment compliant park by an SPV of SME and lead firms. New private BDS providers related to compliance certification and infrastructure project conception and implementation are to be formally linked to industry. The benefits are expected to facilitate replication of the initiative by greater number of firms in a network mod

5.3 Summary matrix of Interventions

The envisaged interventionary approach will be to facilitate BDS market development and not to provide services directly.

Summary matrix on scope of intervention: The following matrix summaries the scope of interventions viz. value-chain and sub-sector segment activity and relevant BDS.[c] The matrix indicates the new BDS providers to be induced, new BDS instruments and services to be developed, as well as the options towards building capacities of/strengthening roles of BMOs and BDS facilitating platform.

Matrix: Value-chain activity, BDS provider(s), and expected output/outcomes[ci]

Key value-chain activity and time-line	Category of BDS	Specific service	Proposed BDS Provider (s)/ Facilitator (s)	Expected Output/Outcome (BDS)	Expected Output/Outcome (SMEs)
Leather tanning					
1.0 (Time Frame: 2009, Q2-and 2010 ,Q1)	**Procurement (optimal sourcing and necessary credit linkages)**	*Optimizing sourcing within the National value chain*: BMOs to evolve into procurement services offering hubs vis-à-vis dyes (and possibly chemicals)	-BMOs (IFLMEA/PTA/ TANSTIA with SPV/consortia of SMEs), private BDS provider (with or sans NSIC and SIDCO involvement as deemed appropriate over implementation through SPVs of BMOs)	-Introduction of 1 new private BDS provider -Introduction of new BDS providing institution NSIC and their service in related areas[cii]-developing related markets and service provision through consolidation of SMEs viz. through networks or BMOs -Introduction of new input suppliers/BDS providers (providing embedded/bundled BDS) such as leading non-reactive dyes exporters/suppliers from Ahmedabad -Introduction of new BDS instrument (joint procurement of consumables) -Viable revenue model for BMOs, and contribute towards their value-added service orientation	-Higher competitiveness and profitability due to reduced "annual cost of production" (by at least 15-20 per cent in the case of dyes) for at least 25-30 MSME tanners by means of optimal source, size, and cash purchase of inputs **Multiplier effect**: Scope for other related BMOs in the cluster and region, medium sized firms, as well as consortia of SMEs to emulate the initiative and enhance competitiveness and profitability deploying the services of introduced and related BDS providers (upon successful implementation)
(Activity Time Frame: 2009, Q3-2010, Q1)		*Global sourcing for competitiveness*: Establishment of procurement warehouse (s) by SPV/consortia of firms in Africa (to be decided - Nigeria-sheep/South-Africa)	-Private service provider/ITPO, SPV/consortia of SMEs and related lead firms (CLE inputs to be intertwined/assistance from Dept. of Commerce schemes to be advocated for in the demonstration project)	-Introduction of new BDS instrument (and service providers for joint global sourcing of raw material) -Development of a market for such BDS by both individual as well as consolidated groups of firms	-Cost optimization by at least 10 SME tanners by virtue of sea-freight container-cost optimization in procurement of raw hides/skins -Quality optimization by means of testing and quality-storage facilities while globally sourcing inputs **Multiplier effect**: Successful implementation may encourage industry to explore similar options in other countries
(Activity Time Frame: 2009,Q3-2010, Q1)		-Establishment of a raw material hides and skins customs bonded warehouse in Chennai (for convenient stocking by foreign suppliers into India)	-CLRI has the capabilities to evolve such options in the region. (However, in the first instance, the CLE may implement one such project along with an SPV "the CSM" at its own space available in an	-Hides and skins embedded service providers' service facilitated -Introduction of a new BDS instrument and evolution of a market for such services in other locations abroad upon dissemination of benefits on implementation	-Logistical convenience and cost advantages for both foreign suppliers as well as demanding leather cluster firms **Multiplier effect**: Similar warehouses may be established in other locations with assistance of the developed and linked new BDS -Clusters in other locations in the country will be encouraged to explore similar options benefiting a larger segment of firms

			industrial estate with assistance under ASIDE/IID – sans any envisaged role of the project)		
2.0 (Activity Time Frame: 2009, Q3-2010, Q3)	**Environmental compliance** [ciii] **- (b). through BDS on the power & energy front**[civ]	*-Viability orientation of environmental compliance facilities/infrastructure*: Operation of ZLD-CETPs through WEG connectivity on a PPP mode	-ILIFO (in close co-ordination with related BMOs AISHTMA, IFLMEA, PTA[cv] and, their SPV PTIET and supported by ITCOT / Tanstia-FNF Service Centre; WEG technology-equipment suppliers)[cvi]	-Introduction of at least 5 new BDS technology-equipment providers and service related to WEG; and development of a market for related service in the sector -Links with BDS facilitators Tanstia-FNF Service Centre catalyzed -Capacity building of BDS providers in terms of preparing related project/business plans for use of renewable energy	-Considerably reduced cost of compliance (at least 30-40 per cent of cost of power in CETP operation accounting for 2-3 percent of annual cost of production or 20-25 per cent of profits of typical jobbing tanneries) for at least 100 MSME tanneries with a total turnover of over Rs. 250 crore -Contributing towards sustainability and competitiveness of leather processing in the cluster **Multiplier effect:** Subsequent replication of the intervention by industry in 13 other CETPs in Tamil Nadu employing the services of related BDS providers is expected to benefit over 500 other MSE enterprises connected to CETPs in districts near Chennai
(Activity Time Frame: 2009, Q3-2010, Q3)		-Individual ETPs (by some medium and large firms) to be introduced to the competitive option of independent establishment of WEGs -Leveraging of CDM benefits for individual ETPs connected with ROs on a pooled basis (over time)	-ILIFO (in close co-ordination with related BMOs AISHTMA, IFLMEA and supported by ITCOT / Tanstia-FNF Service Centre; WEG technology-equipment suppliers) -Carbon credit /finance facilitating private BDS provider, ILIFO, WEG technology-equipment suppliers	-Introduction of at least 5 new BDS technology-equipment providers and service related to WEG -Synergisation of role of 1 new BDS and provider related to realizing carbon credits/finance	-Considerably reduced cost of compliance for at least 10 individual medium-to-large sized tanneries – largely located in the regions/districts near Chennai **Multiplier effect**: A significant number of the 130 odd individual ETPs in Tamil Nadu as well as those in other locations in the country are likely to replicate the initiative and exploit related BDS
(Activity Time Frame: 2009, Q3)		-BDS providers training-cum-capacity building programme on promotion of renewable energy options in the sector	-WEG and bio-fuel technology-equipment service providers; private BDS	-Orientation of a cadre of at least 15 BDS service providers of diverse professional background into providing related service to industry (e.g., in related business plan preparation/loan or grant syndication and implementation)	-Convenient access to well-trained BDS to complement and promote alternate renewable energy options for the sector
(Activity Time Frame: 2009, Q3-2009, Q4)	**Environmental compliance - (b). BDS**	*-Compliant and cost optimizing process*	-Private BDS provider, CLRI (in close co-ordination with	-Introduction of a new BDS instrument and service to MSEs -Introduction of 1 new private BDS provider to industry	-At least 4 MSE tanneries benefited on demonstration basis in terms of chemical and water use optimization -Reduced costs in the processing stage

	in Cleaner Production Technologies	*technologies*: Demonstration of cleaner production technologies in MSE tanneries	PTA)		-Appropriate shop-floor practices to reduce pollutants and discharge into CETPs **Multiplier effect**: Impact on firms who enter the demonstration interventions will encourage more MSE firms to explore such options
		-*Advanced eco-benign process technologies:* Demonstration of advanced eco-benign CLRI technologies in a medium-sized tannery	-CLRI (in close co-ordination with IFLMEA)	-Introduction of new BDS options to the industry -Better receptivity to services offered by the BDS provider CLRI	-One demonstration intervention in a tannery incorporating the complete range of eco-benign technologies of the CLRI contributing to better environmental compliance (yet to be licensed to industry) as well as market presentation/promotion efforts **Multiplier effect**: Positive impact on the firm that enters the demonstration intervention will encourage more SME firms to explore such options
3.0 (Activity Time Frame: 2009, Q3 and 2010, Q2)	**Policy advocacy**	-Advocacy vis-à-vis incorporation of generators using renewable WE options into PPP schemes[cvii] of the Central Govt.;[cviii] technology up-gradation assistance initiatives canalized through CLRI[cix] -Advocacy vis-à-vis appropriate PPP assistance for SPVs to implement CFCs (see 7.0 below)	-Private BDS providers/experts where appropriate, BMOs (AISHTMA, ILIFO, CLE)	-Contribution towards strengthening the role of BMOs and BDS facilitators in the area of advocacy	-Competitiveness and enhanced profitability of firms by means of appropriate leveraging of fiscal assistance **Multiplier effect**: Advocacy by BMOs vis-à-vis different departments such as DCMSME, DST etc. for specific projects over intervention will help them autonomously pursue similar options in future providing better BDS to members in related areas
4.0 (Activity Time Frame: 2009, Q3-2010, Q2)	**Finance - Access to (adequate) collateral-free institutional credit**	-Access to adequate collateral-free institutional credit (individual financing) by MSME tanners (IFLMEA /PTA/TANSTIA members) -Scope for establishing association-led MCGF (joint-financing) option for micro job-working units	-Private BDS provider/TANSTIA-FNF/BYST (co-ordinating with CGTMSE, Indian Bank, SBI and other related institutions, and working in close association with the IFLMEA/PTA/TANSTIA)	-Introduction of at least 2 new BDS providers -Introduction of new instrument (MCGF) -Links fostered between relevant BDS providers and the tannery segment for appropriate collateral-free financing -Development of BMOs (PTA) to play the role of financial intermediation in a MCGF mode, thereby offering value-added BDS to members; also serve as a revenue model for BMOs	-At least 20 job-working and MSME tanners to be credit linked directly over project duration -Reduce impact of high cost of informal credit on micro-enterprises, enhanced performance of small tanners by means of access to adequate institutional credit **Multiplier effect**: The introduction of relevant service providers and instruments to a few expanding/needy firms in the industry will encourage spontaneous articulation of demand as well as availment of service by more firms

		of PTA who do not possess working capital facilities			
5.0 (Activity Time Frame: 2009, Q3-2009, Q4)	**Productivity**	*-IT and basic MIS*: Training and implementation of appropriate IT and basic MIS in MSE tanneries	-Private BDS provider, SIPA (through the BMO-PTA)	-Introduction of new service to MSEs -Linkage of 1 new BDS provider to the tanning segment	-At least 15-20 MSE and job-working tanneries to train (their entrepreneurs/staff) and use basic systems -Adoption of relevant tools to enhance management efficiency and control **Multiplier effect**: The intervention will serve as a demonstration that will encourage replication by other MSE and job-working tanneries in the cluster
(Activity Time Frame: 2009, Q3 and 2010, Q1)		*-Implementation of ERP in SME tanneries - demonstration:* Basic orientation on benefits of ERP for SME tanneries (Non-ERP systems possessors of IFLMEA)	-Private BDS provider (through BMO-IFLMEA/PTA)	-Introduction of relatively new service to SMEs	-At least 2-3 SME tanneries to be directly oriented and pursue adoption of relevant tools to enhance management efficiency and control (operating costs and quality) within the project time-frame **Multiplier effect**: Application and realization of benefits by a few firms will encourage replication by other peer firms
6.0 (Activity Time Frame: 2009, Q4-2010, Q4)	**Technology up-gradation (and where feasible – common facilities)**	-Individual upgradation of technology following awareness seminar by CLRI and machinery suppliers[cx]; Establishment of expensive productivity/quality enhancing equipment (e.g., vacuum drying) as CFCs by MSE tanners …where feasible PPP options to be explored	-PTA to organize forum for dissemination of information on available equipment-technologies; promote upgradation by individual firms; assist in evolution of SPV (s)/consortia (in close association with machinery suppliers and CLRI inputs), private BDS provider services for business plan preparation	-Facilitation of appropriate use of services and technology provided by machinery manufacturers (providing embedded/bundled services) -Capacity building of BMO to offer BDS in the preparation of individual and common business plans	-Individual and/or Joint technology up-gradation by at least 10 MSE tanneries within the project time-frame **Multiplier effect**: Pursuit of the intervention through BMOs will capacity-build BMOs to evolve and implement similar projects for other member firms using in-house expertise/outside BDS
(Activity Time Frame: 2009, Q4)		-Training programme for at least 15 BDS providers on evolution of	- EDII team to offer necessary training inputs and experience sharing;	-Capacities of BDS providers to be developed for availment of available govt. of India schemes to effectively leverage BDS to industry	-Access to a cadre of well-groomed private BDS facilitators in the area of evolving, drafting, and implementing PPP business plans **Multiplier effect**: More projects to be evolved

		SPV and business plan preparation and implementation - related to technology upgrading PPP schemes of the GoI (to related private and public service providers)	representative of DIPP/DCMSME /Minorities Development Corporation/NSTEDB-DST etc.		and assisted by trained BDS providers in the region for benefit of SMEs

Key value-chain activity	Category of BDS	Specific service	Proposed BDS Provider (s)/ Facilitator	Expected Output/Outcome (BDS)	Expected Output/Outcome (SMEs)
Footwear (component & full-shoe) manufacturing (cross-cutting issues for goods and garments manufacture)[cxi]					
1.0 (Activity Time Frame: 2009, Q4-2010, Q3)	**Finance - Access to appropriate credit[cxii]**	-Access to collateral-free institutional credit by micro-sized job-working vendors of leather product SMEs and large manufacturers -Access to appropriate levels of collateral-free institutional credit by small product manufacturers	-Private BDS providers and facilitators such as TANSTIA-FNF Service Centre/BYST (in close co-ordination with Indian Bank, CGTMSE, SBI and other related institutions) -BMOs involvement for sustainability, replication, and dissemination: ILPA/TANSTIA/IFLMEA/ISF	-Introduction of at least 2 new BDS providers -Links fostered between relevant BDS providers and the leather product sector for collateral-free financing; Market for relevant service developed by means of intervention in the firms who enter the project and subsequent dissemination of benefit	-At least 15 MSMEs to be appropriately/directly credit linked over project duration facilitating expansion and growth -Reduce impact of high cost of informal credit on micro-enterprises, higher profitability and incomes **Multiplier effect**: Appropriate provision of services in close co-ordination with BMOs to encourage benefit to be availed of by larger numbers of firms
2.0 (Activity Time Frame: 2009, Q3-2010, Q2)	**Market Access and brand promotion**	-Establishment of marketing warehouse in Europe for footwear / goods exporters (e.g. Rotterdam)[cxiii]	-private service provider/ITPO/Trade and Investment facilitation offices of relevant country (e.g., NBSO in Chennai) working through specific leather product SPV to be evolved -BMOs: ILPA	-Trade and investment facilitation desks of other countries introduced as BDS providers to the sector -Development of private BDS provision for similar intervention in other locations	-Enhanced market access (higher profit margins/turnover), and importer acceptability (in some cases) **Multiplier effect**: SMEs encouraged to co-operate more on the marketing front for mutual benefit in other locations through similar projects
(Activity Time Frame: 2009, Q4-2010, Q3)		-Consortium export marketing of leather goods and garments (2 demonstration consortia of SMEs) – they	-Private BDS provider (where appropriate, in close association with the dynamic CLE) -BMOs: ILPA	-Trade and investment facilitation desks of other countries introduced as BDS providers to the sector	-Enhanced market access (higher profit margins/turnover) for at least 10 firms to be involved in each of the consortia **Multiplier effect:** More SMEs encouraged to pursue initiatives on a similar mode to reap scale economies in marketing

		will also market products emphasizing on the high levels of environmental compliance of tanneries in the cluster/region – unique in the world			
3.0 (Activity Time Frame: 2009, Q4-2010, Q3)	**Procurement as well as technology up-gradation**	-Establishment of a centralized footwear component warehouse/specialized leather-goods machinery display centre in Chennai	-SPV of service providers - specialized machinery manufacturers and component suppliers providing embedded/bundled BDS (support under IID related/DIPP schemat to be explored for demonstration intervention on a PPP mode) -BMO involvement: ILPA,[cxiv] TANSTIA, (inputs from ISF)	-Services of BDS providers (m/c suppliers) better linked to industry	-Logistical convenience for full-shoe manufacturers in terms of sourcing components for sampling -Better adoption of productivity enhancing equipment technology particularly by goods manufacturers in the cluster **Multiplier effect**: Firms and institutions may adopt this BDS in other locations and similar clusters in the country
4.0 (Activity Time Frame: 2009, Q4 and 2010 Q4)	**New enterprise creation**	-Conduct of Technology EDPs for leather goods manufacture	-ITCOT, TANSTIA-FNF	-Services of 2 new BDS providers in the new enterprise creation and SME business counseling area to be linked to the sector -Support of new BDS activity funding institution (DST/NSTEDB) introduced	-Direct output of at least 50 new start-up's in value-added leather goods manufacture contributing to employment generation of at least 175-200 persons **Multiplier effect**: Public and private BDS providers/facilitators in the cluster sustainably linked to EDP sponsoring institutions as to help autonomously pursue continuous initiatives over time
(Activity Time Frame: 2010, Q1)		-Conduct of FDP targeting Entrepreneurship Development in the sector	-CLRI to groom other BDS providers in close association with local polytechnics	-Grooming of 20 new BDS providers (from polytechnics, universities) to encourage start-up's in the leather goods sector (funding support from DST/NSTEDB to be leveraged)	-Institutionalizing the concept of BDS in ED into vocational and educational streams to encourage start-up's
5.0 (Activity Time Frame: 2010, Q1)	**IPR and patenting**	-Study followed by seminar on scope for product and process related patenting (including, GI, copyright, trademark) for the leather and product sector	-CLRI, Private service provider, Patents and GI office	-Related BDS and private and public service providers introduced to the sector	-Availment of patenting (and trademark) options by the SME product manufacturing sector (few of whom currently even explore trademarks!)

6.0 (Activity Time Frame: 2009, Q4-2011, Q2)	**Training and skill up-gradation**	-Skill-training for new workers for footwear / goods manufacture	-Footwear training by trainers[cxv] – directly work with firms ensuring absorption of trained labour by leather goods/shoes making firms -BMO involvement: ILPA, ISF	-Greater initiatives of dynamic private and public BDS providers for firms in the sector particularly targeting under-privileged rural persons	-Directly about 1000 economically downtrodden individuals from rural areas trained and provided gainful employment -Contribution towards addressing shortage of skilled labour-force in the industry addressed
(Activity Time Frame: 2010, Q1-2011, Q2)		-Customized skill up-grading training in the area of design[cxvi]	-CLRI /polytechnic to offer BDS in close association with BMO vis-à-vis input structure (envisaged leveraging of assistance under the STST scheme of the DST/NSTEDB)	-Capacity-building of BMO (**ILPA, ISF**) to catalyze value-added BDS in the area of skill upgradation to industry -Development of a cadre of in-house, as well as independent professional BDS providers in the field of design	-At least 150 in-house personnel of SME product manufacturing firms trained in 10 programmes -Contribution towards initiatives towards development of indigenous BDS in design capacity **Multiplier effect**: BMO sustainably linked with sponsoring institutions as to autonomously pursue other skill-upgradation initiatives in future, and develop such BDS
7.0 (Activity Time Frame: 2010, Q3-2010, Q4)	**Policy advocacy**[cxvii]	-Advocacy vis-à-vis securing PPP assistance under the IID, IIUS, MAI schemes for particular initiatives.	-BMOs, Private BDS providers (where appropriate, CLEs assistance to be explored)	-At least 1 BDS provider to be inter-linked with industry	-Enhanced profitability for firms **Multiplier effect**: BMOs capacities will be built to catalyze similar services to industry in future
8.0 (Activity Time Frame: 2010, Q2-2010, Q3)	**Productivity**	-Adoption of Lean Manufacturing Practices by small firms -Adoption of ERP systems amongst micro job-working vendors vis-à-vis their medium and larger sized “mother” units	-Private BDS providers -BMOs: ISF, ILPA	-At least 1 new BDS provider introduced in lean manufacturing -At least 1 new service provider (and new ERP service to MSEs) introduced	-Demonstration project in 2 firms on lean manufacturing -Demonstration project involving 1 medium sized firm and at least 15 of their micro job-working enterprises for ERP **Multiplier effect**: Dissemination of results to encourage greater number of stakeholders to explore similar BDS options on commercial basis
(Activity Time Frame: 2010, Q2-2010, Q4)		-Adoption of ERP systems by SME footwear and component manufacturers (encourage other leather product manufacturers to participate)	-Private BDS providers in close association with the BMOs (ISF, ILPA)	-New BDS to SMEs – till date, typically only large firms in this segment have explored the option	-Demonstration project involving 5 SMEs contributing to better systems and profitability **Multiplier effect**: Dissemination of results to encourage greater number of stakeholders to avail of related BDS on commercial basis
9.0 (Activity Time Frame: 2010, Q1-2010, Q4)	**Socio-environment compliance**	-Facilitation of “joint” quality and compliance certification of MSEs	-TANSTIA-FNF Service Centre in close association with BMOs – TANSTIA, ISF, IFLMEA	-New BDS product ISO 14000 and SA 8000 certification introduced to smaller firms	-5 small firms to formally achieve compliance certification (also enhancing buyer receptivity and market potential) **Multiplier effect:** Demonstration effect after

					successful implementation on other firms in the cluster to take up the initiative in similar fashion on commercial basis
10.0 (Activity Time Frame: 2010, Q2-2010, Q4)	**Design development (indigenous, as well as inventory of global service providers)**	-Joint sourcing of goods/garments designers -Such experts may also offer inputs vis-à-vis design studio being established by the CLRI -Preparation of a designers directory	-Services of experts from SES-Germany/NMCP/BESO to be explored/leveraged and introduced to the cluster; CLRI -Consortium evolved by ILPA members to jointly source relevant BDS -IICCI, ITPO, private BDS provider appropriately leveraging the services of other trade and investment desks of European Countries in Chennai -BMO involvement: TANSTIA, ISF, IFLMEA	-New BDS in terms of indigenous design development evolved	-At least 5 firms directly benefited; help footwear and other product manufacturing SMEs in the cluster move up the value-chain -**Multiplier effect**: Services of international BDS facilitators will be institutionalized in the cluster (for e.g., through a formal MoU with some concerned service providers and facilitators)
11.0 (Activity Time Frame: 2009, Q4-2010, Q3)	**Investment promotion (equity and venture capital options for medium and lead firms)**	-Establish ties with foreign equity investors and other foreign/Indian venture capitalists for medium-to-large sized manufacturers	-Private BDS provider (who may synergize the roles of NBSO, IICCI, IGCCI, ITPO etc.)	-Private BDS and markets developed in the area of investment promotion	-Demonstration at least 2 firms directly benefited by means of appropriate equity financing **Multiplier effect:** Other firms encouraged to explore options through similar route
12.0 (Activity Time Frame: 2009, Q4-2011,Q2)	**Socio-environment compliant integrated social and industrial infrastructure**	-Establishment of a socio-environment compliant park by an SPV of SME and lead firms[cxviii]	-Private BDS providers working directly with evolved/concerned SPV -BMO involvement: ISF, IFLMEA, ILPA	-New private BDS providers related to compliance certification and infrastructure project conception and implementation to be formally linked to industry	-About 10 medium and larger sized firms to be represented in the SPV -Reduced cost of transportation of the labour force from nearby districts to product manufacturing factories -Enhanced image in importing markets abroad on socio-environment compliance of firms **Multiplier effect**: Replication of the initiative by greater number of firms in a networked mode

Annexure–I

Tabulation A

State-wise export of leather and leather products

(Export value in Rs. crore)

State	FOB Value (2006-7)	Per cent share in total export	FOB value	Per cent share in total export	Per cent variation in FOB value
Tamil Nadu	5277.24	36.80	5385.30	36.11	2.05
Uttar Pradesh	4108.35	28.65	4374.33	29.33	6.47
West Bengal	2085.60	14.54	2216.55	14.86	6.28
Delhi	936.81	6.53	1005.83	6.74	7.37
Total[cxix]	14,339.16	100.00	14,913.17	100	4.00

(Source: Exports of leather and leather products, facts and figures 2007-8, CLE, 2009)

Tabulation B

Empirical statistic: Production and Export

Details	Production	Export
All India	30,000 Crore (6 Billion)	14,913.70 Crore (3 Billion)
Tamil Nadu (including Chennai)	10,000 Crore (2 Billion)	5,385 Crore (1 Billion)
Chennai[cxx]	2,000 Crore (0.4 Billion)	1,000 Crore (0.2 Billion)

Annexure – II

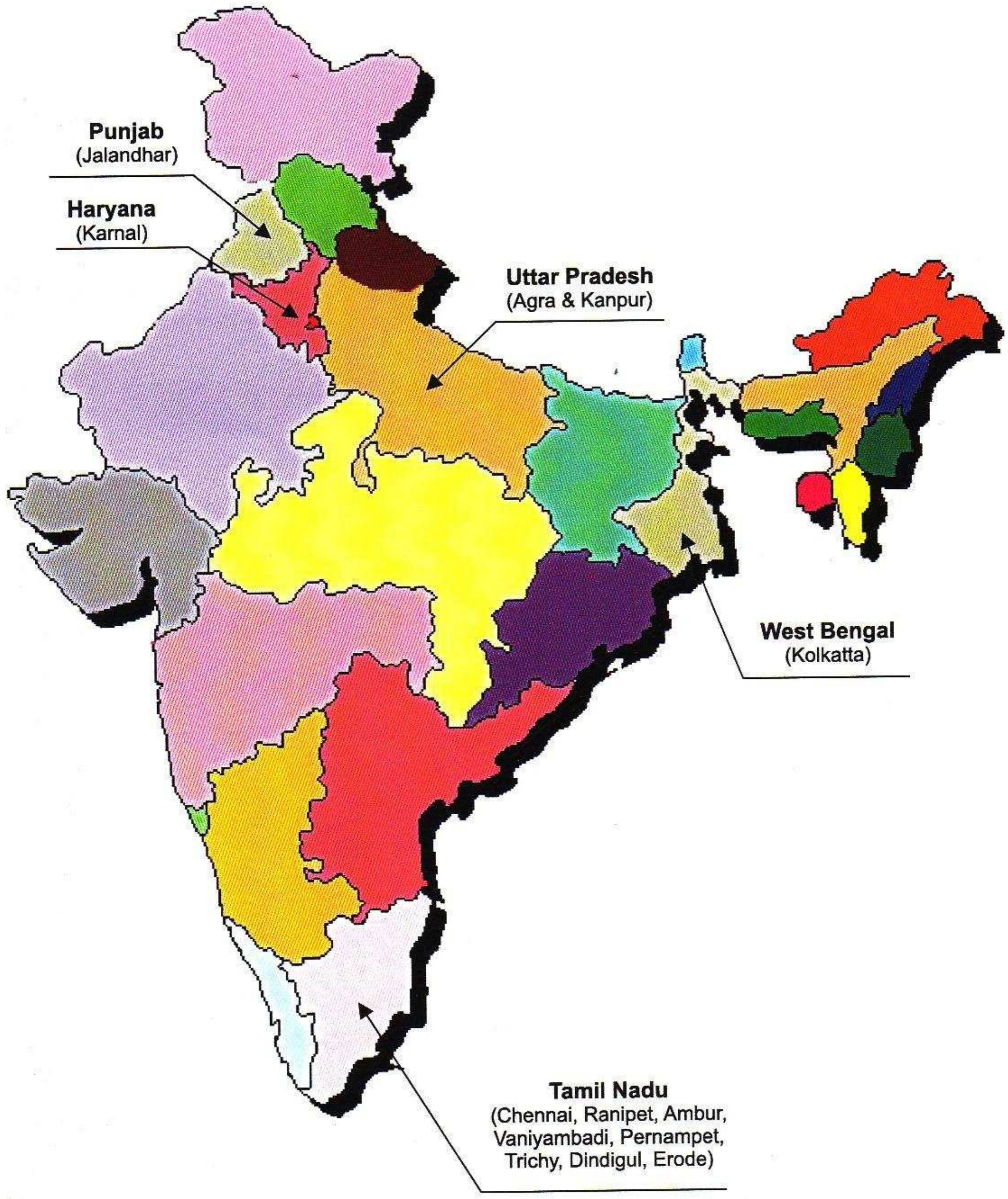
Export of leather and leather products from Tamil Nadu – 2007-8 (essentially through Chennai)[cxxi]

Products	Quantity	FOB Value (in Rs. Crores)	Unit Value (in Rs.)	Per cent share in export value	Per cent variation in export value
Leather footwear (pairs)	25, 358, 042	1, 907.35	752	35.42	9.40
Finished leather (sft.)	277, 440, 082	1,705.80	61	31.68	- 5.28
Footwear components (pairs)	18, 527, 097	907.40	490	16.85	3.81
Leather goods (pieces)	18, 306, 900	394.10	215	7.32	1.64
Leather garments (pieces)	1, 329, 738	381.17	2, 867	7.08	1.50
Leather gloves (pairs)	3, 155, 652	88.72	281	1.65	- 2.56
Non-leather footwear	46, 765	0.76	163	0.01	- 81.23
Total		**5, 385.30**		**100**	**2.05**

(Source: See CLE, 2009, Feb.)

Annexure – III

Location of some clusters in India (focus Tamil Nadu and Chennai)



Annexure – IV

India's export basket

Sr. No.	Product category	Percentage of export
1.	Footwear and components	42.44
2.	Finished leather	22.05
3.	Leather goods	22.57
4.	Leather garments	9.89
5.	Saddlery and harness	3.04

**Source: CLE, 2009*

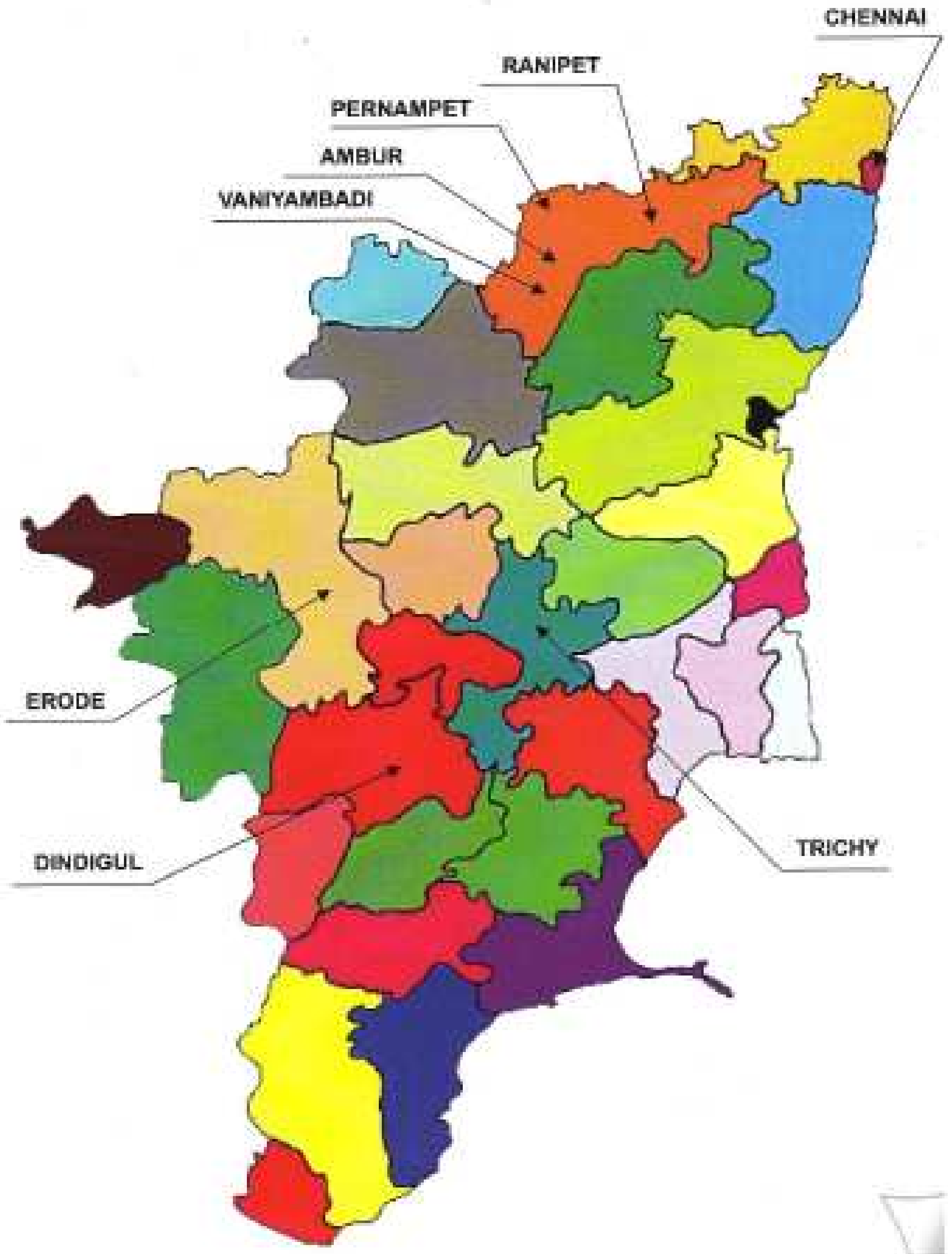
Global import basket

Sr. No.	Product category	Percentage of export
1.	Footwear and components	66
2.	Leather	18
3.	Leather goods	12
4.	Leather garments	3
5.	Saddlery and harness	1

**Source: CLE, 2009*

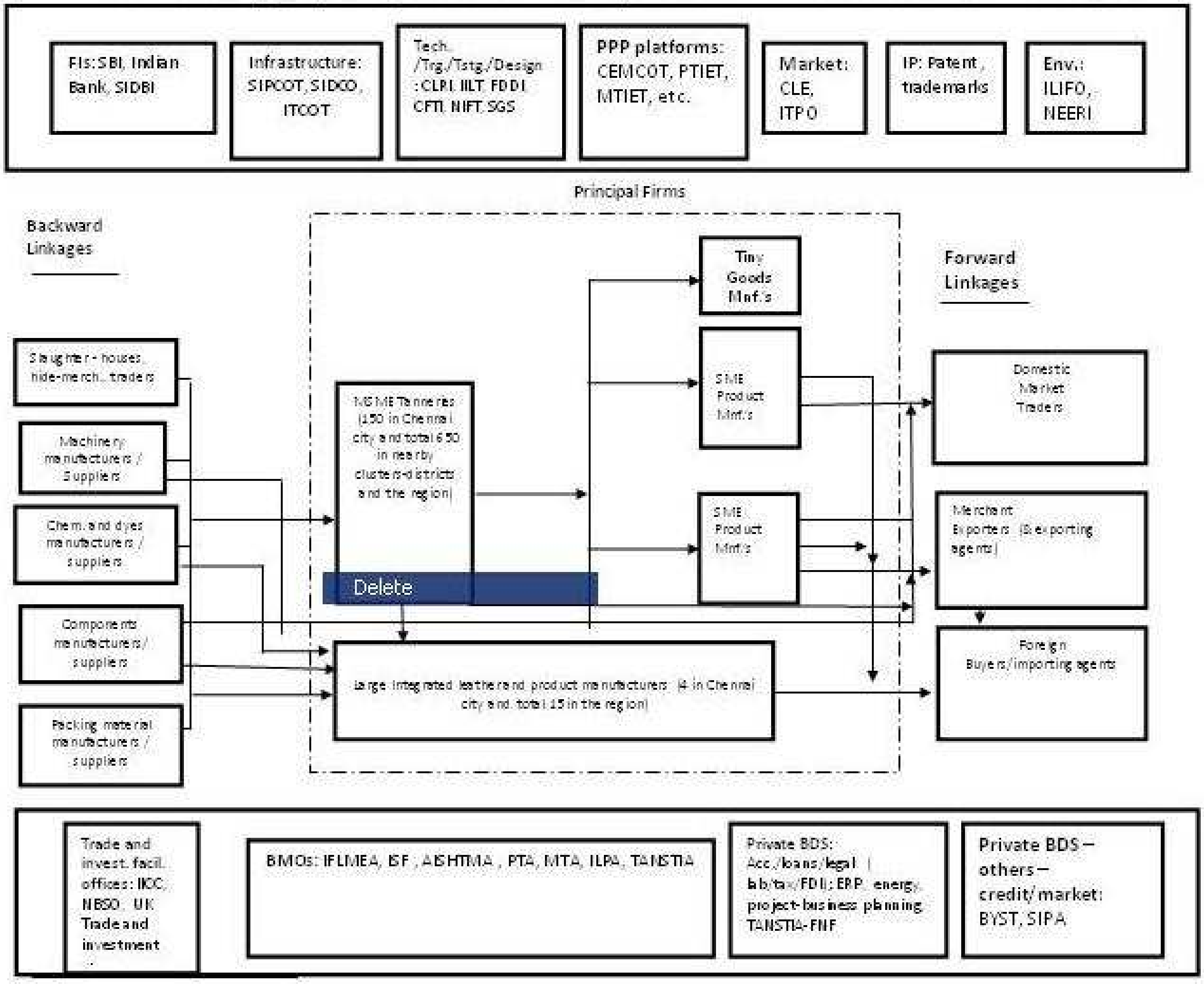
Annexure – V

Cluster in Tamil Nadu



Annexure VI

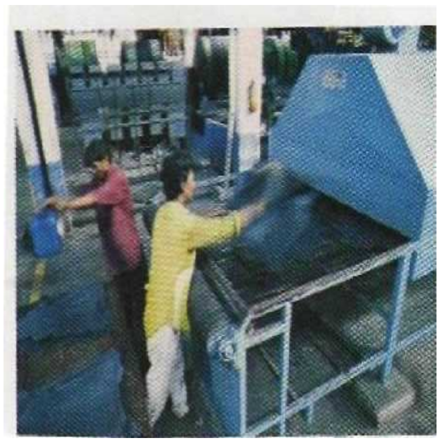
Cluster Map (Key BDS providers & firms): Leather & Leather Products - Chennai [1]

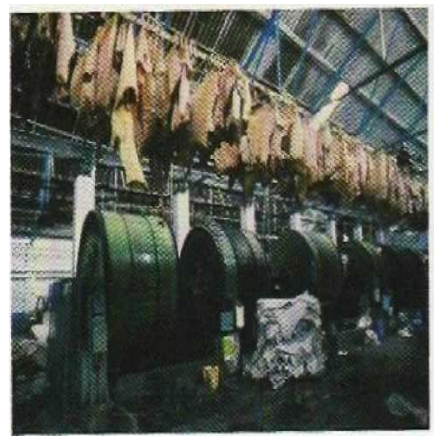


[1] Services of many BDS providers such as BYST, SIPA, trade and investment facilitation offices, and energy-related are yet to be linked to sector firms.

Annexure – VII

Tannery Operations – 'A Snapshot'





Annexure – VIII

Leather products - "A snapshot"

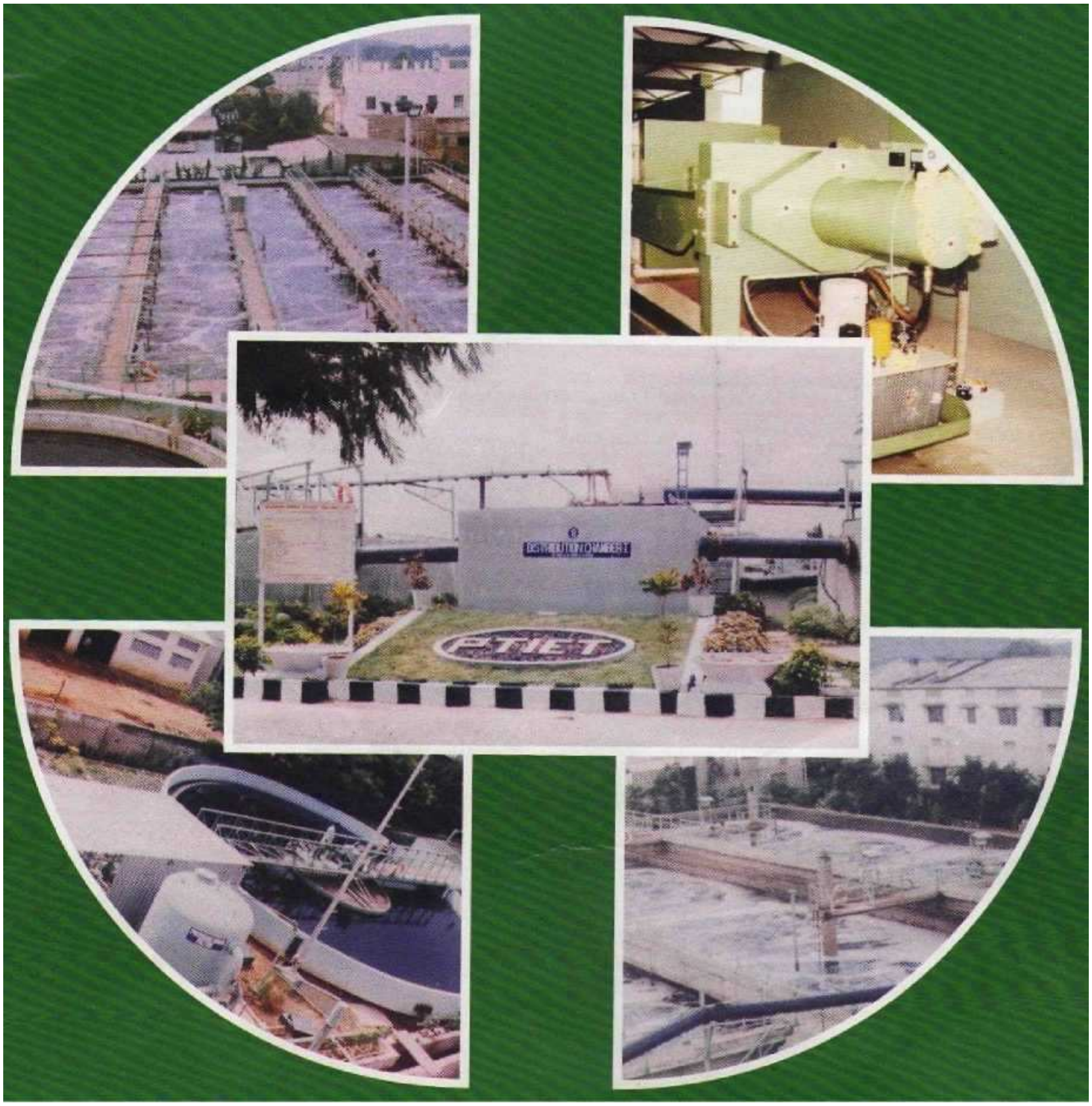
Leather Footwear

Leather Goods

Leather Garments

Annexure – IX

Common Effluent Treatment Plant at Pallavaram



Annexure – IX

A – Labour Perspective

In the past, an important element underpinning competitiveness of leather and leather products clusters in developing country regions like Chennai had been the maintenance of low labour cost implying, relatively less regulation of labour. Today, however, compliance requirements from larger overseas buyers have ensured that large product manufacturers, as well as many SMEs comply with the set standards.

Typical job working tanneries and smaller firms are also meeting standards. While a few, depend on “informal” employment, casual and unskilled workers on contract basis, compliance to factory laws and OSH standards are reasonably enforced and adopted in the cluster located in Chennai.

Current Status

There are a few tanneries engaging cheap labour on informal basis from outside the state. Labour contractors (not necessarily licensed with the TN State Labour commissioner) supply such labour to tanneries. There are not members of local trade unions, and enforcement of appropriate labour standards through such institutions is not feasible. This circumstance is, however, not a usual phenomenon in a “high profile” cluster like Chennai.

In the product manufacturing segment the labour employed is largely local and hence supported by the facilitatory services of labour unions. The labour force in the cluster does not have strong affiliation with trade unions such as All India Trade Union Congress (AITUC) and Indian National Trade Union Congress (INTUC). Larger firms, however, have in-company ‘workers’ committee’ to represent the interest of workers to the management.

As a matter of fact many of the medium sized but particularly large players particularly, in the product manufacturing segment serve as role models on the labour compliance front. The code of conduct compliance by suppliers has also contributed towards this transition.

OSH Standard

OSH aspects in leather manufacture may be considered in the context of chemical safety, machine safety, work environment, personal protection, and emergency management, auditing and monitoring safety measures, safety and health management.

Occupational hazards in a tannery arise while handling machinery and equipments, storage and application of chemicals, and risky work environment (e.g. slippery floors, leaking pipes, hanging electricity wires etc.). To elaborate:

- *Chemical safety: Safety needs to be exercised in the use of chemicals, its storage and handling. Inhalation and penetration through skin pores pose major health hazards. Disposal of waste also requires care*
- *Machinery and equipment: Safe installation needs to be ensured to avoid accidents.*
- *Workplace environment and conditions, protective equipment: E.g.,* usage of hearing *protectors (ear plug and muffs) where noise levels are beyond 85 decibels; and respirators to avoid inhalation of harmful chemicals*
- *Poor monitoring system: Workplace and health monitoring system, etc. need to be installed to avoid health hazards.*

Wages – Productivity

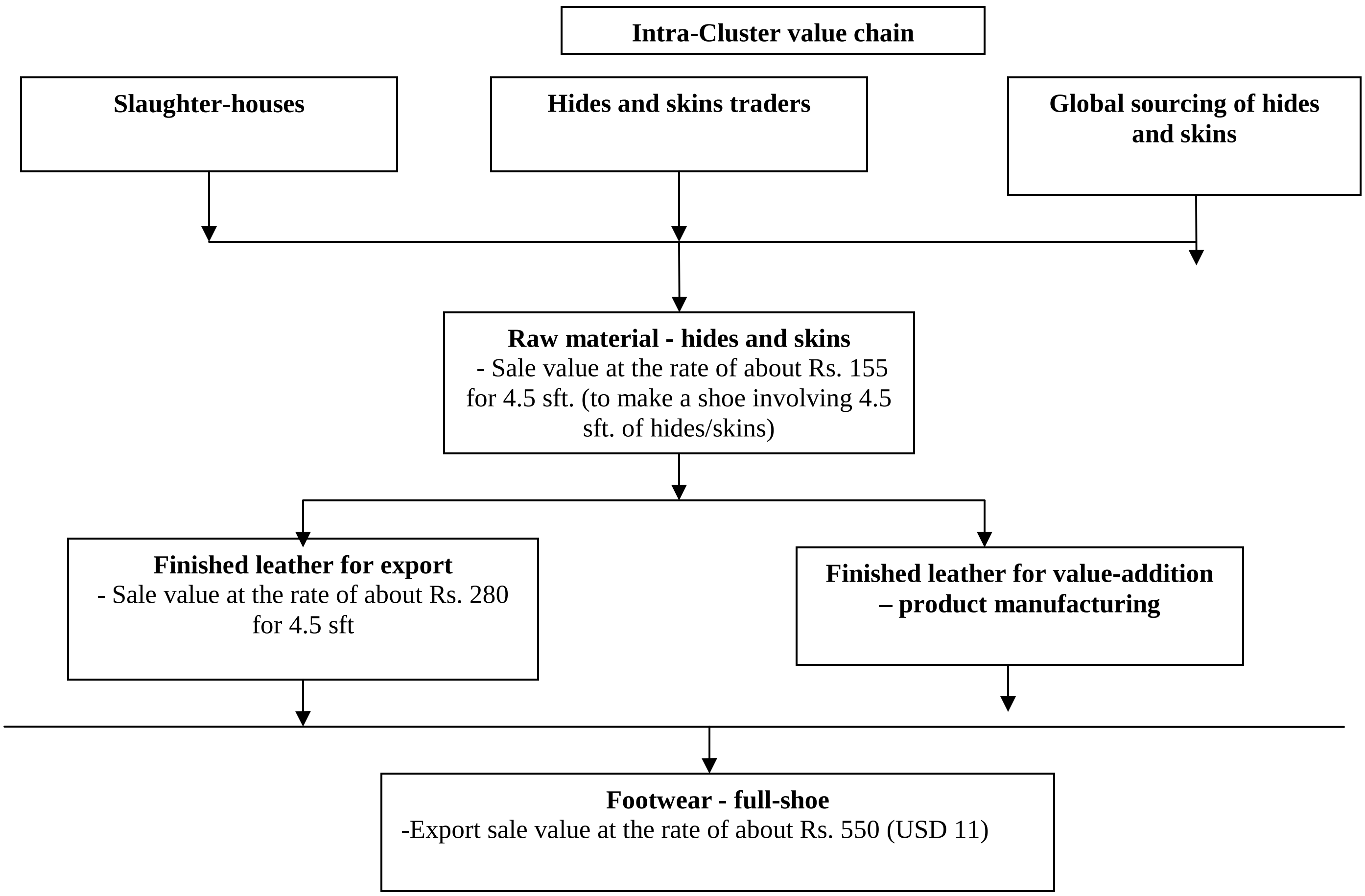
The primary level wages of the labour force is less than Rs. 2000 per month. About 90% of the labour force comprises workers who are trained on the job. Workers are often categorized as unskilled (helpers) for an initial period of 2-3 years.

Developing multi-skills as well as team initiatives are encouraged in the shop floors particularly in the product manufacturing segment, and performance incentives are offered. Many medium sized and large firms have bonus policy in the range of 14 to 20 % per annum.

Interventions

The report addresses labour issues through interventions in terms of canalizing BDS in the areas of SA 8000, OSH, cleaner production etc. Issues such as wages are expected to be addressed through trickle-down effect to increase competitiveness of firms over interventions under the project. This sensitive issue of wages is currently being addressed through the industry association AISHTMA. The report (action plan & pert chart) also accommodates PPP intervention in the area of housing for labour.

Annexure-X



Intra-Cluster value chain
Slaughter-houses
Hides and skins traders
Global sourcing of hides and skins
Raw material - hides and skins
- Sale value at the rate of about Rs. 155 for 4.5 sft. (to make a shoe involving 4.5 sft. of hides/skins)
Finished leather for export
- Sale value at the rate of about Rs. 280 for 4.5 sft
Finished leather for value-addition – product manufacturing
Footwear - full-shoe
-Export sale value at the rate of about Rs. 550 (USD 11)

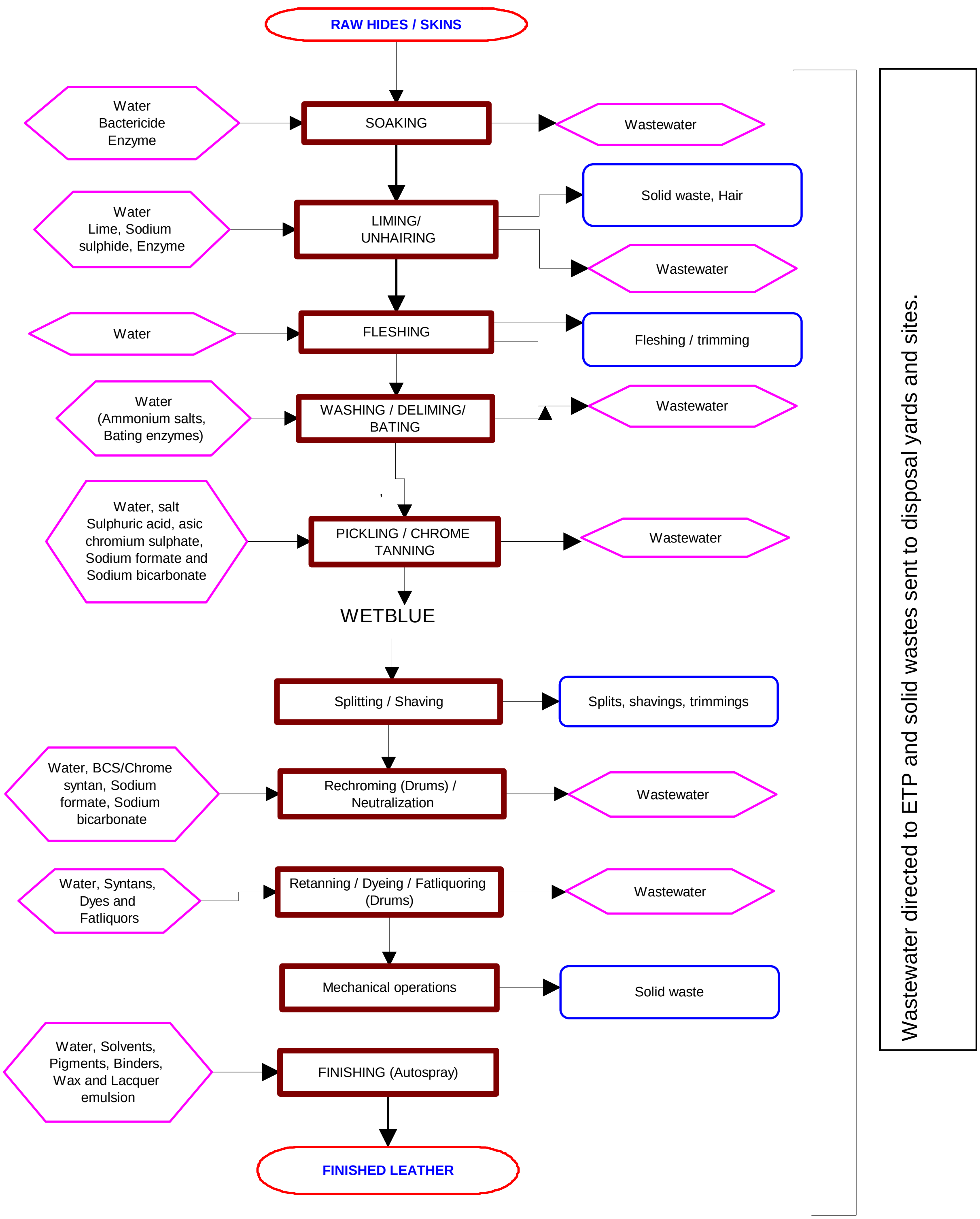
Annexure-XI

Cluster SWOT – Some critical elements

Activities along the intra-cluster value chain	Strengths	Weaknesses	Opportunities	Threats
Tanneries	-Relatively strong links with specialized local support institutions -Enabling policy framework -Globally connected MLEs, facilitating knowledge flows from abroad as well as FDI/J.V.s -Ability to attract a critical factor - labour (inter and intra-state migration offering a pool of relatively competitive force) -Easy access to raw material from the regional and National value chain -Large tannery base in Tamil Nadu for primary processing -Strong BMOs such as AISHTMA, IFLMEA offering value-added services	-Gaps in the technology upgradation front - notwithstanding investment subsidies -Gaps in input supply for SMEs: despite import of wet-blue, small volume requirements by MSEs affects scope for smaller firms to avail the option sans warehousing and small volumes supply by suppliers; typical dis-optimal sourcing of other inputs such as dyes and chemicals -Productivity gaps: Weak initiatives to upgrade productivity through MIS and related means	-Attract FDI and foreign equity: Greater initiatives may be pursued to attract FDIs/JVs. Relocation of operations from Italy, France and Spain due to high production cost therein may be attracted towards Chennai -Technology upgradation through availing BDS on a PPP mode: PPP for modernization/expansion may be an option to be exploited by smaller firms as well as BMOs -Scope to address gaps in appropriate access to finance (debt) through availing of necessary BDS also sourcing assistance of players based outside the cluster	-Compliance norms and costs may leave industry uncompetitive – sans intervention -Global recession: The impact of global recession is yet to severely affect the critical footwear segment. However, the effect could be significant.
Product manufacturing	-Availability of low-cost skilled manpower: For instance, in the case of footwear manufacturing, labour cost in the region is about USD 0.3 per hour while in China it is about USD 0.6 per hour -Established links with global marketeers and value chain leaders -Presence of relatively strong BMOs such as the ISF, ILPA (headquartered in Kolkata)	-Skilled labour gaps in some segments: Inadequate availability of skilled operators particularly in the area of footwear -Gaps in related enterprises: Footwear component manufacturing segment is particularly weak – quality as well as capacity terms; accessibility is an immediate concern. -Logistical constraints: Higher turn around time in making samples viz. 2 to 3 weeks against 2 days in China, and longer time for transport of goods by sea - 10 days from China as compared to 21 days from Indian ports to Europe (being addressed by the Port authorities) -Productivity gaps	-Rising domestic demand conditions - the growing Indian 'middle class' -Scope to enhance market access through warehousing and consortia marketing options -Scope to address gaps in appropriate access to finance (debt, equity) through availing of necessary BDS sourcing assistance of players located outside the cluster	-Competition growing stronger in terms of market share: Competition for footwear and other products from low cost manufacturers from the South and Far East with recession. This is particularly true in the context of the US footwear segment, for instance -Inadequate initiatives to develop indigenous design capabilities may leave firms perpetually in the lower rungs of the value chain -Inadequate initiatives to develop necessary social-infrastructure could put tremendous cost and logistical constraints on firms

Annexure-XII

Process flow in the context of finished leather



Annexure-XIII

Core operations in footwear manufacturing

Range building – largely pursued by designers in European companies viz. importers

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Footwear prototype – by Chennai-cluster based firms

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Manufacture of samples

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Fit trial and confirmation of sample by importers

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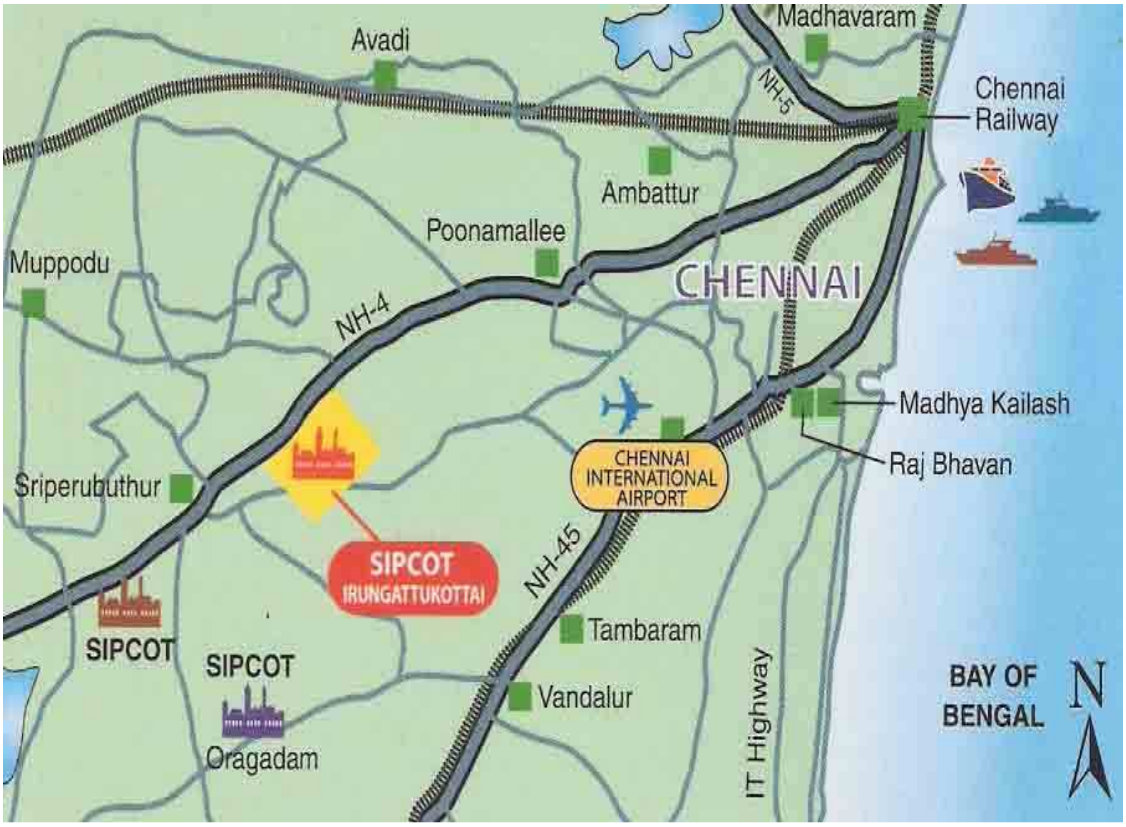
Manufacture and export

Annexure - XIV

Location map of tannery `pockets' in the Chennai region*



*The major tannery pocket is in the region between Chennai airport and Tambaram. This includes Pallavaram, Chromepet, Pammal, and Nagelkeni. Another important tannery pocket is in Madhavaram. The SIPCOT industrial estate at Irungattukottai is the location of footwear parks.

Annexure-XV

List of firms, and public and private BDS providers interacted with over the DS Cluster Firms[cxxii]

Sr. No.	Large integrated lead firms (Name of firm)	Point of contact (individual/representative)
1	K.H. Group (leather, shoes, goods)	M. Mohamed Hashim, Chairman, 25323335
2	Farida Group (leather, shoes)	Rafiq Ahmed, Chairman
3	Forward Group (leather, shoes)	Asghar Ali Dhala, Chairman, S. Valiappan, GM, 25615658, 9840032332
4	Presidency Kid Leather (leather, shoes)	Dr. Zackria Sait, 28411055
5	A.V. Thomas leather & allied products (leather, goods, shoes)	Habib Hussain, CEO, 9841010040; N. Mahesh, GM, 32466750
6	Florence (leather, shoes)	P.R. Aqueel Ahmed, 28583794

Sr. No.	SME Footwear firms (Name of firm)	Point of contact (individual/representative)
1	Ankur Footwears	Abhijit Seth, 24828359
2	Ajanta Shoe Co.	K.V. Sathish, Partner, 22416105, 9840606542
3	Zuha shoes	Samiullah P.R., Managing Director, 9443149985/4174-232254 (Vaniambadi)

Sr. No.	SME Tanneries (Name of firm)	Point of contact (individual/representative)
1	Prime international	K. Srinivasan, MD, 4172274016, 9840987878
2	Habib Tanning Co.	A. Suhail Ahmed, 26621377, 9884057031
3	Hijaz Leathers	P. Mohammed Yousuf, Chairman, 9443159848
4	J.R. Enterprises, Ralp exports	Janardhan Rao, MD, Kumar, 9841564135
5	The general and industrial leathers Pvt. ltd. (also shoe-uppers)	Thomas Chandy, MD, 9840023755

Sr. No.	Micro tanneries	Point of contact (individual/representative)
1	Noor and sons	Najeeb, 9840216069
2	Selvam Tanners	K. Pandian, 9444081964 (also chairman, PTIET)
3	LC & Co.	Sethuraman, 9841239915
4	Ruby tanners	Vaidyanathan, 9444122443
5	Shakil Ahmed & Co.	A. Shaik Dawood, partner, 22482465, 9710450063
6	P.M.A. Leathers	P. Mohammad Ali Jinnah, 9840137711, 22380343
7	Unity leather	Ezhumalai, 9444753099
8	Kalyanam & Co.	Karthikeyan, 9940671105
9	Kavitha leathers	D. Chandran, 22485411, 9840017039

Sr. No.	MSME Goods & garments	Point of contact (individual/representative)
1	K.L. Sourcing (goods)	Lena Laxman, 24866469, 9840951372
2	Ratha Worldwide Leathers	N. Rathakrishnan, 24864170, 9841044250
3	P.B.R. Leathers (goods)	Kavitha and Satish Kumar, Proprietors, 98404 94705
4	PKS Leather (goods)	Selvam, 9841308288
5	Unicorrn (goods)	Ramesh / Walter, 9841079420
6	Hi-tech (garments)	Uday Kumar
7	Mercy leder (largely goods and components-uppers)	Johnson/Ms. Mercy Johnson, 9283107417
8	Indo-skins garments	N. Theagarajan, M.D., 43534086, 9841082083
9	Ramjee Leathers and supplies (garments)	Ramjee Yogam, 23632244, 9444075410
10	RR Leather Products Pvt. Ltd. (garments)	Ms. Revathy Roy, M.D.; Mohan, 32909957, 9841631315
11	Mount Exports Pvt. Ltd (garments and shoes)	N. Jayaraman, 26283672
12	Nadeem Leatherware (gloves)	V.P. Naimur Rahman, 9841026096

Sr. No.	Machinery Supplier	Point of contact (individual/representative)
1	GMS Machines (India) Pvt. Ltd.	Magesh, 26259321, 9940179796
2	Techno concepts	P. Jayaprakash, 24314952, 9841027695
3	P. R. Engineering	R. Baskaran, Proprietor, 24792864, 9840053676

Sr. No.	Raw material (hides and skins), components, and Dyes and chemicals supplier	Point of contact (individual/representative)
1	BASF (dyes & chemicals)	R. Hemakumar, Senior Executive, 28113561, 9894646114
2	LANXESS India (dyes & chemicals)	M. Pushparaja, 28420166, 9841088177, 9677008177
3	Forms N Fashions (wet blue, footwear components)	Suresh Gupta, 28360160, 9840485345

BDS providers

I. Public (government) service providers and support institutions

Sr. No.	Typology of BDS	Institution (Name of institution)	Point of contact (individual/representative)
1	Technology, skill upgradation, testing	Central Leather Research Institute (CLRI)	Dr. A.B. Mandal, Director; Chandramouli, Head; Dr. Ms. Amudeswari/Subhendu Chakrabarti, Scientists, 24911769, 9444953936
2	Technology, finance, marketing	National Small Industries Corporation (NSIC)	B. Rajaraman, Manager, 28293347
3	Technology	Rural Technology Action Group (RUTAG)	S. Gopalakrishnan, Project Consultant, 22578380
4	Technical Assistance	UNIDO consolidated project for development of SMEs in India	M. Viswanathan, 9444470023; Dr. Daniel, 9840294590
5	Finance, training	Institute of Cost and Works Accountants of India (ICWAI)	P. Raju Iyer, Chairman, coaching committee
6	Infrastructure	Tamil Nadu Small Industries Development	D. Rajendran, IAS, 22500398

		Corporation (TNSIDCO)	
7	Country specific information – Netherlands	Netherlands Business Support Office (NBSO)	V. Vijayakumar, Chief Representative, 28601640
8	Country specific information – Netherlands	UK Trade and investment facilitation desk	Ms. Saraswathi, Advisor
9	Skill upgradation, Training, design, testing	Footwear Design and Development Institute	Brijesh Kumar, Senior Designer, 28231024
10	Skill upgradation, Training, design, testing	Central Footwear Training Institute	S. Sathyanathan, Director, 22501529
11	Marketing (export)	Council for Leather Exports	Habib Hussain, Chairman, 28594367, 9841010040; Ali Ahmed Khan, ED, 9940483786; O.P.Pandey, Reg. Director, 9840915682
12	Export marketing	Indian Trade Promotion Organisation (ITPO)	S. Raghavan, former Director, 9790974048
13	Training, design	NIFT	Nandakumar, associate to Prof. Aravindan, 22542771

II. BDS Facilitators and Industries Associations

Sr. No.	Institution (Name of institution)	Point of contact (individual/representative)
1	Tamil Nadu Small and Tiny Industries Association (TANSTIA)	Gopalakrishnan, Hon. General Secretary, 65610137, 9841097717
2	Pallavaram Tanners Association (PTA)	Chandran, Ex. President; K.V. Sathish, Vice President, also 22386227
3	Indian Finished Leather Manufacturers and Exporters Association	Zachria Sait, President; Srinivasan, Secretary, 28411055
4	Indian Shoe Federation	Abhijit Seth, Vice-Chairman; Lt. Col. V. Alexander, ED, 9840122823, 22344447;
5	Madhavaram Tanners Association	N. Theagarajan, 9841082083
6	All India Skin and hide tanners manufacturers Association (AISHTMA)	Mohammad Hassan, Secretary, 25610636, 9840089080
7	Indian Leather Product Association	G.Raju, Regional Director-South, 25382681; Ramji Yogasundaram, President

III. Private (non-government) service providers

Sr. No.	Typology of BDS	Institution/provider	Point of contact (individual/representative)
1	Environment	Indian Leather Industry Foundation (ILIFO)	Sahasranaman, Ex. IAS, MD
2	Environment	CEMCOT	K.V. Emmanuel, Technical Director, 24615497
3	Environment	Pallavaram Tanners Industrial Effluent Treatment Co. (PTIET)	M. Najeeb, MD, 22386227; G.K. Sendil, 22386227
4	Financial (research and training)	Institute for Financial Management and Research (SEFC)	Ms. Bade, 28303400
5	Marketing and IT	South Indian Producers	Panchaksharam, 938105589

Sr. No.	Typology of BDS	Institution/provider	Point of contact (individual/representative)
		Association	
6	Technical	PUM – Netherlands Senior Experts (formerly NMCP)	S. Krishnaswamy, Representative, Chennai, 9840154340
7	Skill up-gradation, infrastructure	IL&FS, CDI	Kunal Sood, 9971199600
8	Energy and ERP	URs Productively	Raja Chidambaram, Director, 24894938
9	Productivity - ERP	Integratz ERP India Pvt. Ltd.	K. R. Natarajan, Director, 42647244, 98400687683
10	Credit Rating Services	ICRA online ltd.	Rajesh Dubey, CEO, 24340043
11	Finance – access to credit; Inward FDI	Chartered Accountant	S. Prasad
12	Finance – access to credit; Mentoring services	Bharatiya Yuva Shakthi Trust (BYST)	Ms. Aruna,Co-ordinator, 42444505; Seshadri, Mentor
13	Finance, Business planning	Project Management Services	Ravindran, project co-ordinator, 28227921
14	Energy	Suzlon	Livingston, Mgr. Marketing; D.P.Karunakaran, AGM, 28602345, 9003037066
15	Inward FDI, Marketing	Khaalz International	S. Jawahar, 24918439
16	Customs, drawback rate advocacy	Advocate and consultant	V. Ravindran, 24895902, 9444053519
17	Networking and b2b, marketing information	Indo-Italian Chamber of Commerce and Industry	Ms. Sreevidya,, 28242399
18	Finance, technology, energy, EDPs/training, business planning	Industrial Technical Consultancy Organisation of Tamil Nadu (ITCOT)	S.R.Nageswaran, E.D., Damodharan, Vice-President, 28290324, 9841002899
19	Environment	Madhavaram Leather Manufacturers Co. (MLMF)	N. Theagarajan, 9841082083
20	Testing	SGS	Anita Jeyaraj, Lab Manager, 24963844
21	Finance, marketing, technology, business planning	TANSTIA-Friedrich Naumann Foundation (FNF) Service Centre	Dhanapalan, Chairman; Prasad Madhavan, Director; Ms. Vijayalakshmi, Asst. Director, 9940102446

Financial institutions

Sr. No.	Financial Institution	Point of contact (individual/representative)
1	Indian Bank	Somayajulu, DGM, 9443743763; Venkataramanan, GM, Ganesan, Br. Mgr.
2	State Bank of India (leather and international branch)	G.S. Subramaniam, DGM; P. Shankar, AGM, 28287999, 9790983233
3	Indian Overseas Bank	Ranga Krishna Rao, Senior Manager, 9841433591

Annexure - XVI

PERT CHART[cxxiii]

		2009 (Quarter)			2010 (Quarter)				2011 (Quarter)	
		2	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**
Leather Segment										
1.0	**Procurement (Optimal sourcing and necessary credit linkages).**									
1.1	**Optimal sourcing within the national value chain – dyes & chemicals.**									
	Interactive meet between embedded BDS providing dyes suppliers from Ahmedabad, cluster BMOs and NSIC.	√								
	Study for finalizing optimal source of purchase, EOQ estimation by Pvt. BDS provider.		√							
	Evolution of SPV/Consortia by EDII team.		√							
	Preparation of bankable business plan for consortia/SPV and kick starting implementation (with or sans NSIC support as deemed appropriate).			√						
	Similar study and business plan for chemicals, also exploring global sourcing.		√	√	√					
1.2	**Global sourcing for competitiveness – Establishment of Warehouse Abroad (on demonstration basis)**									
	Study by Pvt. BDS provider to identify optimal location (Nigeria / Ethiopia / RSA) of raw material hides & skins warehouse in Africa.		√	√						
	Evolution of consortia / SPV by EDII team for implementation of demonstration warehouse (implementation to be pursued by SPV).			√						
1.3	**Establishment of customs bonded warehouse in Chennai for hides and skins (one project to be implemented initially as an autonomous project by CLE; one additional project to be evolved by BDS provider CLRI).**									
	Model Business Plan to be prepared by Public BDS provider CLRI.		√	√						
	Evolution of SPV and project implementation guidance by EDII team.			√	√					
2.0	**Environmental compliance through BDS on the power & energy front.**									
	BDS and Providers introducing seminar.		√							
2.1	**Viability orientation of environmental compliance facilities/infra-structure (operation of ZLD – CETPs through WEG connectivity).**									
	Preparation of bankable/grantable plan for one CETP by Pvt. BDS provider & ILIFO; syndication of assistance; CDM plan for group CETP to be subsequently evolved.		√	√						
	Project implementation guided by EDII team.			√	√	√	√			
2.2	**Viability orientation of environmental compliance facilities/infra-structure (operation of Individual – ETPs through WEG connectivity).**									
	Preparation of bankable/grantable and CDM supportable plan for individual ETPs by specialized Pvt. BDS provider along with ILIFO; syndication of assistance.		√	√						
	Project implementation guided by EDII Team.			√	√	√				

2.3	**BDS providers' training-cum-capacity building programme on / for promotion of renewable energy options in the cluster.**									
	Conduct of training programme involving related Pvt. & Public service providers including those providing financial and embedded BDS.		√							
2.4	**Environmental Compliance-Cleaner Production Technologies-Compliant and cost optimizing process technologies.**									
	BDS and Provider/s introducing seminar.		√							
	Demonstration intervention by Pvt. BDS provider in 4 MSE tanneries identified in collaboration with BMO (PTA).		√	√						
2.5	**Advanced eco-benign process technologies.**									
	Demonstration intervention in 1 medium sized tannery identified in collaboration with BMO (PTA); BDS by CLRI.		√	√						
3.0	**Policy Advocacy**									
	Preparation and submission of case advocating inclusion of WEGs into relevant schemes of DIPP (modernization scheme) / DC-MSME.		√	√						
	Presentations at Delhi for leveraging PPP assistance for WEGs and also for commercial CFCs in the Chennai leather cluster (which has largely received support only from the Ministry of Commerce & Industry).		√	√	√	√				
4.0	**Finance: Access to adequate collateral-free institutional credit (MSME Tanneries – IFLMEA/PTA/TANSTIA members); Scope for establishing association-led MCGF (joint-financing) option for micro job-working units of PTA.**									
	BDS Service & Providers introducing seminar related to institutional credit facilities for individual enterprises institutional credit (Pvt. BDS, BYST, and SMERA/ICRA, CGTMSE).		√							
	Identification of tanners requiring appropriate credit linkages by BMOs.		√	√						
	Preparation of individual business plans (20 entrepreneurs) by private BDS providers.		√	√	√	√				
	BDS Service & Providers introducing seminar for group financing option through BMOs (who have successfully implemented MCGF option).		√							
	Evolution of demonstration network of tanners and preparation of bankable financing instrument.		√	√	√					
5.0	**Productivity**									
	BDS exposure seminar (involving service providers such as SIPA and other private BDS).		√							
5.1	**IT and basic MIS: Training and implementation of appropriate IT and basic MIS in MSE tanneries.**									
	Conducting training programme for 30 MSE tanneries (PTA members) and assistance in implementation		√	√						
5.2	**Productivity-Implementation of ERP in SME tanneries**									
	Basic orientation on benefits of ERP for 3 SME tanneries (Non-ERP systems possessors of IFLMEA)		√	√	√					
6.0	**Technology up-gradation (and where feasible – common facilities)**									
6.1	**Individual/joint upgradation of technology**									
	Dissemination seminar of equipment and process technologies of CLRI, local equipment manufacturers, dealers of imported			√						

	technologies.									
	Identification of tanneries for upgradation on individual/joint basis by EDII team.			√						
	Business plan preparation & implementation of project/s for individual and/or joint technology upgradation by 20 MSE tanneries (Tannery Modernization scheme/MSE-CDP).			√	√	√	√	√		
6.2	**Training programme for at least 15 BDS providers on evolution of SPV and business plan preparation and implementation – related to technology upgrading PPP schemes of the GoI (to related private and public service providers) – programme delivered by EDII team.**			√						
Product Segment										
	Footwear (component & full-shoe) manufacturing (cross-cutting issues for goods and garments manufacture)									
1.0	**Finance - Access to appropriate credit (Access to collateral-free institutional credit by micro-sized job-working vendors of leather product SMEs and large manufacturers; access to appropriate levels of collateral-free institutional credit by small product manufacturers)**									
	BDS Service & Providers introducing seminar for individual enterprise institutional credit (Pvt. BDS, BYST, and SMERA/ICRA, CGTMSE).			√						
	Identification of firms requiring appropriate credit linkages by BMOs.			√	√					
	Preparation of individual business plans (20 entrepreneurs) by private BDS providers.			√	√	√	√			
2.0	**Market Access and Brand Promotion**									
2.1	**Establishment of marketing warehouse in Europe for footwear / goods exporters**									
	Public & Private BDS awareness seminar on warehousing related services and options (involving NBSO, ITPO, CLE, etc.).		√							
	Study on identifying optimal location for demonstration warehouse abroad (e.g. Netherlands, Belgium, and Europe).		√	√						
	Evolution of demonstration SPV (by EDII team) for project implementation.			√	√					
	Preparation of grantable (possibly MAI assistance) and bankable DPR (implementation by SPV).				√	√				
2.2	**Consortium export marketing of leather goods and garments (2 demonstration consortia of SMEs)**									
	Experience sharing seminar with successful Indian Export Consortia.			√						
	Evolution of demonstration consortia and preparation of business plan; initial hand-holding implementation for increased market access.				√	√	√			
3.0	**Procurement as well as Technology Up-Gradation**									
3.1	**Establishment of a centralized footwear component warehouse / specialized leather-goods machinery display centre in Chennai; common facility for garments manufacturers.**									
	BDS awareness generation programme on scope of related interventions (interface with BIDASS Industrial Services association in the heavy engineering cluster of Trichy and Kottayam Rubber Cluster Stakeholders); schemes such as IID for implementing relevant projects.			√						

	Evolution of SPV involving component & machinery mfrs. & suppliers from Chennai & North India by EDII team.			√	√					
	Preparation of bankable / grantable business plan & kick starting implementation by private BDS provider.				√	√	√			
4.0	**New Enterprise Creation**									
	Conduct of technology EDPs by two new BDS providers for leather product manufacture supported under TEDP scheme (no assistance expected under BDS Project); hand-holding start-ups.			√	√		√	√		
	Conduct of FDP targeting Entrepreneurship Development in the sector (no assistance expected under BDS Project).				√					
5.0	**IPR and Patenting**									
	Study by CLRI and related BDS providers followed by seminar on scope for product and process related patenting (including, GI, copyright, trademark) for the leather and product sector – a strategic long-term intervention to encourage cluster enterprises to eventually move up the value chain in terms of indigenous design development and utilize other IPR options.				√					
6.0	**Training and Skill Up-Gradation**									
6.1	**Skill-training for new workers (BPL category) for footwear/goods manufacture.**									
	Networking meet with related BDS providers such as CFTI, ILFS and FDDI to finalize implementation modality vis-à-vis related BDS provision (Identifying NGOs for trainee mobilization, entering into MoUs with product mfg. units etc.)			√						
	Train 1000 BPL category individuals (@ 150 per quarter) from rural areas and facilitate gainful employment opportunities.				√	√	√	√	√	√
6.2	**Customized skill up-grading training in the area of design.**									
	Networking meet with target – potential SMEs along with BDS providers like CLRI.				√					
	Implementation of largely in-house designer development programme facilitating capacity building of 200 personnel (@ 35 per quarter) – no budgetary support envisaged from BDS project.				√	√	√	√	√	√
7.0	**Policy Advocacy** (Advocacy vis-à-vis securing PPP assistance under the IID, IIUS, and MAI schemes for particular initiatives).									
	Preparation of case for advocacy; visits to Delhi presentations before relevant departments whose schemes of assistance are yet to be availed-of by cluster firms; presentation of plans of firms who enter the project seeking PPP assistance.						√	√		
8.0	**Productivity**									
	BDS introductory workshop on lean manufacturing practices and ERP for product manufacturing services.					√				
8.1	**Adoption of Lean Manufacturing Practices by small firms.**									
	Identification of demonstration beneficiaries through BMOs and implementation of lean manufacturing systems.					√	√			
8.2	**Adoption of ERP systems amongst micro job-working vendors vis-à-vis their medium and larger sized "mother" units.**									
	Adoption of ERP systems by SME footwear and component manufacturers (encourage other leather product manufacturers to participate).					√	√	√		
9.0	**Socio-environment compliance (facilitation of "joint" quality and compliance certification of MSEs).**									
9.1	**BDS introduction seminar on socio-environment**				√					

	certification for MSEs									
	Implementation of quality certification in 6 small firms upon identifying demonstration beneficiary firms through BMOs.				√	√	√	√	√	√
10.0	**Design development (indigenous, as well as inventory of global service providers)**									
	Joint sourcing of international goods/garments BDS providers (designers) by consortia of goods/garments manufacturers (no budgetary support envisaged from BDS project).					√	√			
	Preparation of a designer’s directory of international product designers.					√	√	√		
11.0	**Investment promotion (equity and venture capital options for medium and lead firms)**									
	Private BDS to establish ties with foreign equity investors and other foreign/Indian venture capitalists for medium-to-large sized manufacturers.			√						
	Preparing investment proposals, evaluating financial capabilities of concerned firms, identification of funds, preparation of investment opportunity proposals, finalize modalities of repatriation.				√	√				
12.0	**Socio-environment compliant integrated social and industrial infrastructure.**									
	Awareness seminar on BDS related to implementation of socio-environment compliant infrastructure in clusters like Tirupur.			√						
	Evolution of demonstration SPV by EDII team.			√						
	Preparation of grantable and bankable DPR seeking assistance under appropriate PPP schemes for this demonstration project and kick starting implementation.				√	√				
	Implementation of project (no assistance expected under the BDS project).				√	√	√	√	√	√

Core References:

-Central Leather Research Institute, *Report on the Capacity Utilization and Scope for Modernization in Indian Tanning Industry*, Chennai, 1990.
-Council for leather exports (CLE), *Leathers: The complete leather magazine*, 2009, Feb.
-CLE, *Exports of leather and leather products: facts and figures* 2007-8, 2009.
-Damodaran Sumangala, *State policy, export orientation and labour: An analysis of the links in the leather and leather products industry*, Indian Journal of labour economics, 2005, Oct. – Dec.
-Internal reports, documentation of support institutions – ILIFO, AISHTMA etc.
-Jawahar S. and Viswanathan M. (ILIFO), *Report on survey of three leather clusters Agra, Chennai , Shantiniketan* submitted to United Nations Industrial Development Organization, New Delhi, Indian Leather Industry Foundation, Consolidated project for SME development in India-UNIDO, 2007.
-Newsletters/magazines and database of the Council for Leather Exports
-Padmanand V. & Gulati. M., *Interventionary instruments for cluster development- A handbook*, Allied Publishers*, sponsored by Min. of MSME (DCMSME*), 2006.
-Rahman VPN, *Competitive strategy for Indian leather industry*, Indian Leather, 2004, Feb.
-Sahasranaman A., *Indian leather industry - new challenges*, Indian Leather, 2001, Dec.
-Website of the GoI – goidirectory.nic.in

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[i] Acknowledgement is specifically due to some of the most pro-active institutions in the cluster such as the Indian Leather Industry Foundation (ILIFO) and the Central Leather Research Institute (CLRI). The inputs received from cluster BMOs, support organizations, and (in specific areas) from the Council for Leather Exports (CLE), is also acknowledged. The usual disclaimer, nevertheless, applies.

[ii] In a geographical perspective, the cluster may be visualised to include Chennai city and two leather processing tannery pockets of Pallavaram and Madhavaram located within the ambit of the Chennai Metropolitan Development Authority. There are several similar clusters located in nearby districts of Tamil Nadu.

[iii] Newly Industrializing Countries

[iv] Only 1 per cent volume but 2.5 to 3 per cent value share.

[v] ITC Geneva

[vi] CLE, 2009, Feb

[vii] Habib Hussain, Chairman, CLE, 2009, Feb

[viii] Dr. T. Ramasamy, Secretary, Department of Science and Technology, GoI, in CLE, 2009, Feb

[ix] While competing economies (in this segment) like China, Italy, and Vietnam experienced negative growth rates of between 1.75 – 2.51 per cent in 2008 (till October) vis-à-vis the corresponding period in 2007, India's exports increased by 19 per cent (to USD 159.1 million). Taiwan is, however, a competitor whose exports grew by more than twice these levels in this period. China nevertheless remains the global market share leader.

[x] CLE, 2009

[xi] See Annexure I (CLE, 2009)

[xii] Industry opinion is that perhaps even upto 500,000 persons are employed directly as well as indirectly (carcass recovery, support activities) in the sector in Tamil Nadu.

[xiii] Unorganized nature of much of industry presents data limitations. Cluster level data is typically secured by means of expert opinion from industry and institutional representatives.

[xiv] The process of converting hides and skin into leather is called tanning.

[xv] Enterprise Resource Planning.

[xvi] Quality Management Systems.

[xvii] The interventions proposed in the light of this DS does not emphasize extensively on the promotion of FDI as active promotion initiatives are being pursued by the Guidance Bureau of the Government of Tamil Nadu, and more specifically by a dedicated UNIDO project. Both these initiatives also explicitly/implicitly catalyze the services of related BDS (services facilitating inward-FDI, preparation of investment project profiles to encourage ties). In the interest of avoiding duplication of initiatives the scope of interventions as per this project has been appropriately oriented.

[xviii] Common Effluent Treatment Plants

[xix] Intellectual Property Rights

[xx] Micro and small enterprises

[xxi] Many activities are to be implemented through a sustainably constituted SPV of firms and implemented on the basis of a bankable business plan.

[xxii] Wind Energy Generators.
[xxiii] Entrepreneurship Development Institute of India (EDII).
[xxiv]

There are different processes of tanning incorporated for making different quality/varieties of leathers. These are, for instance, chrome tanning, vegetable tanning, alum tanning, and oil tanning. From the cost viability perspective, chrome tanning and vegetable tanning are the preferred processes. In the vegetable tanning process, vegetable tanning agents like wattle bark are used instead of chemicals.

[xxv] Payments / costs incurred in the operation of CETPs/ETPs.
[xxvi] Payments / costs incurred in the operation of CETPs/ETPs.
[xxvii] The enabling policy framework may be also viewed in terms of (since) the 10th plan period, the Department of Industrial Policy & Promotion (DIPP) of the Ministry of Commerce & Industry, GoI, launching under its "Integrated Leather Development Scheme" for modernization of leather tanning as well as product manufacturing firms. Under this scheme subsidy is offered upto 30 per cent of cost of modernization to small firms, and upto 20 per cent in the case of medium and large firms subject to a ceiling of Rs. 2 crore (today). The scheme continues over the 11th plan time-frame.
[xxviii] The larger viz. lead firms have also assumed the lead (over the last 3 years) on compliance related issues – Occupational Safety and Health (OSH) and environmental compliance related certifications as well as implementing ISO 9000 Quality Management Systems.
[xxix] Even earlier, in case of reserved items, non-SSI units could undertake manufacturing subject to an export obligation of 50 percent of production on annual basis.
[xxx] Association and institutional representatives are of the opinion that competitiveness enhancing initiatives in the industry can greatly enhance trends towards upgrading.
xxxi ITC Geneva

[xxxii] Annexure - I presents state-wise export data on leather and leather products
[xxxiii] CLRI scientists and economists as well as representatives of industry associations
[xxxiv] While the region houses about 150 in total.
[xxxv] Basic regulatory institutions may be viewed in terms of the registration and licensing authority (Small Industries Department of the Govt. of Tamil Nadu); labour laws enforcement/regulatory and disputes settlement (Office of the Factories Inspector, labour commissioner); and the Tamil Nadu Pollution Control Board (TNPCB). The TNPCB monitors and regulates pollution in the State of Tamil Nadu. The institution operates under the aegis of the State Govt. and monitors compliance of the tannery segment in the Chennai region in particular. The TNPCB works in close co-ordination with industry associations and support institutions in evolving solutions to increasing pressures on environmental compliance. In the context of trademarks and patents, the regulatory authorities comprise the Geographical Indications Registry and the Patent Office.
[xxxvi] A "snap-shot" of the CETP at Pallavaram is presented as Annexure IX
[xxxvii] Indian Trade Promotion Organization
[xxxviii] Department of Industrial Policy and Promotion
[xxxix] The Guidance Bureau is the leading investment promotion authority in the State. About INR 21000 crores of outside investment has been facilitated by the bureau. Over 142 projects have been successfully commissioned through its intervention. Recently, it had played a key role in encouraging the largest supplier to Nike – a Taiwanese company called Growth Link to explore FDI in the State.

[xl] Also, in the last 3 years, a total amount of Rs. 1 crore was earned through the HRD mission involving training and shop-floor up-grading activities.
[xli] A consortium of Shoe Manufacturers (CSM) involving leading footwear manufacturers of Chennai has established a components park. It serves as the Special Purpose Vehicle (SPV) comprising leading Footwear manufacturers. The association - Indian Shoe Federation has taken a lead in evolving the network. The Council for Leather Exports (CLE), the apex specialized Govt. institution in the area of export and FDI promotion serves as a monitoring agency for the development of the Components Park. Estimated gap between demand for and supply of various footwear components is in terms of lasts (polymer/plastic), moulds, soles(synthetic), heels (plastic), toe puffs as well as clicking and cutting dies. These gaps are being progressively plugged by means of Indian as well as foreign investors who are acquiring plots in the park.

[xlii] Also co-ordinating/sponsoring students in the Leather Institute, Anna University, and fashion forecast initiatives (MODEUROP, CLRI co-ordinator)

[xliii] The annual budget of about Rs. 90 lakh (excluding the fair related budget), is accrued from membership fees, rental incomes on let-out space, and incomes from hiring out seminar hall facilities.

[xliv] Of the total earnings of about Rs. 42 lakh, over Rs. 10 lakh is the surplus (surplus is also generated from rental incomes and from interest accruals on fixed deposits).

[xlv] Some of them are those whose services may be effectively leveraged to provide specific strategic BDS.

[xlvi] Cluster organizations have greatly benefited by means of support from the UNIDO Project. The project was in operation from 1996-7 – 2001-2 in the cluster. The project had made substantial contribution on many socio-environment compliance fronts and in terms of establishing ILIFO which continues its mandate related to environment and labour compliances for industry.

[xlvii] Quality Management Systems

[xlviii] TDS comprises dissolved solids such as chlorides, sulphates and carbonates. Chlorides enter the effluent mainly as the preservative used for preserving hides and skin and also through pickling. Sulphates and carbonates enter the effluent through various acids and chemicals deployed in the process of leather making. While in developed countries the treated effluent high in TDS is either combined with domestic sewage for dilution and further treatment or discharged into the sea, in India, Kolkata has been given the option of marine discharge standards which do not include any standards for TDS. However, in Tamil Nadu, as the tanneries are in land-locked areas, the option of marine discharge or dilution with domestic sewage is unavailable, and the TNPCB therefore directed all tanneries to go in for a Zero Liquid Discharge (ZLD) system adopting Reverse Osmosis (R.O.) technology and evaporating the reject of R.O. The final saline solid waste from the evaporators has to be safely disposed. Faced with the challenge of either complying with the directive of TNPCB or closure, tanneries in the region responded positively. While about 50 tanners have invested their own resources for establishment of RO plants, the 14 CETPs catering to more than 650 micro and small tanneries had neither the technical nor financial capacity for the same. The R.O./Evaporator system is both expensive and technologically advanced. Firms sought assistance under existing PPP GoI schemes for support in meeting necessary capital expenditure. While four of these secured assistance under the IIUS scheme of DIPP, two of these clusters were assisted under the ASIDE scheme of Dept of Commerce, GoI. Together, these six plants have a total capacity of 9100 cubic metres per day. Seven of these are under the umbrella of Chennai Environmental Management Company of Tanners (CEMCOT), a section 25, not-for-profit, company to establish ZLD systems at six locations (two of these combining into one plant). Their combined capacity is 13000 cubic metres per day. They have been able to secure 50 to 60 per cent of the capital cost as subsidy from the central / state governments, the balance being contributed by firms. One CETP within Chennai, at Madhavaram, is in the process of seeking permission for dilution of its effluent in domestic sewage. The capital cost per cubic metre of waste water for establishment of the ZLD system works out to an average of about Rs. 1.40 lakh per cubic metre. The project will help recover more than 95 per cent of the waste water for reuse, thereby reducing the volume of ground water extracted to only 1500 cubic meters per day as against the current over 23000 cubic meters per day.

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[xlix] The Institute of Chartered Accountants is largely involved in grooming BDS providers who provide taxation and audit and other operational BDS to industry.

[l] The ZLD-CETP implementation related charges are to the tune of 3 per cent of project cost of Rs. 184 crore. That is, over Rs. 5.4 crore

[li] L: Low (nil or negligible), M: Medium, H: High

[lii] The ILPA operations in Chennai are small in comparison to the services offered by this dynamic BMO at its head-quarters in Kolkata.

[liii] A specialized institution established by industry (the IILP) is currently not operational. Nonetheless, attempts are made towards revival.

[liv] The services of operational private BDS providers in the areas of regular project preparation, tax and audit like that of typical Chartered Accountancy firms and, legal services with regard to regulatory aspects of business are widely availed of in Chennai and there is hardly any dearth in supply of such service providers. However, there is evidently scope for leveraging upon the services of some more strategic service providers in terms of rating services provided by agencies such as Indian Credit Rating Agency (ICRA), Small and Medium Enterprise Rating Agency (SMERA) - Dun and Bradstreet (D&B), who are working closely with some leading FIs in the region. Such BDS has scope for promotion through concurrent (than exclusive) efforts over interventions under this project. Few SMEs in the sector in Chennai have availed of such services. Also, scope for promotion of rating services vis-à-vis consortia/SPVs that may be evolved under this project exist.

[lv] This service centre effectively serves as a Private BDS facilitating platform. Many of the unorganized strategic Private BDS providing service providers (e.g., in areas of ERP/MIS, SA 8000/ISO 14000, Business Plan Preparation, etc.) are effectively networked and providing services to leather and leather products related firms in the cluster.

[lvi] Provided by in-house experts in the case of larger firms, and also by “small” private BDS providers than private institutions

[lvii] Provided by in-house experts in the case of larger firms, and also by small private BDS providers than private institutions

[lviii] Hence, services are, in effect, subsidised as reflected in their pricing.

[lix] Domestic marketing services are typically pursued by firms independently sans any specialised external BDS provision.

[lx] The prices of chemicals and dyes vary with the country and location of manufacture. The price of fat liquors is, for instance, is Rs. 130 per kg. (German variety) and Rs. 90 per kg. (Italian variety). Within the National value chain, even MNCs such the BASF and Clariant are believed to be sourcing part of their products (dyes) from firms in Ahmedabad and supplying to Chennai firms under their (MNC) labels.

[lxi] Africa is progressively a source for sheep skins. The embedded service providers in the cluster value-chain in Chennai travel to countries such as Nigeria and even the Sudan to directly source such inputs. Some firms are sourcing such inputs from Southern Africa, that is, the Republic of South Africa. The CLE has been recently involved in a related delegation to North Africa. Imports of raw material hides and skin and leathers increased from USD 221 million to USD 420 million in 2007-8 indicating the growing importance of global sourcing for competitiveness and export. Kolkata is also a source of goat skins of fine grain quality. Jalandhar and Kerala are a source for cow and buffalo hides.

[lxii] Over the DS, some dyes manufacturers and suppliers from Ahmedabad were introduced to tanneries in the cluster. This helped firms realize as well as articulate the scope for more efficiency in the procurement function and also the need for relevant BDS. The latter being not only in terms of procurement but also in terms of necessary credit related BDS to finance such initiatives. Evidently, a select few of the more dynamic and "aware" firms were (alone) already sourcing dyes directly from some traders in Ahmedabad at low rates.

[lxiii] Particularly, the raw material assistance scheme

[lxiv] Such BDS may be leveraged by the CLE and perhaps implemented through an SPV that has already taken the lead to implement a footwear components park.

[lxv] Over the DS, some traders/importers of hides and skin from the cluster also indicated scope for exploring Sudan as a sourcing base, particularly given security and other issues vis-à-vis locations such as Lagos or Abuja in Nigeria.

[lxvi] As a matter of fact, the Supreme Court had, in 1996, issued various compliance related directives - all tanneries in Tamil Nadu especially need be connected to Effluent Treatment Plants (ETPs) besides adhering to norms related to Biological Oxygen Demand (BOD), COD and Total Dissolved Solids (TDS). Largely, companies with individual ETPs have achieved discharge norms, but for TDS (that has to be 2100 mg. / litre or less as per PCB guidelines).The latter merits installation of Reverse Osmosis (R.O.) plants to treat the effluent discharge from ETPs and CETPs. Treated water with less TDS (than 2100 PPM) should be recycled into tanneries (relieving pressure on the ground water). Thus, Zero Liquid Discharge (ZLD) system is under implementation - in many CETPs.

[lxvii] TDS & sludge management: Effluents generated in leather processing have a high level of Total Dissolved solids (TDS). The discharge norms on TDS vary between countries / locations. An Arid and Semi- Arid location as the Chennai leather cluster region has unique stringent norms regarding TDS to protect soil and ground water bodies. TDS reduction is facilitated by appropriate processing and end-of-pipe treatment (membrane based Reverse Osmosis plant). Water of quality allowing reuse in tanneries is facilitated (varyingly estimated at) about 60-80 per cent. The balance reject containing high salt content is evaporated in accelerated solar evaporator systems or mechanized evaporators - contributing towards required Zero Liquid Discharge (ZLD). Sludge management is also critical in terms of better chrome management that could result in reduced chrome levels in sludge so that it may be disposed of. Composting sludge generated in the ETP in also an option. Nonetheless, the option preferred is to dispose sludge and solid waste in engineered safe-landfills. This option is progressively to be pursued by SME tanneries in Chennai. While many medium-to-large tanneries in other nearby clusters such as Ambur have implemented the R.O. and landfill option, SME tanners in the cluster are today implementing the option on a PPP mode assisted by the DIPP.

[lxviii] Clean Development Mechanism under the Kyoto protocol.

[lxix] As a matter of fact, the Ministry of Textiles has provided grant-in-aid assistance of about 50 per cent of capital expenditure to common WEG projects at the Tirupur knitwear cluster. This has been amongst the first initiatives to fiscally assist joint-WEG installation by MSE as well as medium-to-large players on a PPP mode.[lxix] The Ministry of Textiles has also recently approved a proposal involving WEGs in Textile parks under its Scheme for Integrated Textile Parks (SITP), e.g., the park in Erode, Tamil Nadu. Micro and small enterprises account for more than 95 per cent of membership of the SPVs that operate the 14 CETPs in the state. Fiscal assistance on a PPP mode is particularly relevant in the leather cluster context because in related clusters many MSEs are essentially resource-starved jobbers to medium-sized and larger firms.

[lxx] Tanneries are sometimes charged (for effluent treatment) on the volume of wastewater generated, hence a reduction in the volume of water will also result in lowering the costs of treatment (compliance).

[lxxi] An option emphatically voiced by industry expert D. Chandramouli, Scientist and Head, CLRI.

[lxxii] Relevant initiatives are being aggressively pursued by the dynamic CLE.

[lxxiii] For example in the Wet Grinder cluster at Coimbatore where the clusters BMO is now effectively serving as a financial intermediary vis-à-vis canalizing cheaper institutional credit (from FIs such as the Indian Bank) for micro job-working members.

[lxxiv] Technically: many activities on the shop-floor such as clicking and closing cuts across different product categories. Also, many of the issues are cross-cutting ones across product categories. Therefore, though of smaller volumes in terms of contribution, the constraints of the goods and garments segment which in terms of many strategic BDS are generic vis-a-vis the footwear segment requires to be addressed. Joint-addressing of such constraints by different product categories will also facilitate evolution of a critical-mass of stakeholders for necessary intervention.

[lxxv] ILPA members, particularly those in the garment manufacturing segment have also emphasized on the gap in terms of common utilization of expensive equipment. This is to ensure that idle-time and spare capacities are optimally utilized.

[lxxvi] The IL&FS has initiated such interventions with SMEs and larger firms in the cluster in a PPP mode with fiscal assistance from the Ministry of Rural Development.

[lxxvii] Firms who are members of the ILPA have also evinced need for thrust on relevant BDS.

[lxxviii] TANSTIA-FNF Service Centre will also support the intervention by means of sponsoring a seminar – "WTO impact on the leather and leather products SMEs."

[lxxix] Particularly voicing the concerns of industry leaders such as Habib Hussain, CEO, AVT Group and Chairman, CLE

[lxxx] Those have been successfully established in many clusters such as the Kottayam rubber cluster as well as the Alleppey coir cluster in Kerala.

[lxxxi] As was identified over the DS scope for cash purchase @ about Rs. 40 lakh per month of chemicals from existing chemical manufacturers and suppliers in Chennai may also be explored to realize between 10-20 per cent reductions in cost of procurement of chemicals.

[lxxxii] In fact, some firms and BMOs had evinced scope for directly sourcing fat liquors from abroad. The scope for sourcing related BDS coupled with BDS in terms of appropriate financing mechanisms for each operation is wide.

[lxxxiii] As suggested by industry doyen Naimur Rahman, former Vice-Chairman, AISHTMA.

[lxxxiv] The services of the Indian embassy in Lagos/Abuja, Nigeria may also be availed of to finalize a necessary demonstration business plan. In fact, relative cost-benefit of locations vis-à-vis South Africa, Sudan, and other locations like Nigeria may also be considered.

[lxxxv] Awareness generating and BDS introducing seminars related to WEG and CDM is to be pursued through private service providers such as Suzlon, Enercon, and perhaps URs Productively.

[lxxxvi] Compliance costs that could make the export-oriented industry uncompetitive; to elaborate, at present the O&M cost of the conventional ETPs in Tamil Nadu ranges between Rs. 20 and Rs. 30 per cubic metre of waste water. This amounts to about Rs. 0.35 to Rs. 0.50 per sft of leather produced. Subsequent to the establishment of the ZLD system, the operational cost will increase to between Rs. 80 and Rs. 90 per cubic metre. Assuming a rate of Rs. 90 per cubic metre as treatment cost, its impact on the cost of leather would be more than Rs. 1.50 per sft, that is, more than 3 times the current impact on cost of production. Upon considering the cost of safe disposal of sludge, it would imply an additional Rs. 0.25 per sft of leather. Obviously, this would adversely affect the competitiveness of MSE tanners; as such strict environmental compliance is not required elsewhere but in the cluster region. The industry has been debating on how to deal with the significant increase in the cost of operation of ZLD systems without adversely affecting the viability of their commercial operations. One significant component of the cost of operation is the cost of power. For example, for operation of a 3000 cubic metre per day ZLD system (as in the case of the one at Pallavaram), the annual power consumption will be about 90 lakh units. At the rate of Rs. 4.27 per unit of power as applicable to industrial units in Tamil Nadu, it would amount to Rs. 3.84 crore per year.

[lxxxvii] And perhaps MTA which is not pursuing the ZLD initiative but may progressively explore the WEG option to reduce the burden of power costs in the operation of CETPs.

[lxxxviii] Subsequent replication of the intervention employing the services of related BDS providers is expected to benefit at least 500 other MSE tanners connected to CETPs (largely) in clusters located in districts away from Chennai.

[lxxxix] While internationally countries like Germany, USA, Spain, and Denmark are leaders in the use of WEGs, India is a leader amongst Developing Countries. However, only resource-rich large firms typically exploit the option, as they enjoy 80 per cent accelerated depreciation during the first year of its installation itself. Translated into income-tax benefits, it would help the company reduce its tax liability by 33.3 per cent of the depreciation value. For e.g. if Rs.10 crore generator is installed, a firm will be eligible for reducing its taxable income by Rs. 8 crore. This will help save on tax and is effectively a subsidy on total investment of 26 per cent (or about Rs. 2.6 crore) for medium-sized and large profit making tanneries with ETPs that go in for wind energy for captive consumption.[lxxxix]

[xc] In fact, the case for MSE related SPVs to seek fiscal assistance is strengthened by the fact that in this context the depreciation benefit offered by the GoI which, in effect, is a 26 per cent investment subsidy cannot be reaped. BDS may be visualized in terms of preparation of bankable business plans for individual as well as CETPs. Implementation related BDS is normally an embedded/bundled service offered by WEG suppliers.

[xci] Some important related contributions of the CLRI, Chennai include a technology for recovery of chrome from the effluent and systems for minimizing the use of water in the process. The industry is highly water-intensive. Each tonne of hide/skin tanned requires over 40,000 litres of water. Hence, even a small tannery with a capacity to process 3 to 4 tonnes a day uses up well over 100,000 litres of water a day - the daily household requirement of about 2,500 persons.

[xcii] Though SPVs in clusters such as the knitwear cluster of Tirupur have been supported for related initiatives by the concerned Ministry, policy/schemes of other Ministries related to the leather and leather products sector needs to be appropriately oriented.

[xciii] E.g.,DC-MSME or DIPP. Appropriate fixation of duty-drawback rates, advocacy with the customs authorities and related stakeholders to establish raw hides and skin warehouses in Chennai may be autonomously explored by the CLE.

[xciv] For instance, extracts from an advocacy-note prepared by the visionary A. Sahasranaman (Ex – IAS) founding-head, ILIFO, (commencing with building up a case) for incorporation of WEGs as eligible for support under specific PPP schemes to strengthen CETPs indicatively runs as follows: “One of the major challenges facing the micro and small enterprises engaged in leather tanning in Tamil Nadu is how to face the huge hike in the O&M cost of effluent treatment plants after establishment of the Zero Liquid Discharge (ZLD) systems. ZLD systems are a unique mandatory requirement only in Tamil Nadu, nowhere else in the country or any other part of the world! This effectively increases the operating cost of the waste treatment system by 3 to 3.5 times the current cost in conventional systems. The CETPs have been able to secure subsidy on capital cost to the extent of 50-60 per cent under various schemes of the DIPP, GoI and the Department of Commerce, GoI, for establishment of the ZLD systems. However, the operating cost, we are afraid, is going to be an ***unbearable burden on the micro and small tanners*** (as they perforce have to adopt this energy intensive option, and) many of whom may face dire consequences (perhaps even closure) if not assisted suitably. The cost of treatment would increase the total cost of finished-leather as to make such leather produced uncompetitive vis-à-vis that produced in competing countries. In respect of larger enterprises, GoI assistance provides for 80 per cent accelerated depreciation in the first year itself, which results in a tax saving of approximately 33.3 per cent of the depreciation amount. Effectively, one may say that this translates into about 26 per cent subsidy on capital cost. However, this is not available for clusters or CETPs, who (are not profit making manufacturing businesses, and therefore) do not enjoy any surplus income at all; and therefore, cannot avail of the

benefit of depreciation offered by the GoI in terms of tax savings. Further, 99 per cent of the firms associated with these clusters are MSEs who can hardly afford the necessary capital expenditure sans viability gap funding.**"**

[xcv] As has been successfully established in the nearby wet grinder cluster of Coimbatore. The tiny shoe manufacturers at Ambur have also been benefited by a similar intervention.

[xcvi] STSB curriculum is developed by Micro Enterprise Acceleration Institute, Geneva a subsidiary of Hewlett Packard with the objective of helping small and micro enterprises to bring in efficiency in their operations by employing technology in their business.

[xcvii] Specific interventions in the smaller base of goods and garments manufacturers are also envisaged as to make the interventions more inclusive.

[xcviii] TANSTIA-FNF Service Centre will support the intervention by means of sponsoring a seminar- "Innovative financing instruments for financing leather and leather products SMEs" to be offered by a new BDS provider SME-FDP (IFMR).

[xcix] TANSTIA-FNF Service Centre will also support the intervention by means of sponsoring a seminar – "WTO impact on the leather and leather products SMEs" and one on "Innovative financing instruments for the leather and leather products firms."

[c] Various riders/assumptions may be envisaged in the context of performance of the cluster notwithstanding project interventions. Some of them are: regulatory norms related to the environment would receive the priority it deserves by policy makers as to facilitate PPP interventions and avoid leaving many firms uncompetitive if they have to comply; a sustained appreciation of the rupee against the USD (unlike "competing" currencies) does not adversely affect competitiveness of firms in this significantly export oriented cluster. At the least, drawback rates need be appropriately oriented; global recessionary conditions do not significantly affect the growth trajectory of this highly export oriented cluster- despite the holistically articulated and envisaged interventions!

[ci] The critical intervention alone is mentioned in the tabulation. Each one of the "specific service" may involve a series of activities such as specially-designed "awareness generation" and BDS option or instrument/provider introducing seminars (which may perhaps be subsidized 100 per cent under the *BDS project*), as well as "model/demonstration" business plan preparation services (which may merit a lesser degree of subsidy). Further, while specifying expected outcomes, direct benefit to firms that enter the project within the time-frame is indicatively specified. Spillovers in terms of spontaneous or subsequent replication for benefit of other firms are also highlighted.

[cii] Scope for cash purchase @ about Rs. 40 lakh per month of chemicals from existing chemical manufacturers and suppliers (e.g., BASF, LANXESS) in Chennai may also be explored to realize between 10-20 per cent reductions in cost of procurement of chemicals.

[ciii] Awareness generating, BDS introducing seminars related to WEG, CDM, and Cleaner Production Technologies to be pursued through private service providers such as Suzlon, Enercon, and (perhaps) URs Productively.

[civ] Though firms in the sector are not energy intensive, over implementation of interventions scope for energy audit and subsequent efficiency in firms through means of introducing relevant BDS may be explored sans explicit budgetary allocation at this juncture as need for this service is yet to be articulated by industry.

[cv] MTA is not going in for ZLD but may also nonetheless consider the WEG option to reduce the impact of power costs.

[cvi] WEG connectivity in CETPs merit advocacy for assistance in a PPP mode (as indicated, grant-in-aid on capital expenditure as has been accorded by the Ministry of Textiles to Tirupur and Erode based textiles and clothing firms), particularly given the relatively resource scarce nature of MSE firms involved in concerned SPVs and their inability to reap the fiscal (depreciation) assistance offered by the Central Government. Even over conduct of the DS, industry has already initiated advocacy efforts with some agencies of the Government. The intervention is critical as MSE tanneries, particularly, may find it extremely difficult to meet the high cost of compliance when the R.O. plants are established and operationalised in a few months time!

[cvii] Though SPVs in clusters such as the knitwear cluster of Tirupur has been supported for related initiatives by the concerned Ministry, policy/schemes of other Ministries need be appropriately oriented.

[cviii] DC-MSME or DIPP. Further, advocacy in terms of appropriate fixation of drawback rates as well as establishment of a customs bonded warehouse is proposed to be explored by the CLE independent of the project.

[cix] CLE has necessary space at the SIDCO industrial estate at Irungattukottai, Chennai.

[cx] For example vis-à-vis chrome recovery plants

[cxi] While product manufacturing firms are predominantly into footwear, some of them are simultaneously into both goods as well as footwear manufacture. The contribution of the garments manufacturing segment is relatively small. Nevertheless, some interventions are specifically addressed to such segments also.

[cxii] TANSTIA-FNF Service Centre will support the intervention by means of sponsoring a seminar - "Innovative financing instruments for financing leather and leather product SMEs" to be offered by a new BDS provider SME-FDP (IFMR).

[cxiii] Also as a means to increase market access – reduce stocking related expense of importers.

[cxiv] ILPA members (particularly garment manufacturers) are also considering the establishment of common manufacturing facilities to share expensive technology as well as labour overheads. An SPV exploring PPP initiatives may be progressively explored.

[cxv] BDS providers such as the IL&FS have launched some related initiatives. Pro-active institutions such as the FDDI and the CFTI are also geared towards similar initiatives. Initial part subsidy of initiatives by the trainers and BDS providers could also directly contribute to poverty alleviation and livelihood incomes.

[cxvi] See 10.0 below.

[cxvii] TANSTIA-FNF Service Centre will also support the intervention by means of sponsoring a seminar - "WTO impact on the leather and leather product SMEs."

[cxviii] PPP assistance under IIUS/DIPP, other schemes may be explored for the demonstration initiative.

[cxix] Including others such as Maharashtra, Haryana, Karnataka, Punjab, etcetera with export turnovers of less than Rs. 1000 crore per annum.

[cxx] Expert opinion of Mr. Chandramouli, Economist & Scientist, CLRI

[cxxi] Also see CLE, 2009

[cxxii] Some SME and footwear tanneries are also into exporting shoe-uppers

[cxxiii] This chart does not specifically elaborate on dissemination of benefits upon implementation of demonstration projects and efforts towards multiplying and replicating initiatives by BDS providers amongst other firms and BMOs who subsequently enter the project. Such initiatives will be simultaneously pursued as presented in detail in the matrix presented in section 5.2 of this study. Activities from 2010 Q3 to 2011 Q2 will also involve replication of successfully implemented demonstration initiatives autonomously by cluster BMOs and stake-holders. EDII team will provide appropriate guidance. This is to ensure sustainable development of relevant BDS market/s. such initiatives are not explicitly captured in this pert chart as the same will not involve specific outlay under the BDS project.