

Socio-Economic Condition of Scheduled Caste Workers Working in Leather tanneries in Vellore District of Tamil Nadu

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***Abstract:** This study attempts to understand the socio-economic conditions and working condition of leather tannery workers. The leather tanning industry and leather related industry give employment and business opportunities for many people. The rising cost of living compels the tannery workers to take up the job. The tannery workers are exposed to lot of chemicals for low wages. But this leads to health related problems at large.*

The results of the study reveal that there is a need to improve the health condition and health needs of the leather tannery workers. Protective measures should also be provided to reduce the various morbidities. Health status of the workers is more important for economic production of the industry and also in developing good socio economic status for the worker's family. It is necessary for the health care provider, various stakeholders to identify such factors, thus the monitoring and care provided can be improved.

Their socio-economic status will be improved only if adequate measures are taken to overcome their problems. The state and central government can formulate suitable policies to increase the welfare of the workers. This study helps to suggest increasing the socio-economic conditions of workers in leather tanning industry.

Keywords: Socio-Economic – Tanning – Tannery – Scheduled Caste

INTRODUCTION

Leather production is one of the world's oldest trades, consisting of a chemical process that turns animal hides into the much less perishable material, leather. As part of this process, after the removal of the epidermis and subcutaneous tissue, the dermal collagen fibres are stabilized by means of chemical treatment known generically as tanning (Baker, 1998). Employees who work in tanneries are liable to be affected by their exposure to lots of hazardous materials and processes during tanning.

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The Tanning in India has a long history and has been a traditional occupation for subdued groups of people. According to Dixit (1995), the Indian tanning industry currently employs around 80 thousand people. Estimates of total production in a year ranges between 600 and 1500 million square feet of leather (Varadarajan and Krishnamoorthy 1993 and Thyagarajan *et al.* 1994, respectively). Geographically, the industry is concentrated in three regions, namely the states of Tamil Nadu, West Bengal (mainly Calcutta) and Uttar Pradesh (mainly Kanpur).

SOCIO-ECONOMIC STATUS

Socio-Economic Status (SES) is an economic and sociological combined total measure of a person's work experience and of an individual's or family's economic and social position in relation to others, based on income, education, and occupation. When analyzing a family's SES, the household income, earners' education, and occupation are examined, as well as combined income, versus with an individual, when their own attributes are assessed (National Center for Educational Statistics, 2008)

SCHEDULED CASTE

In this Constitution, unless the context otherwise requires, the following expressions have the meanings hereby respectively assigned to them, that is to say - (24) "Scheduled Castes" means such castes, races or tribes or parts of or groups within such castes, races or tribes as are deemed under article 341 to be Scheduled Castes for the purposes of this Constitution (Ministry of Social Justice and Empowerment). The "Scheduled Castes" is the legal and constitutional name collectively given to the groups which have traditionally occupied the lowest status in Indian society and the Hindu religion which provides the religious and ideological basis for an "untouchable" group, which was outside the caste system and inferior to all other castes. Today, untouchability is outlawed, and these groups are recognized by the Indian Constitution to be especially disadvantaged because of their past history of inferior treatment, and are therefore entitled to certain rights and preferential treatment. (Internet FAQ Achieves)

The socio-economic condition of leather tannery workers in this study covers various dimensions of workers such as: working conditions, work environments, occupational hazards, industrial accidents, income and savings, etc.

STATEMENT OF THE PROBLEM

According to the Report of Working Group on Leather and Leather Products, 12th five year plan period, "76% (around 19 lakhs) are those self employed or employed in the unorganized sector comprising of raw material collection, curing, trading, household footwear production units etc. The remaining 24% are employed in the organized sector. Among the sub segments, footwear and footwear components is the largest, providing employment opportunity to approximately 11 lakh people, mostly from the weaker sections of the society. Out of this, about 2 lakh are employed in the

organised sector, comprising (30 40% women). Remaining 9 lakh people are engaged in the unorganised footwear sector such as rural artisans, cottage and household units etc. Leather garments and other goods (including gloves, saddles, harnesses, etc.) is another major sub segment employing approximately 3 lakh people and mostly in the organised sector. Tanning and finishing is the third major sub segment employing approximately 1 lakh people currently" (Planning Commission, Govt. of India). Working in the leather tannery is hazardous to human being as well as the environment. Most of the people are not willing to work in leather tannery because of the bad odor came from the effluent and the poor working conditions. As long as the Tannery owners needed the unskilled manual workers to run their Tanneries, they made use of the cheap labour force from the scheduled castes (Benedict, 1999). The schedule caste people are working at large because of their vulnerability and lack of job opportunities. There is no such study on secondary work on socio-economic conditions and working conditions of leather tannery workers especially among the scheduled caste population in Vellore District.

SIGNIFICANCE OF THE STUDY

Labour has always been an essential dimension of a manufacturing sector. Since they are a crucial component of any manufacturing unit their welfare should be of the utmost importance to the owners of the unit and the government.

The Euro 5.25 billion, Indian Leather industry-6th largest in the world is one of the major established manufacturing industries in the modern as well as traditional sector. With approximately 1 lakh people employed in the tanning segment of the industry, very little study has been done on the socio-economic aspects of the workers and the quality of work life of the workers. The Report of the working group –leather and leather products- 12th five year plan makes no mention of any welfare measures for tannery workers, though a plethora of schemes for skilled artisans have been introduced for improvement of their product. The reason behind this probably could be because very less information is available regarding the conditions of the workers in leather tannery. Their issues have largely been left unaddressed. The leather tannery workers are deprived from other sectors.

Therefore there is a need to study the Socio-Economic conditions of Schedule Caste workers of which includes demographic details, income status, working conditions etc. of leather tannery workers.

OBJECTIVES

- To study the demographic profile of schedule caste women working in leather tanneries
- To study the economic condition schedule caste leather tannery workers
- To know the working condition of schedule caste leather tannery workers

REVIEW OF LITERATURE

The literatures related to the Socio-Economic Condition and Quality of Work Life of Scheduled Caste workers working in leather tanneries are limited. Hence with the available existing literature and factors contributing to determine the socio-economic conditions are discussed.

According to Census 2011, Vellore district had a population of 3,936,331 with a sex-ratio of 1,007 females for every 1,000 males, much above the national average of 929. The district had a total of 929,281 households. There were a total of 1,689,330 workers, comprising 153,211 cultivators, 254,999 main agricultural labourers, 106,906 in house hold industries, 845,069 other workers, 329,145 marginal workers, 21,897 marginal cultivators, 136,956 marginal agricultural labourers, 29,509 marginal workers in household industries and 140,783 other marginal workers. (Census Info 2011 Final Population totals – Vellore District).

ECONOMIC CONDITION OF WORKERS

The wages of the workers of the organized sector are more compared to the wages of the unorganized small group. The female workers get a lesser amount of wage as compared to the male workers. It is important to note that the maximum wages have also been increased from time to time. Average women workers at a certain points in time are jobless, getting lesser wage than males (SEWA Academy 2000, Rajawat, 2003), Low wages leads to stress and strain, due to which they cannot fulfill their daily needs. They cannot educate their children and give them proper food. They go through stress and anxiety leading to alcohol intake. The leather tannery workers are having low wages when compared to other industrial jobs.

Biswas *et al.* (2012), the Socio-economic status of the workers showed that they were poor. They are daily wage earners and maintain their family with small income with difficulty. It was noted that most of them were literate. They were addicted to alcohol, smoking habit. They did not consume adequate amount of nutritious food. In most of the case it was found that they lived in kacha houses.

Indranil *et al.* (2012) Women are also employed in large numbers in Indian leather industry and are making important contribution to the national economy as well as to exports. Women are involved in large numbers, especially in footwear production in Athani (Karnataka), Rajasthan, Agra (UP) and Chennai, Ambur, Ranipet and Vaniambadi (Tamil Nadu). Their entry into productive work has helped considerably in improving their household situation. With the 'take off' of the footwear industry, especially in the last 20 years and the rapid rise of exports, women's employment has increased. The leather industry has been designated as a hazardous industry under the Factory Act 1948, and has a mandatory requirement of formal approvals for expansion. It has been observed that formal units expand and set up illegal units, where the bulk of women workers, especially dalit women are found. Women are not documented as 'workers' on any official records. Therefore, they are not legally entitled

to any compensations or benefits. These women are recruited through contractors and are engaged in all stages of the tanning process. Their tasks are time consuming, backbreaking and the most hazardous.

HEALTH CONDITIONS OF LEATHER TANNERY WORKERS

According to the WHO, over 8,000 workers in the tanneries of Hazaribag suffer from gastrointestinal, dermatological, and other diseases, and 90% of these population die before the age of 50. J.Maurice (2001).

Few large factories are providing some facilities while the smaller are in very bad and poisonous situation. Reused chemicals from the larger factories are being used by the small factories which are more dangerous and vulnerable for the workers as well as for the environment. About 40 heavy metals and acids are used for processing raw hides, UNIDO (2005). A few export-oriented factories use some safety equipments for their workers and others don't pay attention. Jaundice, nausea and headache are another common sickness among them.

In India, an epidemiological study of atmospheric air pollution and incidence of bronchial asthma and the severity from mild to severe was conducted in an asthma clinic at Vellore district covering the areas of Vaniyambadi, Ambur, Pernambut, Vellore and Ranipet. The objective of the study was to identify the air pollutants and their concentrations and their effects such as the mild, moderate and severe forms of bronchial asthma and the prevalence rate among the children, adolescent, adults and old age population during 2006-2009. The children were affected 10-15%, adolescent about 15% , adults about 20-25% and old age about 8-12% were found. Almost all the persons affected by mild type were reversible to normalcy after inhalation of bronchodilators; severe form of bronchial asthma response to moderate state.50% of severe form of bronchial asthma died during the period of study. The peak flow meter identified the affected persons and the spirometry study proved the severity (Gnanasekaran *et al.*, 2010).

RESEARCH METHODOLOGY

Research Design

Descriptive research design was adopted for this study. This study describes the socio-economic condition and possible improvement avenues of the schedule caste workers working in leather tanneries. The study was aimed at gathering information from different sources that play role in socioeconomic condition of leather manufacturing industries.

Coverage

The scheduled caste workers working in the leather tanneries are the respondents of this study. Most of the tanneries are located in Ambur, Vaniyambadi, Pernambut and Ranipet in North of Vellore District. All are situated near the Palar River bed.

Sample

The universe of the present study comprises the leather tannery workers belongs to scheduled caste living in and around the tanneries and the living in the Palar river bed of Ambur, Vaniyambadi, Pernambut and Ranipet of Vellore District. Samples of 537 respondents were collected from the universe through convenience sampling method and snowball sampling method.

Tools of Data Collection

A new instrument was developed by the O.P. Aggarwal *et al.* (2005). The instrument was validated against the only available and widely used Kuppaswami. S (1981) modified scale of urban population. In the final form, the scale consisted of 22 items (refer appendix). Suitable weightage was given to each item and scoring for each item was based on a scale ranging from 3 to 9. Question 18 i.e. regarding the presence of non milch cattle or pets in the family was scaled on a 3 point scale and question 12 regarding living in the type of a house was scaled on a 9 point scale. The maximum aggregate score was 100. Based on the final score, the socio-economic states of the family is divided into six socio-economic categories, namely Upper high (combined score of more than 76), High (61-75), Upper Middle (46-60), Lower Middle (31-45), Poor (16-30) and Very Poor (combined score less than 15).

STATISTICAL ANALYSIS

Suitable Statistical tools were used to analyze the data and interpretations were given in the forms of tabular as well as text. Further, working hypotheses were framed and tested.

Analysis and Interpretation

Table 1
Demographic Details of the Respondents

<i>Variable</i>	<i>Label</i>	<i>Frequency</i>	<i>Percentage</i>
Age	Less than 20	28	5.2
	21-30	112	20.9
	31-40	169	31.6
	41-50	152	28.4
	51-60	61	11.4
	61 and above	13	2.4
	Total	535	100.0
Gender	Male	391	73.1
	Female	144	26.9
	Total	535	100
Education	Never been to school	124	23.2
	Primary	154	28.8
	High School	226	42.2

contd. table 1

<i>Variable</i>	<i>Label</i>	<i>Frequency</i>	<i>Percentage</i>
	Higher Sec School	21	3.9
	Degree	8	1.5
	Diploma	2	0.4
	Total	535	100.0
Religion	Hindu	458	85.6
	Christian	71	13.3
	Muslims	6	1.1
	Total	535	100.0
Type of Family	Nuclear Family	418	78.1
	Joint Family	117	21.9
	Total	535	100.0
Marital Status	Single	75	14.0
	Married	446	83.4
	Separated	5	0.9
	Divorced	3	0.6
	Widow	6	1.1
	Total	535	100.0

Age Group

Age is one of the important demographic details for this study. Age of the Respondents is classified into less than 20 years, 21-30 years, 31-40 years, 41-50 years, 51-60 years and 60 years and above. The above table reveals that maximum (31.6%) percent of respondents are in the age group of 31-40 years. The mean age of the respondents is 38.86.

Gender

Gender is a crucial in a given Indian social situation which is variably affected by any social or economic phenomenon. Hence the variable gender was investigated for this study. It is quite clear from the above table that out of the total respondents investigated for this study, three fourth (73.1%) of the respondents were males whereas about one fourth (26.9%) of them were females.

Educational Qualification of the Respondents

Education is one of the most subtle characteristics to decide about the career and the nature of the job. In a way, the response of an individual is likely to be determined by his educational status and therefore it becomes imperative to know the educational background of the respondents. The above table shows that 42.2 percent of the respondents were educated up to high school and 28.8 percent of them were educated up to primary level. 23.2 percent of them were never been to school. The numbers of respondents attaining higher education were very few. Most of the respondents working in tanneries are having very low level of educational status.

Religion of the Respondents

Religion is also one of the most important demographic details of this study. Majority (85.6%) of the respondents are belongs to Hindu, whereas 13.3 percent of them were Christians and only 1.1 percent of them were Muslims. Even though Muslims are the owner of many tanneries, Hindus are working more in tanneries.

Type of Family

The type of family in which a person lives and gets socialized has immense importance in deciding his values, beliefs and behaviours pattern which are likely to affects his or her attitudes towards a particular problem, hence the family type plays its own role in giving the response of an individual and therefore it was thought important to understand the family type of the respondents. The table reveals that a large majority of the respondents (78.1%) were nuclear family and remaining (21.9%) were in joint family. This shows the increasing trends in the changing families from joint family to the nuclear family and the change in family system can be attributed to the process of urbanization, industrialization, migration and modernization.

Marital Status

Marriage is one of the most important social institutions. In a developing country like India, it has undergone many changes. The perceptions and attitudes of the person towards economic problem can also differ by the marital status of the person because the marriage might make the persons little more responsible and matured in understanding the problems and giving the responses to the questions asked. The above table shows that overwhelming number of the respondents (83.4%) was married and remaining 14 percent were single. A small percentage reported separated (0.9%) divorced (0.6%) and widow (1.1%).

Table 2
Type of Tannery

<i>Kind of tannery do you work in</i>	<i>Frequency</i>	<i>Per cent</i>
Vegetable Tanning	4	.7
Chrome Tanning	531	99.3
Total	535	100.0

Kind of tannery refers to the type of tannery does the respondents work in whether it is chrome tannery of vegetable tanning. The above table reveals that almost of all the respondents (99.3%) are working in chrome tanneries. Very few (0.7%) of them are working in vegetable tanning. Vegetable tanning requires lot of tree barks and other raw materials; at present situation it is very difficult to get the raw materials. So the tanning industries prefer chrome tanning.

Table 3
Tanning Stage of Respondent Working

<i>Tanning Stage</i>	<i>Frequency</i>	<i>Per cent</i>
Beam House	72	13.5
Wet Finished	323	60.4
Dry Finished	140	26.2
Total	535	100.0

Beam House is the foundation of leather processing. The beamhouse operations include soaking, fleshing, liming, unhairing deliming and bating. When leather is processed with chromium salts the leather obtained is blue in colour and is called wet blue. This leather needs to be kept wet and can be stored in wet condition. The wet-finishing step includes deacidification, retanning, dyeing and fat liquoring. Drying is one of the simplest forms of curing hides and skins. The skins are dried spread out in the sunshine or in the shade with good ventilation. In this study 60.4 percent of the respondents working in wet blue stage and 26.2 percent of them in dry finished and only 13.5 percent of them are working in beam house stage.

Table 5
Socio-Economic Status of the Respondents

<i>SES Score</i>	<i>Frequency</i>	<i>Per cent</i>
Poor	221	41.3
Lower Middle	314	58.7
Total	535	100

The socio-economic status of the family is divided into six socio-economic categories, namely Upper high (combined score of more than 76), High (61-75), Upper Middle (46-60), Lower Middle (31-45), Poor (16-30) and Very Poor (combined score less than 15).

The above table reveals that 58.7 percent of the respondent is coming under lower middle, 41.3 percent of them are coming under poor socio-economic condition. None of respondents working in tanneries are coming under upper middle or high or upper high Socio-Economic Status, which shows that the tannery workers are still in deprived from improved socio-economic status.

CORRELATION ANALYSES

H₀: There is no relationship between Experience and Socio-Economic Status Score

“A Pearson correlation coefficient was computed to assess the relationship between the Experience and Socio-Economic Status Score. The result shows that there was a negative correlation between the Experience and SES Score, $r = -0.036$, $n = 535$, $p =$

Table 6
Correlation between Experience and Socio-Economic Status Score

<i>Correlations</i>		<i>Experience</i>	<i>Scores</i>
Experience	Pearson Correlation	1	-.036
	Sig. (2-tailed)		.406
	N	535	535
Socio-Economic Status Score	Pearson Correlation	-.036	1
	Sig. (2-tailed)	.406	
	N	535	535

0.406. There is no statistically significant correlation between Experience and Socio-Economic Status Score. It can be inferred that as the Experience increases, their Socio-Economic Status Score do not increases. Therefore even experienced workers are still in poor Socio-Economic Status. Increment in their salary / wages can improve their Socio-Economic Status.

H₀: There is no relationship between Monthly Income and Socio-Economic Status Score

Table 7
Correlation between Monthly income and Socio-Economic Status Score

<i>Correlations</i>		<i>Monthly Income</i>	<i>Scores</i>
Monthly Income	Pearson Correlation	1	.192*
	Sig. (2-tailed)		.000
	N	535	535
Socio-Economic Status Score	Pearson Correlation	.192*	1
	Sig. (2-tailed)	.000	
	N	535	535

** . Correlation is significant at the 0.01 level (2-tailed).

A Pearson correlation coefficient was computed to assess the relationship between the Monthly Income of the Respondents and the Socio-Economic Score of the respondents. The result shows that there was a positive correlation between the Socio-Economic Status and Monthly Income but it was not so strong, $r = 0.192$, $n = 535$, $p = 0.000$. Overall it can be inferred that as the Monthly Income increases, their Socio-Economic Status also increases marginally.

t-Test Analyses

H₀: There is no significant difference between SES and Marital Status

Table 8
Student t-test between Socio-Economic Status and Marital Status

		Group Statistics			
Marital Status		N	Mean	Std. Deviation	Std. Error Mean
SES	Single	75	30.45	5.251	.606
	Married	446	31.81	4.861	.230

Independent Samples Test							
		Levene's Test for Equality of Variances			t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
SES	Equal variances assumed	1.399	.237	-2.216	519	.027	-1.361
	Equal variances not assumed			-2.098	96.531	.039	-1.361

An independent-samples t-test was conducted to compare Socio-Economic Status and Marital Status. The test results shows that there was significant difference in the scores of Marital status, Single (M=30.45, SD=5.251) and Married (M=31.81, SD = 4.861); $t(5\%, 519) = -2.216, p = 0.027$. These results suggest that Marital Status influences on Socio-Economic Status of the respondents. Specifically, our results suggest that married persons have better Socio-Economic condition when compared to single.

H₀: There is no significant difference between SES and Type of Family

Table 9
Student t-test between Socio-Economic Score and Type of Family

		Group Statistics			
Type of Family		N	Mean	Std. Deviation	Std. Error Mean
SES Scores	Nuclear Family	418	30.89	4.990	.244
	Joint Family	117	33.56	4.411	.408

Independent Samples Test							
		Levene's Test for Equality of Variances			t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
SES Scores	Equal variances assumed	3.971	.047	-5.241	533	.000	-2.669
	Equal variances not assumed			-5.617	206.624	.000	-2.669

An independent-samples t-test was conducted to compare Socio-Economic Status and Type of Family. The above table shows that there was a significant difference in the scores for Nuclear Family (M=30.89, SD=4.990) and Joint Family (M=33.56, SD=4.411); $t(5\%, 533) = -5.617$, $p = 0.000$. It can be inferred that Joint family have more Socio-Economic Status Score when compared to Nuclear Family.

H₀: There is no significant difference between Gender and SES

Table 10
Student t-test between Gender and Socio-Economic Score

		Group Statistics				
Gender of the Respondents		N	Mean	Std. Deviation	Std. Error Mean	
SES Scores	Male	391	31.74	4.891	.247	
	Female	144	30.76	5.196	.433	

Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
SES Scores	Equal variances assumed	.612	.434	2.036	533	.042	.987	.485
	Equal variances not assumed			1.980	242.097	.049	.987	.499

An independent-samples t-test was conducted to compare Gender and Socio-Economic Status score of the respondents. The result shows that there was a significant difference in the scores for Male (M=31.74, SD= 4.891) and Female (M= 30.76, SD=5.196); $t(5\%, 533) = 2.036$, $p = 0.42$. These results suggest that there is significant difference between Gender and Socio-Economic Score of the respondents. It can be inferred that Males have more Socio-Economic Status than Females.

H₀: There is no significant difference between Gender and Respondents and Monthly Income

Table 11
Student t-test between Gender of the Respondents and Monthly Income

		Group Statistics			
Gender of the Respondents		N	Mean	Std. Deviation	Std. Error Mean
Monthly Income	Male	389	5065.94	1525.535	77.348
	Female	141	4292.91	1586.580	133.614

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2- tailed)	Mean Diffe- rence	Std. Error Diffe- rence
Monthly Income	Equal variances assumed	1.401	.237	5.100	528	.000	773.031	151.574
	Equal variances not assumed			5.007	239.835	.000	773.031	154.387

An independent-samples t-test was conducted to compare Monthly Income and Gender. The result shows that there was a significant difference in the scores for Male (M=5065.94, SD= 1525.535) and Female (M= 4292.91, SD=1586.580); $t(5\%, 528) = 5.100$, $p = 0.000$. Specifically, our results suggest that there is significant difference between gender on Monthly Income of the respondents. It can be inferred that males have better salary than females. This shows that there is wage discrimination among males and females.

POLICY IMPLICATION

The following general positive actions strategies are applicable to all industries especially to leather tannery workers:

- Since the leather tannery workers are facing health related problems, future researches can be carried out by studying especially the health condition of leather tannery workers and their work environment. Further researches should be focused on the issues and challenges faced by leather tannery workers at various levels. Research studies are required to study the knowledge and awareness about health related issues of leather tannery workers. And study the barriers to access the ESI benefits and other health insurance coverage.
- Skill up-gradation to the leather tannery workers may improve their salary.
- Medical screening during pre-employment and periodical medical checkup can protect workers from developing chronic respiratory disorders by allowing the early recognition of respiratory obstruction and then, possibly, the removal of sensitive workers from that area of the workplace before chronic impairment develops.
- Information, Education and Communication (IEC) should be strengthen for the workers, to promote norms for adopting preventive health measures through use of gears and gadgets, such as face mask, protective eye glasses, special boots/shoes, gloves, and head cover and other protective things for the safety of workers working in high risk environment.

CONCLUSION

This study argues that the socio-economic condition of the workers can be affected by the health, working conditions, kinds of work, personal behaviors and lifestyle. The health problems of the workers involve a holistic process, rather than just one factor, and all factors are integrated with the workers' lives. The workers involved in handling chemicals and their hands, and legs are exposed to chemicals, control machines and tools, and also the other way around, machines and tools control the workers' body. The physical body is the main asset for the workers. They invest it in order to achieve better lives.

The results of the study reveal that there is a need to improve the health condition and health needs of the leather tannery workers. Protective measures should also be provided to reduce the various morbidities. Health status of the workers is more important for economic production of the industry and also in developing good socio economic status for the worker's family. It is necessary for the health care provider, various stakeholders to identify such factors, thus the monitoring and care provided can be improved.

Their socio-economic status will be improved only if adequate measures are taken to overcome their problems. The state and central government can formulate suitable policies to increase the welfare of the workers. This study helps to suggest increasing the socio-economic conditions of workers in leather tanning industry.

Reference

- Baker DB: Tanning and leather finishing; Stellman JM (eds.): Encyclopaedia of Occupational Health and Safety, 4th edn. Vol III. Geneva, ILO, 1998, pp. 88.2–88.7.
- Benedict Thyagarajan. D, (August, 1999), "Whether Leather or Human Rights" PUCL Bulletin.
- Biswas. S, D.Chakraborty, MK. Chatterjee, PK. Gangopadhyay, S. Mukherjee, K. Nayak, GuddiTwary (2012), Socio-Economic Status of Working of Building Construction Industry, *Indian Journal of Occupational and Environmental Medicine*, Vol. 16, No. 2, pp. 66-71.
- Census India 2011: http://censusindia.gov.in/Dist_File/datasheet-3304.pdf
- Gnanasekaran, S., Subramani, K. and Thaminum Ansari, A. (2010), Ambient Air Pollution from the Leather Tanneries in Vellore district in reference to the Asthma. *Journal of Chemical and Pharmaceutical Research*. 2(5): 153-160.
- <http://socialjustice.nic.in/constprov2.php?pageid=1#a2>.
- Indranil Bose, Somnath Paul, Jayanta Banerjee. (June, 2012), "Workers Participation in Trade Union Activities: An Exploratory Research on the Selected Leather Units of Kolkata", *Management Insight*, Vol. VIII, No. 1.
- Internet FAQ Achieves Dated: 20.1.2015. <http://www.faqs.org/minorities/South-Asia/Scheduled-Castes-of-India.html>
- J. Maurice. "Tannery Pollution Threatens Health of Half-Million Bangladesh Residents." *Bulletin of the World Health Organization* 79.1, 2001.

- Kuppuswami B. (1981), Manual of Socio Economic Scale (Urban). Mansayan 32, Netaji Subhash Marg, Delhi.
- O. P. Aggarwal, S.K. Bhasin, A.K. Sharma, P. Chhabra, K. Aggarwal, O.P. Rajoura. (2005). A New Instrument (Scale) for Measuring the Socioeconomic Status of a Family: Preliminary Study Indian Journal of Community Medicine Vol. 30, No. 4,
- Planning Commission: http://planningcommission.gov.in/aboutus/committee/wrkgrp12/wg_leath0203.pdf)
- SEWA Academy. (2000), Labouring Brick by brick: A study on construction workers. Self Employed Women's Association (SEWA), Ahmedabad, India, 2000.
- UNIDO, United Nations Industrial Development Organization, Cost of Tanned Waste Treatment, 15th Session of the Leather and Leather Products Industry Panel, Leon, Mexicom, 2005.



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