

**Workplace Health and Safety:  
A Study of Select Small Scale Manufacturing  
Units in Delhi**

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**Rinju Rasaily**



**V.V. Giri National Labour Institute**



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Rinju Rasaily\*



**V.V. Giri National Labour Institute**

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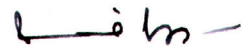


## Foreword

This research study on “Workplace Health and Safety: A Study of Select Manufacturing Units in Delhi” emanated from a felt need by workers representatives from Centre for Indian Trade Unions (CITU) given the recurrent fire accidents in the small scale industrial units. V. V. Giri National Labour Institute was requested by CITU to examine this aspect in order to address the questions around health and safety at workplace.

This study situated in Delhi across select four small scale industries i.e. leather, garments, electronics and auto-parts manufacturing units was hence undertaken. Based on primary findings and secondary data, the study clearly brought out that factors associated to risks, injuries, hazards at workplace were found to be intertwined with broader structural and political factors operating especially for the unorganised sector workers. Associations between international market competitiveness and compliances to health and safety for the garments export manufacturing sector on the one hand for instance, and monopoly and neglect of health and safety standards among the high-risk auto-parts manufacturing units on the other was clearly demonstrated through this study. Furthermore, decline in collective bargaining, nature of work organisation, difficulties in enforcement and compliance dictate workers’ terms of trade.

This report would hold an important contribution to the literature on occupational safety and health (OSH) as it has sought to understand the political economy of health as well as brought forth an array of issues by engaging all stakeholders including workers representatives, employers, government and the industrial workers. With increasing global impetus on occupational safety and health and recent attempts by the Government of India in developing and reviewing its policy measures, the findings of this study will definitely unearth questions that are less addressed and assist in building sector specific policy recommendations. We hope that this report will be useful to researchers, academics, trade unions, policy makers and other stakeholders.



Manish Kumar Gupta  
Director General





## Preface

Literature on public health in India is yet to give sufficient attention to issues on workplace health and safety. There are sporadic efforts both at the policy and advocacy level to draw national attention. This research study unfortunately was triggered by the deaths of workers caused by a fire accident in one of the shoe-making units in Delhi. The overall objective of this study was to conduct a situational analysis on health and safety but on exploration, embedded and intermeshed socio-political and structural questions emerged, that one could not circumvent.

However the specific objectives of this study were i) to understand the nature of work organisation and labour relations in the industrial units; ii) to document the extent and intensity of industrial injuries and accidents across sector manufacturing units; iii) to document the conditions of work, safety measures and standards adopted across such units; iv) to study the means taken by workers in handling industrial injuries, accidents and hazards at workplace v) to examine the extent of enforcement of various legislative provisions across such units in different sectors and limitations therein and the role of workers' representatives and vi) to analyse the existing policies and outline few policy measures especially for workers in the smaller private industrial settings.

Four manufacturing industries such as leather, garments, electronics and auto-parts were selected to understand varied aspects on health and safety at workplace. This primary study was carried out during the years 2011- 2012 in four industrial areas representative of these industries i.e. Peeragarhi-leather, Patpargunj-garments, Okhla-electronics and Mayapuri- auto-parts manufacturing units respectively. This research report based on primary and secondary data is chapterised as follows. Chapter I is a review of existing literature and methodology adopted for this study. Chapter II discusses on the industry, occupation and profile of workers. Chapter III based on the primary findings of the study examines workplace health and safety issues. Chapter IV discusses on regulation, accountability and collective bargaining and Chapter V as conclusion and recommendations.

**Rinju Rasaily**

## Acknowledgement

At the outset I would like to sincerely thank V.V. Giri National Labour Institute for providing the opportunity to work on the issue of health and safety of industrial workers in Delhi. Shri V.P. Yajurvedi, former Director General for entrusting me with this responsibility as desired by CITU, his support is acknowledged. Suggestions given to this study by the RAG members of Centre for Labour and Health Studies; Dr. Indrani Gupta, Dr. Ritupriya Mehrotra and Dr. D. B. Gupta is immensely valued and acknowledged.

Abhilash G. Nath who was associated with this project at the initial stage, strengthened the theoretical framework by a critical engagement with the existing literature, his work is sincerely acknowledged. Feroz Khan, who joined subsequently, took up the task of executing the field work with Field investigators Nazir Hussain and Yogesh Verma in the difficult terrains of Peeragarhi, Patpargunj, Okhla and Mayapuri. Without their inputs, this report would not have materialised. I am grateful for the tremendous support extended by CITU comrades in reaching out to workers in these industrial areas.

I would also like to acknowledge the support given by the officials at the Chief Inspectorate of Factories and Office of the Labour Commissioner, Delhi for discussions and facilitating factory visits in these industrial areas. Due acknowledgement is also extended to the officials at the Office of Department of Industries, Govt. of NCT Delhi; Delhi Fire Safety (DFS) office and the MCD office, Delhi for providing relevant information. Data provided by DGFASLI is sincerely acknowledged. I would also like to thank the employers and members of various employers' associations of Delhi for their support.

At this juncture, I would like to express my gratitude to Shri Manish Kumar Gupta, Director General of VVG NLI for facilitating the publication of this study.

This work would not have been possible without the support of my family and friends. I thank them deeply. Moreover, I remain indebted to the workers who took out time from their work and shared their lived realities and experiences to the entire project team. To them this research report is dedicated with the hope for some key interventions on workplace health and safety issues by the Ministry of Labour and Employment, Government of India.

**Rinju Rasaily**

# Chapter One

## Introduction and Methodology

### I Introduction

Health and Safety issues at workplace in industrial areas have been an important area of concern in public policy domain. The Bhopal Gas Tragedy of 1984 is a bitter reminder of the trauma and misery that thousands of families continue to face. Negligence, lack of prioritisation of health and safety for workers; availability of 'cheap' and 'ready' labour, poor monitoring and redressal system are some of the main reasons for such fatal accidents and mishaps occurring in such industrial areas. The fire accident at one of the shoe factories at Udyog Nagar, Peeragarhi, West Delhi that caused huge damage and deaths of 11 workers on 27 April 2011 clearly necessitates questions for such fatal industrial accidents.

At the outset it is important to understand a few rudimentary conceptual differences, for example, why is it so that the term 'accident' is used rather than 'injury'? To explain, Theo (1997) rightly points out that the term 'accident' carries connotations of that which is unanticipated, unintentional and which is down to misfortune or bad luck and when the term 'accident' is applied to industrial injury it tends to obscure certain realities' (Theo 1997: 3). Also, "as far as injuries at work are concerned, the term 'accident' obscures that 'luck' is a class issue" (ibid). He states that therefore an industrial injury maybe regarded as bad luck or unforeseen but if one stands in the class structure, more so in the occupational structure, it systematically affects ones chance of getting injured (ibid). Baldamus W. (1969) posits that 'explanation of accidents in terms of hazards alone was superficial'. He argues that there is a 'chain of causation' and there is a need to distinguish between 'proximate' and 'remote' causes. For example, 'fatigue' might be a remote cause and 'lack of coordination' a proximate cause. It is imperative to understand that 'injury is socially produced' and the 'situations in which injuries occur are structured by broader economic and political relations' (Theo 1997: 81). Navarro V. (1983) states "as capital moves from state to state, it continuously recreates the conditions of exploitation", low unionisation, for example (Navarro 1983: 6).

It is interesting to note, here, that the fifth economic census, conducted in 2005, for instance, has registered a 10 percent growth in the number of enterprises, operating in Delhi, that is, from an estimated 6.86 lakh enterprises in 1998, the number has reached 7.54 lakh in just few years time. It also has indicated a substantial increase in the workforce, employed

in the region. With an average number of individuals engaged in work in each firms increased to 5.41, in 2005, from that of 5.10 in 1998; their total number has registered over 17 percent growth, that is, from 35 lakh employees in 1998, to 41 lakh employees in 2005.<sup>1</sup>

With an average number of individuals engaged in work at 5.41, in each firms, in 2005, the census also implicitly suggests the very low proportion of firms with ten or more workers. Masanori Koga (1968), for instance, stresses it, when he suggests that though the number of firms with more than ten workers is extremely low, when firms with less than ten employees are considered, numbers for India stand much larger than that for the advanced West and strikingly very larger than Japan.<sup>2</sup> Yet when considering the technological advancements in the production process, the organisation of work and, more importantly, the working environment and the nature and market value of the final products, along with the size of the firms, he suggests that most part of small-scale industries in the Developing World are neither, entirely traditional nor modern, rather, at its very core, they only satisfy an intermediate status.<sup>3</sup>

Such a visible disparity between small-scale industries in advanced societies and developing countries, that is, at the very nature and structure of their enterprises, has been highlighted by authors, elsewhere.<sup>4</sup> Obviously, the small-scale industry in India, with such a specific characteristic, demands the *broadening* of the concept, small-scale sector, itself to also consider small scale enterprises.<sup>5</sup> For instance, the recent Reserve Bank of India (RBI) document uses the term in its reasonably expanded version. In its definition, small-scale industries includes: one, firms, with an investment, which is under Rs. 5 crore, that are engaged, principally, in manufacturing, processing and preservation of goods, this also includes relatively small firms engaged in repairing machinery; two, relatively small firms, whose assets do not exceed Rs. 25 lakh.<sup>6</sup>

This average size of firms in Indian small-scale sector, in most cases, not only has led to the deterioration of the working conditions, not even way

<sup>1</sup> Planning Department: Government of National Capital Territory of Delhi, "Background Note on Delhi's Industrial Policy," September, 2006 - Site address: <http://www.sidbi.in/notices/Delhi-DraftIndustrialPolicy.pdf>

<sup>2</sup> Masanori Koga (1968), "Traditional and Modern Industries in India," *The Developing Economies*, Volume 6, Issue 3, pages 300 - 323.

<sup>3</sup> *Ibid.*

<sup>4</sup> M C Shetty, *Small-scale and Household Industries in a Developing Economy*, (Asia Publishing House, 1963).

<sup>5</sup> J C Sandesara, "Small-Scale Industrialisation: The Indian Experience," *Economic and Political Weekly*, Vol. 23, No. 13 (Mar. 26, 1988), pp. 640 - 654.

<sup>6</sup> [http://www.rbi.org.in/scripts/BS\\_CircularIndexDisplay.aspx?Id=3391](http://www.rbi.org.in/scripts/BS_CircularIndexDisplay.aspx?Id=3391).

below what International Labour Organisation (ILO) describes as *decent* work, it often deprive workers the very right to better working condition. Keshab Das (2008), for instance, writes that 'making payment on piece-rate basis and hiring workers without any formal contract' have become a quite convenient practice among small-scale industrial firms operation in India.<sup>7</sup>

Health and safety at workplace is an important but a neglected condition for employment. Various studies conducted by civil society organisations like Centre for Science and Environment (CSE) and Peoples' Union for Democratic Rights (PUDR), Delhi on accidents including fire accidents in different industrial areas such as Okhla, Mayapuri and others have documented the conditions and the situations of workers working in such units. However, a careful analysis is also required to understand factors that make certain rules/standards in certain industries 'visible' against the 'invisible'.

Centre for Science and Environment (CSE) notes that the small illegal units in Delhi are not only running in crowded residential areas but running along with maximum risk.<sup>8</sup> CSE also reported the fire accident of Savitri Petrochemical Factory in A-1232, Okhla Phase - II, in Sanjay Colony, South Delhi. As per the report, the factory has stored highly inflammable chemical of which it did not have any permission from MCD to store such harmful chemicals. The tragedy is that 'the factory is still running in the thick of the night'.<sup>9</sup> Not only this one incident but CSE came up with many such issues and that has been reported from 1985 to 1999, which has taken place in illegal small units. The illegal nature of such small units makes it more prone to engulf the safety and security concerns of the workers. The Virgo Company fire accident of September 1999 which took a toll of six workers clearly depicts the chaos in functioning of these illegal small units. This accident also revealed the legality complexions in granting the compensation in such illegal small units. This rented washing factory was working as a subsidiary company for a larger company, Kashika Enterprises. Most of the workers here are directly hired through a contractor.<sup>10</sup> In such a situation the workers families were left defenceless

<sup>7</sup> Keshab Das, "Micro, Small and Medium Enterprises in India: Unfair Fare," Working Paper No. 181, Gujarat Institute of Development Research, January 2008.

<sup>8</sup> Centre for Science and Environment: Draft Dossier on Health and Environment. Available at <http://old.cseindia.org/programme/health/pdf/conf2006/a69industrydelhi.pdf>, accessed on 23.05.2011.

<sup>9</sup> Ibid, p 2.

<sup>10</sup> People's Union for Democratic Rights (PUDR, 2006): Trapped to Death: Deaths from a Fire at a Garment Factory in Viswas Nagar. Available at <http://www.pudr.org/content/trapped-death-deaths-fire-garment-factory-vishwas-nagar>, accessed on 01.07.2011.

and were bereft of compensation. These are not the first or only evidences of accident in the factory at Delhi, there are many such countless events. On December 2005, in one such reported incident, in the same part of the country, that is, in Delhi's Vishwas Nagar, took lives of 12 workers, who had been trapped in the packing section, at the second floor, of a garment factor. They all, who had been *employed* to work, ended up sacrificing their very lives, just because of some managerial negligence. The only staircase, which the workers could have used to escape, became inaccessible, as the packaging materials, which blocked the staircase, immediately, caught fire, leaving them hopeless. They all finally succumb to death, due to severe burn and asphyxiation.

Even after two months, Moushumi Basu writes, the condition of the survivors, of the Vishwas Nagar tragedy, was pathetic. Sanjay Gupta, who had to jump from the second floor, remained in the hospital for next few months. It is 'still not know whether he will be able to return to work again.'<sup>11</sup> The money he received form Delhi Government, that is, a sum of Rs. 20, 000, wasn't enough to pay his hospital bills. A resident from Sultanpur village, Balia constituency of Bihar, she lost her husband in a coal mine accident in Dhanbad, Jharkhand, when her kids were two and one years old. Left alone in a crude and harsh world, she single-handedly raised her kids. Now, when her kids, who migrated to Delhi in search of job, also met with the same fate, as her late husband; for her, it is just the beginning of yet another struggle. Moushumi Basu has further added that the long stay in the severe winter of Delhi, for those families of the dead, who made the difficult journey from their villages to the capital, for the first time in their lives, has yielded little by way of justice.<sup>12</sup>

An incident, which scales the accident and exposes the negligence and irresponsibility of the higher authorities, is the Peeragarhi Fire accident. On 27 April 2011, a case of fire was reported in a shoe factory, the blaze, which lasted 15 hours, lefts 11 workers charred to death.<sup>13</sup> The factory has been functioning for the past 15 years, in Udyog Nagar, Peeragarhi, in West-Delhi. The factory employed 60-80 workers of whom only 22 were on the rolls while rest employed through contractor on daily wage basis<sup>14</sup>. Similar to earlier case, the factory caught fire because of a short circuit

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<sup>11</sup> Ibid.

<sup>12</sup> Ibid.

<sup>13</sup> The Hindu, Business Line, "Most victims of Peeragarhi fire were unregistered", available at, <http://www.thehindubusinessline.com/industry-and-economy/economy/article1993943.ece>, accessed on, 7-12-2011.

<sup>14</sup> NDTV Article, "Ten dead in Delhi factory fire, all exits were blocked, available at, <http://www.ndtv.com/article/cities/ten-dead-in-delhi-factory-fire-all-exits-were-blocked-102183>, accessed on, 7-12-2011.

that engulfed the entire building spreading from the basement which was the factory store room. The news paper report stated that the workers got trapped in the fire because all the entry and exit points of the factory were blocked. It was also reported that the building stored too many cartons and exits and escape routes were blocked as a result. The iron grills on the top of the wall, wire mesh on the windows made it impossible for them to jump off to terraces of the nearby buildings. The fire which reported at 7.10 pm on Wednesday was brought under control on Thursday morning around 7.50 a.m. "The factory had never sought an NOC. Usually no factory can start without a fire safety certificate. This factory has, however, been functioning for the past 15 years," said the senior police officers as reported in *The Times of India*<sup>15</sup>. The factory owner also installed iron grills on windows for security reasons which are again one of the violating norms as per the fire department. "This is the second time that this factory has witnessed such an incident, the first being a minor fire that erupted last year<sup>16</sup>. One of the eyewitnesses, Rajput, who worked in the factory a few years back, said the building had small gates. He also said that fire incidents had occurred in the factory several times earlier, but no one had died.

Next to the Peeragarhi industrial belt is the Jwalapuri fire station – only five minutes away from the Peeragarhi industrial cum residential area.<sup>17</sup> As noted by ND TV, this 27 April 2011 fire incident is the fourth incident of fire in Peeragarhi in three months. On February 15, 2011, a polyvinyl chloride (PVC) factory caught fire but no one died in the incident. Just ten day later on February 26 another fire broke out in a shoe factory, killing four including a child. On March 13, a fire was reported yet again from a shoe factory but no loss of life was reported.<sup>18</sup> Despite repeated incidents of fire outbreaks, issues around workplace safety are least prioritised both by the employers and the concerned administration. But, there are numerous incidents which do not get reported or even noted by the workers themselves. There could be trivial injuries or wounds which can be life threatening to the workers.

Literature also suggests a substantial increase in occupational health hazards, especially with the ascendancy of globalisation, as a decisive

<sup>15</sup> *The Times of India*, "Shoe factory fire: Delhi police arrest two, available at, [http://articles.timesofindia.indiatimes.com/2011-04-30/delhi/29490538\\_1\\_factory-fire-mohammad-sajjat-rescue-operations](http://articles.timesofindia.indiatimes.com/2011-04-30/delhi/29490538_1_factory-fire-mohammad-sajjat-rescue-operations), accessed on, 7-12-2011.

<sup>16</sup> "Indian Express", "Shoe factory didn't follow guidelines: Fire officials", available at, <http://www.indianexpress.com/news/shoe-factory-didnt-follow-guidelines-fire/783709/>, accessed on 7-12-2011.

<sup>17</sup> Ibid.

<sup>18</sup> ND TV article 2011, op cit.

force, in the post-reform India. The study by James Leigh *et al.*, in 1999, for instance, is worth referring. While, James Leigh *et al.* have estimated, the frequency of occupational disease and mortality, within the first decade of liberalisation in India, as 9,24,700 – 1,902,300 and 121,000 respectively; the non-fatal and fatal injuries for the same period have been estimated as at least 17,000,000 and 45,000 respectively.<sup>19</sup>

Incompetence of law is not just anchored in its out-datedness and inflexibility, rather the very enforcement system itself is *inadequate* to implement it properly. The Standard Reference Note of the Director General of Factory Advisory Services & Labour Inspectors (2012)<sup>20</sup>, for instance, for the year 2011 records the service of just 3587 Safety Officers, 3228 Welfare officers, 7464 Factory Medical officers in occupational health services across the country. This inadequacy is not just reflected in the general neglect of unorganised sectors, but also, quite clearly visible in organised sector too. As per report, with an employment of 1,16,34,070 workers, that is, an estimated 9, 82,6210 and 1,80, 7860 male and female workers respectively, there are more than 3,25,209 registered factories operate in 2011<sup>21</sup>. Out of them, according to 2011 DGFASLI data 13,458 factories, presently, has declared Safety Policy. And among all these registered industrial firms, the report suggests the functioning of 12,292 Safety Committee and with the service of just only 3,587 safety officers.<sup>22</sup>

It is only with the liberalisation of domestic economy that has gained momentum since the early 1990s that the Indian labour market has witnessed, one could say, a radical transformation. The new wave of free trade and free flow of capital, on the one hand, and the related uneasiness towards free international flow of labour, on the other hand, has developed a noticeably flexible domestic labour market in India.<sup>23</sup> The most obvious case in point is the segregation of labour along vertical and horizontal lines. When the vertical segregation of labourers along state-owned, national, joint-venture and global capital owned sectors limits their potentials for organised bargaining across different sectors, the horizontal segregation of workers according to their *social* and *cultural* capitals limits them from collective bargaining within each sectors, and within the factory. For instance, the small-scale industries in India, since they attract limited

<sup>19</sup> James Leigh *et al.*, “Global Burden of Disease and Injury due to Occupational Factors” Epidemiology Resources Inc., 1999.

<sup>20</sup> <http://www.dgfasli.nic.in/info1.html> accessed on 14.12.2013.

<sup>21</sup> *Ibid*, p 49.

<sup>22</sup> *Ibid*.

<sup>23</sup> Ajit Singh, “Globalisation, Industrial Revolutions in India and China and Labour Markets in Advanced Countries: Implications for National and International Economic Policy,” Policy Integration Department, Geneva, Working Paper No: 81.



capital inflow and being extremely labour intensive, accommodates a major section of poor migrant labourers from countryside. Since they are not equipped to defend themselves in an increasingly competitive, market oriented social and economic environment, they are often been silenced and transformed to just another cog in the machine.

The present study, relying on a detailed study of primary (fieldwork data) and a range of secondary works, explores the basic nature and structure of selected small-scale industries in Delhi, such as, auto parts, textile, leather manufacturing and electronics products. It further documents and examines the nature, extent and the intensity of occupational risks and hazards involved in such industrial ghettos and explores solutions for certain pertinent problems.

Problems, such as: how organisation of work sidelines the concerns of work, safety and welfare of workers? Does life, its roughness, in such industrial ghettos itself deprive the worker her voice and convert her to one among a growing army of 'invisible' labourers in Indian urban landscape? How can one diagnosis the repressive functioning of power at work in such industrial ghettos? What do the workers actually do in the case of industrial injuries and accidents? Who addresses their grievances? What are the health and safety measures adopted in these units? Does the size of the industry really matter in the nature of such redressal measures? Is the current policy framework sufficient enough to address such predicaments that these workers face in the evolving labour market; if not, do we need a separate government body to address their grievances in these small private sector industrial units?

## II Methodology

Workers representatives i.e. the trade unions have played a central role in the creation and implementation of national laws. However as initially discussed, *laizze faire* has impacted and witnessed considerable changes on the nature of economic and labour relations especially over the last two decades. The trade unions (especially CITU) expressing the need to conduct an in depth examination on aspects of health and safety issues, given the repeated incidents of fire outbreaks in different industrial units in Delhi. This study based on primary data survey and analysis of select small scale manufacturing industrial units in Delhi has emanated from this very felt-need by workers representatives. However, in this study, health and safety at workplace is employed here as a working definition instead of occupational safety and health (OSH) essentially to expand the understanding on health. The term 'workplace' provides a much broader scope as compared to 'occupation'. This however is not to negate the direct or causal linkage between 'occupations' and 'health hazards'.

The specific objectives of this study are i) to understand the nature of work organisation and labour relations in the industrial units; ii) to document the extent and intensity of industrial injuries/accidents across various industrial units; iii) to document the conditions of work, safety measures/standards adopted across such units; iv) to study the means taken by workers in handling industrial injuries/accidents, hazardous and employment risks; v) to examine the extent of enforcement of various legislative provisions across such units in different sectors and difficulties/limitations therein and the role of workers' representatives and vi) to analyse the existing policies and outline few policy measures especially for workers in the smaller private industrial settings.

After a careful scrutiny and discussions both internal and external (Office of the Chief Inspectorate of Factories and senior officials at the Office of the Labour Commissioner, NCT Delhi were also consulted); four major industrial areas of Delhi were selected. They include Peeragarhi and Mayapuri Industrial Areas in West Delhi; Okhla Industrial Area in South Delhi and Patpargunj Industrial Area in East Delhi. These areas were selected as they largely cover units manufacturing leather, auto parts; electronics and garment products. Some of the recent and repeated fire outbreaks were in units manufacturing leather and garment products.

This study has adopted an exploratory research design. Some of the methods used for primary data collection include a) profiling of the select industrial areas; b) profiling of workers through use of interview schedule; c) interview of key informants (trade union representatives, contractors, members of employers' associations, government officials etc); d) Focus Group Discussions (FGDs) with workers and e) Observation method through factory visits for qualitative inputs.

### *Universe of the Study*

The primary reference unit of the study was the industrial units. Details on the type of units and its nature of production depended upon details that were provided at various Employers' Association Offices, interviews with Estate Managers and by examining various Industrial Directories such as Mayapuri (Phase I and II) Industrial Directory 2011 published by Mayapuri Small Industries Welfare Association; Okhla Industrial Area Directory 2008 of Phases I, II and III and Flatted factories published by Okhla Factory Owners Association; Informative Directory 2008 published by Patpargunj F.I.E. Entrepreneurs Association, Patpargunj. Companies/units listed in these directories were registered units. However, for selecting these units, the study has adopted an indirect method for data collection given the constraints as documented subsequently.

## Sampling

### Selection of Units

Given the vastness of each industrial area and non-availability of complete data on type and number of units within such industrial areas a mapping exercise *in to* was not feasible. Instead, an industrial profiling of each of the industrial area was conducted through information gathered from the Department of Industries; and discussions with government officials, estate managers, trade unions representatives, workers and owners wherever feasible. As mentioned earlier, for this study Mayapuri Industrial Area is representative for auto parts manufacturing; Peeragarhi Industrial Area for leather products, Okhla Industrial Area for electronic products and Patpargunj Industrial Area for textile and garment products respectively. Since direct access to such units was difficult, workers employed in such factories/units were randomly selected. Therefore the nature and type and number of units<sup>24</sup> covered in this study were dependent completely on snow-balling method. The key respondents for the study thus included key informants and workers.

Table 1.1 shows that from the 203 workers interviewed, 108 workers work in registered units, of which 20.4 percent were in leather, 24.1 percent in garments, 26.9 percent in electronics and 28.7 percent in auto-parts manufacturing units. Workers working in unregistered units were highest in leather with 30.6 percent, 22.2 percent in garments and electronics and 25 percent in auto-parts respectively. Maximum number of workers i.e. 44.1 percent out of 59 who reported that they were unaware of the registration status of the units was from the leather industry.

**Table 1.1: Percentage of Workers across Industries and its Registration Status**

Industry	Registered unit	Unregistered unit	Units with information not available on registration	Number/Percent to Total Number of Respondents
Leather	22 (20.4)	11 (30.6)	26 (44.1)	59 (29.1)
Garment	26 (24.1)	8 (22.2)	18 (30.5)	52 (25.6)
Electronics	29 (26.9)	8 (22.2)	12 (20.3)	49 (24.1)
Auto-parts	31 (28.7)	9 (25.0)	3 (5.1)	43 (21.2)
Total	108 (100)	36 (100)	59 (100)	203 (100)

Source: Fieldwork, 2012.

Note: Figures in parentheses are percentages.

<sup>24</sup> These were Registered Units/ Non-Registered Units/ Units with information not available on registration.

### *Selection of Workers*

Given the difficulty of the terrain, the envisaged representative sample size of 80 worker respondents in each industrial area could not be reached. Accessibility and outreach of workers' representatives and snow-balling method resulted with interviews of 43 workers from Mayapuri, 58 from Peeragarhi, 53 from Patpargunj and 49 from Okhla respectively (Table 1.1). Although attempt was made to ensure that women workers were adequately represented it was found to be extremely difficult to locate women workers outside the factories during lunch or tea breaks. Accessing them after 10-12 hours of work was difficult for the field investigators. However visits on Sundays at their place of residence substantiated the qualitative insights. Thus out of 203 workers only 17 women workers (4 from Mayapuri, 6 from Peeragarhi, 2 from Patpargunj and 5 from Okhla) could be interviewed although factory visits witnessed a huge deployment of women labour especially in the garment manufacturing units.

A constant challenge to data collection was in convincing and reassuring the workers that their identity would not be disclosed in affecting their jobs. Excluding the 203 respondents interviewed; interview schedules of 41 respondents had to be disqualified. Few refused to continue interviews when questions of accidents and inspections were raised. Paucity of time, interruption of contractors, supervisors and influence of other fellow workers also affected the interview process. Few workers were engaged in different occupations for e.g. servicing of auto-parts in the case of Mayapuri. Few respondents also categorically stated that only if they benefit would they give their consent to interview.

### *Selection of Key informants*

Key informants interviews were conducted at various levels. At first trade union representatives/leaders were interviewed at all the four industrial areas. Interviews with the Estate managers, members of employers' association, management staff and contractors from each industrial area were taken during the course of data collection. Detailed interviews were taken with officials at the Office of the Labour Commissioner of India, Chief Inspectorate of Factories, Office of Commissioner of Industries, Delhi Fire Service and Municipal Corporation of Delhi at the beginning of fieldwork. However factory visits and detailed discussions with owners/employers were conducted at the last stage of field work. Detailed discussions were also held with the respective factory inspector during factory visits. Care was taken not to engage in any discussion with workers at the time of factory visits.

### *Data Collection and Analysis*

Primary data was collected from all the four industrial areas under study. Hazardous industries were excluded as it was not within the scope of this study. Primary data was collected with the help of an interview schedule. This schedule was translated in Hindi in order to facilitate the field investigators during fieldwork. Field investigators along with the coordinator conducted interviews which were also recorded wherever permitted. These records assisted in providing detailed qualitative information on key research questions for this study. Quantifiable variables were analysed using SPSS Version 17. Variables such as nature of units, employment history, along with socio-economic profile; risks, accidents, provision of PPE, compensation for temporary and permanent disability and various other benefits; extent of labour inspections and trade unionism and collective bargaining were some of the significant data both quantitative and qualitative generated from this study.

Key issues were also thematically analysed with primary field evidences and key informants interviews. Only five group discussions with workers were feasible in these areas. Workers' perceptions on health and safety at workplace and on labour relations were the focus of these discussions. A group discussion of 4-5 women workers working on home-based contract (embroidery work) was feasible at Paptargunj. While in Okhla a discussion with 2 young female workers working in electronic manufacturing units provided various insights into their working conditions and lived realities.

Secondary literature on patterns of industrial injury, workplace health and safety issues in the select industrial sectors like textile, leather, auto parts and electronics corroborated the primary study findings. Newspapers highlighting stories/cases on relevant issues were also reviewed. Secondary data was collected from government reports and non-government agencies on the extent of health and safety conditions in industrial units. The recent amendments to the Factories Act 1948, and the National Policy on Safety, Health and Environment at Workplace, 2010 (Ministry of Labour and Employment, GOI) has been examined in this study. An attempt is also made to map out the extent of accidents and injuries and enforcement of various legislations based on interviews with respective government officials, and available data from Directorate General, Factory Advice Service and Labour Institute (DGFASLI) and Office of Chief Inspectorate of Factories, Delhi in particular. Factory visits facilitated by the latter strengthened the report.

### **Ethical Issues**

During the course of fieldwork, care was taken not to create any situation of discomfort to the workers interviewed. Prior consent was taken from each of the respondents before interviewing and recording and the subject was carefully explained by the interviewer to the respondent. Identity of workers and key informants; names and addresses of factories/units visited for this study has been confidential.

### **Limitations of the Study**

This primary study attempted to provide an overall situational analysis in understand various issues around workplace health and safety in the small scale units. Units as such could not be selected and instead workers, irrespective of the registration status of the unit where they were employed, were randomly selected through snow-balling method. Constraints in accessing workers, a larger sample size as envisaged could not be executed. Therefore generalisations based on this primary study per se should be avoided. A rigorous recall-period for analysis also could not be executed because of time constraint during each interview. The methodology adopted here is to understand the social aetiology of health within a public health framework and not as guided by medical experts on studies on occupational health and safety.

## Chapter Two

# Industry, Occupation and Profile of Workers

This chapter begins by discussing the industrial regulatory frameworks in Delhi and profile of each industrial area under study. Further parameters such as migration, social categories, education and skill are taken to understand if such factors accentuate work hierarchy across such industries. Indicators such as nature of employment and income also helps in understanding how such circumstances heaves the workers further into informal work arrangements.

### Industrial Regulatory Frameworks in Delhi

The industrial profile of Delhi has witnessed several changes especially over the last decade primarily due to the changes in the regulatory frameworks with regard to manufacturing and service sector industries. Pollution control norms for instance, have resulted in reallocation of certain industries to other notified areas of NCR. However, a major aspect of this change is the thrust given to development of industrial sectors. Delhi unlike other metropolitan cities such as Kolkata and Mumbai where the industrial structure has been dominated by large industries, had a much stronger presence of small scale industrial units by the end of 1960s (Mazumdar<sup>25</sup>). Delhi currently has 28 planned industrial estates, which were developed for promotion of industrial units. These estates were set up since 1954. In almost each of these industrial areas there are multiple agencies maintaining these units. They are maintained by Delhi Development Authority (DDA), Department of Industries, Government of NCT, Delhi, Delhi State Infrastructural and Industrial Development Corporation (henceforth DSIIDC), Municipal Corporation of Delhi (MCD) and Public Works Department (PWD) mainly.

The changes in the industrial regulatory framework Delhi also, to an extent have rearranged the spatial and organisational profile of small scale sector. Units are now registered under the Micro, Small, Medium Enterprises Development (MSMED) Act, 2006;<sup>26</sup> mandatory for all micro and small

<sup>25</sup> Indrani Mazumdar: Unorganised workers of Delhi and the Seven Days Strike of 1988 [http://www.indialabourarchives.org/publications/Indrani%20Mazumdar.htm#\\_ftn6](http://www.indialabourarchives.org/publications/Indrani%20Mazumdar.htm#_ftn6) Mazumdar nd of 1960s (je of small scale industrial units. industries, had more ent.

<sup>26</sup> Under this Act, the 'industry' component has been replaced by the 'enterprise' in order to accommodate the service sector enterprises. Manufacturing enterprises under it has been defined in terms of investment in plant and machinery (excluding land and buildings). They are as under: Micro Enterprises- investment upto Rs 25 lakh; small enterprises: investment above Rs 25 lakh upto Rs 5 crore and Medium Enterprises- investment above Rs 5 crore and up to Rs 10 crore.

enterprises and manufacturing sector medium enterprises but optional for service sector medium enterprises. Currently there are about 800 units registered under this Act<sup>27</sup>. Registering under this Act is helpful for entrepreneurs in accessing loans, government contracts etc<sup>28</sup>. Permission from Delhi Pollution Control Committee (DPCC)<sup>29</sup> for operation and approval from the Department of Industries is mandatory under this registration process.

It is important to note that the transfer of administrative power to DSIIDC since 2006 were in tandem with the promotion of trade and investments. Flexible portfolios within the Department of Industries the earlier controlling agent was an important outcome of such transition. There was also a parallel shift from manufacturing to IT industries and related services. Another important aspect regarding land or plot allotments was the push towards conversion from leasehold to freehold allotments<sup>30</sup>. The Industrial Land Management Advisory Committee' has been constituted under the Department of Industries mainly to facilitate disposal of all matters pertaining to lease/land management, including conversion of industrial properties from leasehold to freehold. With the conversion into freehold the Department of Industries has no control of these industrial plots as there is no registration required under it<sup>31</sup>.

Market forces have triggered relocation of such industries to other areas where costs of production is cheaper in terms of minimum wages, infrastructural costs to name a few. The subsequent section provides a brief profile of the four manufacturing industries in order to contextualize this study.

<sup>27</sup> Office of Commissioner of Industries, 12.01.2012.

<sup>28</sup> Discussion with officials at DSIDC office, Patparganj, 12.01.2012.

<sup>29</sup> The DPCC is also responsible for maintaining works of Common Effluent Treatment Plants (CETP) established by the Ministry of Environment and Forests (MoEF), in 1991. In the study area according to CPCB report (2005), drains were under construction in the case of Mayapuri and in Okhla; effluents were being discharged into drains at Sarita Vihar and an open drain in Z-block near Phase II. Central Pollution Control Board (2005): Report on Performance Status of Common Effluent Treatment Plants in India: Available at <http://www.cpcb.nic.in/newitems/9.pdf> Accessed on 02.02.2012.

<sup>30</sup> A leaseholder requires permission from Department of Industries to give out as rent whereas a freeholder does not require any permission. On application for freehold the Department conducts checks to see violations etc after which give permission for freehold.

<sup>31</sup> Discussions with estate manager, Patpargunj, 12.01.2012



## Industrial Area Profiles

### I. Leather Industry- Peeragarhi (Udyog Nagar) Industrial Area

According to the Report of the Working Group on Leather Industry for the 12<sup>th</sup> Five Year Plan (2012-2017)<sup>32</sup> small and micro units predominate across all these segments while the large units account for only five percent of the total manufacturing units. The organised sector in 2009-10 has a share of 56.4 percent in terms of production of leather and leather products<sup>33</sup>. The footwear and footwear components segment and non-leather footwear segment have the highest capacities in terms of production. The leather industry as such is spread across different divisions, mainly tanning and finishing, footwear and footwear components, leather garments, leather goods etc. In Peeragarhi Industrial area, also known as Udyog Nagar almost 95 percent are shoe-making units manufacturing sandals, sports shoes, slippers / *chappals* made out of PVC<sup>34</sup> leather etc in different types of establishments. Some of these units cater as suppliers for multinational companies.

Interestingly, in the area across this industrial complex are numerous home-based units manufacturing and supplying as ancillary units to these larger established units in Peeragarhi. Households are economically dependent for work contracts on these established units. Discussions with owners at Peeragarhi revealed that these manufacturing units would be moving to Bahadurgarh district, Haryana where a Footwear park<sup>35</sup> is being established at Sector 17 by the Government of Haryana. This footwear park has been constructed in over 615 acres of land. Most of the shoe-manufacturing companies already have acquired plots in Bahadurgarh. These units within 2-5 years will gradually move as costs of production in terms of minimum wages are less and governmental subsidies are better. Stiffer competition from international markets such as China was commonly reported by employers across all industries that have triggered such transitions in the industrial sector<sup>36</sup>.

### II. Garment Industry - Patparganj F.I.E. (Functional Industrial Estate)

In Patparganj, the Department of Industries had developed seven functional industrial estates on 130 acres of land comprising of 500 plots. Currently

<sup>32</sup> Available at ([http://planningcommission.nic.in/aboutus/committee/wrkgrp12/wg\\_leath0203.pdf](http://planningcommission.nic.in/aboutus/committee/wrkgrp12/wg_leath0203.pdf)).

<sup>33</sup> Ibid p 14.

<sup>34</sup> Polyvinyl chloride (PVC).

<sup>35</sup> Viewed at [http://articles.economicstimes.indiatimes.com/2007-12-22/news/27678427\\_1\\_mw-power-power-generation-third-phase](http://articles.economicstimes.indiatimes.com/2007-12-22/news/27678427_1_mw-power-power-generation-third-phase) viewed on 03.12.12.

<sup>36</sup> Personal interviews with employers/owners at Peeragarhi, 20.01.2012.

there are 535 plots in Patparganj. Plots varies in size of 300-400 sq meters. Flatted factories were also allotted by the Department of Industries. According to the Estate Manager, Patparganj about 300-400 plots are of 450 sq meters in size and the remaining are of 250 sq meters. Out of the 535 plots, four plots are vacant due to high tension wires, 30-35 plots are under the Delhi Vidyut Board, 155 plots are on lease and the remaining are on freehold. The size of these freehold plots varies from 100 sq meters to 250 sq meters. Earlier such units were on perpetual lease with payment of ground rent but now with freehold conversions the rate as fixed by the government is currently at Rs. 26,000/- per sq meter<sup>37</sup>. Within Patparganj there are also about 74 relocated factories functioning under DSIIDC.

Patparganj, unlike Peeragarhi is an example of a mixed industrial area wherein small-scale units of manufacturing and exports houses are working together. According to the Estate Manager, Patparganj, the nature of manufacturing units include production of incense sticks, plastics products, garments, paper, artificial jewellerys, handbags, iron-work like molding and tanning. As reported, light engineering, vehicles and service maintenance work has considerably increased in this area<sup>38</sup>. However, garments manufacturing for export predominate this area. There are thus more than 43 small-scale units that are engaged in the process of textile and textile products<sup>39</sup>. Hosiery, readymade ladies garments including western and Indian wear, inner and night wear; T-shirts, track suits, track pants and other cotton textile products are produced from these units. Units from this industrial area too have begun to shift to NOIDA and Greater NOIDA with cheaper cost of production is cheaper on the one hand and profitable rental income from such units in Delhi on the other. The rent of flatted factories in Patparganj currently varies from Rs 50,000- Rs 1 lakh per month<sup>40</sup>. This was found to be similar in industrial areas such as Okhla as the next section illustrates.

### **III. Electronics Industry- Okhla Industrial Area**

Earlier Okhla too was a manufacturing hub as it is the oldest organised industrial estate in Delhi established in the Nehruvian era in 1958. It is a walled/fortified area in Delhi. According to the Industrial Profile Delhi (2007), Office of the Commissioner of Industries, Government of NCT of Delhi, Okhla Industrial Estate was developed in four phases since 1956-

<sup>37</sup> Such details were based on discussions with the Estate Manager, Patparganj, 13.01.2012.

<sup>38</sup> Discussions with officials at Dept. of Industries, Patparganj, 12.01.2012.

<sup>39</sup> Patparganj F.I.E. Entrepreneurs Association, Informative Directory (2008), 12.01.2012.

<sup>40</sup> Based on discussions with the Estate Manager, Patparganj, 12.01.2012.

57 in 110 acres of land. During 1957-58 in the first phase 86 sheds<sup>41</sup> were built and allotted on rent. In the second phase (1963-64), 40 sheds were built and in the third phase (1964-65), 40 sheds as well as 73 plots were developed and allotted. And in the last phase (1965-66), 18 sheds and 32 plots were developed. The size of such sheds varied from 450-600 sq yards and plots from 1000- 2000 sq yards. In 1981 'Flatted Factories' complex (also called Okhla *mandi*<sup>42</sup>) where 294 flats in 6 blocks were constructed and its allotments were then made on a rental basis. This however now is being converted as hire-purchase<sup>43</sup>. Flatted factories with 50 square meters in size are common in Phases I and II.

In 1983, 101 plots were developed in 12.5 acres of acquired land in Phase II for development of functional industrial estate for electronics products manufacturing. S block in Phase II comprising of 101 blocks has units manufacturing electronics products only. In Phase II, 76 plots were developed in Block A on nine acres of land which however is still under construction. Phases I and II continues to have more of manufacturing units including readymade garment exports whereas Phase III had less of these and more of corporate offices<sup>44</sup>. In the newly expanded Phase IV area there are about 18 sheds. In Phase III, there are about 90 shops, 126 sheds and 82 plots. About 40-50 percent of the area is under freehold in Phase III and almost 60-70 percent has been converted into corporate offices and establishments. With change in the policies as discussed earlier on land allotments, most of such plots are converted as freehold on payment and clearance from the respective authorities at Department of Industries/ DSIIDC<sup>45</sup>.

With increase in land value/property prices and rent, its central location, with improvement in transportation and communication and availability of educated and highly skilled workforce this area witnessed a change in establishments over the years predominated by a shift from manufacturing to trading and now currently to service sector. Establishments in Okhla previously comprised of electrical, engineering, electroplating, automobiles/ auto parts, manufacturing of sports goods, dolls etc<sup>46</sup>. Nowadays corporate houses and even BPOs are found to be located in this oldest industrial estate of Delhi. Such changes are somewhat characteristically similar with other industrial areas especially Patparganj. Thus expansions of

<sup>41</sup> Sheds are temporary constructions made of tinned roofs.

<sup>42</sup> *Mandi* is a wholesale market.

<sup>43</sup> Based on discussions with Estate manager, Okhla, 13.01.2012.

<sup>44</sup> *Ibid.*

<sup>45</sup> Discussions with officials at Employers' Association, Okhla, Phase II, 13.01.2012.

<sup>46</sup> Discussions with Estate Manager, Okhla, op.cit.

such plots/sheds are found to cater not to the manufacturing sector per se but to the larger industrial houses and corporate establishments. The fourth industrial area chosen for this study is Mayapuri Industrial area representing the auto-parts manufacturing industry.

#### **IV. Auto-parts Industry - Mayapuri Industrial Area**

In 2010-11 the turnover of the automobile industry was Rs 2, 39,000 crores with the auto component industry at Rs 1, 79,320 crores approximately<sup>47</sup>. In Delhi, Mayapuri is known for its auto-component manufacture and repair units and engineering units. But very recently like in Okhla most of such units are moving out of Delhi to NCR because of increasing cost of production. Mayapuri industrial area is situated in the west district of Delhi. It has been carved out by DDA in a phased manner during the 1960s. It is divided into two phases - Phase I and Phase II. In Phase I there are two blocks Block A and Block B where small units function. Phase II is divided into numbers of blocks like Block A, B, C, D, E, S, SW etc., and are also divided into different markets. These markets are called the 'old motor' market, the 'scrap' market, the 'spring' market and so on<sup>48</sup>. These markets are with the functioning units of this area. Overall there are more or less 1125 functioning units in both these phases. Both servicing and manufacturing units operate in the area and the auto-parts manufacturing takes place as under Casting and Forging Items. This area however is well known for dismantling parts of 'stolen vehicles' and the not very old case of nuclear radiation in the scrap market of Mayapuri<sup>49</sup>. In this area there are only 2-3 casting and forging foundries. These units fall under the heavy industries categories and according to the employers received special permission from the Delhi High court to operate in Mayapuri.

These industrial area profiles reflect the recent changes but it nevertheless reiterates the predominance of these as "traditional industries" in Delhi. Although these units *appear* to be planned in its establishment; visits inside these units reveal the actual conditions of work. These aspects with respect to the issue on health and safety will be dealt in the next chapter. Indicators of social categories, religion, education and skill; working conditions, employment relations etc. are important to contextualise issue of workers'

<sup>47</sup> Report of the Working Group on Automotive sector for the 12<sup>th</sup> Five Year Plan (2012-2017).

<sup>48</sup> Based on discussions with trade unionists and government officials, Mayapuri.

<sup>49</sup> For details please see Babu P. Ramesh and C.P. Vinod (2010): *Radiation Incident in Mayapuri Disquieting Signals to Labour* Economic and Political Weekly, July 24, 2010 Vol XIV No 30, pp 16-18. This paper discusses the abject neglect of occupational health and safety of workers work working in such high risks and hazardous areas. It also mentions the dismal interventions at the policy level.

health and safety. It is posited here that social, economic and other facets that determine work hierarchy and *luck*, as embedded in class, gets exacerbated further along the markers of caste, religion, gender and age.

### Migration, Social Categories and Religion

Urban workforce especially in the informal sector in the case of Delhi has been composed largely of migrant labour, usually male, unskilled and as single migrants (Banerjee 1986). Much of the literature on rural to urban migration and the informal sector has examined the nature, causes for migration and urban settlement (Mitra and Murayama 2008). Migration to Delhi in search of employment from states such as Uttar Pradesh initially, followed by Bihar became pronounced over a period of time (Banerjee 1984). Data from this present study reflects similar patterns with 49.4 percent and 30.4 percent of the respondents hailing from these two states respectively. Proximity to Delhi, lesser 'transaction costs' could be factored for higher percentage of migrants from Uttar Pradesh.

It is an established fact that migration is intertwined with aspects such as kinship ties, caste networks; village bonding and social affiliations (Banerjee 1986; Mitra and Murayama 2008). With respect to social categories as against religion, in this study, data has been classified as Schedule Caste (S.C.) Hindus, Schedule Tribe (S.T.), Other Backward Castes (OBCs) Hindus, Others (Hindus), Muslim Others and Muslim OBC. For analytical reasons, all other castes have been categorised as others. They include castes that do not belong to the OBCs and significantly belong to the upper and middle castes<sup>50</sup>. In the following sections, an attempt has been made to examine few variables that could affect occupational mobility and income in particular, through the lens of social categorisation of caste and religion.

**Table 2.1: Social Composition of Workers across Industries**

Religion	Leather (n=59)	Garments (n=52)	Electronics (n=49)	Auto-parts (n=43)	Total (n=203)
Hindu	81.4	76.9	93.9	93.0	85.7
Muslim	18.6	23.1	6.1	4.7	13.8
Christian	-	-	-	2.3	.5
Total	100.0	100.0	100.0	100.0	100.0

<sup>50</sup> For example Brahmins, Kshatriyas; sub castes such as 'Jaiswal', 'Kashyap' and others such as 'Rawat', 'Negi', 'Nayar' (from Kerala) and other sub castes are subsumed into this category as reported.

<b>Social Categories</b>					
Others	26 (28.3)	18 (19.6)	27 (29.3)	21 (22.8)	92 (45.3)
OBC	11 (27.5)	9 (22.5)	9 (22.5)	11 (27.5)	40 (19.7)
SC	11 (30.6)	9 (25.0)	8 (22.2)	8 (22.2)	36 (17.7)
ST	-	1 (50.0)	-	1 (50.0)	2 (1.0)
Muslim Others	7 (35.0)	8 (40.0)	3 (15.0)	2 (10.0)	20 (9.9)
Muslim OBC	3 (37.5)	4 (50.0)	1 (12.5)	-	8 (3.9)
NR	1 (20.0)	3 (60.0)	1 (20.0)	-	5 (2.5)

Source: Fieldwork, 2012.

Note: Percentage figures are given for religion and for social categories figures are number of respondents with the percentage in parentheses.

Table 2.1 shows that overall 17.7 percent of the respondents were Scheduled Castes, 19.7 percent OBCs; others were at 45.3 percent with only one percent as Scheduled Tribe. On the basis of religion, Hindus were 85.2 percent and 13.8 percent were Muslims. Muslim OBC includes various groups such as Idrish (*darzi*) with 3.9 percent. Only one Scheduled Tribe (S.T.) respondent from Jharkhand was Christian by faith.

Given this social distribution, Annexure 1.2 attempts to provide a gender disaggregated data on social categories with respect to the place from where each individual worker had migrated. It shows that from among the seventeen female respondents interviewed; eleven workers were from Uttar Pradesh. Only one respondent was from Kerala, who was educated and trained in computer applications. She however was found to be working as an unskilled worker in an auto-parts manufacturing unit in Mayapuri. One belonged to the Muslim OBC category and one under Muslim Others. Both of them hailed from Uttar Pradesh. It is possible that employment of women had much to do with family migration. The case of a skilled women worker from Kerala however stands out. Annexure 1.2 reflects that pattern was similar across all castes for respondents from Uttar Pradesh and Bihar, with a slightly higher number of O.B.C. and S.C. migrants from Uttar Pradesh. It is possible that families of respondents from Delhi could have experienced migration earlier.

As mentioned in the methodology, the representation and reasons therein of less number of female respondents although there was a larger presence of women workers as witnessed through factory visits in the garment manufacturing units and also in electronics. Adolescent girls and women in the age group of 30-40 were found to be engaged in full-time employment

in factories/units. On discussions it was found that home-based work was commonly preferred among women members in a family especially in the case of garments/textile and electronics industry<sup>51</sup>. Such forms of engaging labour are also best suited for the factory owners and entrepreneurs. Studies on home-based work in the informal sector have approached and discussed various dimensions to women's work both as paid and unpaid labour (Meena Gopal 1999; Mazumdar 2005; Swaminathan 2010). Majority of the respondents i.e. 81.9 percent both male and female were found to be in the age group of 15 to 35 years and 36.5 percent between 20-25 years. Vulnerabilities get multiplied with age and gender as illustrated through some case narratives in this report. Age cohort of 15-20 years had a higher percentage of workers in both semi- skilled and unskilled categories reaffirming the entry into the labour market at a young age<sup>52</sup>. Among the skilled category there is a complete absence of this age cohort for the auto-parts and electronic industries.

The Inter-State Migrant Workmen's (Regulations of Employment and Conditions of Service) (ISMW) Act 1979 lays down specific interventions for migrant workers including providing displacement and journey allowances; provision of suitable accommodation, working conditions, adequate protective clothing and equipment. It also seeks to address in case of accidents to ensure intimation to both authorities of home and host states and kith and kin. However questions of awareness, enforcement and regulation remain as issues to be addressed. In India some attention has been demonstrated at the policy level on international migration unlike inter-state or internal migration. Amendment and implementation of the Inter State Migrant Workers' Act 1979 needs attention for building a flexible and healthy workforce. This aspect however is beyond the scope of this study. The subsequent section provides specific details with regard to skill levels, education with respect to social categories.

### **Education, Skill level and Social Categories**

Migration, occupational mobility and accessibility to job opportunities are intertwined and determined by various socio-economic and political factors. As Qadeer and Roy (1989) have argued factors such as access to land, natural resources, education, skill and social background determine the level of work hierarchy one enters into. Although an in depth analysis on these aspects were beyond the scope of this study, factors of number of years of employment, 'on the job skilling', 'commitment' to work, 'loyalty', could be linked to skill-upgradation and thus occupational mobility.

<sup>51</sup> As based on discussions with women workers in the industrial areas.

<sup>52</sup> For details on age and gender, please see Annexure No 1.1. (Workers' Profile Across Industries).

Education, formal training, networks, could be the other external factors that could possibly contribute to some sort of vertical mobility for workers within such industries but to what extent vertical mobility is possible in the informal system is a question. The subsequent section examines some of these questions.

**Table 2.2: Educational Level across Social Groups**

Education	Social Group							
	Others	Muslim others	Muslim OBC	OBC	SC	ST	NR	Total
Illiterate	10 (10.9)	5 (25.0)	2 (25.0)	3 (7.5)	6 (16.7)	-	-	26 (12.8)
Primary	23 (25.0)	4 (20.0)	2 (25.0)	8 (20.0)	9 (25.0)	-	2 (40.0)	93 (23.6)
Secondary	38 (41.3)	10 (50.0)	3 (37.5)	21(52.5)	18 (50.0)	2 (100.0)	1 (20.0)	93 (45.8)
Higher Secondary	14 (15.2)	1 (5.0)	1 (12.5)	7 (17.5)	1 (2.8)	-	1 (20.0)	25 (12.3)
Above Higher Secondary	6 (6.5)	-	-	1 (2.5)	2 (5.6)	-	1 (20.0)	10 (4.9)
Not Responded	1 (1.1)	-	-	-	-	-	-	1 (.5)
Total	92 (45.3)	20 (9.9)	8 (3.9)	40 (19.7)	36 (17.7)	2 (1.0)	5 (2.5)	203 (100.0)

Source: Fieldwork, 2012.

Note: Figures in parentheses are percentage.

Table 2.2 show education and skill levels across social groups. With regard to literacy levels, 12.8 percent of the respondents were non-literates. It was proportionately higher among Muslims and SCs. Primary education was attained by 23.6 percent of the respondents with almost an even distribution between 20-25 percent across all social groups excluding ST. secondary level of education was found to be attained by 45.8 percent of the respondents within which 37.5 percent was Muslim OBCs; 50.0 percent among Muslim Others; 50.0 percent among SCs and 41.3 percent among Others Castes. Only 12.3 percent reported to have attained higher secondary education within which 17.5 percent was from the OBC, 15.2 percent from Other Castes and only one respondent each from SC and Muslim Others and Muslim OBC respectively. Education above higher secondary was attained by only 6.5 percent of Other Castes and 5.6 percent of SC. Only ten respondents as such had education above higher secondary level. Only one female respondent had attained higher secondary education. Four out of the seventeen female respondents were not literate.



**Table 2.3: Location of Skill-level against Technical Training**

Industry	Skilled	Semi-skilled	Unskilled	Total
Leather	-	1 (11.1)	-	1 (4.2)
Garments	1 (9.1)	-	-	1 (4.2)
Electronics	7 (63.6)	4 (44.4)	1 (25)	12 (50)
Auto-parts	3 (27.3)	4 (44.4)	3 (75)	10 (41.7)

Source: Fieldwork, 2012.

Note: Figures in parentheses are percentage.

In each of these industries under study, composition of skill level has been arrived at as reported and corroborated with relevant government classification<sup>53</sup>. Work division like in any industry is classified under various departments based on skill and the nature of work. Table 2.3 illustrates the distribution of respondents who had acquired technical training against their reported skill level. It shows that despite having acquired 'some skill', one worker from the electronics industry and three from the auto-parts industry were working as unskilled workers. And only seven out of twelve technically trained workers were skilled workers in the electronics industry and three out of ten in the auto-parts industry respectively.

Skill level across social categories from Table 2.4 reflect that from the forty-seven unskilled workers, 30 percent were from the OBC category, 22.2 percent from SC and 22.8 percent from other castes and 25 percent were from Muslim others and 12.5 percent from Muslim OBC. Out of 37.9 percent of respondents in the semi-skilled category; 42.5 percent were OBC, 38.9 percent SC and 35.9 percent from others and 35 percent from Muslim Others. From the 38.9 percent of workers who reported as skilled workers, it was reportedly greater from the garment manufacturing units as this section comprised largely of Muslims as evident from Table 2.6.

**Table 2.4: Skill Level and Technical Training across Social Categories**

Skill Level	Social Group							Total
	Others	Muslim Others	Muslim OBC	OBC	SC	ST	NR	
Un-skilled	21 (22.8)	5 (25.0)	1 (12.5)	12 (30.0)	8 (22.2)	-	-	47 (23.2)

<sup>53</sup> Given the difficulties of time and space, getting details into the type of skills with a specific framework and methodology was not possible for the researcher. Also the notion of the self, in understanding his/her work as 'skilled work' reflects on reporting. Details of composition of each skill level across each industry as self-reported by workers are given in Annexure 1.3.

Semi-skilled	33 (35.9)	7 (35.0)	2 (25.0)	17 (42.5)	14 (38.9)	2 (100.0)	2 (40.0)	77 (37.9)
Skilled	38 (41.3)	8 (40.0)	5 (62.5)	11 (27.5)	14 (38.9)	-	3 (60.0)	79 (38.9)
Total	92 (45.3)	20 (9.9)	8 (3.9)	40 (19.7)	36 (17.7)	2 (1.0)	5 (2.5)	203 (100.0)
Technically Trained	16 (66.7)	1 (4.2)	1 (4.2)	2 (8.3)	3 (12.5)	1 (4.2)	-	24 (11.8)

Source: Fieldwork, 2012.

Note: Figures in parentheses are percentage.

Table 2.4 also shows that out of 24 respondents who reported on technical training, 66.7 percent belonged to other castes while it was miniscule with 12.5 percent from SC, 8.3 percent from OBC and only 4.2 percent each from Muslim OBC and Others respectively. If we examine technical training across gender and industries (table 2.5), twenty-three i.e. 12.4 percent of the male respondents had undertaken some form of technical training. There were also singular cases for instance; a 22 year old male who had completed higher secondary education was working to gather experience in an assembling-unit located in the flatted factory complex in Okhla. He was pursuing a course at NSIC, Okhla in electronics. With this training he aspires to get direct employment in a 'limited' company<sup>54</sup>. Only one female respondent reported with a diploma in Computers although she was found to be working as an unskilled worker in an auto-parts unit in Mayapuri. She is 34 years of age and has studied till Higher Secondary. She originally hails from Kerala, a Nayar by caste. She is married, now separated and lives alone in Delhi<sup>55</sup>.

**Table 2.5: Technical Training across Gender and Select Industries**

Gender	Leather (n=59)	Garments (n=52)	Electronics (n=49)	Auto-parts (n=43)	Total (n=203)
Male (n=186)	1 (4.3)	1 (4.3)	12 (52.2)	9 (39.1)	23 (12.4)
Female (n=17)	-	-	-	1 (25.0)	1 (5.9)

Source: Fieldwork.

Note: Figures in parentheses are percentage.

Table 2.5 also reflects that given the nature of industries, 52.2 percent were technically trained from the electronics manufacturing units and 39.1 percent from the auto-parts manufacturing respectively unlike other two

<sup>54</sup> Personal interview, Okhla, 13.01.2012.

<sup>55</sup> Personal interview, Mayapuri, 31.01.2012.

industries. Only one respondent working in the garment manufacturing unit reported to be technically trained although in DTP (Desktop Publishing) and another in the leather industry.

Higher secondary level education attainment was found to be lowest, and illiteracy levels the highest among the Hindu SCs and Muslims. And four out of the seventeen female respondents were not literate. According to table 2.4, only 12.5 percent from SC, 8.3 percent from OBC and 4.2 percent each from Muslim OBC and Others respectively were technically trained as compared to 66.7 percent of other caste Hindus. And among women, only one was technically trained. Technically trained respondents were greatest from the electronics and auto-parts manufacturing units. Further disaggregated analysis with respect to skill levels and social categories show that from the skilled workers, significant percentage of respondents belonged to Other Castes. It was 71.4 percent in electronics industry, 62.5 percent in leather and 58.5 percent in auto-parts industry respectively. In garments and auto-parts industries 21.6 percent and 25 percent of respondents belonged to the Scheduled Caste category. Accessibility to job opportunities is factored not just by economic condition and skill but more so through social networks as found among the Idrish (*darzi*- traditionally tailors by service occupation) to be employed as skilled workers in the garment industry. Such social dimensions configure in understanding migration, accessibility to employment and are also intrinsically tied to forms of employment as reflected through the social relations of production.

### **Overtime Work, Wage System and Income**

Given the nature of production relations in the unregistered units in particular; earnings or income is largely determined by the prevailing wage system. Common apart from overtime, are the time-rate, shift-rate, piece-rate systems that prevail as methods for wage-determination and payment. These are in tandem with the production requirements of respective unit and its supply chain that in turn determine overtime work requirements and income respectively. This study also reflected that skill level is not a factor for income determination except for the registered auto-parts and electronics manufacturing industries. The minimum wages daily in Delhi is given in Table 2.6 for some of the listed scheduled employment as relevant for this study<sup>56</sup>.

<sup>56</sup> The period of fieldwork was (Jan-April '12). In April '12 the minimum wages increased to Rs 270, 298 and 328 for unskilled, semi-skilled and skilled work respectively.

**Table 2.6: Minimum Wages in Delhi as per Scheduled Employment**

<b>Minimum Wages in Delhi October 1, 2011 (in Rupees)</b>			
	<b>Un-Skilled</b>	<b>Semi-Skilled</b>	<b>Skilled</b>
Automobile Engineering including Servicing and Repair Work of Automobile	256	283	312
Textile Industry including Hosiery Handloom, Niwar, Lace, Thread Ball Mfg. Name Label, Dying, printing of Textile	256	283	312
Manufacturing of Radio and Television including sound producing and recording , Equipment including tape recorders, electric apparatus, appliances & their accessories	256	283	312
All registered factories not covered by any other scheduled employment	256	283	312

Source: Labour Department, Government of NCT Delhi.

Note: As per the list of Scheduled Employment.

### **Reported Income in Garments and Leather Industries**

Reported income here is understood as what workers earn as *fixed* monthly salary though the payment *options* varied across industries. Most workers reported their total income inclusive of *overtime* earnings. Therefore in certain cases there are marked differences in reported income.

The subsequent tables (table 2.7-2.10) reflect the reported monthly income of respondents across four industries. Respondents working in the registered units in the leather products industry were found to be earning mostly between Rs. 5000-7000/-. Only in two cases did the earnings touch Rs. 10,000/- as the case illustrates.

*A 32 year old worker in a shoe factory reported that Rs. 1.20/- was given per pair of slippers<sup>57</sup>. He monthly earns between Rs. 6000-8000/- depending upon the amount of work. Sometimes his earnings reach Rs. 10,000/- whereas the maximum monthly wages for stitching in the leather manufacturing units is Rs. 5000/<sup>58</sup>*

Earnings of eleven workers working in non-registered units did not exceed Rs. 6000. Likewise in units with no information on the registration status, eleven out of 26 workers were earning between Rs 4000-5000 and three workers reported monthly earnings as low as Rs. 2000-3000/- from both

<sup>57</sup> During summer months shoes are produced in the footwear industry and in winter, sandals production takes place respectively.

<sup>58</sup> Interview with a worker, Peeragarhi, 20.03.2012.

non-registered units and units with no information on the registration status. Overall, majority of the respondents were earning income less than Rs. 6000/- per month. In the leather industry, on corresponding with the minimum wages as per Government of Delhi NCT and as reported only one unskilled worker was earning above Rs 7000/-; two semi-skilled and one skilled worker was earning above Rs. 9000/-. It is important to reiterate that this reporting could also be inclusive of the overtime wages and not as per the stipulated wage-rate.

The pattern of reported monthly income was similar across respondents working in the leather products and garments manufacturing units. In the latter, workers were found to be earning income not more than Rs. 9000/- in the registered units and income as low as Rs. 3000/- were also reported. In the garment industry the piece-rate starts from as low as Rs. 4.40 for beginners for stitching a dozen pieces with the help of machine. For cutting shirt pieces the rate varies from Rs. 2.35 for small size shirt to Rs. 2.85 for a large size. Overtime rates are calculated differently across industries. In the leather industry, workers are paid as low as Rs. 11-12/- per hour as overtime. However the maximum amount that workers are paid are between Rs. 22-25/- per hour. On Sundays and night shifts, they receive double *dihari* (daily wage). Workers' ignorance on wage calculation especially with respect to overtime work is apparent. Since they get their wages in two installments, termed as advance and then *kharcha*, it seems more as an act of benevolence of the employers and less of workers' right over their own wages.

**Table 2.7: Reported Monthly Income in Garment Products Manufacturing Units**

Garment Industry	Reported Monthly Income									
	<2000	2000 - 3000	3000 - 4000	4000 - 5000	5000 - 6000	6000 - 7000	7000 - 8000	8000 - 9000	9000 - 10,000	10,000 and above
Registered Units	-	16.7 (2)	50.0 (6)	20.0 (1)	45.5 (5)	63.6 (7)	66.7 (4)	100.0 (2)	-	-
Non-Registered Units	-	33.3 (1)	25.0 (3)	40.0 (2)	9.1 (1)	18.2 (2)	-	-	-	-
Units with information not available on registration	-	-	25.0 (3)	40.0 (2)	45.5 (5)	18.2 (2)	33.3 (2)	-	100.0 (1)	-

Source: Fieldwork, 2012.

**Table 2.8: Reported Monthly Income in Leather Products Manufacturing Units**

Leather Industry	Reported Monthly Income									
	<2000	2000 - 3000	3000 - 4000	4000 - 5000	5000 - 6000	6000 - 7000	7000 - 8000	8000 - 9000	9000 - 10,000	10,000 and above
Registered Units (22)	-	14.4 (1)	25.0 (3)	26.7 (4)	50.0 (6)	66.7 (4)	50.0 (2)	-	66.7 (2)	-
Non-Registered Units (11)	-	42.9 (3)	50.0 (6)	-	16.7 (2)	-	-	-	-	-
Units with information not available on registration (26)	-	42.9 (3)	25.0 (3)	73.3 (11)	33.3 (4)	33.3 (2)	50.0 (2)	-	33.3 (1)	-

Source: Fieldwork, 2012

**Reported Income in Electronics and Auto-parts Industries**

In comparison to the previous two industries (Table 2.7 & 2.8), reported monthly income was relatively better for workers in the registered units in the electronics industry wherein 6 out of 29 respondents reported earning Rs. 10,000/- and above (Table 2.9). Respondents were also found to have attained some formal training as well as the educational attainment was better reflected for this industry as the earlier sections revealed. In the electronics industry, maximum number of skilled workers was found to have earnings above Rs. 10,000/- as compared to other industries. But as the previous section exemplified, job loss was also found to be more common and frequent among the skilled workers.

Although the number of respondents reported working in registered units was the highest in the auto-parts industry, 21 respondents were found to be earning less than Rs. 7000/- per month and only ten respondents were earning more than Rs. 7000/- per month (Table 2.10). In the auto-parts industry in Mayapuri, given the registered status of most units; employment was more permanent and regular in nature as compared to other industrial areas as one case illustrates.

*A 38 year old permanent employee working since the last 18 years in a registered auto-parts manufacturing unit in Mayapuri has now moved to the position of a mechanic. He earns a monthly salary of Rs. 10,500/-. Employees in this company receive benefits such as Bonus, Provident Fund, ESI and Gratuity. He joined this company with a salary of Rs. 1100/-. He is from Azamgarh, Uttar Pradesh. He lives in his own house with his family in Railway Line Colony of Mayapuri<sup>59</sup>.*

<sup>59</sup> An interview with a worker, Mayapuri, 03.04.2012.

Permanent workers in case of few registered industrial units especially in electronics and auto-parts industry reported having a salary account, were in receipt of 'pay slips' along with other social security benefits such as Provident Fund, ESI etc. However as the case of a 22 year old worker illustrates, permanent workers were also not in receipt of salary as fixed under Minimum Wages, Government of Delhi NCT. A permanent worker mentioned that he receives a monthly salary 'of a skilled worker' at Rs. 6400/- after deductions of 8.5 percent for Provident Fund and 2.25 percent for ESI benefits. On including these deductions his monthly salary amounts to only Rs. 7088/-, which is actually less than the stipulated rate of Rs. 7358/- for an un-skilled worker. Unawareness of minimum wages reflects the absence of trade unionism activities or any form of workers collective or redressal mechanisms.

**Table 2.9: Reported Monthly Income in Electronics Manufacturing Units**

Electronics Industry	Reported Monthly Income									
	<2000	2000 - 3000	3000 - 4000	4000 - 5000	5000 - 6000	6000 - 7000	7000 - 8000	8000 - 9000	9000 - 10,000	10,000 and above
Registered Units	-	-	70.0 (7)	55.6 (5)	40.0 (2)	80.0 (4)	42.9 (3)	50.0 (1)	100.0 (1)	75.0 (6)
Non-Registered Units	-	-	-	11.1 (1)	40.0 (2)	20.0 (1)	28.6 (2)	-	-	12.5 (1)
Units with information not available on registration	-	100.0 (2)	30.0 (3)	33.3 (3)	20.0 (1)	-	28.6 (2)	50.0 (1)	-	12.5 (1)

Source: Fieldwork, 2012.

**Table 2.10: Reported Monthly Income in Auto-parts Manufacturing Units**

Auto-parts Industry	Reported Monthly Income									
	<2000	2000 - 3000	3000 - 4000	4000 - 5000	5000 - 6000	6000 - 7000	7000 - 8000	8000 - 9000	9000 - 10,000	10,000 and above
Registered Units	-	-	66.7 (2)	63.6 (7)	66.7 (4)	61.5 (8)	100.0 (6)	100.0 (2)	100.0 (1)	100.0 (1)
Non-Registered Units	-	-	-	27.3 (3)	33.3 (2)	30.8 (4)	-	-	-	-
Units with information not available on registration	-	-	33.3 (1)	9.1 (1)	-	7.7 (1)	-	-	-	-

Source: Fieldwork, 2012.

The point to be noted here as some of the narratives justify, is that wage bargaining is suppressed within the system of earning some *extra* income by working *overtime*. Table 2.11 reflects that overtime work was one of the preferred norms as opposed to wage bargaining or collective bargaining as chapter IV in the report would reveal. This table further shows that in the registered leather manufacturing units; earnings through overtime wages were reported the highest with 81.1 percent, followed by non-registered garments and leather manufacturing units with 75 percent and 72.4 percent respectively.

Overall earnings through overtime wages was reported the highest from workers working in registered units. Another inference that could be drawn from this is that workers working as casual/contract workers maybe unable to distinguish the stipulated number of working hours and overtime hours and also calculate cumulative salary based on overtime work. Wage deductions were also highly practiced in such units as reported by women respondents.

**Table 2.11: Percentage of Workers Reported Receiving Overtime Wages**

Industry	Registered Units	Non-Registered Units	Units with information not available on registration
Leather	81.1 (22)	72.7 (11)	61.5 (26)
Garment	53.8 (26)	75.0 (8)	55.6 (18)
Electronics	72.4 (29)	37.5 (8)	58.3 (12)
Auto-parts	71.0 (31)	66.7 (9)	66.7 (3)
Total	69.4 (108)	63.9 (36)	59.3 (59)

Source: Fieldwork, 2012.

Note: Figures in parentheses are the total number of respondents.

Absence of wage negotiation is understood by the fact that employment is casual, daily-waged and moreover precarious. The case of a 16 year<sup>60</sup> old male worker from Buxar, Bihar working in a shoe factory, Peeragarhi testifies the characteristics of informal work arrangements that seek to justify the 'physical' ability to increase productivity on the one hand and wages on the other.

.... "I have been working for 'not many, only 3 years' in a shoe factory at Peeragarhi. Earlier I worked in a blade-manufacturing factory for 6-7 months in Gurgaon and also my brother got me work in Mangolpuri market. I came to Udyog Nagar and

<sup>60</sup> One woman in the background laughs when asked about his age and says, "...there are small children working..." (Field work, Peeragarhi,23.01.2012)



started working as a 'helper' and slowly became a *karigarh*<sup>61</sup>. We sometimes take advance from the *thekedar*. He makes us work on Sundays too. We work day and night. At times it goes up to 70 *diharis*<sup>62</sup>. We come out of the factory only on the 15<sup>th</sup>, 16<sup>th</sup>, 17<sup>th</sup> or the 18<sup>th</sup> of each month. If you come to the factory your meter is on! The factory is open for 12 hours. One can sleep in the factory day or night...."<sup>63</sup>

This case illustrates how informal bondage through payment of advances, worker's *productive* age determine quantum of work and income here in the urban labour market. For eight hours of work the 16 year old gets a fixed salary of Rs. 7600/- and with an overtime of four hours per day he earns around Rs. 9000-10,000/- every month. Sometimes his earnings reach Rs. 12,500-13,000/- by working continuously for days and nights inside the factory. His wages, again, are paid in two installments; the first installment on the 22<sup>nd</sup> and the second on the 6<sup>th</sup> of the following month. He sometimes gets Rs. 500-600/- as *bakshish*<sup>64</sup>. Apart from differences in earnings or impact from earnings with regard to overtime work and system of wage payment, gender-based wage differentials was highly significant in this study, although as reiterated earlier the sample size of women respondents were not adequate enough for analytical purposes.

### Gendered Wage Rates

Women workers across all industries were found to be working on fixed monthly salary; ranging from Rs. 2500-4500/- depending on the years of work. Overtime work and working on Sundays was commonly practiced across industries. Such overtime incentives lure them to earn 'extra' which in turn costs on their health. Untrained women workers in the leather manufacturing units are paid as low as Rs. 2200/- for eight hours of work which increases to only around Rs. 3500/- after working for over a period of two years.

Table 2.12 clearly shows that women respondents were found to be earning extremely low income as compared to the male respondents. The question of minimum wages or equal wages here is immaterial. There was not a single female respondent whose monthly income was above Rs. 6000/-. And only one respondent was earning between Rs. 5000-6000/-. Three women were earning as low as Rs. 2000-3000/- and the rest were between Rs. 3000-5000/-.

<sup>61</sup> *Karigarh* implies a skilled activity. Depending on the nature of work it could be categorised as skilled or semi-skilled. This respondent operates a machine that is used to fix the upper portion of the sandal to the sole (*lasting dhaga*).

<sup>62</sup> *Dihari* means daily wage. He works continuously in this factory.

<sup>63</sup> Interview with a worker, Peeragarhi, 24.01.2012

<sup>64</sup> *Bakshish* means a token of appreciation in monetary form reflecting patron-client relationship.

**Table 2.12: Distribution of Workers' Reported Income across Industry and Gender**

	Reported Monthly Income																			
	<2000		2000 - 3000		3000 - 4000		4000 - 5000		5000 - 6000		6000 - 7000		7000 - 8000		8000 - 9000		9000 - 10,000		10,000 and above	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Leather	-	-	4	3	10	2	14	1	12	-	6		4	-	-	3	-	-	-	-
Garment	1	-	3	-	11	1	5	-	10	1	11		6	-	2	-	1	-	-	-
Electronics	-	-	2	-	9	1	6	3	4	1	5		7	-	2	-	1	-	8	-
Auto-parts	-	-	-	-	2	1	8	3	6	-	13		6	-	2	-	1	-	1	-

Source: Fieldwork, 2012.

Note: Figures are the number of respondents.

Although the sample size of women workers was markedly low, given their presence in both leather and garments factories; overtime wages as received by women was found to be more pronounced in the leather products manufacturing units with 66.7 percent (Table 2.13). Among men, reported overtime wages was pronounced in auto-parts and leather industry with 71.8 percent and 71.7 reporting respectively.

**Table 2.13: Reported Overtime Wages across Gender**

Gender	Leather	Garment	Electronics	Auto-parts
Male	71.7 (53)	58.0 (50)	65.9 (44)	71.8 (39)
Female	66.7 (6)	50.0 (2)	40.0 (5)	50.0 (4)

Source: Fieldwork, 2012.

Note: Figures in parentheses are the total number of respondents for the particular cell.

The Principle Act under Section 51 'Working Hours' states that "no adult worker shall be required or allowed to work in a factory for more than forty-eight hours in any week". According to the Factories Act 1951, the number of hours of work under overtime is 50 hours per quarter in a year. The Report of the Expert Committee (2011) recommended that "some exceptional work of very urgent nature the maximum permissible overtime work could be enhanced up to 115 hours per quarter with exempting powers to State governments/ CIF" (Section 29). Number of overtime hours based on this figure results in executing overtime work for only 16.66 hours per month i.e. less than four hours per week of overtime. But workers as illustrated have found to be working on an average between 2-4 hours each day. Night shifts, Sundays and regular daily overtime if counted *in toto* would result in a much higher number of hours of work

which are not fairly remunerated. Factory inspection personnel on the one hand expressed limitations in ensuring enforceability of the Factories Act 1948 while the employers/owners expressed that the workers “demand” overtime work<sup>65</sup>.

The ‘*physical capacity*’ to work or *overwork* determines earnings and income. Patron-client relationships continue to prevail more so with the relationships to the *thekedars* through village/kinship ties. An act of benevolence by the owners (*malliks*)/ contractors (*thekedars*) to their workers is not by ensuring their entitlements but by making them work for longer hours. Thus such extra earnings is systematised through ‘overtime’; payment of which was calculated based on their monthly fixed salary for eight hours of work depending on either number of hours worked, piece rate or shift rate and also by giving them advances and loans. Also workers’ loyalties to the *mallik* are found to be pronounced in most cases. Employers’ benevolence or any kind of extension of financial support to workers/employees and where spouses are in employment as in this case have affected reporting to a certain extent. This is a well established fact wherein advances to clear debts were used to coerce and retain labour in most industrial settings.

This chapter therefore clearly reveals a) the extent of informalisation even in the organised set-up b) social networks and affinities that work for accessibility to job/employment opportunities c) links between skill and social identities and educational level and social identities d) precariousness of employment despite the reported understanding on ‘skilled’ work e) earnings determined by the preponderance of overtime work and other forms of engagements and f) strong gender bias towards women as reflected in their wages and income. Although the informal sector has received immense ‘gendered’-attention by scholars lately and as the NCEUS Report (2007) has outlined much needs to be done for this burgeoning sector in terms of elevating their conditions of work. Along with supporting entrepreneurship, it is also imperative to address the need to invest on labour and its health and safety in particular. The subsequent chapter focuses on health and safety the core subject of this study.

<sup>65</sup> Discussions with government officials and employers at various sites, Fieldwork, 2012.

## Chapter Three

# Health and Safety at Workplace

Workplace<sup>66</sup> health and safety is contextualised within the larger understanding of health as a socially produced condition whereby various factors interplay in determining health outcomes. Such understanding is also applicable for the concept of safety wherein ‘injuries’ and ‘accidents’ are predetermined by hierarchies at work and social conditions of existence. Industrial health however encompasses broad indicators such as frequency of injuries, accidents, fatal deaths and extent of occupational diseases in a given working population. The questions that this chapter seeks to raise are a) what is the status of accidents and injuries at workplace b) what are the workplace risks and hazards? c) What does protection and prevention mean to workers working in such adversities? And how have they responded to such conditions? Fire outbreak as one of the significant indicators is illustrated through available secondary literature and primary findings. Reported accidents, risks and hazards, exposures at workplace, workers’ availability of PPE, facilities available at workplace, reported treatment sought as indicators are specifically analysed and illustrated with case narratives. This chapter thus examines within this theoretical premise; workers’ perception of risks, injuries and hazards at workplace across industries. It begins by reviewing secondary data and available literature on industrial health in India for the case of the organised manufacturing sector and subsequently examines specific indicators through the primary findings.

As estimated by WHO (2010), years of life lost (YLL) due to premature mortality by broad causes<sup>67</sup> show injuries accounting for 10 percent in low income countries, 22 percent in middle and 15 percent in high income countries respectively<sup>68</sup>. And globally for the year 2004, the incidence rate for injuries was 10.9 million as caused by fire and 37.3 million as a result

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<sup>66</sup> The International Labour Organisation (ILO) defines workplace under No. 155 Occupational Health and Safety Convention as “workplace covers all places where workers need to be or go by reasons of their work and which are under the direct or indirect control of the employer”. This definition is applied as the working definition for this study.

<sup>67</sup> Broad causes apart from injury include communicable and non-communicable diseases.

<sup>68</sup> Please refer page 60, World Health Statistics, 2010, WHO. Available at [http://www.who.int/gho/publications/world\\_health\\_statistics/EN\\_WHS10\\_Full.pdf](http://www.who.int/gho/publications/world_health_statistics/EN_WHS10_Full.pdf), Accessed on 07.09.2012.

of injuries due to falls<sup>69</sup>. The All India data (Annexure 3.1) for fatal and non-fatal injuries<sup>70</sup> across states against the number of working factories between 2009-10 show that a) from the states with significant number of working factories i.e. Maharashtra, Andhra Pradesh, Tamil Nadu and Gujarat; excluding Tamil Nadu, other states have reported an increase in fatal injuries and a decline in non-fatal injuries; b) reported fatal and non-fatal injuries are proportionately highest for Gujarat; c) overall a considerable increase in fatal injuries in Andhra Pradesh, Gujarat, Maharashtra, Karnataka, West Bengal, Rajasthan, Delhi and Jharkhand and a relative decline in Kerala, Tamil Nadu, Bihar, Chhattisgarh, Punjab and Haryana, Orissa and Uttaranchal. However, these state specific data require a separate examination with respect to growth of industry vis-à-vis informality. e) West Bengal as compared to other states in terms of working factories; such as Karnataka, Uttar Pradesh has the highest number of non-fatal injuries. Whether this perhaps could be attributed to role of workers' representation in West Bengal where accidents got reported and compensation was sought, one the one hand; or was it improved compliance on health and safety that reflected low rate of non-fatal injuries in Kerala for instance, has to be further delved into.

Table 3.1 provides some information on these indicators for the years 1994-98 and 2000-09 specifically for Delhi. Industrial injuries both fatal and non-fatal are found in general to be on a decline; despite an increase in number of working factories. There has been a drastic decline of non-fatal injuries from 1998 to 2009 but annexure 3.1 shows a slight increase in both fatal and non-fatal in Delhi in 2010 from the preceding year. A significant decline from 1998-2000 could perhaps be attributed to the period of liberalisation. However, these figures require a careful examination.

**Table 3.1: Industrial Injuries (Fatal and Non-Fatal) in Registered Factories in Delhi (1994-98 and 2000-09)**

Year	Working Factory end of the Year	Industrial Injuries	
		Fatal	Non-Fatal
1994	5781	9	561
1995	5945	13	495

<sup>69</sup> WHO 2004 p 23, Global Burden of Disease Report, available at [http://www.who.int/healthinfo/global\\_burden\\_disease/GBD\\_report\\_2004update\\_full.pdf](http://www.who.int/healthinfo/global_burden_disease/GBD_report_2004update_full.pdf) Accessed on 07.09.2012.

<sup>70</sup> Section 88, "Notice of Certain Accidents" under the Factories Act 1948 in India, defines fatal injury as "injury resulting from industrial accident which caused death to workers" and non-fatal injury as "injury resulting from industrial accident, which prevented injured worker from attending to work for a period of 48 hours or more immediately following the injury".

1996	6076	18	306
1997	6229	12	102
1998	6350	91	183
2000	6682	05	50
2001	6885	02	53
2002	6967	21	13
2003	7105	06	17
2004	7289	05	14
2005	7476	17	33
2006	7650	14	50
2007	7793	17	35
2008	7921*	07	54
2009	NA	14	26

Source: Compiled from i) Annexure –IV, Report of the Working Group on Occupational Safety and Health for the 10<sup>th</sup> Five Year Plan (2002-07).

ii) [http://delhi.gov.in/wps/wcm/connect/doi\\_labour/Labour/Home/Statistics+And+Miscellaneous/Industrial+Accidents](http://delhi.gov.in/wps/wcm/connect/doi_labour/Labour/Home/Statistics+And+Miscellaneous/Industrial+Accidents) accessed on 2-1-2012

On the contrary, the Report (2011) on the Working of the Workmen's Compensation Act, 1923 for 2007 on the number of compensated accidents and the amount of compensation paid by the establishments submitting returns during 2007 among different industries (Factories, Plantations, Mines, Ports and Docks, Tramways, Building and Construction, Municipalities, Railways, etc) strongly contest the above data. This report shows that factories as compared to mines and railways recorded the highest number of compensated accidents. They were as under - death (33.05 percent), disability - permanent (58.04 percent) and temporary (54.15 percent); much higher than the Railways with 25.81 percent, 18.79 percent and 42.05 percent respectively. Accident rate per thousand worker employed was found to be the highest in factories with 4.65 percent as compared to 3.05 percent in mines and 2.04 percent in railways respectively<sup>71</sup>.

This report further reflects that during 2007 in Delhi, there were 76,904 as average daily number of workers employed in establishments submitting returns excluding railways, Andhra Pradesh (2,55,604) and Maharashtra (1,79,027). In Delhi there were 98 compensated cases of accidents resulting in death; 168 of permanent disablement and 12 with temporary disablement. Andhra Pradesh and Maharashtra recorded 606 and 26 death cases; 374 and

<sup>71</sup> Please see Annexure 3.2, Compensated Accidents, Amounts of Compensation paid and Accident rate per 1000 workers except Railways during 2007.

131 permanent disablement and 51 and 1379 with temporary disablement respectively.<sup>72</sup> The cause of death and or disablement is however not recorded. Here it is important to note that regardless of the WCA being replaced by the ESCI Act 1948 in most industries excluding plantations, the figures of compensation and disability as recorded are quite high.

The extent of under reporting from the earlier tables comes out further when it is compared against with Leigh's (1999) all India estimate on surveillance of work-related injury and disease over a 12-month period (July 1987-July '88) in nine contiguous villages (with total population of 20,000) in Sonipat district, Haryana, recorded 2,164 injuries. It was estimated that in the states of Haryana, Punjab and Uttar Pradesh there are 5,000 to 10,000 deaths each year due to agriculture-related activities. From this data he estimated assuming 70 percent of the population, work in agriculture, there are 16 million injuries and 53,000 deaths alone in agriculture. He took another estimate made by Takala and Obadia (1997)<sup>73</sup> of 45,000 deaths per year in India. Based on both these estimates a mean of 45,000 deaths and 17 million injuries per year in India was arrived at by Leigh et al (1999) during the first decade of liberalisation<sup>74</sup>. If this base figure is considered, then the current quantum of unreported deaths and injuries currently across all sectors would be much higher especially if industries such as ship-breaking<sup>75</sup> and other hazardous industries are accounted. Although DGFASLI has created mechanisms for such documentation<sup>76</sup>, the fault lines are in the reporting, monitoring and compliance systems. All such institutional mechanisms in India, such as DGFASLI, National Safety Council and ESIC perhaps operate in isolation from one another. Regulatory and existing enforcement mechanisms in the backdrop of the ILO Conventions will be discussed in the subsequent chapter.

A review of available statistics on fatal/non-fatal injuries does indicate the need for stiffer regulatory mechanisms and accountability. Such statistics are rooted in the changing work organisation, weaker collective bargaining capacity, problems of enforcement, competition for capital and struggles

<sup>72</sup> Ibid.

<sup>73</sup> Cited in Leigh et al (1999).

<sup>74</sup> For details please see Leigh (1999) op.cit.

<sup>75</sup> Frequent deaths of workers working in the ship-breaking industries in Alang, Gujarat and in Mumbai are reported by respective trade unions working in these areas. Various international organizations like the International Metalworkers Federation (IMF), Toxic Links are examining such aspects.

<sup>76</sup> For details, please see the following link <http://www.dgfasli.nic.in/info1.htm>. The draft questionnaire if analysed would provide key information around health and safety.

for livelihood and survival for labour. Section 96-A of the Principal Act, makes it a punishable offence if the Occupier does not disclose the information to workers regarding dangers, health hazards, does not maintain up to date health records and warn the workers about immediate danger. The Expert committee in its Report (2011) recommends increase in penalty for contravention of provisions contained in Section 41-B, C and H from Rs two lakhs to six lakhs and from Rs. 5000/- to 15,000/- per day if contravention continues after conviction (Section 28). However if there is no systematic recording, the extent of compliance under Section 96-A for example, would make this entire process futile.

*Section 7 (a) of The Factories Act, 1948 states "every occupier shall ensure, so far as is reasonably practicable, the health, safety and welfare of all workers while they are at work in the factory".*

*"...We have conveyor lines. Workers have to do the same repetitive job each day so there are no risks at workplace..." – A Factory Owner*

The above quote testifies or reiterates the lackadaisical approach to issues on health and safety and that repetitive and monotonous jobs may appear to be less risky. But repetitive and monotonous work coupled with drudgery and exhaustion can cause injuries and accidents at workplace. The subsequent sections examine such aspects with primary evidences across each industry under study. This study emerged because of the recurrent fire outbreaks in factories. Thus, fire outbreak as a tangible workplace hazard is hence examined.

### **Fire Outbreak - A Common Workplace Hazard**

A fire outbreak is one of the tangible indicators to measure issues of safety and compliance. As the NCEUS Report (2007) notes in its review on occupational hazards, health conditions and safety measures; that the major occupational hazard is fire and most cases of accidents and deaths are caused due to fire outbreaks. The report notes a study of SSI units in Mumbai that documents that surroundings such as loose wire connections, congested storage etc trigger such outbreaks. The Second National Commission on Labour (SNCL 2002) too documented high fatality rates as a result of fire outbreaks in the ship breaking industry. The data from the office of the Delhi Fire Service in the industrial estates under study does reflect the intensity of recorded outbreaks. Table 3.2 on fire outbreaks in the select industries under study; show that Okhla Industrial Area recorded the highest number of fire accidents as compared to other areas for the years 2009-2010 and 2010-11.



**Table 3.2: Number of Fire Outbreaks in Industrial Areas**

Industrial Area	2009-10	2010-11
Peeragarhi	6	9
Mayapuri	2	Nil
Patpargunj	5	9
Okhla	26	40

Source: Office of Delhi Fire Service, January 2012.

Officials at the Delhi Fire Service (DFS) cited “non-compliance of safety and preventive measures while setting up an establishment” as one of the causes for fire outbreaks. It was although emphasized at DFS that “fire accidents need not necessarily result in death of persons”<sup>77</sup>. As one of the officials reiterated,

*“...We have manpower of 4500 fire fighters working under 54 stations in Delhi. They are there to attend to calls and we rush to save as much as we can. We do not conduct checks...”*<sup>78</sup>

Nevertheless, DFS records show that between 2010-11 DFS attended to 22,187 calls of fire accidents during which 447 deaths occurred and 243 were left injured. There were three serious and ten medium outbreaks. Figures of the previous year 2009-10, show that 363 fire incidents occurred in the industrial areas, 5071 in residential areas, 10,202 in JJ Cluster areas and 73 in high rise areas<sup>79</sup>. These figures prove that on an average there is one fire outbreak every day in one industrial area. If we take into account the magnitude of fire in JJ Cluster areas which, in most cases border such industrial areas; the frequency of fire outbreaks is much higher. The magnitude of risks that fire outbreaks can cause is enormous and worse when livelihoods are at stake. The DFS is authorised to “as per the National Building Code of India to check the design and inform them if any changes have to be made” prior to providing an No-Objection Certificate (NOC) on fire safety for the respective occupier<sup>80</sup>.

<sup>77</sup> Discussions with officials at Delhi Fire Service (DFS), 04.01.2012

<sup>78</sup> Ibid

<sup>79</sup> Available at, [http://www.delhi.gov.in/wps/wcm/connect/doit\\_fire/FIRE/Home/About+Us/Statistical+Report+of+Delhi+Fire](http://www.delhi.gov.in/wps/wcm/connect/doit_fire/FIRE/Home/About+Us/Statistical+Report+of+Delhi+Fire), accessed on 11-1-2012

<sup>80</sup> For details please visit, [http://www.delhi.gov.in/wps/wcm/connect/doit\\_fire/FIRE/Home/Fire+Safety+Acts+and+Rules/Questionnaire](http://www.delhi.gov.in/wps/wcm/connect/doit_fire/FIRE/Home/Fire+Safety+Acts+and+Rules/Questionnaire).

This questionnaire includes most of the specific details required in obtaining an NOC. They include for instance questions like height of the building, its overall height, number of basements, number of staircases in the building, average occupant load per floor; approach to proper building, details of water supply available exclusive for fire fighting; if building equipped with automatic fire detection system, location of switchgear, transformers, electric and telephone cables with details and many more. Such details if at all furnished by the owners would prove beneficial in the long run. Accessed on, 11-1-2012. And interview with officials at the Delhi Fire Service, New Delhi.

The Principle Act under Section 38, 'Precautions in case of fire' states that

*"...in every factory all practicable measures shall be taken to prevent outbreak of fire and its spread, both internally and externally, and to provide and maintain- safe means of escape for all persons in the event of fire, and the necessary equipment and facilities for extinguishing fire..."*

No specific amendments have been proposed under this section so far. Having safe exits has always been an area of concern post-incident. Reports as documented by PUDR and Hazards Centre on fire accidents in different industrial areas in Delhi note that units were mostly non-registered, congested worksites with illegal electricity connections; informal employment, inhuman conditions of work with low wages. The fire outbreak at one of the shoe-making units in Peeragarhi in April 2011 bears testimony to such multi-faceted issues.

### **Remnants from the Field<sup>81</sup>**

*The site, Pinki Porsch Pvt. Ltd is a two-storey building in Peeragarhi Industrial Area. The building area is more than 1000 sq feet. This building had caught fire as a result of a short circuit. The fire had spread to the basement and engulfed both the floors of the building. The place was completely charred. On our visit, the basement was pitch-dark and there were only charred remains of raw materials and other chemicals and dyes that were stored. There were no workers at the time of the incident at the ground floor. Few workers on the first floor who were engaged in stitching using machines managed to escape the fire. However, the workers on the second floor engaged in packaging were the worst hit. Eleven workers were charred to death at this very site. There was apparently no escape route for them as the door leading to the terrace was locked, windows were caged (it was reported that workers would steal and throw made sandals from the windows) and packed boxes had blocked the other exit. Although the reported number of deaths was ten, CITU believed that eleven workers were charred to death including a twenty year old male helper whose body was missing<sup>82</sup>.*

Most of the workers in this unit were hired by contractors. According to the trade unionist, not a single worker could be contacted after this incident. They were transported back to their villages overnight. The only few contacts that they could make were the relatives of the deceased. It was said that the employer ensured that there was no contact with the workers. This same unit had minor incidents of fire accidents previously as informed by the supervisor. He further said that occurrence of fire is

<sup>81</sup> Visit to this site was conducted on 08.07.2011.

<sup>82</sup> The relative of this 'missing' worker was trying to claim compensation. He was the sole earner for his family as both his brother and uncle are physically challenged. It was this incident that pushed CITU to probe on the issue of health and safety at workplace. CITU then was assisting them to get some compensation.

common in such factories. He informed that there were only 30-35 workers of which 16 were permanent workers. This was a registered unit. The unit produced about 600-700 *chappals* daily. Discussions with relatives of the 'missing' worker revealed that there were 3-4 supervisors and around 85-90 workers working in this unit<sup>83</sup>.

Various accounts were given to this fire incident. The supervisor, working since four years in this unit mentioned that it was difficult to douse the fire at the basement as they had exhausted all the fire extinguishers. He said that it was easy to blame the owners for negligence and so on but at the spot it was the responsibility of the fire fighters to douse the flame. According to him, the personnel were 'reluctant to step towards the building' and they 'neither made any efforts' to arrange a crane to rescue workers from the second floor. On questions of locking of doors by the supervisor he said was falsely implicated<sup>84</sup>.

Factory visits to different units revealed the conditions in which workers work and the extent of exposures and risks that they undertake to meet production requirements. The subsequent sections take the reader through factories and work processes and workers' almost nonchalant remarks of injuries and accidents as part of their everyday lived realities. Table 3.3 reflects the extent of reporting of accidents significant from registered units. It was reported highest from the auto-parts manufacturing units, both registered (58.1 percent) and unregistered (33.3 percent) followed by leather industry with 31.8 percent and 27.3 percent respectively. It can be inferred that by reporting accidents, it perhaps did not jeopardise the employment of permanent workers as compared to other work categories. The subsequent section illustrates some of the reported fire incidents in these industrial areas.

**Table 3.3: Reported Accidents at Workplace Significant from Registered units**

Industry	Registered Unit	Un registered Unit	Units with Information not available on Registration
Leather	31.8	27.3	7.7
Garment	26.9	12.5	11.1
Electronics	6.9	12.5	8.3
Auto-parts	58.1	33.3	NA

Source: Fieldwork, 2012.

Note: Figures are in percentage.

NA - Not applicable.

<sup>83</sup> The *chai-wala* in one round, according to the relative, served about 90 cups of tea. This signifies that there were more than what was reported by the supervisor. Field visit, Peeragarhi Industrial Area, 2011.

<sup>84</sup> Field visit, op.cit, 12.07.2011.

## **Fire Outbreaks: A Recurrent Phenomenon?**

### ***Leather Industry***

This industrial area as described in the earlier chapter houses mostly shoe-making units largely unregistered, with a significant proportion of workers working at low wages and under contractors. Reporting of fire accidents by workers from unregistered units too was significant (Table 3.3). Workers in general were hesitant to discuss such occurrences, nevertheless; few workers especially from the shoe manufacturing factories were vocal about fire accidents as the cases below testify. Senior workers in Peeragarhi reported fire accidents as a common phenomenon every year. They mentioned that it has been frequent since last 4-5 years and such occurrences in most cases are man-made. In a fire accident in a shoe-making factory three years back a 46 year old senior worker shares,

*"...20-25 workers had died in this mishap (hadsa). There were about 65 workers. Fire broke out in the basement. Workers were burnt alive inside the factory. Whatever compensation the workers received was from the Chief Minister, Govt. of Delhi. Their relatives though had to run around for compensation. The association (employers') had promised them compensation but they didn't extend any. Every year such fire outbreaks happen. The company is no longer functioning. They create such outbreaks. They do it on purpose. This time the chai-wala locked the main gate of the company. The owners had set it up. It is not labour who does such things. The owners did not want to pay the workers their Provident Fund, bonus etc. And moreover, they show that the factory is a loss-making unit. Such man-made fires are common..."<sup>85</sup>*

This incident, according to the trade union leaders received considerable media coverage; and immediate compensation to the families was given to 'silence' the entire case<sup>86</sup>. Strong employers' lobby and weak labour organisation works much in favour of capital. Fire outbreaks as a reason for accidents/burns were reported by only four respondents in this study. Two mentioned that workers were not present during the time of fire outbreak that was caused due to a short circuit. The following section highlights the preponderance of fire accidents on the one hand and the denial of it on the other.

### ***Auto-parts Manufacturing Industry***

As observed from table 3.3 that respondents working in the auto-parts manufacturing industry have reported higher frequency of accidents.

<sup>85</sup> Personal interview with a 46 year-old worker, shoe factory, Peeragarhi, 24.01.2012.

<sup>86</sup> Interview with trade unionists, Peeragarhi, 03.02.2012

Interviews with workers working in a registered casting and forging unit, manufacturing automobile engines, revealed that they were working without pay since the past 2-3 months after a fire outbreak, again caused by a short circuit. They also mentioned that “there is no dearth of work that ranges from eight to twenty hours every day, except that they don’t pay on time”<sup>87</sup>. The workers hope to claim their salaries and entitlements. It was a second time that an outbreak happened. No major casualties were reported<sup>88</sup>. Under the Delhi Master Plan, foundries are banned in Delhi but this company acquired permission from the Delhi High Court to run its 22 year-old unit<sup>89</sup>. A visit to this unit glaringly revealed the work conditions that are encountered daily by 375 regular workers engaged in this arduous work process who are distributed across three shifts<sup>90</sup>.

*From outside, this unit looks like any other factory unit in an industrial area. However inside, it is a huge foundry - dark and poorly lit. The space was dark and hot. There were heavy pulleys hanging from the high dark ceiling in space. At the far end of the space, was where the foundry was located. Cast iron was being molten here in 1400 degree centigrade temperature. There was no exhaust, ventilation or natural light. There were about 3-4 workers in this section of casting. There was a huge machine on the left of it which operated the casting machine. Workers would operate the pulley that carry the molten iron in a sort of a medium-sized thick metal drum and pour it in the cast (frame). There were 4-5 men, dark and soiled, manoeuvring the pulleys carrying the engines. The distance between these two areas though was not much, but the fact that it was a heavy molten material carried openly by workers without any protective clothing was shocking. On the right hand side a row of engines were placed on a ‘track’ of molten ‘cast iron’ laden engines which were hot and burning. Some of the molten material was overflowing from the cast with short flames flickering from each of the heavy cast pieces. On the left hand side were engines that had already cooled from its temperature. Just outside there was a huge metal tray where these cooled off engines would be placed for dusting off the excess metal and other parts. These particles would again be reused for core-making.*

*There was a worker standing in that section. His eyes were red and he was soiled with dust over his entire body. He wore sort of “boots” and was wearing thick and rough woolen gloves (grey in colour, probably because of*

<sup>87</sup> System of wage payment was erratic in this unit. Workers are not paid for three months and on the fourth month, they are given either Rs 1000/- or more intermittently. This was based on discussion with few workers of this unit, fieldwork 2012.

<sup>88</sup> As told by a worker working for over five years in this unit. The fire outbreak happened 4-5 months prior to period of fieldwork of this study.

<sup>89</sup> As informed by the manager. He further mentioned that only 3-4 foundries are currently functioning in Delhi.

<sup>90</sup> The strength of workers was provided by the manager. Fieldwork,2012.

the dust). With the help of another worker, who looked old and frail, he was moving the heavy engine with a pulley. The weight of each pulley was told to be around 100-150 kgs.

The edges of the staircase, that led to the first floor were worn and curved off; increasing workers probability to slip off and injure. In the first landing of the staircase, there was a large space for urinals on the right which was also used for cleaning and washing by workers. This space was extremely dirty and filthy. On the first floor the pattern making with accurate measurement was done with frames made of sand and some chemical composition. This floor was dingy and dirty. It is simply unimaginable as to how workers in such conditions can work with such precision. Only years of labour and rigour can make the workers adapt and survive in such conditions.

In the ground floor, automated machines on the right were used for washing the engines with a chemical soluble. In the section of finishing, the engine is dipped in oil to prevent from rusting. This room smelt of oil and grease. This room although was well lit but had no exhaust. There were about 4-5 workers in this room. The product is then taken to another room where CMM i.e. Coordinate Measuring Machine<sup>91</sup> is located. The engine is placed on the large table/tray where the coordinates are accurately measured by the operator to finalise the product. A final-checking is done before the product is packaged and dispatched.

The finished products are directly exported. Countries such as U.S., Turkey, Australia and China are the main buyers. On an average about 1000 pieces of various configurations are produced every day. This company has an ISO TS 16496 certification (a quality management system prepared by International Automotive Task Force). The manager chose not to reveal on compliance. He reiterated that the 375 workers were all permanent since the job was 'risky'. And they do not resort to hiring workers through contractors. Manufacturing operations are conducted round the clock in three shifts. With respect to protective gears, he said,

*"...the workers do not use gloves or goggles. They throw it here and there."*<sup>92</sup>

While the factory inspector says,

*"...workers in foundries because of excessive temperature are found to be working wearing only a lungi (cloth to wrap their lower body part). They may wear boots..."*<sup>93</sup>

<sup>91</sup> This hi-tech machine is used to design the layout of each engine as per the buyers' requirements. The software design is prepared in Design and Development department which is installed in the computer.

<sup>92</sup> Interview with Factory Manager, Mayapuri, 04.12. 2012.

<sup>93</sup> Interview with factory inspector, Mayapuri 04.12.2012.

The inspector noted that the conditions of such pulleys operating in these units should be checked every six months. The firmness of the ceiling and its beams was of concern given the fact that this was a 22 year old unit. Despite high export oriented turnovers from this industry, absence of fire extinguishers, proper illumination, emergency exits and non-compliance to any form of safety standards in this unit reflects firstly, unlike other industries especially garment; with an absence of competition acts advantageous to a monopoly operation. Secondly, workers adaptability to work in such adversities elucidates the way in which they have internalised their working conditions and their predisposition towards it.

### *Electronics and Garment Manufacturing Industry*

From these two industries, only three workers reported past occurrence of fire outbreaks. However cases of massive fire outbreaks in garments manufacturing units in both Pakistan and Bangladesh in the past years has been globally witnessed. Two female workers aged eighteen and nineteen years working in the electronics manufacturing units reported fire outbreaks in the units where they worked earlier. In one case as cited by the eighteen year old, adjoining buildings were damaged due to the fire but there were no casualties in this unit as it was closed on Sunday. Short circuit was again cited as a reason for this fire. The nineteen year old working since the last two years in a unit manufacturing amplifiers mentioned that in the electronic company where she worked earlier in assembling line for six years closed down as it had caught fire. She was present during the incident but no one had got hurt. She however didn't know the reason for the fire outbreak. From another garment manufacturing unit, a twenty-seven year old male garment worker working in a unit since 16 years<sup>94</sup> reported that, prior to his current job he was working home-based for a stitching unit for five years till it caught fire and closed. One of the crucial repercussions of fire accidents is that it triggers insecurities to employment and emoluments even if employment is permanent/regular in nature as exemplified through these cases and the earlier case of the auto-parts unit in Mayapuri.

Probability of accidents, fire outbreaks, and injuries in particular that do not get recorded are very frequent given such conditions at work. Interactions with the workers on accidents, especially vital accidents like fire, which lead to death and permanent disabilities, raise several important questions. The foremost is the issues related to regulation of

<sup>94</sup> He was a minor at the time of home-based employment. Such long durations of employment also reflect the tender age at which a person enters paid employment.

unregistered unit and to an extent registered units. As in most of the cases, such fatal accidents could have been averted with proper precautions and safety arrangements since these industries do not come under the category of 'highly hazardous industries'. In some cases, workers even believe that these are man-made. Second important question is the compensation of workers and to their families. As revealed by the workers they were not adequately compensated mainly due to their status of employment as contract workers. In most of the cases their names are also not included in the factory documents, which limit the workers and their families to claim compensation. This is found to be true across registered and unregistered units. Third is the question of passing the burden of such accidents to workers since most of the time such accidents are attributed to the carelessness of the workers. As indicated in the cases above, workers have to continue working in those units which caught fire without wages for months in the pretext that the unit has to be restored to business so that they can protect their employment. On the contrary, owners of the units are compensated from insurance claim.

In this section hazards specifically, as based on the conceptual framework and literature reviewed, are examined through indicators such as exposures to dust, fumes, oil/grease, heat, vibration/noise, work pressure, uncomfortable posture and odour; physical complaints while at work and self-reported workplace risks. Although measurements in terms of temperature, humidity, space, illumination in each factory was not possible; and specific recall period due to paucity of time could not be captured; findings based on workers' perceptions as illustrated through case narratives, seek to analyse perceived risks and hazards; physical conditions and complaints while at work; availability of PPE and accessibility to treatment and facilities and benefits at workplace. Even though fire accident was the central reason of inquiry, such variables of health and safety at workplace do require an examination. The subsequent sections seek to draw such interlinkages within industries.

### **Exacerbated Conditions at Workplace**

Only forty-seven respondents in this study reported that accidents and injuries occur at workplaces. Respondents' hesitation to speak on work conditions had much to do with not just about job insecurity but also the fact that the worker was tied to his job and as a worker did not perhaps wish to reveal the appalling work conditions. Though falls at workplace was reported to be frequent by workers especially loaders and helpers. Poor illumination, excessive noise and heat apart from exposures to use of chemicals and solutions were visible through factory visits. Exposures to high temperature, humidity, use of chemicals/solubles are definitely



hazardous to workers. Such physical vulnerabilities are linked to vulnerabilities in terms of employment insecurities, compounded by age and gender. Aspect of being a single male bread earner; compounded by age multiplies vulnerabilities and susceptibilities to ill-health. Factory visits to some of the units threw alive a host of issues and concerns for workers' health and safety as some of the descriptions below testify.

*"A notice pasted on the main gate of a unit reads 'need helper (10-25 years of age)' ['helper chahiye (10-25 saal)']. This is a 26 year old unit with 76 regular workers. They do not keep casual workers as the work need skill and precision, the manager had said. This unit produces auto-parts such as head lights, tail lights, plastic sheets etc. The premise was not a very large building. On the first floor was the office (accounts etc). In the ground floor, there were 16 power press machines with 12 workers. One worker explained that they do not run all the machines simultaneously. The space was cramped. There was no exhaust or fire extinguisher in sight. The noise was very high caused by these machines that are used for making panels. In the centre there were two huge and heavy power press machines. One was manual and the other had a safety guard. It had two large button switches in front of the machine. A worker has to press both the buttons to run the machine or else it will not operate. By mistake if he presses with one hand it will not operate. He has to place the plate, press both the buttons with both hands and use the lever with right foot and the compressed plate would automatically land on the tray. One of the workers explained that these machines are dangerous. If the spring that is fixed to the brake (he shows), breaks; they the press (machine) will fall on the worker's hand. The manual one was being run by an elderly person. He was wearing glasses and a muffler. His three fingers (fore, middle and thumb) were bandaged. Probably he had injured them with the power press machines. He places the piece, presses the lever with his right leg, the press falls on the piece to give an impression, and he removes it with his hand. He has an iron stool to sit on. It is a cold place. There is light but then no warmth. The manager said that they are slowly shifting from manual to automatic machines.*

*The second floor is an assembling area. At the entrance there is an ultrasonic welding machine where the plastic sheets for headlights are welded and labelled. There are a number of male and female workers here, standing together in a line and engaged in assembling, fixing wires, etc. In the adjoining room a process called powder-coating is done. Headlights, tail lights the main products are powder-coated and not painted. They are then baked to get the colour. The worker engaged here is completely exposed to the spray powder. He is covered with a piece of cloth over his head and mouth. He himself is smudged with paint. The product is later finalised after which it gets tested, labelled and packed. A notice outside the security guard's gate*

*'nearest first aid box at gate' was pasted but there were no such notices inside any of the floors. The factory does have fire extinguishers though..."*

A visit to another factory, a relatively large (registered) company, with fancy interiors and sprawling reception is engaged in assembling sports shoes for a particular brand. Inside this unit, the 'workshop' as it is called is a huge room where pieces are assembled for production. There are about 200 workers of which 180 according to the owner are regular. The company has an ESCI membership. The workers here are engaged in molding, fixing, lasting, finishing and packaging of the product. Semi-automatic machines are used for molding and fixing. There is one operator on each machine. In a day about 2000 pairs are assembled. Work is repetitive and requires concentration. Only two workers who were working on the cast machines were found to be wearing gloves. The production process in such shoe-making units engaged taking risks at work on 'dye machines' used for molding/fitting; exposures to various chemicals and toxics during 'pasting'/latex pasting; and exposures to other hazards while cutting raw materials, packaging finished products and so on. Table 3.5 clearly reflects associations with regard to working conditions and health further corroborated by narratives as well as workplace descriptions across industries.

**Table 3.4: Reported Exposures at Work**

Industry	Exposure To								
	Dust	Fumes	Oil/ Grease	Heat	Vibration	Noise	Work Pressure	Uncomfortable posture	Odour
<b>Leather</b> (n= 58)	36.2	31.0	44.8	55.2	39.7	74.1	50.0	63.8	41.4
<b>Garment</b> (n =53)	28.3	9.4	22.6	41.5	28.3	50.9	28.3	37.7	1.9
<b>Electronics</b> (n= 49)	42.9	38.8	40.8	42.9	30.6	32.7	14.3	32.7	14.3
<b>Auto parts</b> (n=43)	74.4	32.6	58.1	67.4	32.6	60.5	37.2	46.5	18.6

Source: Field work, 2012.

Note: Figures are in percentage; n= number of respondents; Responses here are self-reported and a specific recall period was not considered feasible given the nature of employment.

### ***Leather and Garment Industries***

The types of exposures at workplace are linked to the nature of work and work processes. Workers working in leather manufacturing units mainly shoe-making reported noise (74.1 percent of workers), uncomfortable posture (63.8 percent) followed by other exposures such as heat, oil/grease, odour and work pressure. While in garment manufacturing units

50.9 percent reported noise, followed by 41.5 percent from heat and 37.7 percent from uncomfortable posture at work (table 3.5). A 26 year old worker mentioned that workers were severely exposed to chemicals and odour from the use of different kinds of raw materials such as leather PVC etc in the shoe-making unit. He describes by saying that there is a pungent smell in the unit because of its use. He says,

*"...Sometimes our head feels heavy. Chemicals are strong. It is also very hot in the unit. Your eyes burn if the containers are opened in front of you. When we use the chemicals for washing on the soles of sandals/slippers there is a feeling of uneasiness. We get extremely tired while working..."*<sup>95</sup>

Santosh Chauhan, 45 year old worker working in shoe-making unit who injured his hand last year while operating a dye machine (frame for shoe patterns) says,

*"..Work is very risky. There are chances of getting electrocuted. Worse if you are not wearing proper shoes or sandals. Short circuit is very common while working on these machines. Also, the workplace gets heated up and there is high pressure as the machines are in operation. While using the welding machines there are sparks and chemicals usually catch fire. Work is dangerous. We work continuously for 17 hours including cooking and travelling from morning 6 a.m. till 11 in the night. No one looks at the age factor..."*<sup>96</sup>

He says he got 4-5 days rest when he injured his hand. The company gave him about Rs 500 for treatment. Workers are given *chutti* if one is taken ill at workplace<sup>97</sup>. The company might give an advance but will not bear the cost of treatment. This is practiced usually for workers working under the *thekedars*. Few workers also said that "it is all about time and fate". A 28 year old worker working in a garment manufacturing unit said that most of the elders suffer from headaches and thus wear spectacles. He complained that there is dust, noise and vibration in the unit where he is currently working. Work in this unit entails cutting, thread-cutting, stitching, washing, packing, checking and ironing of garment products. Few workers working as operators in stitching unit in a garment manufacturing company in Patpargunj were sarcastic about the entire system. They said they do not get a hanky even as PPE. They deduct ESI but there are no medicines. Their stipulated salary is Rs. 8400/- but they are never paid that amount. They get a fixed salary of Rs. 6400/- They are never told about their salaries or their grade pay. Only at the end of the month are

<sup>95</sup> Personal Interview, Peragarhi, 08.02.2012.

<sup>96</sup> Personal Interview, Peragarhi, 09.02.2012.

<sup>97</sup> *Chutti* means leave (without pay in most instances).

they told about their consolidated salary. Wages differ among workers by Rs. 100-300/-. As far as working conditions are concerned there is only one exhaust for the entire unit.

### *Electronics and Auto-parts Manufacturing Industries*

As the earlier descriptions testify the abysmal work conditions especially at the casting and forging unit exposures to dust, heat, noise and oil and grease were commonly reported by workers. A 40 year old worker working as a *karigarh* in one of such units describes further how because of workplace conditions health conditions get exacerbated.

*"..One can get hurt with the head cylinder if you get distracted. There are chances of getting 'pressed (dabna)' or hurt by the machine. We work, so we are bound to get hurt. The workplace is very hot. There is dust, fumes everywhere. We need to speak loudly as the place is noisy due to the vibration of the machine. And if you work in front of 'gas' then your entire body burns. We have a cooler but it is ineffective. There is first aid but we never get it on time..."<sup>98</sup>*

Workers like Arfat Ali, aged forty, working since the last 20 years in a car filter manufacturing unit in Mayapuri although skilled is unable to hear properly and has also lost a finger while operating a machine. Such physical impairment results in compounding workers' vulnerabilities at work.

Extent of workplace exposures from the electronic units under study in Okhla were narrated by some young female workers aged between 16-21 years. Dust, heat, oil/grease and fumes were commonly reported (table 3.5). These women workers clearly reported that fumes caused by use of chemical causes headaches, cough, nausea and watery eyes. The act of soldering and mounting produces noise and vibration that makes their ears numb and aggravates headaches. A 21 year old girl who has been working since 4-5 months in soldering earning Rs. 5000/- per month says,

*"...if there is any fault in fixing the wires then it might explode like a bomb. We get saved sometimes. There are risks of heat, current and misfit. Our fingers also get cut at times. There is no first-aid box. We have to make a paste (for soldering) with chemicals that gets into our face and mouth. The fumes are strong. My eyes get watery. And while we use pliers for fixing, our hands and fingers pain..."<sup>99</sup>*

She has worked earlier in the same line but as home-based worker for 4-5 months in PVC soldering and moulding. She was then paid Rs. 45/- for

<sup>98</sup> Personal Interview, Mayapuri, 21.03.2012.

<sup>99</sup> Personal Interview, Okhla, 09.04.2012.

100 PVC pieces. She could only produce 100-150 pieces a day in the house and earn about Rs 50-60 per day. She says “it is more difficult to carry out such work at home”<sup>100</sup>.

Exposures to chemicals and its compounds such as lead, nitrous fumes, organo phosphorus, and mercury are some common chemicals that are listed under the WCA. These are toxics that do harm both directly and indirectly to a worker. Precariousness of employment, lack of any form of social and economic protection, other factors such as seasonal/short term employment, stress/fear of job loss/availability of work as documented in the previous chapter, do aggravate both physical and mental health conditions. Physical complaints such as weakness, vertigo, body aches, weak eyesight, are rarely addressed as an outcome of repetitive, monotonous work in such conditions. The state although has the prerogative to include other diseases under occupational diseases,<sup>101</sup> there is no scope to objectively place such symptomatic complaints that are largely understood as psychosomatic disorders. Such symptoms however compound to complaints such as gastritis, ulcer, spondilitis and cardiac complaints. Physical complaints across all industries reveal a) the arduous nature and conditions at work b) the magnitude of exposures and hazards at workplace at one level and on the other workers’ physical capacity to work or overwork in such conditions along with insecurities of employment, wages coupled with issues of everyday survival and absence of social security at another level.

### Physical Complaints at Work

This section attempts to capture the self-reported physical complaints at work by workers in the select units as detailed in table 3.6. From the leather products manufacturing units 56.9 percent of workers reported headaches, 56.9 percent reported weakness; 31 percent reported cough and eye disorder respectively. From the garment manufacturing units, 62.3 percent reported weakness followed by 49.1 percent with headaches and 30.2 percent with eye disorder. From the electronics units, 65.3 percent reported weakness, followed by 49 percent reporting eye disorder and 42.9 percent reporting headaches; 62.8 percent of auto-parts workers too reported weakness followed by 48.8 percent reporting eye disorder and 37.2 percent with headaches. And 27.9 percent reported chest pain and 14 percent reported hearing disorder. Skin problem was reported by 32.6

<sup>100</sup> Ibid.

<sup>101</sup> ILO defines occupational disease as disease that results from exposure to risk factors during a work activity. (ILO *Codes and Practice: Recording and notification of occupational accidents and diseases*. Geneva. International Labour Office, 1996, p 1-4.) The list of occupational diseases as per the WC Act is provided in Annexure 3.3

percent of workers from auto-parts manufacturing units and 22.4 percent of workers from electronics units.

**Table 3.5 Workers' Self-Reported Physical Discomforts while at Work**

Industry	Percentage of Workers Self-reported Physical Discomforts at Work									
	Head-ache	Cough	Eye Dis-order	Stom-ach dis-order	Chest pain	Breath-ing prob-lem	Muscu-loskel-etal	Skin prob-lem	Weak-ness	Hearing Disorder
Leather (n= 58)	56.9	31.0	31.0	27.6	8.6	8.6	27.6	8.6	56.9	5.2
Garment (n =53)	49.1	5.7	30.2	17.0	9.4	1.9	3.8	1.9	62.3	0
Electronics (n= 49)	42.9	28.6	49.0	18.4	12.2	16.3	22.4	22.4	65.3	4.1
Auto-parts (n=43)	37.2	14.0	48.8	27.9	27.9	2.3	16.3	32.6	62.8	14.0

Source: Fieldwork, 2012.

Thirty-one percent of workers from leather manufacturing units have reported eye disorders due to long hours of work, night shifts, inadequate rest and pressure to finishing the *task* on time. Work pressures also included fear of loss of wages on account of absence from work and wage deduction in case of *falling asleep* during night shifts. A 27 year old male worker who reported working in a shoe-manufacturing company since 13 years reported suffering from headaches, cough, chest pain, breathing problem, musculo-skeletal and weakness. He also said,

*"...My eyes are watery. My hands hurt with needle-piercing while stitching chappals and sandals. There is a first aid kit in my factory but I have not yet seen..."*<sup>102</sup>

Excluding overtime his current earning is Rs. 4800/- only. He does the work of stitching slippers/sandals. Another male worker aged 26 reported that he gets a "strange headache even while he chews"<sup>103</sup>. He complained of weak eyesight, physical weakness and musculo-skeletal ailments. Eye complaints such as watery eyes, pain and strain were commonly reported across all respondents given the prolonged hours of work.

Women workers health status given such exposures could probably be worse off given their reproductive biologies. A 27 year old woman worker Kusum devi, from Jaunpur, Uttar Pradesh has been working since five months in *chappal* packing section. She earns a monthly salary of Rs. 3000/- only. This is her first job. She sometimes works overtime for 2-3 hours.

<sup>102</sup> Personal Interview, Peeragarhi, 19.03.2012.

<sup>103</sup> Personal Interview, Peeragarhi, 21.03.2012.

She reported suffering from cough, vomiting, eye disorder, stomach ache, headache, breathing problem and weakness. She said that when they get headaches, the *babu* (supervisor) gives them medicines. She associated headaches to noise caused by machines and stomachaches for sitting continuously for 8-12 hours at work. Skipping of meals, restricted mobility for breaks, continuous work pressure and strict supervision also aggravate women's health. The Shramshakti Report (1988) on women workers in the unorganised sector had reported that absence of toilet facilities prevents women workers from drinking water and eating meals at workplace. Thus, they either stayed thirsty or hungry or both.

Five respondents at the shoe-manufacturing units engaged in 'pasting' using silicone gel had reported having skin ailments as a result of exposure to silicone. One of the female workers aged thirty-two working since six months on her first job says they are not given any protective measures. She mentions that there had been an accident in the unit where one female worker lost three of her fingers while operating the machine. She is now shifted to do the work of cleaning. Possibilities of getting skin infections on using such solutions are high and chances of susceptibility to communicable diseases such as tuberculosis were reported by this worker. She shows her hands and says,

*"...my hands have got ruined because of the polish. There is strong acid in this silicone gel that we use for applying on slippers/sandals. Men work on the machines. There is powder, fevicol, everywhere. In rubber companies (shoe manufacturing units) you will find many tuberculosis cases. Anyone can get tuberculosis here. There is lot of noise due to the machines. And if you work continuously for 8-12 hours you will have stiffness and aches..."*<sup>103</sup>

She gets headache due to tension, cough, eye disorder, stomach disorder, breathing problem, skin problem and weakness. She says that she feels like quitting the job sometimes. She further says,

*"...The wages are very low and labour is more. And if we tell the contractor he says "if you want you work, or else you leave..."*<sup>105</sup>

From among the self-reported physical complaints, weak eyesight and hearing are long term illnesses which with age increase their vulnerabilities and dependencies to other family members for support. Illnesses such as tuberculosis also lead to social stigma that may increase their vulnerabilities to either continuing work in low wages or the inability to negotiate on the one hand and result in decrease in changes

<sup>104</sup> Personal Interview, Peeragarhi, 01.04.2012.

<sup>105</sup> Ibid.

of getting alternative employment. Such reporting reflects how arduous and poor work conditions as illustrated in the previous section, along with repetitive, monotonous work with pressure of achieving targets to ensure their daily wages compounded by their struggles of everyday existence affect their physical and mental well-being. As these sections with some case narratives illustrate, the physical discomforts that workers experience at work across industries is common for all.

Absence of space at workplace was reported by one of the workers; a 45 year old senior worker at Peeragarhi working through a contractor for many years. He narrates,

*“...one stand continuously for 12 hours; you can barely walk two steps. With intensification of machines this space too will no longer be there. One is working continuously in one posture for long and your blood circulation stops...”*<sup>106</sup>

In the garment sector too, case narratives highlight their working conditions, hazards and its implications to health. The workers working in stitching and embroidery have complained of eye disorder with 30.2 percent reporting eye disorder and 49.1 percent with headaches. Overall twenty-six workers complained about headache and eye disorder. Pressure to complete the target in order to earn overtime and through piece-rate system of wage payment again aggravate their health conditions. Workers have also reported harassment by supervisors by the end of the day.

Garment units through factory visits revealed that although floors were well lit; it was overcrowded on single shop floor with inadequate ventilation. Continuous work for over 10-12 hours in such conditions triggers recurrent headaches that in turn affect their eyes. Meticulous attention and focus on works such as stitching, ‘pasting’, ‘lasting’, amidst surroundings of toxic fumes, pungent odour; and absence of any kind of ventilation or exhaust and inadequate illumination at work place create conditions that could eventually cause long term damage to eyes. Women workers have also reported that the *babus* provide them with ‘Disprin’ in case of headache. Thread cutting dust and fumes and gases emitting from chemicals used for cleaning and dyeing cloth could be associated to complaints such as cough, breathing and skin problems among the workers who have reported these physical complaints. The workers who fall under the unskilled category of helpers have reported physical complaints such as chest pain, musculo-skeletal problems, weakness and stomach disorder. Workers engaged in ‘cutting’ and ‘ironing’ have responded over the complaints of stomach disorder, headache and weakness.

<sup>106</sup> Personal interview, Peeragarhi, 21.03.2012.



In the electronics products manufacturing units, almost 50 percent of workers working in soldering units and in few cases repairing of speakers and mikes; mobile software, television plates, central processing unit (CPU), stabiliser complained of headaches and eyes disorders. Workers engaged in manufacturing mikes, televisions, stabilisers and mobile work reported frequent headaches as compared to other workers in this industrial area. 65.3 percent of the workers reported weakness due to long hours of work. Long and laborious work, heat and pressure on eyes were cited as reasons for headaches. 24.4 percent reported skin problems and a similar response to musculo-skeletal problem. Eight out of fifteen workers working in manufacturing mikes, speakers and televisions reported breathing problem due to fumes. Helper and loaders reported chest pain and stomach disorder. Two workers reported hearing disorder; one was aged seventeen years and another twenty. Noise from operating machines; continuous sitting posture while at work were the major reasons for such complaints.

Out of the 43 workers from the auto-parts manufacturing units 48.8 percent of workers reportedly complained of eye disorder, 62.8 percent reported weakness and 32.6 percent reported on skin problem. 27.9 percent complained of chest pain and another 27.9 percent on stomach disorder. Workers operating power press machine and engaged in car-filter manufacturing work reported skin problems eyes and hearing disorder. The workers working on hand-molding machine reported complaints such as stomach disorder, chest pain, musculoskeletal, and weakness while workers engaged in operating dye machines have reported weakness, hearing disorder; chest pain and stomach problem. Workers engaged in operating 'head' machine that assists in manufacturing engine parts complained of headaches, skin problem, hearing disorder and weakness. Helpers assisting on machine have reported problems of cough, headache, chest pain, eye disorder, breathing problem and weakness. High temperature and noise of machines cause them headaches. Fumes and dust aggravate workers' health conditions. Loaders/ helpers have reportedly complained weakness, musculoskeletal, chest pain and eye disorder. Workers engaged in gear manufacturing have reported skin problems, headache and weakness.

Tiredness (*thakan*) and weakness (*kamjori*) was significantly reported by workers across all industries (Table 3.5). The Principle Act under Section 44, Facilities for Sitting underlines that (1) in every factory suitable arrangements for sitting shall be provided and maintained for all workers obliged to work in a standing position, in order that they may take

advantage of any opportunities for rest which may occur in the course of their work. (2) If, in the opinion of the Chief Inspector, the workers in any factory engaged in a particular manufacturing process or working in a particular room, are able to do their work efficiently in a sitting position, he may, by order in writing, require the occupier of the factory to provide before a specified date such seating arrangements as may be practicable for all workers so engaged or working. (3) The State Government may, by notification in the Official Gazette, declare that the provisions of sub-section (1) shall not apply to any specified factory or class or description of factories or to any specified manufacturing process. No amendments on the above Section 44; Section 45 (first-aid appliances), Section 48 (crèches), and Section 55 (interval for rest) has been discussed in the report by the Expert Committee. And moreover both enforcement and compliance must go hand in hand.

The following section examines the medical and other facilities in terms of its availability and accessibility to workers in the select industrial units. Moreover, what do the workers actually do in case of eventualities?

### **Availability and Accessibility to Medical and Other Facilities**

#### *Medical Facilities*

In terms of health security, workers in the formal or organised sector are under the ambit of health insurance and health care facilitated by legislations such as the Workmen's Compensation Act (WCA) 1923 and the Employees State Insurance (ESI) Act 1948. Under the latter family members also benefit from the facilities provided under the Employees State Insurance Cooperation (ESIC) whereas the WCA caters to providing compensation to a worker of a registered unit in the case of any accidental eventualities both fatal and non-fatal. In most factories the ESI Act is applied subsequent to registration under the Factories Act 1948.

Under the ESI Act, the rate of contribution by the employer is 4.75 percent of the wages payable to the employees and the employee's contribution is 1.75 percent of the wages payable to an employee. The state government's share of expenditure on provision of medical care is to the extent of 12.5 percent.<sup>107</sup> And importantly employers coming under the purview of this act are absolved of their liability under the WCA 1923 and Maternity Benefit Act 1961 as both are covered under ESI

<sup>107</sup> Viewed at <http://esic.nic.in/CIRCULARS/standardnote010111230911.pdf>, p 2, on 01.05.2012

Act 1948. It is important to note here that the Workmen's Compensation (Amended) Act 2000 provides for compensation to casual workers. Exemptions from implementing the ESI Act under Section 90 is granted to factories and establishments only if they belong to a local authority such as municipality/commission etc where the employees of such factories/ establishments are in receipt of benefits substantially similar or superior to the benefits provided under ESI Act<sup>108</sup>.

Only 52.4 percent of workers in the organised sector are covered under the ESI Act. This does reflect the significant proportion of workers whose wages are less than Rs. 15,000/- per month and another significant proportion that are not yet covered under this social security benefit. Although this Act caters to workers from the organised sector, recent amendments (ESI Amendment Act 2010) states that "medical benefit under the scheme can be extended to other beneficiaries on payment of user charges subject to framing of schemes by the Central Government"<sup>109</sup>. Another significant amendment made by ESI Act is 'treating commuting accidents as employment injury'. However much requires to be done in terms of generating awareness among workers on such amendments and ensuring implementation of the same.

In this study, presence of ESI Act for workers is found to be limited to those working in registered units especially in the auto-parts manufacturing units only (See Annexure 3.4). Excluding this industry, a significant proportion (48-57 percent) of workers working in registered units reported not accessing to any kind of treatment. A high proportion of workers from garment industry followed by leather and electronics units did not access or seek any form of treatment. This also reflects that higher frequency of injuries in the auto manufacturing units has made ESI mandatory. Dependence on private practitioners was also relatively high from among those who sought medical treatment.

Employers as defaulters have been reported by workers as told by a respondent, Devendra Kumar, age 27 working in an electronic unit. He says, some of the workers who have an ESI card are unable to access medicines and treatment since the company has not paid their contribution. More importantly only old workers get ESI. It is not applicable for the new workers. Here new workers largely connote those who are hired through contractors. Few workers also reported that although they have an ESI card, they are not provided any medicines.

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<sup>108</sup> Ibid.

<sup>109</sup> Ibid, p 5.

A male worker age 32 working in Peeragarhi says

*"..Minor cuts on fingers, nails and hands are very common. But it hardly makes any difference to us. Dust because of scrubbing (ghisai), noise and odour are there. The unit does not have any first aid kit..."<sup>110</sup>*

The study shows that first, the availability of first aid or medicine at workplace was greater in registered units as compared to others especially in the case of the auto-parts industries; also corroborating the frequency of reported risks and injuries at workplace. Second, the nature of employment determines in workers voicing their rights to health and safety at workplace. It has been reported that workers either managed to take care of themselves by tying a bandage (*patti*) for example or they are sent home (given *chutti*).

Manoj Kumar Yadav, working in Peeragarhi age 22 years, says

*"...There is no first aid kit. Workers are told to go to dispensary and can come later after an hour. There is no problem. But they need to come back to work. Also there are no crèches. Women work, but pregnant women do not work..."<sup>111</sup>*

According to a trade union leader from Patpargunj industrial area, in case of an accident and if a worker has to go to a government hospital he has to first lodge an FIR<sup>112</sup>. Therefore employers prefer to take the workers to a private hospital or a private doctor for treatment. Guru Tegh Bahadur hospital, a government hospital is approachable for workers in Patpargunj industrial area while there is an ESI hospital at Jhilmil. However there is no dispensary nearby. Instead private doctors/unregistered medical practitioners (*jhola chap*) are available outside areas such as Gogapur, Ghazipur<sup>113</sup>.

### ***Available Protective and Other Facilities at Workplace***

Provision of Personal Protective Equipment (PPE) is in the Principal Act. It provides "measures only to protect eyes for workers under certain circumstances" under "risk of injury to eyes from particles or fragments thrown off in the course of the process". According to the Expert Committee on Amendment to the Factories Act, 1948 (June 2011), the committee recommended that the coverage of provision be extended to include measures for protection of other parts of the body as well and that

<sup>110</sup> Personal interview, Peeragarhi, 20.02.2012.

<sup>111</sup> Personal interview, Peeragarhi, 20.02.2012.

<sup>112</sup> Personal interview, trade unionist, Patpargunj, 06.02.2012.

<sup>113</sup> Ibid.

the responsibility for maintaining PPE should be with the management. Since labour and health as subjects are in the concurrent list, respective states have the power to frame their own rules and guidelines as per the requirements for both industry and labour. In this study only workers working in auto-manufacturing and electronics received some form of PPE. It was practically absent in garment industry and miniscule in leather products manufacturing units. The Principle Act states under Section 45, First-Aid Appliances notes,

*(1) There shall, in every factory, be provided and maintained so as to be readily accessible during all working hours first-aid boxes or cupboards equipped with the prescribed contents, and the number of such boxes or cupboards to be provided and maintained shall not be less than one for every one hundred and fifty workers ordinarily employed at any one time in the factory. (2) Nothing except the prescribed contents shall be kept in a first-aid box or cupboard. (3) Each first-aid box or cupboard shall be kept in the charge of a separate responsible person, who holds a certificate in first-aid treatment recognized by the State Government and who shall always be readily available during the working hours of the factory. (4) In every factory wherein more than five hundred workers are ordinarily employed there shall be provided and maintained an ambulance room of the prescribed size, containing the prescribed equipment and in the charge of such medical and nursing staff as may be prescribed and those facilities shall always be made readily available during the working hours of the factory.*

Table 3.6 provides the extent of facilities available to workers across these industries in terms of first-aid kit, hospital and transportation facilities and availability or accessibility to drinking water, toilet, rest room and canteen facilities at workplace. As discussed earlier in terms of provisions of PPE and extent of accidents and injuries, availability of first-aid boxes were also greater from the auto-parts manufacturing units followed by the electronics units in Delhi. There was no cent per cent reporting of availability of first-aid kit by workers in any industry. Canteen facilities were found available to a certain extent in the electronics manufacturing units and in the registered auto-parts manufacturing units. Hospital facilities were reported only from the latter category. Apart from the auto-parts manufacturing unit, availability of ESI hospitals and facilities were poorly reported even from the registered units. It is striking to note that both drinking water and toilet facilities were not reported by all workers. Restrooms and availability of transport facilities were also negligible in these units.

**Table 3.6: Percent of Workers Reporting Facilities at Workplace across Industrial Units**

Facilities	Leather			Garments			Electronics			Auto parts		
	Registered Units	Non-Registered Units	Units with information not available on registration	Registered Units	Non-Registered Units	Units with information not available on registration	Registered Units	Non-Registered Units	Units with information not available on registration	Registered Units	Non-Registered Units	Units with information not available on registration
First Aid kit	50.0	27.3	19.2	50.0	75.0	38.9	62.1	75.0	16.7	77.4	22.2	-
Canteen	13.6	9.1	3.8	11.5	-	-	51.7	50.0	58.3	64.5	-	-
Hospital	-	-	-	-	-	-	-	-	-	12.9	-	-
ESI	22.7	-	-	26.9	25.0	-	41.4	12.5	8.3	64.5	-	-
Drinking Water	100.0	100.0	96.2	100.0	100.0	100.0	100.0	100.0	100.0	96.8	100.0	66.7
Toilet	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	83.9	77.8	100.0
Rest Rooms	9.1	9.1	11.5	23.1	25.0	22.2	10.3	12.5	16.7	9.7	44.4	66.7
Transportation facilities	-	-	3.8	3.8	-	16.7	34.5	12.5	25.0	12.9	22.2	-

Source: Fieldwork, 2012.

Note: Figures are in percent.

A twenty-two year old worker working in an assembling unit located in the flatted factory complex in Okhla reported that they do not have a first aid box in the factory but medicines such as Disprin, Paracetamol etc are kept. Hospital facilities were reported almost nil excepting two respondents from Mayapuri. Availability of ESI hospitals was reported from the registered units with 22.7 percent, 23.1percent, 34.5percent and 67.7percent from the leather, garments, electronics and automobile parts manufacturing units respectively. This indicates either inadequate utilisation or provision of ESI cards to workers and a higher degree of availability in the auto-parts industry given its nature of work as reported earlier. This also corroborates to the fact that only 52.1 percent of the workers in the organised sector are covered under the ESI Act.

This reflects a) the level of awareness of workers about the existence of ESI hospitals b) the employers as such do not shoulder any medical responsibility on behalf of the workers. Table 3.9 also shows that availability of drinking water was absent in the case of two responses. Toilet facilities was reported to be absent by twelve respondents working in auto-parts manufacturing industries. As some of the cases have illustrated the insanitary conditions of toilets that existed in some of the units visited, moreover worse for the women workers. Availability of rest rooms was reported mostly by workers from auto-parts and garments manufacturing units. However the quality and nature of rest rooms and actual time received for rest were not

explored. Workers from electronics and auto-parts manufacturing units reported having canteen facilities at the workplace while it was negligible in other two areas.

Although provision of PPE is linked to the nature of work and as under the Factories Act it is only applicable for the eyes. The study shows that apart from the auto-parts manufacturing units, some provision of gloves and goggles; any form of PPE provision was reported from the leather manufacturing units followed by electronics (see table 3.7).

**Table 3.7: Workers' Availability of PPE**

Industry	Registered unit			Un registered unit			Units with Information Not Available on Registration		
	PPE available	PPE not available	Total	PPE available	PPE not available	Total	PPE available	PPE not available	Total
Leather	36.36	63.64	100	36.36	63.64	100	42.31	57.69	100
Garment	0.00	100.00	100	0.00	100.00	100	5.55	94.45	100
Electronics	24.14	75.86	100	12.50	87.50	100	16.67	83.33	100
Auto-parts	58.06	41.94	100	55.56	44.44	100	33.33	66.67	100

Source: Fieldwork, 2012.

Garment manufacturing unit workers did mention that there is no need for PPE and during minor cuts such as 'needle-piercing' etc they go for first aid (*patti bandhana*). In the leather manufacturing unit, 34.5 percent of the workers got gloves, and a minuscule percent of workers in Peeragarhi and Okhla got boots to wear as PPE.

Another aspect that was examined was whether compensation was provided in the industries under study. Annexure 3.5 clearly shows that in the case of the registered units, compensation for permanent and temporary disability was reported by 40.9 percent and 22.7 percent from leather, 7.7 percent and 11.5 percent from garments, 27.6 percent and 20.7 percent from electronics and 29 percent and 33.5 percent from the auto-parts manufacturing units respectively. Layoff and retrenchment compensation in the registered units was reported by 45.5 percent and 13.6 percent from leather, 11.5 percent and 15.4 percent from garments, 51.7 percent and 3.4 percent from electronics and 58.1 percent and 16.1 percent from auto-parts. However reporting on these indicators varied given the nature of employment.

What do the above case narratives and factory descriptions suggest? First, workers do work in arduous work conditions. The degree and types of exposures and risks varying across industries from the garment

to the auto-parts manufacturing industry. Second, the probability of occurrence of fire accidents is high. Third, there are inadequate protective or preventive measures in these manufacturing industries. Fourth, job security supersedes prioritisation over health and safety issues. Fifth, dismal health care facilities for workers; absence of basic facilities (first-aid box, drinking water, sanitation) reflects poor prioritisation to workplace health and safety needs.

This chapter thus elucidates contrasting evidence on magnitude of accidents and injuries. Through the existing statistical data it appears that the magnitude of accidents and injuries are fewer as compared to the enormity as placed by primary studies. An account of fire accidents, unsafe work conditions as illustrated through the case narratives and factory descriptions and data from the Delhi Fire Service reflect the low levels of compliances of for instance the Delhi Fire Safety Rules by such manufacturing units.

Reporting of risks, accidents, injuries at workplace are determined by a variety of factors and the most influential factor is the labour relations at work. An examination of availability and accessibility to preventive and protective measures ascertain the miniscule attention given to the same by both the employers and the government, as the following chapter would address. The following chapter addresses aspects on regulation, accountability and extent of collective bargaining through this primary study.



## Chapter Four

# Regulation, Accountability and Collective Bargaining

So far there is no separate umbrella legislation on OSH for the manufacturing sector in India. Nevertheless, OSH issues are been addressed under the Workmen's Compensation Act 1923, Factories Act 1948, Employees' State Insurance Act 1948 and others. These legislations have been amended recently as under Workmen's Compensation Amendment Act 2009 and Employees' State Insurance Amendment Act 2010 as discussed in the previous chapter. The Factories Act 1948 was amended in 1987 in respect of hazardous processes that included 'permissible limits of chemical exposures' that took place in the aftermath of the Bhopal Gas Tragedy in 1984 which caused 5295 deaths and permanent disability for as many as 4902 people<sup>114</sup>. After almost three decades having elapsed after the incident, the Bhopal Gas 'tragedy' continues to be an area of concern. In fact, much of the public health literature (Qadeer and Roy 1989) emanated post 1984 and sought to question the political economy of health in particular. The nation also witnessed the role of civil society institutions getting escalated and strengthened during this period. An Expert Committee was constituted by MoLE, GOI (2012) to examine the revised proposed amendments to the Factories Act. This committee examined particularly few issues a) concerns (such as industrial disaster mitigation, rehabilitation and compensation for industrial workers and other affected persons, toxic waste disposals and site remediation, long term health problems, criminal liability etc) arising out of disasters like the Bhopal Gas tragedy; b) role and accountability of public servants like inspectors of factories and other stakeholders and c) the general enforceability of the act. Few sporadic recommendations, however of no consequence, as laid by this committee have been discussed earlier.

Two other important aspects that require examination are the extent of a) collective bargaining through trade unionism and b) employers' accountability for health and safety issues in this sector. This chapter thus examines the responses of these stakeholders' vis-à-vis enforcement mechanisms, extent of compliance on health and safety and aspects on collective bargaining, based on interviews with the stakeholders including workers. These aspects are contextualised in the light of the changing

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<sup>114</sup> Central Chronicle, Bhopal 30.07.12 cited in Green File July 1-31, 2012, No. 295, p 127.

labour relations and dwindling trade unionism in these industries. Third, it also discusses the specific international regulatory frameworks in the context of OSH and India's position therein and the recent amendments and policies adopted by the Government of India to address issues on OSH.

### **National Implementing Agencies on OSH**

Under the aegis of the Ministry of Labour and Employment (GOI), the respective Chief Inspectorate of Factories (CIF), Directorate General of Factory Advice Service and Labour Institutes (DGFASLI), National Safety Council (NSC) are the implementing agencies on aspects of OSH. They are accountable and responsible through activities such as enforcement, monitoring, training and research ardently conceived for Occupational Safety and Health (OSH) of workers in the organised sector. The National Safety Council was set up in 1966 by the Ministry of Labour, GOI as an outcome of the recommendation of the 22<sup>nd</sup> Session of the Labour Ministers' Conference in 1962. This Council's vision "to generate, develop and sustain a voluntary movement on Health, Safety Environment at the National Level aimed at educating and influencing society to adopt appropriate policies, practices and procedures that prevent and mitigate human suffering and economic loss arising from all types of accidents" has much scope to work in coherence with other institutes. However all these established institutions are in a way compartmentalised, although operating within one umbrella. This in a way requires a critical review<sup>115</sup>.

### **Working of the Factory Inspectorate, Delhi**

The Office of the Chief Inspectorate of Factories, Delhi is headed by the Chief Inspector of Factories and assisted by Deputy Chief Inspector of Factories and also Inspectors of Factories. The District Labour Offices are located in each of the industrial districts. Each of the nine industrial districts has a Factory Inspector and a sole Medical Inspector to cater to all the districts. The Factory Inspector is responsible for conducting inspections and for enforcement of the statutory provisions in the factories as assigned by the Chief and Deputy Chief Inspector of Factories. The Factories Act 1948 and the Delhi State Factory Rules 1950 are implemented by the CIF<sup>116</sup>.

Specific clauses under separate sections on 'health' cater to various aspects such as cleanliness, disposal of waste and effluents, ventilation and temperature, dust and fumes, artificial humidification, overcrowding,

<sup>115</sup> Based on discussions with ex-officials, Ministry of Labour and Employment, GOI, NOIDA, 29.12.2011.

<sup>116</sup> Based on discussions with officials at Office of the Chief Inspectorate of Factories (CIF), Delhi, 30.12.2011.

lighting, drinking water, latrines and urinals and spittoons. For safety, aspects such as fencing of machinery, work on or near machinery in motion, employment of young persons on dangerous machines, self-acting machines; casing of new machines, floors, stairs and means of access and pits, stumps and openings in floors that should be taken care of by the occupier are cited in the Act. Other concerns such as lifting of heavy weights, protection of eyes in case of manufacturing processes, precautions against exposures to dangerous fumes, gases, explosives or inflammable dust etc and precautions in case of fire are some of the areas where *preventive* measures as highlighted in the Factories Act are noted. This act also states that the occupier must disclose information regarding dangers, health hazards and warn workers on immediate dangers.

Discussions with officials at CIF revealed that the Health and Safety Policy was in the process of implementation. The official further mentioned that “medical inspections were made only in identified, dangerous or hazardous industries in a period of six months or annually and that workers working in such units are clinically examined along with X-Ray, blood tests etc and actions taken as per rule”<sup>117</sup>. On further probing he mentioned that after the implementation of the Supreme Court order (M.C. Mehta Committee of 1996) to shift out hazardous industries from Delhi, there has been no case of occupational diseases in Delhi. Only in 2010 there were two cases of occupational dermatitis caused due to chemical exposure in auto-part manufacturing units in Mayapuri and both these cases were cured. Data on Factory inspection and Medical examination of workers are available only till 2006 as illustrated in table 4.1. There is also no detail on the type of occupational diseases as detected in 1996-97 and the year 2000 recording the highest with 18 cases<sup>118</sup>.

**Table 4.1: Inspection Carried Out By Inspector of Factories (Medical)**

S. No	Particulars	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1	Number of Factories Inspected	86	87	96	6	129	130	162	93	104	163	101	134
2	Number of workers examined	1837	1375	550	62	1511	1082	1020	1033	1388	1845	2198	1638
3	X-Ray taken	-	45	68	10	-	-	-	-	02	79	21	-

<sup>117</sup> Ibid

<sup>118</sup> The medical officer did not know the nature of diseases as he joined only in 2005. Based on discussions at CIF Office, 2011

4	Pathology test done	-	-	175	10	-	-	-	-	-	07	-	12
5	Cases of occupational diseases detected	-	5	01	-	-	18	-	-	-	-	-	-

Source: Government of NCT Delhi. Available at, [http://delhi.gov.in/wps/wcm/connect/doit\\_labour/Labour/Home/Statistics+And+Miscellaneous/Factories+Act](http://delhi.gov.in/wps/wcm/connect/doit_labour/Labour/Home/Statistics+And+Miscellaneous/Factories+Act), accessed on 2-1-2012.

According to the Medical Inspector at CIF the worker is withdrawn on detection of occupational disease from the place of work and shifted to another place. If permanent damage occurs due to diseases then they facilitate the worker to receive compensation through WCA or ESCI. According to him “deaths were not ‘occupational deaths’ but ‘safety deaths’, for example due to falls, fire etc”<sup>119</sup>. The attribution of such mortalities to accidents and injuries conveniently perceived as something unfortunate or bad luck and not as a result of workplace hazards or conditions requires serious examination. Jindal’s (2001) study is an important point of reference where he argues that medical doctors fail to link occupation to reported morbidities. His primary findings on occupational health and injuries in Faridabad district with respect to the functioning of ESI as discussed in the previous chapter, clearly shows that no ESI doctor has visited any factory in Faridabad to identify possible hazards and occupational diseases (Jindal 2001). He also evidences through cases the tendency of the ESI doctors to write a non-aetiological diagnosis that leads not only to inaccurate reporting of occupational diseases but also adversely affect treatment and compensation. In this study as shown in the previous chapter, utilisation of the ESI facilities appears to be miniscule.

Also as discussed in the previous chapter, the reported rates of both fatal and non-fatal accidents are astonishingly low. However, the primary data adequately substantiates this gap through qualitative insights of prevalence and incidence of accidents and injuries at workplace in the four industrial areas of Delhi. Quantitative data generated draws direct associations with work conditions, physical complaints, and intensity of injuries and extent of prevention and protection taken. The extent of labour enforcement in all the four industrial areas under study is examined subsequently along with an examination of the extent of compliance and collective bargaining in these areas. Role and concerns of other stakeholders like employers and trade unions and workers responses to it are delved into.

<sup>119</sup> Interview with officials at CIF, Delhi, op.cit.

## Limitations to Factory Inspection

For the state of Delhi as mentioned earlier there are nine industrial districts each with a Factory inspector. From the industrial areas under study, Mayapuri falls under South-west district, Okhla under South district, Patpargunj under North-east and Peeragarhi under north-west district respectively. In Delhi, with a total of 7753 registered units<sup>120</sup> there is on an average one factory inspector for 861.4 factories. Discussions with factory inspectors did reiterate inadequate manpower as a cause of concern in enforcement. CIF officials mentioned that in case of violations, unauthorised units are given *chalan*<sup>121</sup> amounting to Rs one lakh and two years imprisonment under Section 92 of the Factories Act 1948, and for hazardous violations a seven-year imprisonment under Section 96 and Rs two lakhs as *chalan*. There are currently 11 *chalans* pending on violation of occupational health, recruitment of doctor, provisions of ambulance, maintenance of registrar etc and another 500 *chalans* on other related aspects<sup>122</sup>.

Annexure 4.1 based on primary findings seeks to illustrate on aspects of enforcement and inspection as reported by the workers across industries. Inspector as perceived by the factory workers is either a factory or a labour inspector. Only 52.8 percent of workers from across the registered units reported that factory inspection takes place. Among these, it was reported greatest from the leather manufacturing units with 77.3 percent. Workers from the electronics units in Okhla were somewhat cautious with regard to reporting on inspections. Most of the respondents here also belonged to the skilled category of workers earning relatively higher wages as compared to other industrial areas under study. Although in Okhla reporting on inspection was less, but the proportion of workers interviewed during inspection was higher as compared to leather industry as the annexure 4.1 shows.

Strikingly, in the auto-parts manufacturing units, where accidents were frequently reported and PPE was provided; as the same annexure shows factory inspection was reported by only 41.9 percent and one-third of workers from registered units reported not knowing anything about factory inspection. Negative responses were given by workers on 'interview at the time of inspection' in the registered units as compared

<sup>120</sup> According to a CIF official, there are 11657 registered units of which 7753 are currently working as per the data given by CIF Office, Delhi given upto November 2011.

<sup>121</sup> A *chalan* is a receipt given by the concerned authority in case of violation of any rules or regulations by an individual.

<sup>122</sup> Discussion with Medical officer, CIF, op.cit

to the non-registered. On the frequency of inspections made by factory inspectors, owners/company, officials from departments of Income tax, PF, ESI, MCD and buyers across the registered units, show that only 2.8 percent reported once a month, 20.4 percent reported once in six months, 13.6 percent once a year and 13.9 percent as irregular. Five workers reported inspection by others that include officials from other departments and buyers. Inspection by the latter or an 'agent' usually occurs in the garments export manufacturing companies where the samples or products are checked prior order for export especially to European countries.

In terms of inspection personnel; monthly inspection by factory inspector was reported by 40.9 percent from leather industry, 7.7 percent garments, 20.7 percent electronics and 19.4 percent auto-parts industry across registered units. Overall, it was 21.3 percent in registered units, 13.9 percent in non-registered units, 20.3 percent in units with no information on registration respectively. Inspection by owners/company was reported by 4.5 percent from leather industry, 11.5 percent from garment, and 6.9 percent from electronics across registered units respectively (see annexure 4.1). At the time of inspection, as some of the cases reflect, workers were kept away or sent home on the day of inspection.

*In the case of a shoe-making unit a 20 year old worker working in packaging since 7 months reported that in the company where he is working on the day of inspection the workers were kept away (bhaga diyaa). The company was once sealed. There was raid. He however doesn't know where they were from..."<sup>123</sup>*

Factory inspectors shared the difficulties in enforcement. Most importantly even if employers are prosecuted the monetary fine is never an issue for them. The owners tend to scoff off on matters like keeping the factory premises clean by saying that they would do so or that the cleaners did not turn up<sup>124</sup>. Inadequate manpower, infrastructure for documentation and follow-up on cases has been an inherent hindrance for enforcement. Inquiries/inspection made by inspectors/officials was reported only by few workers<sup>125</sup>. Only seven workers responded that inquiries have been made on wages/salary. Only nine workers reported that they were inquired regarding type, duration of work and work process details. As far as health issues were concerned, only one worker from a registered auto-part manufacturing unit reported being asked if workers had any

<sup>123</sup> Personal interview, Peeragarhi, 20.03.2012.

<sup>124</sup> Discussions at Mayapuri, 04.12.2012.

<sup>125</sup> This data is not tabulated because of limited response.

health problem or complaint. And another worker from another auto-parts manufacturing unit, stated that health check-ups were undertaken by the inspector. He says,

*"...they would examine us. They would check our blood pressure. Make us walk up and down and would then show the details to mallik..."*<sup>126</sup>

This 23 year old male respondent has been working for the past five years. He got this job after his father who left work on leave. Reason for his father quitting the job was however not inquired. His brother too was working in this same unit. And only five workers responded that they inquire about ESI facilities from which only one said that officials from the Municipal Corporation of Delhi (MCD), ESI, Labour and Income Tax departments visit his unit.

One or two workers did not wish to respond to questions on OSH regulations as testified by a forty year old male worker at Mayapuri who says,

*"...we are busy with our work and do not give attention to inspection etc. They are busy with their 'duty'..."*<sup>127</sup>

These narratives clearly provide the answer to the question as to why issues on health and safety are at the least addressed. It therefore reflect the central argument in this study i.e. how organisation of work sidelines the question of workplace health and safety. Precariousness of employment, ad-hoc system of wage payment; high dependency on overtime work and income disassociates the worker from being aware of his/her own working conditions. With only 52.8 percent reporting factory inspection from the registered units and reporting less than 33 percent from the other two categories, such dismal picture on OSH are intrinsically rooted around structural vulnerabilities on the one hand and failure of the enforcement mechanisms on the other.

### **Compliance Matters**

The questions that boomerang are why regulatory authorities unable to ensure compliance of rules and regulations; fundamental requirements towards safety measures; and ensure a minimal support system. If one examines the detailed requirements as laid down for example in the questionnaire<sup>128</sup> under the Fire Safety Act and Rules and for issuing a Fire Safety Certificate if adhered to appropriately, would ensure safety checks

<sup>126</sup> Personal interview, Mayapuri, 25.03.2012.

<sup>127</sup> Personal interview, Mayapuri, 03.02.2012.

at the very outset. Most of the fire outbreaks as mentioned by workers, supervisors and trade unionists are reported to be caused by a short circuit as discussed in the previous chapter.

It can be thus observed that although the *minimal* requirements of observing basic health and safety standards have been incorporated in this legislation; studies have shown that as far as enforcement of such legislations are concerned, the situation is disquieting (Acharya OSH legislation, PRIA, Qadeer and Roy 1984, Hazards Centre 2010, Planning Commission Document, XIIth plan report on OSH, MoLE, 2012). To this there are several associated factors; chiefly, is the paucity of resources for monitoring, implementation and documentation; and follow-up of cases under prosecution. Another important aspect is the need to engage stakeholders that include employers/management, employees and trade unions through training and consultation upholding the importance of investment in health and safety at workplace. Larger structural factors for example registration, its compliance and other factors interplay at the very beginning while establishing a factory or a unit.

As Acharya (undated PRIA) argues, legislations have been either prescriptive-protective, curative and compensative in nature; without any regulatory device. For instance, the Central Water (Prevention and Control of Pollution) Act, 1979 and the Central Air (Prevention and Control of Pollution) Act 1981, prescribes limits of pollution from industries. He says that the Workmen's Compensation Act (WCA) 1923 is compensative in nature while the Employees' State Insurance (ESI) Act 1948 is curative and compensative. Lack of inter-departmental coordination is one of the major reasons for poor monitoring and compliance. Acharya thus argues for a more *participatory* system of management whereby compliance, reporting and documentation are adequately maintained.

Factory visits in these industrial areas reflected two sets of responses. One was stark visibility of workplace conditions as the earlier narratives illustrated; and the other on the extent of compliance on health and safety as given by employers/owners or management at various instances. Aspects on compliance were strongly noted in the case of the garment export manufacturing units as the buyers ask for safety compliances and audits in comparison to the other industries. Stiff competition in the international market and compliance pressure from buyers from European countries especially has resulted in firms maintaining some systematic forms of compliance on health and safety. Factory visits revealed that in

<sup>128</sup> Please see details available at, [http://www.delhi.gov.in/wps/wcm/connect/doit\\_fire/FIRE/Home/Fire+Safety+Acts+and+Rules/Questionnaire](http://www.delhi.gov.in/wps/wcm/connect/doit_fire/FIRE/Home/Fire+Safety+Acts+and+Rules/Questionnaire), accessed on, 11-1-2012



few garment manufacturing units; emergency exits, trained personnel for handling first aid and medical emergency, sand buckets, fire extinguishers and other fire safety equipments were made available in the unit itself. In one of the units visited it was reported that apart from accessibility of sand buckets, fire extinguishers, workers are trained on Fire Safety drill conducted by Delhi Fire Service (DFS) each year during the months of July-August. Proper emergency exits with hose pipes were visible in the case of this garments export manufacturing unit<sup>129</sup>. It was in the same unit that a list of employees (with photo identity and details on training) trained in first aid were displayed on the floors on this unit. Compliance and accountability by employers/owners are found to move hand in hand with the international market and buyers' requirements in the case of the garments export manufacturing sector. However, basic aspects on health such as safe drinking water, proper sanitation facilities were found to be poor and inadequate across few units as was in this case where compliance to safety was greatest. Overcrowded and cramped floors were a common sight in some of the garment manufacturing units.

Employers of some of these units also complained of labour shortages and informed that the employers' association does not wish to discuss on matters relating to labour. One of the owners mentioned that "the labour knows about their rights but not about their duties"<sup>130</sup>. According to him, the labour department could organise small workshops where workers could be trained on increasing work efficiency. A high rate of absenteeism especially among women workers in the garment sector was also reported by him. One of the employers also cited that they avoid overtime as there is less work or production and high costs. Other important area of concern raised was the perennial drinking water shortage in Patpargunj industrial area for instance. Only lately there was water supply from the Delhi Jal Board which is very dirty. Most of them bring water for drinking purposes from their homes<sup>131</sup>. Thus availability of safe drinking water, proper sanitation, quality of first-aid boxes are not considered important by stakeholders including workers in understanding health and safety issues.

Discussions with trade unionists revealed this fact that negotiations were mostly linked to wage negotiations, filling up of vacancies, promotions, addressing aspects of retrenchment or layoffs. As far as aspects to health and safety were concerned, it has more to do with workers receiving compensation post- accident. Aspects of improving working conditions,

<sup>129</sup> Personal interview with the supervisor, factory visit, Patpargunj, 10.12.2012.

<sup>130</sup> Personal interview with an employer at a garment manufacturing unit, Patpargunj, 10.12.2012.

<sup>131</sup> Personal interviews with employers in Patpargunj, 10.12.2012.

sanitation, drinking water, provisions of crèche/rest rooms were rarely a part of discussions with employers/owners. These aspects were clearly articulated through some of the personal interviews with trade unions as well as employers. The dwindling presence of trade unionism was quite stark in these industrial areas. Workers were hesitant to be part of any union for the fear of losing their jobs. It was also found that they did not trust such representation. Some of these aspects are dealt in the subsequent section.

### **Dwindling Trade Unionism**

Ray Elling's (1986) study on workers health in six industrialised countries argues that the 'strength and fighting power of workers' movements' determine the extent of improvements in the national OSH systems. He questions as to why there was a major legislative push towards improved workers protection in industrialised countries in late 1960s and 1970s and why did this process halt by the 1980s? Likewise the development or the success of HASWA 1974, United Kingdom as argued by Theo (1997) was also because of the strength of capital and labour and the strength of labour to influence the government prior *laissez faire*. In the case of India development of national legislations did evolve with both the state and the workers' representatives playing a critical role in establishing regulatory frameworks. Labour struggle was intertwined with the freedom struggle in India that led to formulations of legislations such as WC Act 1923, Trade Union Act 1926 and Payment of Wages Act 1936 etc. Other national legislations that emerged with India's independence are the Plantation Labour Act 1951, the Mines Act 1952 etc. Although there is a plethora of national legislations and presence of trade unions particularly in the organised sector there remains much larger and pressing issues of concern with regard to trade unionism in India post reforms.

Nagaraj (2004)<sup>132</sup> pointed out to the weakening of organised labour's bargaining power especially during the early 1990's as reflected through the stagnation of real wages in comparison to the growth in per capita income (Nagaraj 2004: 3389). Roy Chowdhury 2004<sup>133</sup> argues that apart from the shrinking membership (with shrinking organised sector) that reflected weakening of unions; the leftist and socialist democratic parties 'have not put forward viable policy alternatives to the market principle' she says (Roy Chowdhury 2004:108). This shrinking membership has been documented by Labour Bureau (2002). In 1991 trade union membership

<sup>132</sup> R. Nagaraj (2004): Fall in Organised Manufacturing Employment A Brief Note, EPW, Vol XXXIX, No. 30, July, 24, 2004 pp 3387-3390.

<sup>133</sup> Supriya Roy Chowdhury (2004): Globalisation and Labour, EPW, Vol XXXIX, Jan 03, 2004, pp 105-108

was 61,00,000 and declined sharply in two years by 43.6 percent (31,34,000 in 1993) although there was a marginal increase in number of registered trade unions. Most importantly the decadal figures given by Labour Bureau shows that over a decade there was a drop in membership by 3.72 percent (58,73,000 in 2001) although the number of registered trade unions increased by 19.6 percent. This year also experienced in the case of Delhi, a sharp increase (84.8 percent) in number of factories removed (43 in 1991 to 282 in 1993). This period experienced serious havoc in the organised manufacturing sector.

Srivastava (2006) in his study specifically notes the reasons for the eroding base of trade unionism as given by trade union leaders to be a) politicising of union activities b) alienation of workers from unions c) outsourcing and relocation of manufacturing activities d) anti-labour government policies<sup>134</sup>. This study further discusses the strategies adopted by unions to handle this erosion and adoption of best practices through a) disassociating politics from union activities b) changing workers mindset c) common demands of all unions in a firm and so on. He essentially states the need for trade unions to understand the importance of profit, improve work culture and open new areas of negotiations. However such 'balancing act' might erode the trade union ideology per se given the visible absence of collective bargaining in most industries.

### *Level of Unionisation in the Select Industrial Units*

To reiterate, "as capital moves from state to state, it continuously recreates the conditions of exploitation", low unionisation, for example (Navarro 1983: 6). Although it is not to deter movement of labour, studies have reiterated the visible strength of the global capital vis-à-vis labour. Such external factors do impinge on collective bargaining. Health, as the ensuing sections reveals, is the least prioritised for collective bargaining. Annexure 4.2 illustrates this dismal picture on level of unionisation and collective bargaining in industries across their registration status with regard to presence of unions, union membership, if unions were bargaining for better wages, working conditions, PPE and so on and were addressing workers grievances and other benefits. Out of the total of 203 workers, only 19 workers responded that their firms were unionised and 16 were working in registered units and only 4 workers were union members. Five respondents mentioned presence of CITU and two

<sup>134</sup> D.K. Srivastava (2006): Trade Union Response to Declining membership base: Best Practices from Mumbai based trade unions, Indian Journal of Industrial Relations, Vol 41 (4), pp 355-374.

mentioned AITUC. Overall, only 14.8 percent of the registered units had a union reflecting a sheer absence of trade unionism and the hesitation to discuss on unionism in these industrial areas is evident as told by a 23 year old working since five years in the same unit in Mayapuri that had a fire accident. He says,

*"I don't know anything about it. Nobody will be able to tell you about unions. Even if there are unions, the owners will not entertain..."*<sup>135</sup>

Another forty year old worker working in the same unit since six years shared,

*"...there is no union in this unit but the boys went to the union (CITU) and registered a case. We were in the union for 3-4 months. These boys tried to get payment for 3-4 months but did not get a single rupee. We were having difficulty in surviving. We realised that there was no point in joining the union but instead we should work..."*<sup>136</sup>

One of the central problems was the disillusionment with trade union support as apparent from the case as shared by the above respondents. This is the same unit in Mayapuri as discussed in the previous chapters where workers have been working without salaries since the fire accident happened. Workers are not allowed to unionise apart from the fact of dismal efforts at unionisation. Also fear of losing employment on joining a union was reported by few such as Ashraf Ali aged 27, working in Patpargunj who says,

*"...Whosoever joins a union or tries to form one as a union leader, the owner throws him out of the company..."*<sup>137</sup>

The unit where Ashraf Ali is working is a registered garment export company and one of the largest in Patpargunj. In Mayapuri again, a 40 year old respondent working in an unregistered unit since the last three years mentions,

*"...there is a local trade union formed by workers themselves, but it is not active. Once they tried and the workers were retrenched". He further said "earlier those workers who tried to raise their voice for higher wages were retrenched". He says, "...now we have stopped asking for a wage increase..."*<sup>138</sup>

<sup>135</sup> Personal interview, Mayapuri, 05.04.2012.

<sup>136</sup> Personal interview, Mayapuri, 06.04.2012.

<sup>137</sup> Personal interview, Patpargunj, 03.03.2012.

<sup>138</sup> Personal interview, Mayapuri, 06.04.2012.

Workers thus were found to be either reluctant to speak on issues of collective bargaining or out-rightly denied the knowledge of presence of trade unions as a 31 year old worker at Peeragarhi working in a shoe factory since the last three years says,

*"...what is the use of bargaining or negotiating? I don't take a single day's leave. We have to raise our kids. How can we take leave...?"*<sup>139</sup>

For eight hours work he earns Rs 7000 only. He works overtime from 5- 9 p.m. He further reported that during night shifts they are scared by a *ghost* of a girl who had died due to electric shock from washroom tap in the shop floor. It was caused by a short circuit he says<sup>140</sup>. There were workers who shared that their union did bargain with their employer for higher wages. For example, two workers from Mayapuri aged 21, working since the last 2 years and another aged 30, working since the last one year reported presence of trade union in their unit, but they were not its members. They mentioned that the union did bargain for higher wages from their employers. Also, responses differed from amongst workers working in the same unit. One worker from the same industrial area aged 21, working from last 4 years says he was not aware of any trade union but other workers say that there is a trade union in the same unit. Another respondent aged 28, working from last 4 years said that there is trade union but had no idea about its functioning.

From the electronics manufacturing unit in Okhla, a 21 year old working since the last six months in a registered electronics unit in Okhla reported that the unit is organised, but he is not a member. He works in computer assembly and earns Rs. 12,000/- per month. He is a graduate in arts. He is not married. His father too has his own business which is the primary source of family income<sup>141</sup>. Whereas another 22 year old worker working since the last 5 years in another registered electronics unit mentioned that his unit has a trade union and he is a member of that union. He did not provide the name of the union except its leader. He says that their union bargains for higher wages, resists anti-worker management practices, act for grievances redress, and assists in providing loans etc. He earns only Rs. 4500/- per month by soldering invertors. He has studied till primary level. He is not married and lives with his parents in Delhi itself. His family income excluding his is approximately Rs. 12,000/-<sup>142</sup>.

<sup>139</sup> Personal interview, Peeragarhi, 23.03.2012.

<sup>140</sup> Ibid.

<sup>141</sup> Personal interview, Okhla, 16.02.2012.

<sup>142</sup> Personal interview, Okhla, 21.02.2012.

Presence of CITU was noted by a 49 year old employee and member working since 26 years in a registered auto-part manufacturing unit. CITU, he says bargains for higher wages, better working conditions and housing scheme. But then, despite the presence of the union he mentioned that about 80-90 workers are out of employment from this unit. And very recently 5-6 workers were thrown out of employment after giving them payment for 32 days. He refused to divulge further details. Another senior 55 year old worker, working in the same unit reiterated the presence of this union although he is not a member. The other reason that could be inferred for not joining unions is the practice of payment of advances to the workers as the earlier chapter discussed. Existence of a patron-client relationship and the bindings or loyalties created with it in such industrial settings were evident as this young 16 year old worker opined,

*"...what is the need for forming a union when the company is ready to give you an advance of Rs. 50,000- 60,000/-. I have taken such an advance. If I need Rs 1 to 2 lakhs the mallik will give. I do work for them, of 'lasting'..."*<sup>143</sup>

The way work is organised appears to be a reason that affects collective bargaining as reported by union leaders and workers. But if one examines at the individual level, it reflects that workers, though informally, negotiate in particular for wages. Such negotiations were found to be much greater among 62.7 percent of workers working in units whose registration status was not known as compared to 54.6 percent in registered units and 52.8 percent in non-registered units. Individual wage negotiations was less reported with 38.7 percent in registered auto-parts manufacturing units as there was more or less systematic or formal system of employment (such as presence of salary accounts, pay slips etc) as compared to the registered garments units with 69.2 percent of workers reporting to have negotiated for wages.

Negotiations for wage increment and advances as some of the case narratives in the later sections reflect an absence of collective effort. Questions on health and safety however are found to be least addressed by the trade unions; and payment of wages/minimum wages, retrenchment benefits are prioritised. In the absence of organised workers collective, the basic question of remunerative wages are thus left much to the benevolence of owners, employers, supervisors and contractors. As discussed earlier on the income of the workers across industries, it was found that workers were not paid firstly in accordance with the minimum wage rates as applicable in Delhi and secondly, workers from the electronics manufacturing

<sup>143</sup> Personal interview, Peeragarhi, 23.01.2012.

units seemed to be better paid in comparison to the other industries but whether wages or salaries were remunerative enough needs to be dealt with separately. Only 52.2 percent of the respondents mentioned that they bargain for better wages.

Fear of job loss, joining employment recently, and the fact that employers would increase the wages on their own were some of the reasons cited by workers for not bargaining for wages. One 26 year old worker working in an electronics assembling unit for the past 4 years earns a fixed salary of Rs. 6000/- mentioned that only if they threatened to quit would wages be increased as the employers do not want to lose people with experience.<sup>144</sup>

There were another set of workers who responded that in case they demanded a wage increase they would be told to work overtime and earn the *extra* income. Working overtime as a consequence results in engaging daily in continuous work. As a 27 year old worker, working in a garments manufacturing unit notes,

*"..We ask for money when we have a problem. We tell the owner to give us more pieces".*

*He also says, "We can lose the job anytime. In karigarhi (stitching/tailoring) line people keep coming and going..."<sup>145</sup>*

An increment in wages is not only in the hands of the employer but also the contractor as reported by some workers. In most cases there is no direct contact with the employer or owner especially in the units that are not registered. Based on discussions it was found that workers do not negotiate for wages or better work conditions collectively as evident through a response given by a 23 year old worker at a shoe-making unit. He says,

*"...till there is no unity, nothing can happen". He further says, "...there is no one to speak for us. We speak to the contractor for a wage increase but only after one year..."<sup>146</sup>*

As Jindal (2001) notes firms have various "creative" ways of avoiding implementation of labour laws. 'Duration of work' is another 'entry point' for escaping legislation as this case illustrates. A 49 year old worker working since two years in an export company in finishing line earning only Rs. 5800/- per month. He considers himself to be a regular worker but is not sure if the company where he works is registered. He was earlier

<sup>144</sup> Personal interview, Okhla, 16.02.2012.

<sup>145</sup> Personal interview, Patpargunj, 24.02.2012.

<sup>146</sup> Personal interview, Peeragarhi, 03.02.2012.

working in various showrooms in Lajpat Nagar for the past 8-10 years. He case reflects how ill-health had affected his employment status and earning capacity and other benefits that he earlier received. It is possible in this case that he has been removed from the regular muster roll of the firm. Vulnerabilities thus get multiplied with age and gender. He says,

*“...I had fallen ill before Diwali for almost two months. I had not received my salary. I came thinking that I would collect whatever dues were left but then they asked me if I wanted to join work”. He said that “...ESI, P.F are no longer getting deducted”. He also mentioned that “there is no overtime now. Earlier when I was new I used to do overtime work for 4 hours and earn about Rs. 70/-...”<sup>147</sup>*

Eighty-eight percent of the respondents said that there was no Grievance redressal body in the respective units. It was found that only four workers directly spoke with their owners for their grievances. Fifteen respondents mentioned that they could approach their supervisors, *babus/masters* for their grievances. Most of the workers relied upon contractors to address their grievances. Their grievances were largely linked to payment of advances and request for leave. A wage increase (annual increment) was more or less assumed. Such increments were commonly reported during the month of April or during the festival season of *Diwali*.

### **Trade Unions’ Responses**

Discussions with trade union leaders across all the four industrial areas repeatedly brought forth the same questions and concerns for labour; questions of survival and livelihood. The common subject of negotiation by trade unions was for minimum wages in these industrial areas and they predominantly fought for individual cases like wage payment, retrenchment, compensation and so on. One of the leaders of CITU at Patparganj mentioned that their union has hold only on the registered units with permanent workers. Two garment export factories are under CITU but both were currently closed. Closure benefits are however paid by the employers says the leader. He further stated that the employers do not want labour that would engage in conducting gate meetings demanding labour rights. Most of the factories were shifting out of Delhi to NOIDA and Ghaziabad (Uttar Pradesh) and in Haryana as the minimum wages are much lower in the state of along with various tax exemptions for entrepreneurs. He mentioned that AITUC ensured that the workers of the closed unit where they functioned received 15 days salary and CITU got their workers of another closed unit transferred to its NOIDA factory.

<sup>147</sup> Personal interview, Patparganj, 10.04.2012.



Another CITU leader mentioned that the employer prefers to pay a *chalan* amount of Rs. 500-700/- rather than engaging in negotiating with the workers or the trade unions in case of any labour violation. He further said, “They do not fear the labour department”. He however mentioned that in case of a complaint the inspectors do come for inspection and that there has been a recent amendment of the complaint-form. Workers now have to give their signature on it. This has however boomeranged as workers hesitate to formally lodge a complaint. He further said that owners of most factories in these industrial areas either declare a unit closed or fragment it into two units in different names to avoid registration under the Factories Act 1948. He shared,

*“...for instance there are about 60 workers entering a factory to work in the morning but when the inspector comes there are less than 20 inside. The employers either chase them from another gate or hide them in other rooms and sometimes even inside large boxes...”<sup>148</sup>*

He shared that workers are losing faith on the trade union leaders and it was increasingly getting difficult to organise them on issues of wages etc. This was also reported by another CITU representative from Okhla. Workers were ready to pay trade union membership fees but were not ready to take action for fear of job loss. Stiffer competition as discussed elsewhere was also reported by an AITUC leader from Okhla that had affected the electronics industry in particular. Also high levels of home-based work, sub-contracting and assembling work are instead the norm in Okhla, he shared. As stated in the industrial profile earlier this leader mentioned that the Delhi government is permitting establishment of corporate offices while the manufacturing units are moved elsewhere. The lease land is meant for manufacturing. Only if the lease is cancelled will the employers realise he says. But as discussed in the earlier chapter on industrial profiles, the nature of leasehold was been converted to freehold as such the Department of Industries per se has no power or control over the nature of land use.

Workers representatives are also found to be excluded from an inter-departmental district task force constituted for inspection twice a month in fire-prone industries like textile, paper and footwear industries<sup>149</sup>. This task force caters to industries like aviation and other relatively large and visible sectors with a stronger employers’ lobby<sup>150</sup>. Therefore the chance of small scale industries coming under the scanner of accountability is nil

<sup>148</sup> Personal interview with trade unionist, CITU, Peeragarhi, 08.07.2011.

<sup>149</sup> Discussions with official at the Office of the Commissioner of Industries and officials at CIF, Delhi, op.cit.

<sup>150</sup> Discussions with officials at Department of Industries, Govt. of Delhi, op.cit.

and also concerns of workers will never be raised in the absence of workers representatives.

The strike of February 28, 2012 called by all trade unions across party lines in Delhi demanded basically adequate implementation of labour laws for industrial workers and minimum wages as commonly agreed by all unions at Rs. 10,000/-. CITU however had demanded Rs. 11,560/- as minimum wages. As the primary findings reveal, personal negotiations by workers to employers/supervisors were the preferred norm for negotiations/ redressal etc in these industries. Increase in wages, access to holidays, securing advances depends much on the inter-personal and relationships of power and hierarchies at which one was placed. Would these continue to be the preferred norms in the industries and at workplaces or is there a scope for strengthening collective bargaining and tripartite negotiations for safer and healthier workplace? Would international instruments like the ILO Conventions bring any headway towards improvements in working conditions remains to be seen? Can the need for a stronger workers representation to ensure enforcement and accountability be enhanced?

To reiterate, first, fragmentation in terms of political and ideological leanings and fissures within organisations; second, the growing informalisation of labour and third, the creation of sectoral unions, which might be the need of the hour; nevertheless, has sought to be much in favour of the capital are some of the concerns for workers' organisers. In the case of Delhi, absence of working class struggles historically, unlike other industrial cities like Kolkata and Mumbai, apart from the fact that the national All India Trade Unions strike that culminates in the capital city is yet to witness some piercing labour protests. The primary study certainly shows through the case of the manufacturing sector the demise of the working class movement with the growth of factors as discussed earlier. This could also be constructed by the sheer heterogeneity and the 'indifferent' attitude of the populace of Delhi vis-à-vis other metropolitan cities. International labour standards as a regulatory tool have been advocated by social partners globally. India, as a member nation has been a signatory to the few of the ILO Conventions. Particular reference is made to the ILO Conventions on OSH in the following section along with an examination of the GOI's national policy.

### **India and ILO Conventions on OSH**

Significant conventions on Occupational Safety and Health (OSH) at Workplace have been framed by the International Labour Organisation

(ILO). They include No 81- Labour Inspection Convention, 1947; No. 155- Occupational Safety and Health Convention, 1981; No. 161 -Occupational Health Services Convention, 1985 and No. 187- Promotional Framework for Occupational Safety and Health Convention, 2006. India has ratified the Labour Inspection Convention No 81, 1947 excluding Part II i.e. labour inspection in commerce (System of inspection in commercial workplaces) and No. 174 Prevention of Major Industrial Accidents Convention 1993 ratified in 2008<sup>151</sup>.

The Occupational Safety and Health Convention 1981 (No. 155), states under Article 4, that each member must formulate, implement and periodically review a coherent national policy keeping the national conditions in mind. This policy must aim at preventive accidents and injuries that arise out of work and minimise the cause of hazards inherent in working conditions. Article 5, focuses on the design, testing, choice, substitution etc of the material elements at work<sup>152</sup> and more importantly its relationships with the persons who carry out the work; and adaptation of these material elements to the physical and mental capacities of workers.

Although discussions are ongoing at the ministerial level towards Ratification of C 155, by excluding agriculture and service sector it is pertinent to note that even if such sectors are excluded (under Para 2 of Article 1); in para 3 it is clearly stated that any branch which may have been excluded “giving the reasons for such exclusion and describing the measures taken to give adequate protection to workers in excluded branches, and shall indicate in subsequent reports any progress towards wider application”. The Shops and Establishment Act 1948 for instance, does not have adequate provisions on health and safety in order to cover the service sector. Adequate amendments to the same would have to be made in this regard. Government of India would also have to ratify

<sup>151</sup> To name a few other ILO Conventions that India has ratified include No. 1 Hours of Work (Industry) Convention 1919; No. 14 Weekly Rest (Industry) Convention, 1921; No. 26 Minimum Wage Fixing Machinery, Convention, 1928; No. 18 Workmen’s Compensation (Occupational Diseases) Convention, 1925; No. 19 Equality of Treatment (Accident Compensation) Convention, 1925; No. 4 Night Work (Women) Convention, 1919 and its subsequent revisions as Convention No. 41 (Revised), 1934, Convention No. 89 (Revised), 1948 and P 89 Protocol of 1990 to the Convention No. 89 that are relevant for this subject. There are certain national legislations like the Workmen’s Compensation Act 1923, the Employees’ State Insurance Act 1948 and other sector specific legislations as mentioned earlier that seek to address aspects on health and safety

<sup>152</sup> These include workplaces, working environment, tools, machinery and equipment, chemical, physical and biological substances and agents, work processes.

specifically No. 184 Safety and Health in Agriculture Convention 2001 for adequately covering the agriculture sector<sup>153</sup>.

Much input for improvising policies and programmes in India with an engagement of stakeholders (workers' representatives and employers' associations for example) can be adapted from No. 176, The Safety and Health in Mines Convention, 1995. This Convention places the responsibility of health and safety firmly on the employers and provides the workers with important rights such as right to report accidents, hazards and other dangerous occurrences to employers and inspectorate. The right to ask for inspection and investigation by the employer and inspectorate; the right to refuse dangerous work and to elect safety representatives are some other rights accorded to workers under this Convention.

It is also important to note that if GOI moves ahead for ratification of C 155; other conventions such as C 161 should be simultaneously taken up for ratification as without having an adequate delivery system such efforts would not be fruitful. Conventions such as No. 162 Asbestos Convention, 1986 and No. 170 Chemicals Convention, 1990 also deserve mention for ratification since if these conventions are ratified, specific legislative interventions would have to be forcefully undertaken for an overall improvement in industrial health. It therefore calls for a much larger budgetary allocation in health care services by the Government of India and investments in health by employers to improve productivity. Ratification to such conventions by India would mean, bringing about specific policy recommendations under the framework of such conventions and the National Policy of Workplace Health and Safety. These include making arrangements for necessary coordination that could also entail setting up of a central body (Article 15) or an apex body that the Planning Commission had recommended way back in 2001.

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<sup>153</sup> MoLE (2012): 36<sup>th</sup> session of the Tripartite Committee on convention, 25<sup>th</sup> September '12.

## **National Policy on Safety, Health and Environment at Workplace 2010**

This national policy deserves special mention as necessary action in terms of legislative, judicial and administrative along with research and advocacy for improvement in overall health and working conditions is critical. This policy reiterates under its preamble rights of citizens as enshrined under the Directive Principles of State Policy. It also states that the GOI recognises that 'safety and health of workers has a positive impact on productivity and economic and social development'. It further recognises changes in nature of labour and employment relations, migration and vulnerabilities along with increasing use of chemicals and various exposures and stress at work. This policy prescribes importantly, a strategy of providing a system of incentives (financial and non-financial) to employers and employees to achieve higher health and safety standards; statutory framework on OSH across all sectors of industrial activities; establishing and developing research and development and providing effective control in emerging areas of risks and moreover providing technical and administrative support.

This policy notes key areas of action such as through enforcement, developing of national standards and its compliance. In the component of compliance it calls for a) governments to ensure administrative and enforcement responsibility through plans and programmes in accordance to legislations; b) corporation of social partners to supervise application of legislations and regulations in this area; c) establish occupational safety and health management systems and establish auditing mechanisms; d) adoption of Corporate Social Responsibility (CSR). Creation of green jobs and promoting safe and clean technology are other aspects mentioned in this policy. Focus on awareness, research and development along with occupational safety and health skills development, data collection and review are some of the important issues addressed. However, budgetary allocation to render such services and strengthening institutional delivery systems are also highly critical for any policy/programme or plan implementation at a national level. There is scope for the GOI to negotiate by providing subsidies along with issues of compliance and accountability. This however has to move in tandem with international trade regulations across different manufacturing sectors.

Carsten Joerges (2001) notes that apart from regulations, measures such as the economic incentive method could be more effective in achieving improved health and safety. Likewise, formulation of standards on OSH like the BIS 15001:2000 Indian Standard on Occupational Health and Safety

Management Systems- Specifications and Guidance for Use<sup>154</sup>, that is based on the OHSAS 18000<sup>155</sup> but which deserves careful scrutiny might help in achieving this goal. Best practices have been another method adopted by certain companies to highlight issues of compliance and accountability on aspect on safety in particular.

The Report of the Working Group on OSH for the XIIth Five Year Plan (2012-17), MoLE, GOI has raised few important concerns. For instance the need for i) an apex body on OSH as there is no agency to examine the unorganised sector workers; ii) A national database on OSH having an online data transfer facility with standardized OSH data system in line with the National Policy on Safety Health and Environment at Workplace iii) strengthening the enforcement system given the paucity of manpower to use information technology towards transfer of data between factories and CIF. And also to establish Industrial Safety, Occupational Health and Work Environment Centre in the State Factory Directorate by Centrally Sponsored Scheme under DGFASLI (MoLE 2011: 88). DGFASLI also proposes to operate schemes for factories in particular such as i) strengthening of DGFASLI organisation and OSH in factories by allocating Rs 94 crores and for Civil Works Rs 70 crores respectively; ii) Development of RLI, Faridabad as Centre of Excellence in Safety Systems in MSME and Chemical Process units; iii) Effective Implementation of Occupational Safety, Health and Environment Systems at workplace in manufacturing and port sector iv) identification and elimination of asbestosis and silicosis in India.

DGFASLI is in the process to standardize the factory inspection system in collaboration with respective State/Union Territory government and the ILO<sup>156</sup>. A draft Country Survey format was prepared by DGFASLI for both Factory and Dock inspection system to compile data for the period April 2005 - March 2010. This survey document encompassed various crucial aspects such as inspection strategy, training and education strategy, administrative infrastructure, competency status, and more importantly indicators and details on legal matters are incorporated.

<sup>154</sup> Discussions with officials, MOLE, GOI

<sup>155</sup> The Bureau of Indian Standards has brought about a practical approach to management of Occupational Safety and Health for protection of employees and general public. For details please see [http://www.dgfasli.nic.in/newsletter/apr\\_jun01.pdf](http://www.dgfasli.nic.in/newsletter/apr_jun01.pdf), Summary of BIS: 15001-2000-Standard on Occupational Health and Safety Management system.

<sup>156</sup> This is an international occupational health and safety management system specification. Please see Joerges Carsten (2001) Research Internship Papers 2001, Centre for Civil Society, p 5. Available at [http://ccsindia.org/RP01\\_16.asp](http://ccsindia.org/RP01_16.asp)

The status of this exercise is however to be discussed and reflected in future policy frameworks. DGFASLI in FY 2011-12 has established a Regional Labour Institute (RLI) at Faridabad to specifically cater to the OSH needs of the factories in North Western states of India and to liaison with CIF and MoLE on various aspects on OSH. Research and training in various topics on OSH are also envisaged<sup>157</sup>. With the growing impetus in investments in the manufacturing sector, strengthening the existing institutional and infrastructural along with adequate coherence across institutions; engaging stakeholders across sectors and ensuring accountability is the urgent need of the hour to address OSH concerns by the Government of India.

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<sup>157</sup> <http://www.dgfasli.nic.in/RTI/budget.htm>

## **Chapter Five**

### **Conclusion and Recommendations**

As the rationale of the study states, this research study emerged with the recurrent incidents of fire accidents in the small scale units in Delhi. It relied upon a detailed study of select small-scale industries in Delhi, such as, auto parts, textile, leather manufacturing and electronics products. The literature reviewed built the theoretical framework. Other primary studies along with secondary data substantiated the primary findings of this study. The existing literature on health and safety within the conceptual public health understanding reflected that despite documentation and research and availability of government reports, the questions of occupational health and safety are less addressed in the Indian academia. Even though there are consistent attempts by government and other stakeholders, much remains to be done not just in the unorganised but also the organised manufacturing sector. The trajectory shows that attention on OHS in India is given only post-incident for example the Bhopal gas tragedy and the case of the cashew workers in Kasargode, Kerala as tangible through legislative amendments and policy measures.

The development of the industrial estates in Delhi had started with the creation of Okhla industrial area in 1958. There are 28 industrial estates in Delhi at present, but there has been a marked change in its characteristics in the context of the Industrial policy of Delhi (2010-2021). This policy specifies promotion of skilled industries with high end technology and minimising in-migration of unskilled labour. From the industrial estates studied, it was found that most of the traditional industries (such as leather and garments) were shifting out from Delhi to minimise cost of production and labour being a significant factor to cost.

Irrespective of this fact, urban labour continues to be a key component to trade and economy. It however is inundated with issues that emanate out of poverty, migration and illiteracy. The socio-economic characteristic of the workforce considerably determines workers ability to negotiate in such conditions. As the conceptual framework posits that those at the bottom of the occupational hierarchy are significantly prone to accidents and injuries at workplace and as one climbs up the occupational ladder there is a decline in its probability. Education and skill levels also determine the position in the occupational hierarchy



that somehow gets prescribed by the socio-economic factors. Such social dimensions configure in understanding migration, accessibility to employment and are also intrinsically tied to forms of employment as reflected through the social relations of production.

The predominance of informality was stark across the manufacturing units under study. A critical aspect with regard to non-regular/casual/contract workers across both leather and garments manufacturing units was the dependency on the *thekedars* (contractors) in determining their work, working conditions including wages, holidays/leaves etc. With respect to income, most workers reported their total income inclusive of overtime earnings. Salaries were paid in two installments, once in the 3<sup>rd</sup> week of the current month (as advance) and the second installment (as *kharcha*) in the 2<sup>nd</sup> week of the following month. This was the dominant form of payment especially in leather and garment manufacturing units. In the other two industries especially in registered units, salaries were paid along with provision of pay slips etc. However, majority of the unskilled workers were paid on a monthly basis inclusive of their overtime earnings. Earnings of women workers were remarkably low with Rs. 2300/- paid for beginners as consolidated monthly salaries in the leather manufacturing units. Wage deductions were also highly practiced in such units as reported by women respondents. Overall earnings through overtime wages was reported the highest from workers working in registered units. Also, workers working as casual/contract workers were perhaps unable to distinguish the stipulated number of working hours and overtime hours and also calculate cumulative salary based on overtime work.

In such a context, aspects of health and safety of industrial workers were studied across these units. Health is understood as a socially produced condition whereby various factors interplay in determining health outcomes. Such understanding is also applicable for the concept of safety wherein 'injuries' and 'accidents' are predetermined by hierarchies at work and social conditions of existence. Workplace health and safety is thus contextualised within the larger understanding of health as a socially produced condition. The International Labour Organisation (ILO) defines workplace under No. 155 Occupational Health and Safety Convention as "workplace covers all places where workers need to be or go by reasons of their work and which are under the direct or indirect control of the employer". This definition is applied as the working definition for this study. Fire accident as one of the significant indicator to workplace health and safety is examined in this study. Figures provided by the Delhi Fire Service (DFS) for the

years 2010-11 show that between 2010-11 DFS attended to 22,187 calls of fire accidents during which 447 deaths occurred and 243 were left injured. In the previous year (2009-10), 363 fire incidents occurred in the industrial areas, 5071 in residential areas, 10,202 in JJ Cluster areas and 73 in high rise areas.

Factory visits across the select industries revealed the appalling work conditions in which workers are subject to along with the precariousness of employment. It was stark for the case of the auto-parts manufacturing units followed by other industries such as leather, garments and electronics. Workers narratives and self-reporting on indicators of exposures of dust, fumes, oil/grease, heat, vibration, noise, work pressure and uncomfortable posture at workplace was analysed. Such exposures were linked to the nature and process of work, work conditions and hours of work because of the preferred system of overtime work across industries. Aspects on fire accidents and workplace health hazards were clearly reported across industries and workplace.

The physical discomforts at workplace were evidently associated to workplace conditions such as high temperature, heat, humidity, exposures to dust, noise, fumes and gases by the workers. Women workers' health status given such exposures could probably be worse off given their reproductive biologies. Tiredness (*thakan*) and weakness (*kamjori*) was significantly reported by workers across all industries. Risks of accidents and injuries at work were also reported by workers. In the leather manufacturing industry cuts, hand/finger injury including needle-stick injury and 'pinched finger' injury were commonly reported. In the garment industry needle-stick injuries was more pronounced; electric shocks were reported commonly from the electronics manufacturing industry and in the auto-parts industry, hand/finger injuries including cuts/bruises were reported along with piercing of splinters of small metal parts. More importantly, the tendency to associate injuries and accidents at work to individual's carelessness was significant. Factory visits to some of the units convinced the possibilities of such risks and injuries at workplace. Availability of ESI hospitals was reported from the registered units with 22.7 percent, 26.9 percent, 41.4 percent and 64.5 percent from the leather, garments, electronics and automobile parts manufacturing units respectively. This indicates either inadequate utilisation or provision of ESI cards to workers. It also corroborates to the fact that only 52.1 percent of the workers in the organised sector are covered under the ESI Act.

Moreover, the nature of employment relations determines the possibilities for negotiating for better working conditions. The findings show that collective bargaining in these industrial units appears to be practically non-existent in most of the industries. As the primary data evidences, workers are left to negotiate based on personal relationships given the poor membership and trade union leadership across these units. It is this negotiation that is implicitly dependent on the factors mentioned earlier. As argued from the beginning the dualist nature of the labour market in India comprising of the unorganised and organised sectors has limited the influence of protection for labour especially in the former sector.

Role of workers' representatives appeared to be dismal and inconsistent in these industries studied. Although gaining membership to trade union was not a hindrance per se, but working under the trade union was difficult in such industrial ghettos. Fear of job loss was the major reason for the non-participation in trade union activities by workers. Control by the supervisors/contractors dictated workers' access to wage payments, leaves and so on. Apart from very few units, wages negotiations were carried out on a personal basis by workers bound through village and kinship ties apart from the favoured patron-client relationships through payment of advances by the employers.

With respect to factory inspection, it was found that only 52.8 percent of workers from across the registered units reported that factory inspection takes place. Inspections apart from factory inspectors, officials from departments of Income tax, PF, ESI, MCD were made by owners/company. Interestingly, the garment-exports manufacturing industry were found to comply with the health and safety standards. This was found because of the international market competitiveness for the garments export manufacturing units in Delhi. Factory visits to some of the units revealed that there were emergency exits, trained personnel for handling first aid and medical emergency; sand buckets, fire extinguishers and other fire safety equipments made available in the unit itself. However it was different in the case of the auto-parts manufacturing units where there was a clear absence of such facilities for health and safety in a workplace where the probability of injuries and accidents were much higher as compared to the other industries studied. Overall it was found that aspects to health and safety were rarely prioritised by employers, unions and the least by workers. Ignorance of work conditions or on causes of ill-health were not reasons, for the inability to negotiate; rather having employment was of much greater concern.

Proritisation of health and safety is least because of reasons that emanate from factors of vulnerabilities triggered by poverty, illiteracy and unemployment on the one hand and a near absence of preventive and protective health by owners on the other hand. The former appears to work in favour of the latter with a minimal component of investments in health to the cost of production. We must also understand that issues on health and safety cannot be addressed without addressing the larger systemic factors. For instance, allotment of land/floor/building to companies without adequate compliance on safety, fire safety in particular while establishing such units. It becomes important that various departments under DDA, MCD, DSIDC and MoLE work in congruence with one another to ensure compliance and safety.

The GOI had framed the National Policy on Safety, Health and Environment at Workplace 2010, but there is an urgent need for tailor-made policies and incentives to address the increasing number of small, medium and micro entrepreneurs. Moreover, ratifications of various ILO conventions such as the C 155 on Occupational Health and Safety and other including C 161 Occupational Health Service Convention must be made in tandem with the labour reform processes. Institutions under the Ministry of Labour and Employment, GOI such as Directorate General of Factory Advice Service and Labour Institutes (DGFASLI), National Safety Council (NSC), Chief Inspectorate of Factories (CIF) at respective states, Regional Labour Institutes and others institutions under Indian Council of Medical Research (ICMR) need to engage consistently at the national level. Particularly, systematic data compilation on industrial health and addressing issues arising from it; improving enforcement system in consonance with changes in the industrial climate and understanding the nuances of workers' conditions at work is imperative. The quality and maintenance of machinery used in such manufacturing units must also be taken into account as part of preventive measures towards avoidance of accidents and injuries at workplace. It is also important that the nature or type of accidents is given meticulous attention to while improvising safety standards.

Fair labour practices should be adopted to enhance productivity given the increasing shades of sub-contractualisation of labour. It is a well-established fact that containing workforce is not the solution. Rather, governmental efforts and investments on skill-upgradation, social security and health protection to the working class need to be systematically overseen. This of course is a gigantic task. It is important

to reiterate that until this 'social' cost of production is understood and envisaged as an investment for the economic growth, deaths due to accidents, injuries and diseases as Leigh (1999) estimated during the first decade of globalisation will continue to be the worst trade-off for developing nations like India. By accepting the extent and intensity of informal economy in the manufacturing sector, there is thus a need to address such precarious forms of employment in relation to health and safety issues. This study therefore raises an ontological question – are we waiting for an 'accident' to occur to address the issue of safety and health at workplace?

**Annexure 1.1****Workers' Profile across Industries**

<b>Profile</b>	<b>Leather</b>		<b>Garments</b>		<b>Electronics</b>		<b>Auto-parts</b>		<b>Total</b>	
<b>Gender</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>
	89.8	10.2	96.2	3.8	89.8	10.2	90.7	9.3	91.6	8.4
<b>Age</b>										
15-20	18 (64.3)	-	6 (21.4)		1 (3.6)	3 (75.0)	3 (10.7)		28	4
20-25	17 (23.9)	-	21 (29.6)	-	20 (28.2)	2 (66.7)	13 (18.3)	1 (33.3)	71	3
25-30	8 (27.6)	1 (50.0)	7 (24.1)	-	7 (24.1)	-	7 (24.1)	1 (50.0)	29	2
30-35	7 (28.0)	3 (75.0)	7 (28)	-	7 (28)	-	4 (16)	1 (25)	25	4
35-40	-	2 (50)	4 (25)	2 (50)	5 (31.3)	-	7 (43.8)	-	16	4
40-45	2 (28.6)	-	3 (42.9)	-	1 (14.3)	-	1 (14.3)	-	7	-
45-50	1 (16.7)	-	1 (16.7)	-	1 (16.7)	-	3 (50)	-	6	-
50 and above	-	-	1 (25)	-	2 (50)	-	1 (25)	-	4	-
<b>Marital Status</b>										
Never Married	33 (35.1)		28 (29.8)		20 (21.3)	3 (100)	13 (13.8)	-	94	3
Married	20 (21.7)	6 (46.2)	22 (23.9)	2 (15.4)	24 (26.1)	2 (15.4)	26 (28.3)	3 (23.1)	92	13
Divorced/ Separated	-	-	-	-	-	-	-	1 (100)	-	1

Source: Fieldwork, 2012.

## Annexure 1.2

## Migration and Social Category across Gender

Gender	Migrated from	Social Category						
		Others	Muslim Others	Muslim OBC	OBC	SC	ST	NR
Male	Bihar (n=64)	51.6 (33)	15.6 (10)	3.1 (2)	17.2 (11)	10.9 (7)	-	1.6 (1)
	Delhi (n=17)	41.2 (7)	-	11.8 (2)	17.6 (3)	23.5 (4)	-	5.9 (1)
	Haryana (n=5)	60.0 (3)	-	-	20.0 (1)	20.0 (1)	-	-
	Jharkhand (n=4)	-	-	50.0 (1)	-	-	50.0 (1)	-
	Madhya Pradesh (n=2)	-	50.0 (1)	-	-	50.0 (1)	-	-
	Orissa(n=1)	100.0 (1)	-	-	-	-	-	-
	Rajasthan (n=3)	100.0 (3)	-	-	-	-	-	-
	Uttar Pradesh (n=86)	36.0 (31)	9.3 (8)	2.3 (2)	27.9 (24)	20.9 (18)	1.2 (1)	2.3 (2)
	Uttaranchal (n=6)	83.3 (5)	-	-	-	16.7 (1)	-	-
	Total (n=186)	44.6 (83)	10.2 (19)	3.8 (7)	21.0 (39)	17.2 (32)	1.1 (2)	2.2 (4)
Female	Delhi (n=2)	-	-	-	50.0 (1)	50.0 (1)	-	-
	Kerala (n=1)	100.0 (1)	-	-	-	-	-	-
	Madhya Pradesh (n=1)	-	-	-	-	100.0 (1)	-	-
	Uttar Pradesh (n=11)	63.6 (7)	9.1 (1)	9.1 (1)	-	18.2 (2)	-	-
	West Bengal (n=2)	50.0 (1)	-	-	-	-	-	50.0 (1)
	Total (n=17)	52.9 (9)	5.9 (1)	5.9 (1)	5.9 (1)	23.5 (4)	-	5.9 (1)

Source: Fieldwork, 2012.

Note: n = number of respondents.

NR- Not Responded.

Figures in parentheses are the number of respondents.

**Annexure 1.3****Skill Classification**

<b>Industry</b>	<b>Skill Classification</b>	<b>Self-Reported by Workers</b>
Leather	Skilled	Checker, Machine Operator, 'Upper Stitching', 'Upper Checking', 'Foreman', 'Mixture Machine Operator', 'Dye Machine'
	Semi-Skilled	Printing, Machine operator, Fitting, side-laster, 'lasting', 'Latex Pasting', 'Cutting', Wireman, Transformer
	Unskilled	Helper, Packing, 'Sole Fixing', Loading, 'Thread Cutting', 'Pasting'
Garment	Skilled	Trainer, Stitching, 'Shirt Cutter', 'Embroidery', Checker
	Semi-Skilled	Cutting, 'Store Keeper', Pressman
	Unskilled	Helper, 'Thread Cutting'
Electronics	Skilled	'Manufacturing Television Kit', 'Television plate', Assembler work, 'Inverter', Foreman, 'Computer UPS Repairing', 'Mobile Repairing', Supervisor, 'Checker'
	Semi-Skilled	'Manufacturing Stabilisers', Amplifier', 'Welder', solder man, 'Speaker Magnate Fitting', 'Mike Manufacturing', 'Wiring', 'Operator', Coil Winder
	Unskilled	'Wire Cutting', Helper, 'Office Boy'
Auto-parts	Skilled	'Machine Operator', 'Dye Machine', 'Auto-parts Manufacturer', Mechanic
	Semi-Skilled	'Hand Molding Machine', 'Painter', 'Power Press', 'Store Keeper', Fitter, Welding
	Unskilled	Helper, loader

Source: Fieldwork, 2012

Note: Some of the terminologies are based on workers response to classification and nature of work in the respective units under study.



## Annexure 3.1

**State-wise Status of Employment 2009(P) and Fatal and  
Non-fatal Injuries in Factories (P) 2009-10**

Sl. No.	States/ Union Territories	Registered Factories	Working Factories	Total Employment	Female Workers	2009		2010	
						Fatal	Non Fatal	Fatal	Non Fatal
1.	Andaman & Nicobar Islands	37	37	5239	160	0	49	..	..
2.	Andhra Pradesh	42924	30654	909957	190700*	165	927	188	923
3.	Assam	3946	2759	137432	3229	4	48	6	46
4.	Bihar	7212	6437	98465	89	14	34	1	15
5.	Chandigarh	817	471	7538	391	0	8	0	2
6.	Chhattisgarh	4010	3388	213968	14081	114	342	84	341
7.	Daman & Diu & Dadra & Nagar Haveli	5217	4009	104234	31000	14	13	14	31
8.	Delhi	11302	7237	340465	22647	14	26	15	39
9.	Goa	732	714	53500	9200	10	134	12	97
10.	Gujarat	34860	24453	1257957	47977	173	2984	221	2430
11.	Haryana*	10100	9955	522493	35797	51	104	38	51
12.	Himachal Pradesh*	3357	3357	194019	7085	19	32	..	..
13.	Jammu & Kashmir	1329	962	43149	3641	2	52	Nil	99
14.	Jharkhand	11540	7966	263351	7238	36	180	43	149
15.	Karnataka	12633	12157	1200404	404380	80	927	92	779
16.	Kerala	18740	17465	624388	293734	41	106	7	79
17.	Madhya Pradesh	7100	6700	290155	7470	51	1173	68	848
18.	Maharashtra	39963	35904	1779254	134513	217	2911	225	2540
19.	Manipur	-	-	-	-	..	..	..	..
20.	Meghalaya	133	121	7261	419	0	14	2	12
21.	Nagaland	798	398	29460	2853	0	0	0	0
22.	Orissa	3238	2462	240303	8967	122	426	103	457
23.	Pondicherry	2945	2351	79750	10980	8	102	10	46
24.	Punjab	17609	17214	587644	3645	35	248	14	212
25.	Rajasthan	10741	10648	402827	7550	56	699	65	534
26.	Tamil Nadu	40515	30386	1486290	444405	137	826	75	860
27.	Tripura	1626	1626	57101	9750	0	4	1	5
28.	Uttar Pradesh	14026	13661	1005000	21500	61	235	64	152
29.	Uttaranchal	2423	2413	182356	17130	20	33	9	24
30.	West Bengal	14888	14389	976169	19232	65	18947	97	19264
	Total	324761	270294	13100129	1759763	1509	31584	1454	30035

Source: Standard Reference Note 2009-10, DGFASLI, MOLE, GOI

## Annexure 3.2

Compensated Accidents, Amounts of Compensation Paid and Accident Rate per 1000 Workers except Railways during 2007

State/Union Territory	Average Daily Number of Workers Employed in Establishments Submitting Returns	Number of Compensated Cases of Accidents Resulting in*				Amount of Compensation paid@ (Rs in Lakh.)			
		Death	Permanent disablement	Temporary disablement	Total	Death	Permanent disablement	Temporary disablement	Total
Andhra Pradesh	255604	606 (2.37)	374 (1.46)	51 (0.20)	1031 (4.03)	1306.60 (2.16)	610.68 (1.63)	57.17 (1.12)	1974.4 (1.92)
Maharashtra	179027	26 (0.15)	131 (0.73)	1379 (7.70)	1536 (8.58)	67.32 (2.59)	30.05 (0.23)	425.45 (0.31)	522.82 (0.34)
Delhi	76904	98 (1.27)	168 (2.18)	12 (0.16)	278 (3.61)	305.33 (3.12)	76.70 (0.46)	11.83 (0.99)	393.86 (1.42)
<b>Total#</b>	931977	1239 (1.33)	929 (1.00)	1618 (1.74)	3786 (4.06)	2493.67 (2.01)	901.50 (0.97)	583.31 (0.36)	3978.4 (1.05)

Source: Labour Bureau (2011): Report of the Working of the Workmen's Compensation Act, 1923 for the year 2007, Labour Bureau, Ministry of Labour and Employment, GOI, Chandigarh.

Note: \* = Figures in brackets indicate accident rates per 1000 workers employed.

@ = Figure in brackets indicate average compensation paid per case.

, ' = Nil.

# = Total figures includes other states such as Himachal Pradesh, Kerala, Orissa, Rajasthan, Tripura, Uttar Pradesh, Uttarakhand, West Bengal, Andaman & Nicobar, Chandigarh, Dadra & Nagar Haveli, Puducherry

**Annexure 3.3**

**List of Occupational Diseases**

**SCHEDULE III**

**[Section 3]**

**LIST OF OCCUPATIONAL DISEASES**

1. Infectious and parasitic diseases contracted in an occupation where there is a particular risk of contamination
  - (a) All work involving exposure to health or laboratory work;
  - (b) All work involving exposure to veterinary work
  - (c) Work relating to handling animals, animal carcasses or merchandise which may have been contaminated by animals or animal carcasses;
  - (d) Other work carrying a particular risk of contamination
2. Disease caused by work in compressed air All work involving exposure to the risk concerned
3. Diseases caused by lead or its toxic compounds All work involving exposure to the risk concerned
4. Poisoning by nitrous fumes All work involving exposure to the risk concerned
5. Poisoning by organo phosphorus compounds All work involving exposure to the risk concerned

**PART B**

1. Diseases caused by phosphorus or its toxic compounds All work involving exposure to the risk concerned
2. Diseases caused by mercury or its toxic compounds All work involving exposure to the risk concerned

*Source:* Available at [http://bokakhat.gov.in/pdf/workmen\\_compensation\\_act.pdf](http://bokakhat.gov.in/pdf/workmen_compensation_act.pdf) accessed on 23.02.12.

**Annexure 3.4****Treatment Sought from**

Company Registration	Location	Private Practitioner	Government Dispensary	ESCI	Facility Provided by Employer	Any Other	No
Yes	Leather (n=22)	6 (27.3)	-	5 (22.7)	-	-	11 (50.0)
	Garments (n=26)	4 (15.4)	1 (3.8)	6 (23.1)	-	-	15 (57.7)
	Electronics (n=29)	2 (6.9)	2 (6.9)	10 (34.5)	1 (3.4)	-	14 (48.3)
	Auto-parts (n=31)	7 (22.6)	1 (3.2)	21 (67.7)	-	-	2 (6.5)
No	Leather (n=11)	2 (18.2)	--	2 (18.2)	1 (9.1)	-	6 (54.5)
	Garments (n=8)	-	-	25.0	-	-	75.0
	Electronics (n=8)	3 (37.5)	-	1 (12.5)	-	-	4 (50.0)
	Auto-parts (n=9)	7 (77.8)	-	-	-	-	2 (22.2)
DK	Leather (n=26)	10 (38.5)	-	1 (3.8)	1 (3.8)	-	14 (53.8)
	Garments (n=18)	6 (33.3)	-	-	-	2 (11.1)	10 (55.6)
	Electronics (n=12)	3 (25.0)	-	1 (8.3)	-	-	8 (66.7)
	Auto-parts (n=3)	-	-	-	-	-	3 (100.0)
Total		19 (32.2)	-	2 (3.4)	1 (1.7)	2 (3.4)	35 (59.3)

Source: Fieldwork, 2012

Percent of Workers Reporting on Extent of Types of  
Compensation at Workplace

Facilities	Leather		Garments		Electronics		Auto parts					
	Reg- is- tered Units	Non- Reg- is- tered Units	Reg- is- tered Units	Non- Reg- is- tered Units	Reg- is- tered Units	Non- Reg- is- tered Units	Reg- is- tered Units	Non- Reg- is- tered Units	Units with informa- tion not avail- able on registra- tion			
Compensa- tion for per- manent dis- ability	40.9	9.1	11.5	11.5	7.7	25.0	5.6	27.6	-	29.0	44.4	-
Compensa- tion for tem- porary dis- ability	22.7	9.1	19.2	11.5	11.5	-	-	20.7	12.5	35.5	33.3	-
Layoff Com- pensation	45.5	9.1	23.1	11.5	11.5	12.5	11.1	51.7	37.5	58.1	22.2	(33% had no idea)
Retrenchment compensation	13.6	9.1	23.1	15.4	15.4	12.5	5.6	3.4	12.5	16.1	11.1	-

Source: Fieldwork, 2012

Annexure 4.1

Response of Workers on Factory Inspection

1	Leather			Garments			Electronics			Auto-parts				Total	
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Registered Units (n=22)	Non-Registered Units (n=11)	Units with information not available on registration (n=26)	Registered Units (n=26)	Non-Registered Units (n=8)	Units with information not available on registration (n=18)	Registered Units (n=29)	Non-Registered Units (n=8)	Units with information not available on registration (n=18)	Registered Units (n=29)	Non-Registered Units (n=8)	Units with information not available on registration (n=12)	Total of (Cols 2,5,10 & 14) (n=108)	Total of Col 12 (n=36)	Total of Col 4, 7, 10 & 13 (n=59)
Indicators of Factory Inspection	77.3	36.4	50.0	50.0	25.0	27.8	48.3	25.0	8.3	41.9	44.4	-	52.8	33.3	32.2
Reported factory inspection															
Workers interviewed by inspection personnel	9.1	68.2	-	11.5	-	11.1	13.8	25.0	-	9.7	33.3	-	11.1	13.9	3.4
<b>Inspection Personnel</b>															
Labour inspector	40.9	9.1	38.5	7.7	-	-	20.7	-	11.1	19.4	44.4	-	21.3	13.9	20.3
Owner/company	4.5	9.1	3.8	11.5	-	-	6.9	-	-	-	-	-	5.6	2.8	1.7

Others*	-	-	-	7.7	-	-	-	6.5	-	-	4.6	-	-
Total													
<b>Frequency of inspection</b>													
Once in a Month	9.1	-	3.8	3.8	-	-	-	-	-	-	2.8	-	1.7
Once in Six Month	22.7	-	3.8	23.1	-	5.6	17.2	19.4	-	-	20.4	2.8	3.4
Once in a Year	22.7	9.1	7.7	3.8	-	11.1	20.7	6.5	11.1	-	13.0	5.6	8.5
Irregular	18.2	18.2	30.8	11.5	25.0	5.6	10.3	16.1	33.3	-	13.9	19.4	15.3
Total													
Neg-response	50.0	9.1	11.5	11.5	12.5	-	10.3	16.1	11.1	-	20.4	11.1	6.8

Source: Field work, 2012.

Note: i) figures are percentages ii) DK: Don't know and iii) \*Others here include officials from departments of Income tax, PF, ESI, MCD and Buyers.

Annexure 4.2

Self- Reported Workers' Responses on Indicators of Unionisation across Industries

	Leather			Garments			Electronics			Auto-parts			Total		
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Registered Units (n=22)	Non-Registered Units (n=11)	Units with information not available on registration (n=26)	Registered Units (n=26)	Non-Registered Units (n=8)	Units with information not available on registration (n=18)	Registered Units (n=29)	Non-Registered Units (n=8)	Units with information not available on registration (n=18)	Registered Units (n=29)	Non-Registered Units (n=8)	Units with information not available on registration (n=12)	Total of (Cols 2,5,10 & 14) (n=108)	Total of Col 3,6,9 & 12 (n=36)	Total of Col 4,7,10 & 13 (n=59)
Unit Unionised	4 (18.2)	-	1 (3.8)	1 (3.8)	-	-	3 (10.3)	-	1 (8.3)	8 (25.8)	1 (11.1)	-	16 (14.8)	1 (2.8)	2 (3.4)
Union membership	-	-	-	-	-	-	1 (3.4)	-	-	3 (9.7)	-	-	4 (3.7)	-	-
<b>If the Union</b>															
bargains for higher wages	1 (4.5)	-	-	-	-	-	1 (3.4)	-	-	3 (9.7)	-	-	5 (4.6)	-	-
lobbies for better working conditions	-	-	-	-	-	-	-	-	-	1 (3.2)	-	-	1 (9)	-	-





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