CHAPTER THREE

ASPECTS OF PRODUCTION AND EMPLOYMENT IN LEATHER TANNING INDUSTRY: IMPLICATIONS FOR GENDER AND HEALTH

The heterogeneity of the forms of production characterising the leather tanning industry needs examination for several reasons:

1. Despite the industry being more than a century old, it has not seen much formalisation of its production processes. In fact as one goes down the production hierarchy (from the making of finished leather goods to the tanning of raw hides and skins) the disparities in the degree of sophistication in the organisation of production units and in the levels of technology are starkly evident;

2. A description of the processes involved in tanning (that is, the different steps involved in converting the body coverings of dead animals into semi-finished leather) is extremely essential to bring out why tanning continues to remain the most labour intensive, the most polluting as well as the most hazardous of the three sub-processes of the leather industry (namely, tanning, post tanning and finished leather products).

To bring out these different dimensions of the organisation of production of the tanning industry, this chapter has been planned in the following manner:
Section one contains an outline of the technical operations involved in tanning, the physical layout of the different operations, and the impact of technological changes on the processes as well as on the physical organisation of production.

The second section entails two things. First, it deals with legalities of establishing tanning units and the ways by which law is bypassed and manipulated. Second, with this background in mind it explains the way in which we have conducted our field study. This elaboration of the process of collection of information is important given the non-existence (officially) of credible information on any aspect be it units of production, number of workers, turnover, capital, etc. of the tanning industry in Dindigul.

Section three dwells at length on the phenomenon of job working in Dindigul. Over the years the institution of job working, as it has developed in Dindigul, has become so well entrenched, that job working is now an indispensable institution of the production process in Dindigul.

In Section four we explore the structure and nature of employment in the tanning industry. An understanding of employment within a particular production structure is important to capture the complexity of the jobs and the conditions in which these jobs are performed by the different workers; it also brings out the gendered nature of the functioning of the industry.
3.1 TECHNICAL ORGANISATION OF PRODUCTION IN THE LEATHER TANNING INDUSTRY

The leather industry, as such is divided into three segments, namely, leather tanning, leather finishing and leather product industries. Our study focuses on the tanning part of the leather industry. The raw material used in tanning is highly heterogeneous in nature and each hide/skin varies in structure, chemical composition and quality from one another; there is also variation between species and between skins within a species. Hence it poses a tremendous challenge to the technologists since it is not possible to standardise such raw material, which in turn implies that the tanning part of the leather industry cannot be fully automated. The entire tanning and finishing sequence is long-drawn out beginning with the soaking of raw hide/skin and ending with actual measuring and packing of leather.

Technically, body coverings of larger animals are called 'hides' and that of smaller animals are called 'skins'.¹ Tanning is a process of converting raw hides/skins into leather.

Figures 3.1 to 3.4 depict the salient features of the different stages of tanning. The whole process of tanning can be categorised into (i) tanning; (ii) finishing; and (iii) leather products. Again each of

¹ Hides are outer coverings of bovines namely buffaloes, cow and other bigger animals. The hides are large in size, thicker in substance and heavier in weight. Skins are outer coverings of ovine animals, namely, sheep, goat etc. The skins are smaller in size, thinner in substance and lighter in weight.
Figure 3.1
Structure of Leather Industry

Methods of Tanning: EI Indigenous and Chrome – Method of Tanning.
EL Tanning - Vegetable Tanned; WB – Semi-finished Leather Tanned by Chrome Method

Source: Primary Data.
Technical aspects

Labour intensive process, non-mechanised.
A sharp knife is used.

Pits are used. In few integrated units, drums are used. Unskilled and semi-skilled labourers are employed.

Machines are used to unhair goat skin. For hides and sheep skin this process is done manually. Semi-skilled workers are employed.

Work done in paddles and it is a labourer intensive job.

Processes

Open, Trim, Sort, Weigh →

Soak and Wash, Liming →

Unhairing, Fleshing and Setting →

Bating (deliming) →

Chemicals used

- Nil

- Sodium Sulphate, Caustic Soda, Wetting Agents and Sodium Flakes.

- Lime, Acidic Salts, Hydrochloric Acids, Sodium Sulphate Common Salt.

- To unhair, Sheep Skin Lime and Soda Ash are used.

- Ammonium Sulphate on Chloride Enzyme, Acetic Acid Micro Bate.

Periphery Processes

Loading and unloading of raw materials, carrying peltis, and/or chemicals between various places of processing; and cleaning of (i) Trimmed waste of inputs, (ii) Lime pits (including cleaning), (iii) Unwanted flesh and pickling it with lime sludge, (iv) Hair (including sorting of hair) and (v) Paddles

All these processes involve manual labour. It is done by casual workers, most of them women.

Source: Primary Data.
Figure 3.3
Tanning Stage

Technical Aspects

Electric Driven Wooden Drums but not fully mechanised. Under the supervision of leather technologies, unskilled workers carry out the operations.

Processes

- Pickling andDegreasing

- Tanning
  1. EI
  2. WB

(i) EI

- Myrobloning and Oiling

(ii) Wet Blue

- Depickling and Tanning

- Setting, Dyeing Buffing/Staking

Chemicals Used

- Sulphuric Acid, Formaldehyde, Alum, Formic Acid, Kerosene, Trichlose Thylene, Enzyme Bats, Degrease Bats, Hypo and Wetting Agents.

- Sodium Sulphite, Wetting Agent, Wattle Extract, Bi-Sulphite, Sstan, Caustic Soda.

- Myroblam Powder, Epsom Salt, Hypo Oxalic Acid, Perfect Tan 0, Basynthan, Sulphuric Acid, Punjam Oil and Wetting Agent. Sodium Bicarbonate, Sodium Acetate, Borax.

- Sodium Thiosulphate, Chrome Sulphate Catalysts, Sodium Bisulphite, Formaldehyde, Chrome Fixing in Altrial, Reducing Agent

- Nil

- Nil

Source: Primary Data.
Figure 3.4
Post-Tanning and Finishing Stage

Technical Aspects

Processes

Chemicals Used

(i) Post-Tanning

Rotating wooden drum

Neutralise and Fat Liquor

Sodium Bicarbonate, Fat liquors, Selesal Ng, Sodium Formate, Formic Acid, Neutralising Agents.

Rotating wooden drum

Bleach and Retan

Basyntan Selesal Pl, Formic Acid, Chromium Tanning Salts, Basic Chromium Sulphate – Hydrated Bleaching Syntan.

Rotating wooden drum

Dye and Set

Varieties of Dyes (Chemical name not available).

(ii) Finishing

Sophisticated machines

Splitters, Conditioning, Buffing/Stakking, Sharing/Samming Toggling, Finishing, Plating

Not applicable

Manual done by educated workers

Trimming, Measuring, Grading and Packing

Not applicable

Source: Primary Data
these is divided into several stages. Tanning is divided into pre-tanning and tanning, and finishing is divided into post-tanning and finishing. Each stage of tanning has five to eight individual processes.

3.1.1 Processes

In Figure 3.1 we have divided the operations into (i) peripheral operations, (ii) pre-tanning and (iii) tanning. The peripheral operations consist of cutting open the salted/cured raw hide or skin, trimming its edges to proper shape and sorting the raw hides/skins according to its size and weight.

The place where pre-tanning operations are carried out is called a beam house. Here salted/cured hides/skins are washed in fresh water and soaked overnight to free it from blood, manure and salt; liming is done to loosen hair and flesh; later hair and flesh are removed from hide/skin (unhairing and defleshing); the processed material at this stage is called pelt which is colourless, smooth, flexible and gives a slippery feeling.

The next stage, tanning, is done at the tanyard. Here, generally, paddles and drums are used. In this operation pelts are delimed to neutralise the alkali form, and bated to remove the short hair and dirt. Thereafter, the pelts are pickled to bring the skin to the

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2 All the information here is based on the information obtained from our field survey.

3 The pelts will be made free of all chemicals and this could be processed further without any complications.
right acidity for tannage. Once pelts are pickled, the methods of tanning need to be decided. The method of tanning depends on the end use of the tanned leather. If it is to be EI tanned, the pelts are tanned with vegetable liquor; myrobalomed in order to gain colour and oiled for smoothness. Setting is done to increase the area of pelts. The pelts are dried, buffed and finally trimmed and sorted. The leather thus obtained is called EI leather, and with this all operations/processes of EI tanning comes to an end. Technically EI tanned leather is only semi-finished leather or crude leather. In Tamil Nadu generally EI processed leather is further processed by

The various types of leather processes and its uses are:
'Ammunition leather'- EI/Chrome tanned or combination tanned leather, curried and finished for making military boots.
'Amristas'-Variety of goat leather, sought after because of their spread. Used in upholstery/ carriage works.
'Aniline Leather'-Leather with transparent finishing materials so that grains may be visible.
'Beltig leather'-Leather for machine belting, generally made from the buff portion of high grade cattle hides.
'Buff leather'-Flexible dry leather which has a cream/white surface and is finished with a velvet nap. Made from cattle hide from which whole of the grain has been removed and which has been oil tanned.
'Crust leather'-Tanned hides and skins without any finish.
'Fized leather'-Leather from which the grain layer has been scrapped. Used in garment making.
'Glaze leather'-Leather with high gloss made from goat skins by chrome tanning, used for making high class shoes.
'Glove leather'-Leather used for making gloves, work gloves are made from full chrome splits and dress gloves are made from soft, supple leather as from sheep, lamb, kid skin etc.
'Lamb'-The outer covering of a young ovine animal, leather made therefrom used principally for clothing and glowing purpose.
'Nap'-Soft, velvety feel of the buffed leather.
'Nappa leather'-Soft and full grain glowing or clothing leather made from upsplit sheep, goat, lamb or kid skin. Tanned with alum and chromium salts. Generally given a dull green finish.
'Pigment finished'- Leather to whose surface pigment has been applied. Pigments are insoluble matter providing colour and also mask defects.
'Swede Finish'-Finishing dry tanned calf, sheep and goat skins by buffing to produce a nap velvety appearance.
chrome method to make finished leather, which is called semi-chrome.

When chrome method of tanning is followed pelts are pickled with chrome liquor, then wrinkled to remove excess water. Pelts are shaved to adjust thickness and splitted if necessary.

In the post-tanning stage pelts are neutralised, retanned and fat liquored. These are done to modify the pelts after tanning to impart desirable properties. All these processes are done in drums and are overt processes. Later pelts are dried.

Finally in the finishing stage pelts are sammied to bring uniform thickness; stakking and toggling are done to make leather flexible, while finishing involves smoothening the grain side. Finally the processed leather is trimmed, sorted, measured and packed.

While progress has been made in the technology of processing leather, the basic tanning process has not changed much. Besides, the industry still depends considerably on the inherent skill of the tanner despite the introduction of advanced technology into several of the operations.\(^5\)

Several characteristics of the above processes need to be highlighted. In the first place the operations that we have designated

\(^5\)Similar observations have been made in ILO (1985) based on their studies in other countries.
as peripheral are not considered as 'tanning operations proper' by the industry but peripheral to the main process of tanning. What needs to be underscored here is the fact that unless the peripheral operations are performed skillfully the rest of the tanning process cannot begin. The quality of the end product depends crucially on the manner in which these peripheral activities are conducted. This activity has so far remained non-mechanised. It is done within the tannery compound but outside the unit premises, either in the godown or near the entrance.

The pre-tanning stage (raw to semi-finish) is the most polluting of all the stages. It is highly labour-intensive, and the proportion of women employed in this process is the highest. All the labourers in this process are designated as unskilled or semi-skilled and rarely made permanent. As far as technology is concerned, pits have been replaced by tubs with motor paddles for bating. Machines are in use for unhairing, fleshing and setting. However, for sheep skins and hides, these operations are done manually by workers who are designated as semi-skilled; mechanisation here is accompanied by increase in quantity and very often toxicity of the chemicals used.

In the second and third stages, namely, pre-tanning and post-tanning, all the processes, excepting trimming and sorting of tanned leather, are wet processes. Even though the rotating wooden drums now in use are an improvement over vats, its adverse impact on health of the workers has not diminished. In the West in particular the introduction of drums was accompanied by computerisation of
the operation which did away with the need for workers to manually handle the feeding and removal of chemicals, pelts etc. into and out of the drums. In Dindigul the drums are electric driven but require a retinue of workers to operate the motor, feed chemicals and pelts into the drum, periodically stop the drum for feeding operations and finally remove the pelts from the drum. The last stage, finishing, is fully mechanised. Here for every machine one skilled worker and two helpers are required. Compared to the earlier stages of tanning, finishing is a relatively clean process.

Though over the years, several processes have been mechanised, very often such mechanisation has been accompanied by increase in the intake of workers to match the speed of the machines and operations. Significantly, labourers from specific castes/communities perform particular operations in this industry. We observed that the peripheral operations are still (and was) done only by the traditional leather workers, namely, Chakkiliyars. It is not done by others (including the Pallars who otherwise belong to the scheduled caste) for reasons of ritual pollution since the operations involve handling of raw skins and hides. The pre-tanning, tanning and post-tanning are done only by workers from the scheduled castes. As long as the leather is in the form of pelts no other caste is involved in the activities of stages I, II and III depicted in Figures 3.2 to 3.4. It is only the post tanning stage that has seen the entry of other castes (including the forward community).
3.1.2 Physical Layout of Tanneries

It would be useful to have an idea of the physical layout of tanneries as well as the common features of a typical tanning unit to be able to picture the conditions under which operations are carried out. Our visits to Dindigul convinced us that the haphazard manner in which work is organised within a unit and between units also contribute significantly to general ill-health as well as to the ill-health of the workers. This is despite the fact that, generally, tanneries in Dindigul do not face much constraints of space unlike those in Calcutta or even those that have come up in Chennai suburbs.

A typical tanning unit in Dindigul is often very old, in the midst of open space, with one main gate and 3-4 rear gates. Most tanning units have a minimum of five big work sheds, apart from the shed used for drying and one used as a cycle shed. There is constant improvisation in the use of these worksheds, in that they may be used each time for different purposes and also at any point of time for multiple purposes. While this strategy may reduce overheads for the units, it increases risks all round, particularly for those directly involved in the different tasks of tanning. For example, it is quite common to see a shed, where certain operations are in progress, also doubling up as a godown where raw material and/or (toxic) chemicals, needed for the different processes, are stored. Inadequate (provisions for) ventilation and low roofs are the characteristic features of most work sheds of a typical tannery in Dindigul.
Further the layout of the worksheds making up a unit is nowhere designed to make the atmosphere worker-friendly or even geared to achieve the capitalist goal of enhancing productivity through minimising the time and motion of workers between operations. The sheds used as the beam yard and tan yard are the ones where the most crucial but the most polluting operations in tanning are carried out. The beam yard has pits dug in one corner where raw skins and hides are soaked in chemical solution. The machines used for unhairing and fleshing are installed adjacent to the pits. The tan yard contains paddles and drums rotating at high speed (and noise) where the operations of bating, pickling, tanning, neutralising, dyeing, etc., are carried out. Both the beam yard and tan yard are generally dark and gloomy; all the operations carried out in both these sheds are wet; consequently these sheds are physically very slippery and dangerous for the workers carrying out these processes quite apart from the hazards involved in handling and inhaling the fumes from several different chemicals used in the processes. The other extremely polluting operation is buffing. The shed where buffing operations are carried out is not only situated slightly away from other sheds but is also closed on all sides (excepting the entrance) ostensibly to prevent the leather dust from spreading. Very little thought however has gone into examining how workers within the shed cope with the dust generated by the operations there.

As one moves away from the most polluting to less polluting operations in tanning, the working atmosphere in the sheds improve.
For example, the shed where finishing operations are performed is well ventilated besides being spacious; the shed where sorting, measuring and weighing and packing of tanned leather takes place is generally airconditioned with electronic weighing and packing machines and is also situated close to the main office of the tanning unit.

What we have pictured above is the layout of a typical tanning unit at Dindigul. There are however variations between units depending on the level of modernisation of the units. Here by modernisation we mean the degree of sophistication in operations introduced by individual units to improve quality, increase productivity, etc., all geared to meet (international) standards for export.

While the variations in operational standards between units is quite discernible, what still marks the tanning industry is the considerable amount of manual work involved at all stages of tanning both wet and dry. Due to the heterogeneity and non-standard quality of raw materials (hides/skins) used, there are limits to automation of the industry. We have not traced either chronologically or historically the development of technology in the leather tanning industry. Our field observations on technology issues were confined to examining whether and if so, how, introduction of technology had relieved workers from the most polluting, hazardous and strenuous tasks. What we observed in the field is that the urge to capture a major share of the global leather market has forced tanners not only to
increase the quantity and quality of leather tanned but also to shorten the leather processing time. This has increased phenomenally the chemical intensity of the tanning process. To illustrate: in the process of unhairing, generally skins were soaked in lime solution for 5 to 7 days. This was to plumb the skin and loosen the hair root after which the skins were unhaired with a semi-circular knife. Now, a paste made of sodium, ammonium and other chemicals is applied on the flesh side of the skin with the help of a jute/gunny bag. Within two and a half to three hours of applying the paste, the hair gets separated from the skin. Such examples can be multiplied. What is of import to us is that the conditions under which these operations are carried out, namely without adequate protective gear and without any knowledge of the consequences of handling such chemicals either in the short or long run, could be disastrous for the health of the workers. As of now we can only fall back on secondary literature (industry-wise) listing out the potential hazards of these chemicals.

3.2 ESTABLISHING TANNING UNITS: LEGAL ASPECTS

3.2.1 Procedure for Starting a Tanning Unit.
Leather tanning and finishing has been designated as hazardous industry by the Indian Factories Act, 1948. Consequently no tanning or finishing unit can be started without a formal registration or licence. Irrespective of the number of workers and power used all firms in the leather industry have to come under the jurisdiction of

All the information here is based on the field survey.
the Office of the Inspectorate of Factories. Further, unless a licence is obtained the leather entrepreneurs cannot proceed forward to get sanctions/approvals from the Electricity Board, Pollution Control Board, Sales Tax Department and/or the Labour Department.

Legally there are constraints in terms of spatially locating tanning units, since industries which are categorised as hazardous are prohibited from being set up within urban limits and/or residential areas. Besides, there are restrictions relating to scales of investment depending on the stage of tanning and/or market that one wishes to address. For example, (i) raw to semi-finish; semi-finish to tan or raw to tan is reserved for small, cottage or household units; (ii) finishing units can be started anywhere by anyone and of any size (in terms of capital and output) etc. but a licence is required; (iii) leather products for domestic consumption is reserved for cottage and household units; in the case of exports, it is reserved for small scale and D (Directorate) G (General) of T (Technical) D (Development) units (Sinha and Sinha 1992). Apart from these there are integrated units (where they acquire raw hides/skins and tan it into leather and produce final products). These units are permitted to tan provided they export 75 per cent of their products.

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7If a factory employs 20 persons with out power and 10 with power they ought to be registered with the Inspectorate of the Factories as per the Indian Factories Act, 1948. But Industries like leather tanning which is categorised as hazardous by IFA, 1948 needs to be registered irrespective of the number of workers employed and power used.
Technically, tanneries in Dindigul are concentrated outside Dindigul Municipality limits. However they are located so close to municipality limits that for all practical purposes the tanneries are located in the town area which is against the special rule that any polluting or hazardous unit/industry should not be functioning in and around residential zones.

We realised during our field visits that any attempt to understand the industry by deploying conventional categories to group units according to size, capital invested, numbers employed etc. would neither be feasible nor serve the purpose of our study. Straight jacketing of the industry into received categories of formal-informal, organised-unorganised and/or traditional-modern sectors is also difficult. The industry as such traverses the entire course; at the unit level we found a combination of these categories in operation which itself varied considerably, depending on the raw materials used, the process of production involved, methods of processing and the market being addressed by a particular unit at a particular point of time.

Though it is imperative for any leather unit to be registered with the Factories Act, 1948, this by itself has not formalised the operations of this industry. If at all there is a need to categorise the production structure, the only categories that can be imposed in the case of Dindigul tanning units are legal and illegal; what we observed

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Dindigul as such is not a big town. Roughly the town has a radius which is not more than 3 kms.
during our visits is that much of the operations of the industry in Dindigul as well as many parts of the units themselves are illegal if legal standards are to be strictly applied. However the focus of our study is less to get into the debate about how to categorise the leather industry but more to capture the consequences of the nature of its operations for the workers involved in it.

Units and/or processes of production either become or are started illegally in the following manner. The mandatory requirement of a licence to enter the tanning industry was enacted only in 1934 through an amendment of the Factories Act (1948). However, tanning being an age-old industry, a number of units which were started before the Act came into force, are still in existence. Quite a few of these units continue to operate and expand without the formality of a licence with no adverse consequence thus far from any official body. A second set of units function in the following manner: having come into operation on the strength of a single licence to carry out a particular process or particular operations within a process, these units have subsequently expanded their operations either horizontally or vertically without formal authorisation to do so from the relevant authorities. Hence the number of units registered with statutory bodies like the Office of Factories Inspectorate, Small Industries Service Institute, etc., at any point of time is a gross underestimation of the actual numbers in operation either in the same or in different lines of production.
The fact that, those individuals whose units existed prior to the enactment of the rule for compulsory registration, can set up and operate units without a formal sanction to do so is one important reason why the number of tanneries in Dindigul at any point of time, is at best a guesstimate. Another significant feature of the industry at Dindigul is the phenomenon of leasing out units to job workers (discussed in detail in the next Section). Thus even if it were possible to map out completely the actual physical number of units in existence in Dindigul, we would still be faced with an undercount, since the same unit could be operated many times over by job workers.

3.2.2 Leather Industry in Dindigul

Despite the above limitations, we did make an attempt to get an idea of the number of tanning units in Dindigul from the offices of different bodies at Dindigul (Table 3.1). The variations in the numbers provided by the different bodies is at once evident and is largely because each of them have a different definition of units of production suited largely to their purpose.
### Table 3.1
Various Estimates of the Number of Tanning Units - Dindigul, 1994

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Source</th>
<th>No. of Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Office of Inspectorate of Factories(^a)</td>
<td>52</td>
</tr>
<tr>
<td>2</td>
<td>Office of Common Effluent Plant(^b)</td>
<td>83</td>
</tr>
<tr>
<td>3</td>
<td>Dindigul Tanners Association(^c)</td>
<td>59</td>
</tr>
<tr>
<td>4</td>
<td>Central Leather Research Institute(^d)</td>
<td>49</td>
</tr>
<tr>
<td>5</td>
<td>Tamil Nadu Pollution Control Board(^c)</td>
<td>75</td>
</tr>
<tr>
<td>6</td>
<td>Our Survey</td>
<td>90</td>
</tr>
<tr>
<td>7</td>
<td>Estimate of Voluntary Organisations and Non-governmental organisations</td>
<td>125+</td>
</tr>
</tbody>
</table>

**Note:**

(a) Any unit which employs 10 persons with power and 20 persons without power has to be registered with the Office of Inspectorate of Factories

(b) Estimate made by the team involved in construction of Common Effluent Plant in Dindigul

(c) Units that register with the association. Registration with the association is not compulsory.

(d) Small Scale Industries and units that are registered with Directorate General of Technical Development, based on the survey by CLRI, Chennai

(e) Any unit which discharges effluent and has been notified by the board. This also includes units that are not registered with other bodies.

It is not possible to establish any kind of association between the number of physical units in existence and number of entrepreneurs or even with the number of job workers. For example, at the time of our survey, the Dindigul branch of the Tamil Nadu
Leather Corporation (TALCO)\(^9\) had 220 individual job workers registered with it as its members, while the Dindigul Leather Finishing Corporation limited (DLFCL)\(^10\) had 250 individuals registered with it as job workers. Further, when one takes into account the pervasive phenomenon of leasing out premises to job workers many times over (even in a single day), it would be immediately clear that taking physical units of production as the unit of analysis would grossly underestimate the volume of activity in Dindigul.

We made several attempts to get information from bodies like the District Industries Centre (DIC) and the Office of Inspectorate of Factories. The records shown to us by these bodies were not upto date. We were left with no alternative but to resort to a head count of all tanneries at the time of our field work.

At the time of our survey there were in Dindigul around 90 tanning units of which 75 units (both hide and skin tanneries) were in operation. Our study is based on 61 units that responded to our

\(^9\) TALCO is a unit of Government of Tamil Nadu. In order to promote finishing among small tanners they supply inputs like wattle extracts and chemicals to small tanners at a reasonable price throughout the year. This enables small tanners to get wattle extracts and chemicals from abroad without themselves having to get it in individual accounts and/or in space to store them.

\(^10\) DLFCL is started by District Industrial Centre with the collaboration of Dindigul Tanners Association. This unit has all advanced and sophisticated machines needed to process finished leather. It was started with the intention of motivating and encouraging the tanners who stop with semi-finishing in Dindigul to go in for finishing. Machines here are leased out on time basis for its members.
request for information. The distribution of surveyed units across various processes is presented in Table 3.2.

**Table 3.2**

Classification of Surveyed Leather Tanning Units in Dindigul By Stage of Processing

<table>
<thead>
<tr>
<th>Stage of Processing</th>
<th>No. of Units Processing</th>
<th>Total Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hides</td>
<td>Skins</td>
</tr>
<tr>
<td>Raw to EI</td>
<td>16</td>
<td>22</td>
</tr>
<tr>
<td>El to tan (chrome)</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>El to tan (semi-chrome)</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Raw to finish</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
<td>41</td>
</tr>
</tbody>
</table>

**Source:** Primary Data.

It is clear from Table 3.2 that 90 per cent of the units do not go beyond preliminary stages of processing. Much of the leather tanned in Dindigul is sent to other pockets for further processing.
Figure 3.5

Organisational Structure of Tanning Units in Dindigul

Source: Primary Data.

The above Figure 3.5 gives an idea of how the 61 units surveyed by us are organised when grouped according to the raw material being tanned, stage of processing and the method of tanning.

3.2.3 Estimation of Total Workers in Dindigul

As in the case of the number of units, arriving at an estimate of the number of workers involved in tanning in Dindigul proved to be extremely difficult for the following broad set of reasons:

1. The existence of a considerable number of illegal units/processes of production (that is, units that had strictly not obtained a licence, to install, expand and/or carry on
tanning operations) automatically rendered the workers working in these units illegal and, hence, officially non-existent;

2. The mode of recruitment of workers, (particularly women) through contractors meant that very often units had contractors on their payrolls but not the workers brought in by these contractors. To that extent there was an underestimate of the number of workers employed;

3. The widespread prevalence of the institution of job working (to be discussed in detail later) while being beneficial to owners of units (enabling them to lease out facilities) and to job workers (who do not need to own facilities) has however put large numbers of workers outside the purview of statutorily ordained labour practices.

The estimates of workers given to us by the trade unions were not very satisfactory since they could not clarify on what basis they had arrived at their figures.

The CLRI (1990) study has adopted a method to estimate the output per worker in tanneries both for integrated (raw to finish) and two stage processing (raw to semi-finish and semi-finish to finish) units and also hide and skin tanning separately. We have used the same method to estimate the likely number of workers at a point of time. The primary aim of the CLRI study was to come out with recommendations leading to the development and modernisation of
the leather industry. For this purpose CLRI undertook an elaborate calculation of the average output per worker, for each stage of processing. In the process they arrived at certain norms relating to average capacity utilisation of the industry, average output per worker, separately for hides and skins. Using these norms as our basic parameters we have attempted to arrive at an estimate of the total number of workers in the industry at the time of our survey.

According to CLRI's estimate, output per worker per day in the raw to semi-finished category is 64 sq.ft. for hide and 84 sq.ft. for skin. Taking this into account, we have in addition based our calculations on the following set of parameters that we arrived at from our interviews with a wide ranging Section of the population connected with the leather industry:

1. On an average, a tannery can soak 2000 skins per day;

2. It takes nearly 13 days to convert raw skin to semi-finished leather, whatever be the method of tanning, (and this includes 7 days taken for pit processing);

3. To soak 2000 skins, 50 pits are required for 7 days during which time these skins are soaked in pits.

We were informed that by taking into account the total number of pits available for soaking, we could estimate the quantity of skins tanned/day in any tannery. To estimate the total number of skins tanned/day by the industry as a whole in Dindigul, we took 70 per

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11This would help us to calculate the average number of workers needed to tan an estimated quantity of leather.
cent as the average capacity utilisation (which norm was provided to us by the industry).

We have used all these variables to estimate the number of workers involved in tanning in Dindigul. Initially we estimated the number of skins and hides that would have been tanned in a year taking into account the number of pits, processing time and the average level of capacity utilisation of the industry at Dindigul. Then, by using the CLRI estimate of the labour required for processing X number of skins, we have estimated the number of workers required to tan the estimated leather output from Dindigul per day for our estimate. Thus our estimated number of workers engaged in skin tanning is 7806 while another 4724 workers are engaged in hide tanning. Unlike the CLRI estimate of 1724 workers in Dindigul, our estimate includes the workers in the informal sector (the largest category) as well.

3.3 THE PHENOMENON OF JOB WORKING IN THE DINDIGUL TANNING INDUSTRY

To a large extent the institution of job working and the unique manner in which it has developed and operates in Dindigul (and also in other tanning pockets) could be one important reason for keeping the industry informal both at the production and employment level. Job working as an institution became pervasive particularly after the Seetharamiah Committee recommendations came into force during the 1970s.
A description of the manner in which job working operates in Dindigul will not only enable further discussion of its implication for the structure of the industry and labour, but also reveal how it subsumes and goes beyond the familiar categories of putting-out and subcontracting systems of production.

There are two bodies involved in job work, namely (i) the principal manufacturer, i.e., one who procures the orders but who gives out his/her work for job working; (ii) job-workers who undertake the job work from the principal manufacturer. There are two types of job work that are most prevalent in the Dindigul leather tanning industry. The principal manufacturer/employer (who becomes the client to the job worker), provides the job worker with raw materials (hide/skin) and inputs (chemicals) in addition to a detailed job specification of the final product. This type of job work is called service work in local parlance. The obligation of the job worker in this case is to process the leather according to the client's specifications. In the second type of job work the principal manufacturer provides the job worker only the raw materials (but not the chemicals) along with the job specification. This contract is referred to as full work.

The clientele of job workers in Dindigul is not confined to Dindigul alone. Quite a large quantum of job work done in Dindigul is for entrepreneurs/firms belonging to Vellore, Tiruchirapalli, Chennai etc. and also for clients outside Tamil Nadu. However a substantial amount of work for units in Dindigul requiring either specialised
equipment and/or cumbersome procedures, in the finishing stages alone, gets done through job working within Dindigul.

Among job workers we have two categories: those who own production facilities (this category is a small proportion of the number of job workers currently operating in Dindigul) and those who do not own any production facilities but operate by taking facilities on lease.

We have organised this discussion on job working as follows: In Section 3.3.1 we discuss a report by CLRI which gives some idea of the nature and magnitude of job working in the leather industry in Tamil Nadu vis-a-vis India. Section 3.3.2 discusses the operation of job working in Dindigul based on the survey conducted by us. In Section 3.3.3 we have drawn out the significance and implications of job work (as it is currently practised in Dindigul) for the industry in general and for the workers in particular.

### 3.3.1 Job Working in Tamil Nadu vis-a-vis India

A survey conducted by CLRI (in 1988-89) covering 66 DGTD units and 436 SSI units in the organised sector (those registered with DGTD and SSI) gives some idea of the prevalence of job work in the tanning units. However the CLRI report does not elaborate on how the institution of job working really operates in the tanning industry. Table 3.4 gives an idea of the distribution of tanneries in Tamil Nadu and all-India level by nature of operation based on the CLRI survey.
Table 3.3
Distribution of Tanneries by Nature of Operations

<table>
<thead>
<tr>
<th>Nature of Operation</th>
<th>SSI</th>
<th></th>
<th>DGT D</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NO</td>
<td>%</td>
<td>NO</td>
<td>%</td>
</tr>
<tr>
<td>Own &amp; Job Work</td>
<td>57</td>
<td>25.1</td>
<td>113</td>
<td>25.9</td>
</tr>
<tr>
<td>Exclusive Own Work</td>
<td>98</td>
<td>43.2</td>
<td>230</td>
<td>52.8</td>
</tr>
<tr>
<td>Exclusive Job Work</td>
<td>72</td>
<td>31.7</td>
<td>93</td>
<td>21.3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>227</td>
<td>100</td>
<td>436</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: 1. SSI units; tanneries classified under Small Scale Industries.

2. DGTD units: tanneries classified under medium and large scale sectors and registered with Directorate of Technical Development, Ministry of Industry.


It can be seen from Table 3.3 that in the Small Scale Sector, (SSI) tanning units, out of 436 tanneries surveyed in India (227 in TN) 21 per cent (32 per cent in case of Tamil Nadu) undertake, exclusively, only job work; and another 26 per cent of the tanning units in India (25 per cent in case of Tamil Nadu) offer job work facilities in addition to their own production.

Similarly in the DGTD tanneries, out of 66 units surveyed in India (39 in Tamil Nadu) only 15 per cent (8 per cent in Tamil Nadu) are exclusively job working units while 17 per cent (13 per cent in Tamil Nadu) undertake job work along with their own production.
On the whole what we infer is that a major segment of the tanning units are in the SSI sector; and more than 50 per cent of these units undertake job work. In the case of DGTD units, around 70 per cent of them do only own work. Importantly, compared to India the percentage of job work done in Tamil Nadu is more prominent, particularly as far as SSI units are concerned.

Table 3.4
Distribution of Job Working Units Across Stages of Tanning

<table>
<thead>
<tr>
<th>Operations</th>
<th>SSI</th>
<th></th>
<th>DGTD</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TAMIL NADU</td>
<td>INDIA</td>
<td>TAMIL NADU</td>
<td>INDIA</td>
</tr>
<tr>
<td>Operations</td>
<td>NO.</td>
<td>%</td>
<td>NO.</td>
<td>%</td>
</tr>
<tr>
<td>Pre tanning</td>
<td>1</td>
<td>0.8</td>
<td>4</td>
<td>1.9</td>
</tr>
<tr>
<td>Tanning</td>
<td>3</td>
<td>2.3</td>
<td>7</td>
<td>3.4</td>
</tr>
<tr>
<td>Post tanning</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Finishing</td>
<td>4</td>
<td>3.1</td>
<td>12</td>
<td>5.8</td>
</tr>
<tr>
<td>Machine</td>
<td>7</td>
<td>5.4</td>
<td>19</td>
<td>9.2</td>
</tr>
<tr>
<td>More than One</td>
<td>114</td>
<td>88.4</td>
<td>162</td>
<td>78.6</td>
</tr>
<tr>
<td>Operation</td>
<td>All Operations</td>
<td>17</td>
<td>13.2</td>
<td>27</td>
</tr>
<tr>
<td>Job Working Units</td>
<td>129</td>
<td>100</td>
<td>206</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: 1. Also included under more than one item.

Source: CLRI (1990), pp. 51 - 52.

Table 3.4 gives an idea of the distribution of the job working units across stages of tanning for Tamil Nadu. What comes out is that 88 per cent of SSI units and 82 per cent of DGTD units undertake job work for more than one operation. The prevalence of
job working and the significance of job work to the industry is at once starkly evident.

The CLRI (1990: 20) study has given the following reasons for the emergence of job work in the leather industry:

1. The finishing units that have been set up in the DGTD sector after 1973 have to necessarily depend on other units for supply of unfinished leather. Several small scale tanneries have come into existence to serve as feeder units to the finishing units;

2. Some of the traditional tanneries which are not able to run their production to full capacity, have offered the tanning facilities on job work basis to others;

3. A good number of sick units have got themselves converted into exclusively job work units and offer service facilities to others;

4. Machines, that were not utilised to their full capacity, such as splitting, shaving and measuring, have been made available for job work by many tanners;

5. New entrepreneurs have benefitted by this arrangement since it has allowed them to lease facilities without having to invest in the same.
All this had led to the emergence of a new class of Tenant Tanners\(^{12}\) having no tanneries of their own, but who can undertake job work on behalf of the established exporters/manufacturers of finished products. They offer job work facilities on hourly or piece rate basis. Like in many other job working production systems, the level of turnover among these tenant tanners is very high. Consequently, it becomes difficult to track the incoming and outgoing activities of the job workers, and/or systematically record information about their work, which in any case varies constantly even for an individual job worker.

### 3.3.2 Job Work in Dindigul and its Composition

In Dindigul, individuals numbering between 220-225 have registered\(^ {13}\) as job workers with various agencies like TALCO, Dindigul Tanners Association and the Dindigul Leather Finishing Industrial Co-operative Ltd. (DLFICL). Job workers are more or less freelance workers. Technically they do not have to register with any official body especially when they do not own any production facilities. They register with TALCO in order to procure their inputs and with the DLFICL to hire the machinery.

We found from our survey that approximately 57 per cent of the units (35 of 61 units studied by us) in Dindigul do job work for

\(^{12}\) This is a term used in the CLRI report. Though they have not explained this term in detail we feel that this is an apt term to refer to job workers who do not own tanning units.

\(^{13}\) By registration here we mean registering in the particular organisation as members. These organisations are formed by the efforts of the Government for welfare of the tanners in general and specially for the job workers.
others. Of these job working units, 46 per cent have regular tanner customers, the remaining do job work for any customer within or outside Tamil Nadu (Figure 3.6). Within Dindigul hardly 15 per cent (5 units) of the tanners give out their work for job working; even this is only for certain machine processes in the finishing stage.

**Figure 3.6**

**Number of Job Working Units in Dindigul**

<table>
<thead>
<tr>
<th>Do Job Work For Others</th>
<th>Do Only Own Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>26</td>
</tr>
</tbody>
</table>

**Source:** Primary Data.

When we classify job work units according to the raw materials used, we find that 66 per cent of skin tanning and 40 per cent of the hide tanning units do job work (Figure 3.7). It can be inferred from Figure 3.7 that most of the job workers do 'only service' followed by 'all processes'. This implies that the tanners in Dindigul specialise in all methods of tanning and/or all stages of tanning.
Figure 3.7
Details of Job Workers in Job Work in the Tanning Industry in Dindigul

JOB WORKING UNITS IN DINDIGUL (35)

RAW MATERIAL

<table>
<thead>
<tr>
<th>METHOD OF TANNING</th>
<th>Skin (27) 66%</th>
<th>Hide (8) 40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOB WORK CUSTOMERS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E1 (16)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SF(Chr) (8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SF(Comb) (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finish (1)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All Processes 1 4 1 3
Only Service 3 4 2 1 1 1 1 1 1
Finished Work 1 1 1

Machines

Raw Material - Hide - Skin
Methods of Tanning - E1 & Semi-finished Finish

For Whom Job Work is Done - Regular Customers

Processes Done in Job Work - Only Service, Full Work

Source: Primary Data.
How pervasive is job working among tanners in Dindigul? We have grouped the surveyed units on the basis of exclusiveness of job work undertaken by them (the units). We find that two thirds of the tanners undertake job work either exclusively or along with their own work. Only about one third of the surveyed units were not involved in job work (Table 3.5).

<table>
<thead>
<tr>
<th>Nature of Work</th>
<th>Units (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own Work and Job Work</td>
<td>17</td>
</tr>
<tr>
<td>Exclusive Job Work</td>
<td>49</td>
</tr>
<tr>
<td>Exclusive Own Work</td>
<td>34</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

**Source:** Primary Data.

That job work is the predominant activity among the tanners who undertake both job work and their own work is evident from Figure 3.8 which brings out the proportion of job work to own work among job workers in Dindigul. We find that 83 per cent of the job working units in Dindigul concentrate more on job work than their own work.
Even while undertaking job work, Dindigul tanners seem to have specialised up to semi-finished stage of tanning as is evident from Table 3.6. About 94 per cent of the surveyed job workers tan leather up to semi-finished stage. Importantly about 60 per cent of the tanners undertake EI tanning which is very labour-intensive and extremely unorganised when compared to other processes.

### Table 3.6
**Distribution of Job Workers in Dindigul by Stage of Tanning**

<table>
<thead>
<tr>
<th>NO.</th>
<th>Stage of Tanning</th>
<th>Units (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>EI</td>
<td>60</td>
</tr>
<tr>
<td>2a</td>
<td>Semi tan (Chrome)</td>
<td>23</td>
</tr>
<tr>
<td>2b</td>
<td>Semi tan (Combined)</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Semi finish (total) [1 + 2]</td>
<td>94</td>
</tr>
<tr>
<td>3</td>
<td>Finished</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>100</td>
</tr>
</tbody>
</table>

**Source:** Primary Data.
Nearly half the job workers (about 52 per cent) prefer to work under the 'only service' arrangement; about 10 per cent undertake 'full work' while the rest work under any contract system depending on the situation (Table 3.7).

**Table 3.7**

**Contractual Arrangements of Job Workers in Dindigul**

<table>
<thead>
<tr>
<th>Operations</th>
<th>Units (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only Service</td>
<td>52</td>
</tr>
<tr>
<td>Any Work</td>
<td>34</td>
</tr>
<tr>
<td>Full Work</td>
<td>11</td>
</tr>
<tr>
<td>Machine</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

*Source*: Primary Data.

We have noted earlier that Dindigul specialises in semi-finished leather. Obviously leather units located elsewhere in the state as well as outside the state must be sourcing the semi-finished leather from Dindigul. From the surveyed data we find that the clientele of job workers is more or less equally distributed within and outside the state. Again, nearly half the units have regular clients indicating the institutionalisation of job working in Dindigul (Table 3.8).
Table 3.8
Client Composition of the Job Workers in Dindigul

<table>
<thead>
<tr>
<th></th>
<th>Regular Customers</th>
<th>Anyone</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within Tamil Nadu</td>
<td>10</td>
<td>10</td>
<td>20 (57%)</td>
</tr>
<tr>
<td>Outside Tamil Nadu</td>
<td>6</td>
<td>9</td>
<td>15 (43%)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>16 (46%)</td>
<td>19 (54%)</td>
<td>35 (100%)</td>
</tr>
</tbody>
</table>

Source: Primary Data

3.3.3 Significance and Implications of Job Work

Job workers are those who undertake a process or few processes of tanning, but do not own the product for they work for others; they may or may not own a tannery. When they do not own a tannery they lease a tannery in full or in parts-maybe a machine for few hours, few pits for few days etc., according to their need.

Thus without expending much (or almost anything at all) in physical systems of production, entrepreneurs of finishing units have been able to get supplies of tanned leather to the required specification through job workers. Committees/Commissions that have been set up following the Seetharamiah Committee have only strengthened this arrangement since they have addressed themselves mainly to the value-addition segment of the industry, namely, the finished leather and leather products category, and not the entire industry beginning with the pre-tanning operations. The deleterious impact of this segmented approach falls on labour
employed in the actual tanning process of the industry and particularly on the labour employed by the job worker.

The industry as such has benefited immensely from the phenomenon of job working. The measures operationalised by the Seetharamaiah Committee to augment the export of value added products has brought into existence a number of leather finishing units which require enormous quantities of tanned leather of various specifications depending on the end use. The committee's pre-occupation with increasing the value addition of export has resulted in almost complete negligence of the vital phase of the tanning industry namely, the actual conversion of raw hides and skins into leather.

The committee does not seem to have deliberated (at least their recommendation do not provide any clue) on how the finishing units will be constantly and continuously fed with tanned leather. We have already noted how the process of legitimately expanding tanning operations up to semi-finished stage can be quite tedious and time consuming. The hazardous nature of the tanning industry being an acknowledged fact, the setting up of new tanning units is severely restricted in terms of space (tanning units cannot be started any and everywhere), raw materials used (hides or skins), method of tanning employed (vegetable or chrome) and the resulting level of pollution that the whole operation entails. The industry has managed to circumvent these problems largely by (a) expanding illegally and (b) through contracting out whole processes of tanning
operations to job workers. Those entrepreneurs who have gone in for large integrated units combining all processes of production from pre-tanning to finished leather products have been exempted from the constraining problems relating to space; however, technically, these units (as of now very few in number) are required to export 75 per cent\(^{14}\) of their finished products. For the large majority, comprising the rest of the industry, the institution of job work ensures a steady supply of tanned leather. The phenomenal increase in the turnover of tanned leather in Dindigul since the Seetharamiah Committee, can in no way be captured merely by examining the increase in the number of tanning units. It has, of necessity, to be related to the institution of job working.

We thus have a scenario wherein demand for tanned leather has increased tremendously due to changes in domestic policy coupled with demand for tanned leather at the international level. Policy and policy makers having turned a complete blind eye to the actual tanning part of the leather industry. Despite the stringent rules applicable to the setting up of tanning units, the industry has negotiated the demand for tanned leather in practical terms by institutionalising the phenomenon of job working. From our interviews with people from different segments of the industry we gathered that the parties which have benefited most from this arrangement include:

\(^{14}\)Integrated units are self sufficient units who tan their leather and manufacture the outputs. They never get their work done through job work. These units, if, they export at least 75 percent of their produce are exempted by IFA,1948 regarding setting up of the units in the place convenient for the tanners.
1. Makers of finished leather products (most of them outside Dindigul);

2. Owners of various tanning facilities in Dindigul; when their own capacity utilisation is below the level to which the equipment can technically be operated, the owners have had no problems in leasing out the rest of the capacity/time to willing job workers; these owners also double-up as job workers when need arises;

3. Most units that have been rendered sick for various reasons have been revived and their facilities made operational by job workers needing these facilities to execute their orders;

4. Job workers as a class have also benefited; within this, the category of leather technicians have reaped more given their superior qualifications (formally acquired), access and knowledge of markets outside and even abroad.

3.4 CONDITIONS OF LABOUR IN LEATHER TANNERIES
As regards labour, the picture is mixed. There is no doubt that in the post Seetharamiah Committee phase, employment opportunities right across the industry have increased tremendously and particularly for women. The casual-daily wage status of the bulk of this employment notwithstanding, workers have been almost continuously employed and at times, on more than one shift per day. The piece-rate wage system coupled with the boom in the
industry has resulted in a greater flow of wage income to the workers. But the positive impact stops here.

In Dindigul we found job workers deploying several modes of employment of labour. For example, if a particular unit taken on lease already has permanent workers on its rolls job workers then generally pay the permanent workers the wage they are entitled to (as per the contract with their original employer). However, in the majority of cases the job worker has to find his own workers. In such cases workers are paid for the duration of the task and at piece-rate. The employment status of such workers is almost always casual in nature. The wholesale leasing out of production facilities by owners put them (the owners) under no obligation to provide for and/or negotiate on behalf of labour employed by job workers in their premises (except in the case of permanent workers mentioned above). The job workers, for their part, being themselves persons working on specific orders at a time and going from order to order, neither invest in equipment nor in labour—both of which are available for lease/hire in Dindigul.

Job-working as a category being not statutorily recognised, means that the workers employed by job-workers have no legal status. As of now (officially and otherwise) there is no authentic information on any aspect relating to job working. Consequently, there is also no record of the workers employed by job workers. In such a context of official non-existence of workers, the question of paying workers anything else (other than wages for specific tasks
performed) does not arise. The implementation of welfare measures (such as ESIS, maternity benefit, accident insurance, leave facilities, first aid facilities at work site etc.) are premised on the maintenance of statutorily recognised records of workers employed. The workers, employed by job workers not being officially recognised and recorded, are ineligible for any of the existing welfare measures.

We conducted a cross-sectional survey of leather tannery workers in Dindigul. While doing a census of tanning units in Dindigul we identified a village (Saveriyar Pallayam) in the prime tanning pocket of Dindigul where almost all households have at least one member working in a tannery. This village also has a large proportion of women working in tanneries. From the balwadi, where the statistics of the people residing in this village are maintained, we identified the households with women working in tanneries. While collecting information from the women tannery workers we also interviewed male tannery workers of the same household. Apart from this we also went to another village, Pillayar Nattam, where Chakkiliyars (traditional leather workers) live. We

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15 We did a census survey of two villages in the prime tanning pocket of Dindigul. A list of households was obtained from the balwadi and we chose the households where women tannery workers are prevalent. Also the men tannery workers in these households were interviewed.
interviewed 106 workers in Dindigul (inclusive of both men and women) after a purposive sampling, to capture all categories of workers and work operations in tanning.

3.4.1 Employment Status in Leather Tanneries

Staff in any tannery, can be divided into three categories, namely, administrative staff, technicians and workers (Figure 3.9). As regards the status of employment of these different categories of labour, we found the following:

1. Permanent till retirement in tanneries applies only to administrative staff;

2. Workers are assured of ‘permanent’ employment for a maximum of only five years. This privilege however is available only for male workers. Here too they are made permanent, only if they work for 240 days without break.\(^{16}\) Once made permanent, they are entitled to all allowances, benefits, (like ESI, periodical medical check-up etc.). But within five years these permanent workers are generally rendered jobless. Either the firm in which these workers are employed closes down or the workers are just retrenched. The reasons usually given for closure are change in management, declaring (false) bankruptcy, labour problem, non-availability of raw materials and/or inputs etc.;

\(^{16}\)Strenuous nature of the work in tanneries makes workers difficult to work continuously without any break for a long time/daily; work might not be available to workers in the same tanning units continuously through out the year. All this makes it difficult for the tannery workers to work for 240 days without break to become permanent.
Figure 3.9

Composition of Personnel in Tanneries

Non-workers

- (a) Management Staff
- (b) Administrative Staff

Technologists

- (c) Degree/Diploma Holders in Leather Technology (Skilled Workers)

Workers

- (e) Skilled Workers (Machine Operators)
- (f) Semi-skilled (Labourers who Work with Simple Tools and Manual Workers in Pre-tanning Operations)
- (g) Unskilled Workers (All Other Workers)

Note: For explication of categories (a) to (g) refer Figure 3.9.

Source: Primary Data.
Figure 3.10

Status of Employment of Tannery Personnel

Permanent Workers
(Upto Retirement)
(a+b+c+d)
(20 per cent of total workers)

Permanent Workers for 3-5 Years
(Also Termed as Permanent in Local Parlance)
(d+e)
(40 per cent of total workers)

Temporary Labourers

Regular

Those who are Employed by Contractors and/or Job Workers
(f+g)
(10 per cent of total workers)

Daily

Those Employed by Tanners who do Own Work
(f+g)
(10 per cent of total workers)

Note: For explication of categories (a) to (g) refer Figure 3.9

Source: Primary Data
3. The category of casual labourers are rarely made permanent. Among casual labourers one category, namely, regular casual, are assured of job whereas the other category, that is, daily casual, are not even assured of the job. Figure 3.10 depicts the nature of staff in tanneries and their employment status respectively. The casual labourers generally cannot demand any allowance and/or claim any social benefit. However in Dindigul casual labour are paid dearness allowance but only for the first unit\(^{17}\) of work and not for subsequent units. Any worker on an average would do 5 to 6 units a day.

The concept and designation of any work as ‘skilled’ in leather tanning is quite complicated. Skill as defined by tanners is based largely on the particular operations that workers perform. Generally those who operate machines (only males) are designated as skilled workers. Semi-skilled workers are those who use simple hand tools, eg. knifeman - one who does unhairing and/or defleshing. Other categories of workers are called unskilled workers. All women workers are considered unskilled workers.

Only skilled workers are made permanent (which as we discussed earlier lasts only for 3-5 years); the other categories (semi and unskilled workers) are rarely made permanent. Among male

\(^{17}\)Units refers to certain number of skins/hides, eg. for unhairing 600 skins of normal size a unit is attained. The number of skins/hides per unit
workers there is a possibility of vertical mobility, whereby un/semi-skilled workers can become skilled workers within 6 to 24 months and therefore chances of them getting into the permanent category exist. But women workers can aspire for horizontal mobility only of the kind which does not lead to any change in the status of their employment.

The categorisation of jobs into 'skilled', 'unskilled', is generally done by employers and trade unionists. At present any degree/diploma holder in leather technology is designated a technician who is, job-wise, placed in-between the management and workers. The technicians are designated as skilled for having acquired skill through formal education. Machine operators (only males) who acquire their skill through on-the-job training are designated as skilled workers.

It is interesting to note that leather workers among themselves have a different notion of skill which is not recognised as such by the tanners. Traditional leather workers belonging to the leather working caste consider themselves 'skilled'. Till the introduction of machines the tanners were heavily and almost solely dependent on the traditional leather workers. Even now hide tanning units are very dependent on these traditional leather workers who are solely responsible for defleshing, unhairing, oiling, etc. What needs emphasis in this context is that, whatever be the workers' perception of 'skill', wage payment follows the recognition of 'skill' as such by tanners.
As of now, the traditional leather workers are reclassified as semi-skilled workers by the tanners and the trade unions. Most of the semi-skilled workers are in hide tanning units and in a few operations (unhairing, oiling, trimming, etc.) in the skin tanning units. All other categories of workers are designated as unskilled. The latter constitute about 70 per cent of the work force in the tanning industry. Significantly, women belong to this 70 per cent of unskilled category workers.

3.4.2 Gender Discrimination and Subordination in Leather Tanning Units

In the previous section we have already referred to certain specific ways in which the organisation and functioning of the industry leads to gender discrimination, particularly the fact that job mobility for women is only horizontal while the operations in which women dominate are designated as unskilled. We also noted that while some men graduate to the status of permanent workers, no women worker has been made permanent. In this section we carry forward the discussion on gender inequality in the tanning industry to underscore the point that this inequality is structural in nature and cannot merely be addressed by welfare legislation even if specifically aimed at women. A significant and as yet unchanging aspect of the structure of functioning of this industry is the abject low status that it has accorded to the tasks performed exclusively by women, particularly women of the Dalit caste.
Discrimination against women workers operates at various levels beginning with the manner in which they are recruited into the industry. Almost all women workers are taken into the industry through contractors. Technically, therefore, the employer is not obligated in any manner to these women workers; worse, it is very often the contractors who are on the payrolls of the employers not the women workers actually working on the job. An important implication of this mode of recruitment into the industry is the following: even those women who are employed in legally constituted units could be rendered non-existent by the sheer fact of being recruited by contractors. Hence, either way, whether in legally set-up units, or in illegal units, large numbers of women, who have been working in this industry for generations, have been doing so without the most basic of a worker's right, namely, the entitlement to being recorded and recognised as a legitimate worker. Most male workers, on the other hand, are employed directly by the employers. This enables the men workers to negotiate directly with the employers for better wages and conditions of work. Even those male workers who come into the industry through contractors get the opportunity to improve their employment and wage status. This space and opportunity does not exist for the women workers.

Another consequence of the contractor mode of recruitment and the absence of women workers in official records is the legitimacy it confers on employers, trade unions, and contractors, to confine a large majority of the women workers to the status of
casual daily wage workers, put them in tasks designated as unskilled, pay them the low wages that these tasks command and deny them any of the statutory benefits like leave with pay, maternity benefits, medical insurance, etc.

Again, the provisions of the Factories Act, 1948 comes in very handy for the employers and (male) trade unions to actively discriminate against women workers. We have noted in the earlier Section that 'skilled' work is associated with machine work in Dindigul. Machine work is given exclusively to male workers and never to women workers. The reasons put forth by employers and trade unions for excluding women from machine work include:

1. Women are simply considered to be less capable of using machines despite the fact that much of the machine work in Dindigul consists mainly in feeding skin to the machine;

2. Technically, the Factories Act, 1948 does not allow women to work in or near any moving machine. The Factories Act, 1948, however has not come in the way of recruiting large numbers of women in other polluting and hazardous tasks associated with tanning compared with the relatively less arduous tasks associated with machine operations. (Strictly, as per the Factories Act, 1948, women and children are prohibited from being employed in the tanning industry. The industry have, however, not only managed to circumvent the provisions of the Act, but large parts of the industry have developed and expanded without formal sanction to do so.
Such parts of the industry have recruited women in large numbers in direct contravention of the Act). The women themselves realise that the employers in collusion with male trade unions are keeping them out of the mechanised and high paying jobs by invoking the Factories Act, 1948. The contract nature of women's recruitment and the status of their employment does not give them any leverage to bargain for promotions and/or better conditions of work.

There are several other problems faced by women due to their illegal existence as workers. For instance, in the event of a Factory Inspector's (FI) visit to the premises, the women have to hide like criminals. As per rule, a FI has to inspect each unit at least twice a year. S/he can visit the unit either with advance notification or according to her/his convenience. Whatever be the procedure, the tannery management is informed about the FI inspection well in advance. Hence, the women workers are asked to leave the tannery premises through the back door. Though wages are paid for that day, the work has to be compensated by women workers at a later time/day. If by accident any women is spotted in the tannery premise by an FI, the latter is generally informed that the women has either come to see her spouse or else she is immediately given the designation of sweeper. We were also told of instances where women were locked in raw material godowns during the time of inspection.
If at all, a doctor comes for medical examination of workers (as per the requirement of the Factory Act, 1948, as applicable to tanneries) women workers as a rule are not examined. Since all details of examination done by doctors need to be recorded, the employer will be at risk if a women's ailment alone is recorded when her name does not appear in the attendance register. Thus, not only are women not covered by ESI (Employment State Insurance Scheme) but they are also deprived of even the little benefit that they could have derived from the medical examination done at the premises.

The women are not provided with any kind of personal protection guards. They use car tyres as boots, plastic paper to cover their waists while gloves discarded by male tannery workers are given to women workers. There was no separate toilet or cloak room for women workers in any of the tanneries visited by us.

Most women workers are made to work in the periphery of the main yard; which in effect means that they work under the direct heat of the sun. We found them using either their saree pallu or jute cloth to cover their heads in order to protect themselves from the vagaries of nature. They were not provided any stool or carpet to sit while working; their place of work is in and around the mud sludge. These workers either find a stone or a broken piece of wooden plank (discarded from tannery) to sit on, or are forced to sit on the floor.
Their working hours are neither regular nor do they follow the 8 hours work/day schedule. Women workers are paid only consolidated amounts as wages. Even if they do extra work or overtime, no compensation is paid. In fact working overtime is subtly made compulsory though women are not informed about it in advance.

Almost always the only manner in which the activities done by women get recorded officially (if at all) is either as helper or coolie. This is also the term used by the employer when, in the unlikely event of a factory/health inspectors' visit the employer has to justify the presence of women and sometimes children on his factory premises. Not only do the terms, helper or coolie, not capture the entire range of activities performed by women, but, the use of these terms also marginalises the fact that unless these set of activities (currently the almost, exclusive preserve of women) are performed, further operations relating to tanning cannot be pursued. The following gives an idea of the range of tasks performed by women officially designated as helper/coolie:

A. Skin Tanning Units
1. In the skin tanning units, women are employed in the initial process of opening the (raw) curried skin which is followed by trimming and sorting of the same. These operations are mostly done by Chakilliyar women. Of the workers interviewed by us, 75 per cent were in the skin tanning units.
Of the total workers employed in this process 60 per cent are women and 40 per cent are male workers;

2. In the pre-tanning stage (beam house) women are engaged in operations like cleaning the lime pit (that is, cleaning of sludge, waste, flesh etc.; cleaning the beam house and other processes related to hair. Apart from the above mentioned operations, women workers also do other miscellaneous jobs like carrying pelt from one place of process to another, paling up etc. 58 per cent of the women we have interviewed were engaged in this process;

3. Both in tanning and post-tanning stages, women workers are involved in the drying process. These operations pose more hazards to women workers especially during winter and rainy reasons. During these seasons skins are dried in dark chambers with heat being generated through charcoal. Women workers have to walk across the piles of lighted charcoal to hook and unhook skins. Though on the whole only 12 per cent of the women workers we interviewed were involved in this process, of the total workers employed in this process women constitute 65-70 per cent; the rest are adolescent males;

4. In the finishing stage, women workers, are involved in drying, sorting, measuring and packing. Women from all
communities work here. Of the women we interviewed only 5 per cent were engaged in this process.

B. Hide-Tanning Units

In the hide tanning processes women are recruited for cleaning bark-pits, carrying water; breaking nuts and crushing barks, drying the used nuts and barks; and to fold hides. While folding they have to shake and smoothen to make the hides wrinkle-free. The large size and heaviness of the hides makes this a very strenuous job.

Each of these processes involves an enormous amount of work, more what terms like cleaning, helping, assisting can convey. Practically all operations in which women are engaged are not only time consuming but also ones which cannot be mechanised. To that extent it also makes the performance of these tasks particularly hazardous.

3.5 SUMMARY

This chapter has covered three broad themes in its exploration of the aspects of production and employment in the leather tanning industry, namely, the overall production organisation of the industry, the institution of job working, and the working conditions and status of labour in the industry.

The heterogeneity and non-standard quality of the raw material used has limited the extent of mechanisation of the
industry. Consequently, the most polluting operations of the industry-those dealing with raw hides and skins-are done manually. Not only are these operations designated as peripheral to the main tanning operations but they are also carried out almost exclusively by the traditional caste leather workers, and within this, by women.

The spatial organisation of the leather industry is also haphazard such that it involves considerable movement of the workers between operations and between different worksheds. Besides, the physical conditions of the worksheds are extremely unhygienic and ill-ventilated despite space not being really a constraint.

While legally, there are stringent rules and regulations governing the procedures for starting new tanning units and/or expanding the existing ones, the industry has, over the years perfected the art of circumventing all of these, both by evading and avoiding official machinery. This has implications not only for the way in which the industry has organised itself, but also for the labour involved in the industry.

Policy relating to leather industry at the macro as well as the micro level has almost single-mindedly pursued the aspects of value-addition of the product; consequently very little attention has been paid to what this pursuit has done to the workers in the industry. Organisationally, it has institutionalised and encouraged
the phenomenon of job working in the industry. We have elaborated in detail how job working benefited the industry and the job workers but has rendered the workers extremely vulnerable.

Most workers and almost all women are casual daily wage labourers. Very few even among the men labourers are made 'permanent' which category itself is defined differently in Dindigul. The chapter has also dealt with the most glaring aspects of gender discrimination in the industry.