

# CHAPTER 1

## INTRODUCTION

Human rights are the rights enjoyed by every human being for being 'human'. Section 2 (1) (d) of the Protection of Human Rights Act 1993, defines "Human Right" as the rights related to life liberty, equality and dignity of the individual..... Among all these rights, most important right is Right to Life since it is the basic for enjoyment of all other rights, and when we talk about Right to Life, it does not mean mere existence but it means existence in a dignified way. It is this most important right which is the guiding force for all the welfare activities taken by the Government to ensure dignified life to its citizen. Branching out of this basic rights are various rights like Right to health, Right to shelter, Right against discrimination, Right to food, etc. Since the topic of this dissertation is Silicosis, the focus will be on right to health.

Health as one of the most crucial Human Right has been acknowledged by all the International and National bodies and almost all the countries across the world in one or other way. ***World Health Organization's Constitution proclaims that "the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being..."*** and as mentioned by Dr Margaret Chan, Director-General, WHO, ***"The world needs a global health guardian, a custodian of values, a protector and defender of health, including the right to health."***

Every country in the world is party to at least one human rights treaty that addresses health-related rights. ***Health has been declared as a human right by the Universal Declaration of Human Rights (UDHR, 1948).*** Art.25.1 of

UDHR says that ***“Everyone has the right to a standard of living adequate for the health of himself and of his family, including food, clothing, housing and medical care and necessary social services”*** This includes the right to health as well as other rights that relate to conditions necessary for health.

When one talks about health, one of the main areas of concern is the occupational health. Globally, occupational hazards cause or contribute to the premature death of millions of people and result in the ill health or disablement of hundreds of millions more each year. ***The World Health Report 2002*** places occupational risks as the tenth leading cause of morbidity and mortality. Almost 22.5 million DALY (DISABILITY ADJUSTED LIFE YEAR) and 699000 deaths are attributable to these risk factors. The WHO reports that occupational risk factors accounts globally for a number of morbidity conditions including: 37 percent of back pains, 16 percent of hearing loss, 13 percent of chronic obstructive lungs disease, 11 percent of asthma, 10 percent of injuries, 9 percent of lung cancer and 2 percent of leukaemia. According to the Report, mortality is also due to work related injuries causing nearly 3.1 lakh deaths each year and nearly 1.46 lakh deaths are attributable to work related carcinogens. The dust-related deaths are placed at 2.43 lakh (WHO 2005).

Further, as per the International Labour Organization's report on the global burden of occupational health illness claims that globally 2.7 billion workforce face 2 million work related fatalities, 270 million occupational accidents and 160 million work related diseases. Almost 1200 billion global GDP (about 4 percent) is lost due to work related accidents and diseases (ILO).

There are many industries , factories and work places where health hazards

are inevitable due to nature of occupation and it becomes more serious in a country like India where major working force is unskilled, uneducated and are not aware of health hazards at work place. The worker working at such place is getting salary or wages for the work done by him but the harm caused to his health due to the nature of work is never paid. Keeping in view this aspect, and hence to compensate the worker even for the harm to his health and threat to his life and also keeping in view the fact that most of the occupational diseases are non curable, Government has declared many diseases notifiable and compensational as per the Act made by the central Government and Rules promulgated by Central and State Government from time to time. Silicosis is one of the notified and compensable disease under statutory provisions. However despite the fact that both ICMR as well as NIOH has again and again found the prevalence of silicosis in various industries and mining, both the state and central government hardly acknowledge its existence and people are dying of this disease, leaving behind their families who struggle to survive in absence of bread earner. Why despite legal provisions and existence of enforcement bodies for the implementation of those provisions, occupational diseases are killing hundreds of worker silently without being noticed, treated and compensated is something one needs to know.

## **1.1 STATEMENT OF THE PROBLEM**

Silicosis is an incurable lung disease caused by inhalation of dust containing free crystalline silica. Crystalline silica or silicon dioxide ( $\text{SiO}_2$ ) is found in quartz, sandstone, flint, slate, a number of mineral ores and many common building materials including clay bricks, concrete, mortar and tiles. Workers in occupations with exposure to silica dust like mining; tunneling; stone work and sand blasting, glass and ceramic industries breathe in tiny silica particles released into the air

with the dust created by cutting, crushing, chipping, grinding, drilling, blasting or mining, and in the process become victims of silicosis. Also, the workers involved in dry sweeping of areas where sandstones and rocks are broken down or crushed or those confined to loading, unloading and dumping sand or concrete or cleaning of building materials with pressurized air are all susceptible to silicosis as these processes generate large quantity of dust clouds. Hence, any activity in which crystalline silica dust exists, even if it is carried out in open air, can be perilous.

The silica particles inhaled are so small that they can only be seen with a microscope. At the same time, they are so light that they can remain airborne for a long time. As a result, silica can travel long distances in the air and affect populations not otherwise considered to be at risk. Therefore silicosis is not only a serious threat to the health of all those who are engaged in occupations that are potentially exposed to crystalline silica dust but is a constant health hazard for people living in the vicinity where these occupations are carried out.

Research studies conducted by the World Health Organization (WHO), Indian Council of Medical Research (ICMR) and the National Institute of Occupational Health (NIOH) have time and again brought forth the fact that exposure to crystalline silica dust, even for a short period of time can cause silicosis and lead to gradual impairment of lungs in few years along with other temporary or permanent disabilities and finally death. Unlike other diseases, there are no symptoms whatsoever whereby one can come to know about the onslaught of the disease in its early stages. A frequent cause of death in people with silicosis is silico-tuberculosis or lung cancer. Respiratory insufficiencies due to massive fibrosis and heart failure are other causes of death. However, due to lack of awareness, even among the doctors, silicosis is often confused with other diseases. The number

of persons who die from silicosis in India is vast but there are no statistics available concerning these deaths. It has also been established that there is no medical treatment for silicosis. Silicosis is thus a disabling, irreversible, fatal disease and continues to progress even when contact with silica stops.

The first mention of silicosis is seen in ancient text of 4th century AD. Though Royal Commission of Indian labour (1929-31) could find existence of silicosis but Rao, C. Krisnaswami(1934, current scene, Page no. 283-284, "incidence of silicosis in Kolar Gold field" ) has reported the confirmed cases of silicosis in India for the first time. A survey conducted in Kolar Gold field in 1946-47 revealed that of 7453 workers examined, 3402(43.7%) were suffering from silicosis. After that many survey has been carried out from 1940 and there has been confirmed cases of silicosis both in factories as well as mines, though percentage varied in various mines and industries , going as high as 54% in slate pencil factory. Despite this, it is ironic that in comparison to other deadly diseases like HIV/AIDS and cancer, silicosis has not received the required attention which it deserves. As a result, a large number of workers affected by it receive negligible support and their families are left in miserable conditions.

Silicosis is not only a simple health issue but also a human rights issue because it effects not only on the right to life but also on the right to live with dignity of all those affected and their families. Furthermore, it is also an important issue of social security in terms of taking care of not only the medical expenses but also the basic day-to-day needs for survival of these workers and their immediate family members since most of the affected persons belong to the unorganized sector of labour and are not covered by the Employees' State Insurance Corporation (ESIC) Scheme of the Union Ministry of Labour, Government of India and hence are deprived of various social security benefits available to organized labourers under

the existing labour laws from their employers.

Under the Constitution's article 246 of Union list –Entry 55, the welfare, safety and health of person employed in mines are concern of central government and of factories is the concern of state government. Under this mandate, the mine Act 1952 and Factories Act 1948 has been enacted. Thus it is obligatory on the part of Government agencies and employers under whose jurisdiction any such occupation is carried out, to take all preventive measure to eliminate silicosis and failure in doing so, amounts to serious violation of human rights of the affected workers and their families. This becomes even more serious if the person has died.

However, unfortunately, the officials of the Union/State Labour Departments across the country are not taking adequate steps to ensure the compliance of statutory requirements. It is the primary responsibility of the concerned officials of these Departments to ensure enforcement of the labour laws and make the employers accountable for their legal obligation towards workers. They also need to make all out efforts to prevent silicosis by ensuring all necessary precautionary measures through the employers. Timely diagnosis followed by appropriate medical care of affected workers too needs to be ensured. However the same is not happening. The legislation has made it a notifiable and compensable disease. However, The onus of reporting cases of silicosis, the medical examination of worker is all on employer their compensation as well as rehabilitation and hence employer never report due to obligation falling on them if reported. The legislation itself has weakness, which are being exploited by employers, due to poor supervision on part of enforcement agencies. The fact is that as on today there is no official data available with center or state government regarding morbidity /

mortality of silicosis effected workers. A report prepared by DG mines Safety in 2005 mentioned about an estimated 30,00,000 lac people affected in organized industries mines and queries, 70,00,000 lac people in construction work and unknown number of person in unorganized sector including self- employed which form large number, larger then organized sector. In fact, the most disturbing feature of this problem is that in most of the cases, it is the poor labourer working in the unorganized sectors who are the victims. However the Government officials always takes the plea that being from unorganized sector, these workers do not come within the purview of Employees State Insurance Corporation (ESIC) scheme of the Union Ministry of Labour which alone ,is the authority competent to provide assistance to the affected persons. However, this is a highly erroneous view as it contradicts the very spirit of human rights and also militates against the spirit of Article 21 which imposes an obligation on the state to safeguard life of every person.

The main problem is that there is no National policy on the prevention and elimination of silicosis and despite the fact that the disease involves many enforcement agencies from ministry of labour, mines and factories, there is hardly any coordination among them in absence of a central coordinating body. The legislation itself has many weaknesses/ the legislation has placed all onus on employer but without any accountability or penalty in case of violation, nor there any accountability on part of enforcement agencies. Problem is more in case of unorganized sector. Even from medial assistance point of view, the situation is grave as most of the time the disease is often treated as tuberculosis instead of silicosis. Many times it is due to lack of knowledge and expertise among medical professional who can not distinguish between silicosis and tuberculosis. There is hardly any health surveillance program for silicosis in India, which further complicate

this issue.

## 1.2 Objectives of the study

The objectives of this study are:

- To understand the gravity of the problem and its impact on the lives of affected workers and its family
- To find out whether central/state government are dealing with this problem as an important human right issue and taking necessary steps to prevent it and also to provide relief to the affected person?
- Whether existing labour laws and legislation are sufficient in answering this problem or not or some change is required in legislation?
- Whether those who are affected are being provided with relief and rehabilitation or not as per the statutory provisions of the legislations?
- What steps can be suggested at central and state level to sensitize the stakeholders in this matter?

## 1.3 Rationale for the study

Although silicosis is a serious concern for all; developed, developing and least developed countries, situation is worse in the developing and developed countries. As per the Census 2001, of total workers 168101220, about 29508563 are at the risk of silica exposure. As per ICMR research report (1999) about 3 million workers are at risk in mine and queries, 17 lakhs in non metallic (mica ,



slate, glass) industries and metallic industries while 54 lakhs workers in construction work are also at risk.. However there is no official data available in this regard and most of the states do not accept presence of silicosis though many Government agencies survey has proved the same. Though there are Acts and legislation but same are not implemented. The National Occupational health policy is also not enforced National Occupational health policy is also not enforced because the problem of silicosis is much more severe in the unorganized sector of industries like slate pencil cutting, stone cutting and agate industry and being in unorganized sectors, they do not fall under the purview of the statutory tools such as the Factories Act, mines act, ESCI Act etc aimed to protect the health and safety of the working population. Moreover, the employers lack the will to provide safe working environment for the workers and at the same time enforcement agencies have their own handicappedness. Also, It is probably economic compulsions that the workers choose to work in hazardous environments risking their lives and are subjected to exploitation. In such circumstances and keeping in view the fact that India is in the process of rapid economic development, a process involving more infrastructure growth and hence more exploitation of natural resources like mines, there is potential for amplification of the pre-existing traditional risks of exposure to silicosis. Moreover, India have caught the attention of the developed world not only for the vast potential the markets here hold for investment but also for the huge mass of low cost labour, which is unskilled, illiterate and is in need and hence ready for its exploitation. In such circumstances, its becomes necessary to look into the reason why occupational health diseases like silicosis, despite being notified and compensable, are depriving hundreds of people of their right to life without even been noticed. Also, what changes are required in existing laws and provision to

save the lives of hundreds of people.

#### **1.4 Scope and limitations**

Though the time allotted for research was very limited, still researcher has tried to look into all the aspects of this issue to make this research fruitful and logical. The research is limited to the problem of silicosis in India. The problem will be analyzed not only as a simple health issue but in the broader dimension of human rights. The study will include the genesis of silicosis and its impact on the worker and its family, and the gravity of problem and current scenario. The response of central and state government will also be studied to understand their approach towards this problem and steps taken to prevent this disease as well as to compensate and rehabilitate affected person. The role of various enforcement agencies like Ministry of labour and health, Ministry of mines, the National Institute for Occupational health (NIOH) and National institutes for Miners health(NIMH) will also be studied. The study will also include the directions issued by SC and its compliance by various responding agencies. Since SC in Writ Petition (Civil) No. 110/2006( People's rights and Social Research( PRASAR) v/s Union of India and others) has given specific mandate to NHRC, an apex Human rights body, which has taken cognizance into the cases of silicosis and which see silicosis as a serious Human rights issues, therefore the study will also include various initiatives taken by NHRC to sensitize various stakes holders. the cases of silicosis being reported in NHRC, the finding of its field investigation teams, the outcome of recommendations made by NHRC and the response of the states. The role of NGO's is very crucial in drawing attention of apex court as well as NHRC and hence this study will focus on their role too. Study will also focus on the current legislation in force and a critical analysis of various provision will be made along

with their enforceability to find out whether they are sufficient in preventing, rehabilitating and compensating the victims or they are weak enough to be exploited by the employers and if so, what may be the amendment that can be suggested to make it more enforceable. Discussions will also be held with the representatives of agencies like NIMH ( National Institute of Miners Health), NIOH ( National Institute for Occupational health), NTF ( National Task force) on silicosis and members of core group on health in NHRC which are looking after silicosis in commission.

## **1.5 Review of Literature**

**1.5.1 “National programme on elimination of silicosis in India, “lesson learnt”,- report prepared by DG mine and safety, India and published by ILO, in June ,2005.**

This report is in the form of a Power point presentation and highlights that Silicosis is the most important occupational and a major occupational health problem in India. it affects all sector of economy but small scale and unorganized sector are most effected. It is loss not only to the nation but also to the industries. It is a preventable disease and many countries have succeeded in preventing the incidents of silicosis but once it is set in, it is irreversible and life threatening. The presentation stressed its existence in various mining activities since long time, but its ignorance by government agencies. At present no reliable estimate about the severity of problem is available in India and no epidemiological survey has been carried out in this regards. However as per different independent surveys the disease is very much prevalent in mines and factories like slate, quarts, ceramic and glass, reaching upto 54% in slate factory industry. There are about 30,00,000 cases in organized industries, mine and queries, 70,00,0000 in construction work

and unknown number is unorganized and self-employed sector exposed to silica and hence potential victims (figure of 2005). However the Cases notified to enforcement agencies does not reflect true scenario about the problem but just a tip of the iceberg since reporting of this disease doesn't suit everyone- workers, employer's as well as enforcement agencies. Legislation is there and there are provisions but legislation lack enforcement and provisions are weak. All the responsibility from occupational health safety to health screening, survey, compensation and rehabilitation and also notifying the case is left with employer and at the same time failure to do so does not constitute any offence or attract any penalty. It further become serious due to poor enforcement and supervision by enforcing agencies, lack of accountability on their part and absence of any central agency to coordinate activities of various enforcement agencies. The problem become grave for the workers in unorganized sector various legislation is not implemented in their case depriving them of legal, economic and social benefits. Also, there is hardly any knowledge about this problem and its seriousness among the various stakes holder like workers, trade unions, industries, the concerned Government agencies and medical professional who often treat silicosis as tuberculosis. There is lack of concentrated and coordinated approach by various agencies. Therefore, there is need that proper national policy and program should be made involving all take holders in coordination with national and international agencies and it should be immediately implemented. There is need of National Task force to formulate Long term and short term strategies, to provide financial resources for national programs and to identifying and designating a nodal agency for implementation of national program. This report also talks about the lesson learnt from these failure and then also gives suggestion which can help in preventing this fatal disease. There is urgent need of epidemiological survey and amendments in existing legislation to increase the accountability and responsibly of employees

as well as enforcement agency and also awareness of all stake holders.

### **1.5.2 “Special report to Parliament of India on Silicosis” by National Human Rights Commission, 2012**

The report is a special report on the prevalence of silicosis in different part of country prepared by NHRC in accordance with section 20 of PHR Act, 1993. The objective of report is to draw the attention of Parliamentarians towards the inhuman condition faced by those ailing from silicosis and their immediate family member. The report is primarily based on the information received from the cases reported in Commission, the feedback from NGO's, articles published in newspapers, and the findings of its own field investigation teams. The report highlights the seriousness of this problem and its Human rights dimension. It talks about various initiative made by Commission to highlight the plight of workers affected and to sensitize the government machinery. The report also talks about the mandate given to NHRC by Supreme Court in Writ petition (civil) No. 110/2006( People's Rights and social research center (PRASAR) v/s Union of India and Others) vide its orders dt 5th March 2009 and steps taken by Commission in its compliance.

The report is having 5 chapters. Chapter 1 is introductory in nature and is throw light on genesis of problem, its impact on ailing worker and his family, the human rights dimension of the disease and its implication. Chapter 2 reveals the concern of Commission and also in brief the steps taken by Commission to prioritize this problem and to suggest short term and long term measure to prevent occurrence of this disease as well as rehabilitation and compensation of those suffering including constitution of National task Force, Constitution of Experts group on silicosis, organization of national conference as well as steps taken in

compliance of SC's direction dated 5th March, 2009 in writ Petition (Civil) 110/2006. Chapter 3 contain case studies of the cases of silicosis dealt in Commission whereas chapter 4 contain suggestions for amendment in various legislations dealing with job security and social security of workers, like work man Compensation act 1923, The Factories Act, 1948, the mines Act 1952, Employee's State Insurance Act, 1948 etc while chapter 5 is concluding chapter. Along with report are some annexures pertaining to various chapters.

### **1.5.3 "Silicosis- diagnosis and management" a journal by National Institute of occupational health (NIOH), Indian Council for Medical Research, Ahmadabad**

The journal has various articles on Silicosis about the genesis, prevention of silicosis, work environment monitoring, ILO specification for diagnosis, role of ESIS in silicosis compensation, the present statutory provisions related to health and safety under mines Act, Factories Act and other legislation related to silicosis and also contain various case studies carried out by NIOH at various places. Brief of some of these articles are as follows:-

#### **1.5.3.(a) Sadhu, H.G. 'silicosis: Exposure, diagnosis and prevention'-**

This article throws light on the nature origin and implication of silicosis, its various forms like chronic, accelerated and acute form on the basis of pathology, its diagnosis, complications, prevention screening and surveillance. It also discusses therapy management of complication and control of silicosis.

#### **1. 5.3(b)Tiwari, R.R. " Silicosis: NIOH experience"-**

The article is based on various studies conducted by NIOH and its experience. A study was carried out among quartz crushing workers of Godhara, Gujrat since most of stone crushing industries are located in Gujrat. The study was carried out in two phase, including both ex-worker with mean duration of exposure of  $3.18 \pm 2.64$  yr's as well as workers working at the time of study with mean duration of  $1.36 \pm 2.68$  yrs. While the study of ex-workers revealed 17.9% having silicosis, 23.9% having silico-tuberculosis and 5.5% having tuberculosis while 46% were free from any respiratory ailment. On the other hand, the survey of working population with less yr of exposure revealed 94% free of any respiratory disease while 5.5% having tuberculosis and only 0.1% having silicosis. This may be due to the fact that silicosis requires longer duration of exposure to set in or may be due to healthy working condition.

A study conducted among slate pencil cutter of Multanpur, Madhya Pradesh including varied group of 194 slate pencil workers as occupationally exposed group, 159 subjects from community living in the vicinity of these slate pencil units but not employed in these unit and 161 subjects from village Guradia which is 5Km away from Multanpura as non-occupational group. The mean duration of exposure for the pencil cutter was taken as  $17.7 \pm 9.7$  yrs for male and  $19.5 \pm 8.8$  yrs for female. The various clinical examinations reveals that among occupationally exposed group, 21.2% subjects had silicosis, 25.8% had silica-tuberculosis and 10.8 had tuberculosis while 42.8% were normal. Among those residing in the vicinity of these units, 12.6% had silicosis, 6.3% had silico-tuberculosis, 8.2% had features of tuberculosis while 72.9% were normal. While among the non-occupational group at village Guradia, 2.5 % showed nodular opacities at chest X-ray, 1.9 % showed features of nodular opacities with tuberculosis while 11.8% showed feature of tuberculosis, rest were normal. This article also contains similar case studies on workers of Agate industries, ,Khambat Gujrat and study on health hazard in glass

industries in Gujrat.

#### **1.5.4 .Shrivastav, Snehlata (2012) 'Silicosis rampant among Rajasthan mine workers", The Times of India, 4th May**

The article is about a recent study by National Institute for Miners' Health (NIMH) in stone mines of Karauli district in Rajasthan, on the request of Aravali, a state-initiated NGO in Rajasthan. The study of medical records of 93 patients including chest X-rays showed evidence of silicosis in 73 patients (78.5%). Of these, the disease in 16 persons (21.9%) had advanced into 'progressive massive fibrosis' in lungs, an almost irreversible stage leading to death in a majority of patients, two patients were in Stage II of fibrosis while 23.2% of patients with silicosis had radiological evidence of pulmonary tuberculosis and same number had both TB and silicosis. The institute has advised immediate medical intervention for providing medical services, rehabilitation of affected individuals and adequate compensation to patients as silicosis was a notified disease under the Workmen Compensation Act.

#### **1.5.5 .Silicosis deaths in Pondicherry, India', Women victims of lack of safety standards, Kranthi Kumara**

Within one year, seven young women near the of city of Pondicherry in southern India have lost their lives due to silicosis and many suffering at various stages of this disease—an occupational lung-disease caused by inhalation of silica, a raw material used in glass manufacturing. All of the women were workers at the local Ballarpur Industries Limited (BILT) Glass Containers factory near Pondicherry and lived in the nearby villages of Villianur and Arum-partha-puram. According to press reports, at least one woman in every household in the two villages has been



afflicted with silicosis and suffers from chronic chest pain, cough, breathlessness and loss of appetite. Most of the young women who have died started working at the factory as children. International organizations have estimated work-related deaths of around 150,000 each year in India along with 2 million new cases of occupational diseases. The occupational safety and health conditions in India are at best comparable to those that existed in late 19th century England or America. India has not ratified any of the International Labor Organization conventions dealing with health and safety of workers since 1990. The domestic and multinational corporations fully exploit this disregard for health and safety of workers. In addition to making super profits on the back of the working class they haphazardly dump massive amounts of toxic substances doing long-term damage to the environment and public at large.

#### **1.5.6 Silicosis in India:- by People's Rights and Social Research center ( PRASAR)**

PRASAR (People's Rights and Social Research Center) is an NGO working for the issues of workers suffering from occupational disease. This book throws light on the genesis of silicosis, its prevalence and its impact. Silicosis is one of the oldest occupational disease caused due to inhalation of silica dust. Full name of silicosis is 45 letters word ( longest word in English language) Called Pneumonia ultramicroscopic silicovolcanokoniosis. It is a fatal, irreversible, and only preventable disease which is highly toxic in nature and does not offer any warning as silica dust has no smell. It is prevalent in all 90 different types of occupational diseases with their percentage varies. But more common in silica, quartz's, sandstone limestone granite slate pencil, mines, asbestos, glass, mica etc. industries. As per census 2001, of total workers 168101220, about 295089563

are at the risk of silica exposure. As per ICMR research report (1999) about 3 million workers are at risk in mine and queries, 17 lakhs in non metallic ( mica , slate, glass) industries and metallic industries while 54 lakhs workers in construction work are also at risk. As per report of NIOH, 54.6% workers are suffering from silicosis in slate pencil industries of which 50% are less than 25 yrs while one of the report of WHO reveals that 55% of those died due to silicosis had mean age of 35 only. However there is no official data available in this regard and most of the states do not accept presence of silicosis though many Government agencies survey has proved the same. There are Acts and legislation but same are not implemented. The National Occupational health policy is also not enforced. There is need of immediate action by Government to sensitize workers , employers and enforcement agencies.

## **1.6 Research questions**

Based on the above mentioned literature survey, this researcher has identified the following research questions:

- Whether Government recognize occupational diseases like silicosis as a serious a serious violations of human rights guaranteed under law or not?
- Whether existing laws, rules and regulations related with this occupational disease are sufficient or there is need of strong laws and legislation?

## **1.7 Research methodology**

The methodology adopted for research includes critical analysis of the secondary data available from various reports, journals , articles related with

silicosis published from time to time by various agencies like NIOH, DGFASLI, NHRC, OSHA, ILO, WHO etc. It also includes study of various court cases related with this issue pending in the Supreme Court as well as case studies in which NHRC has taken cognizance. Interactions were held with representatives of NGO's like PRASAR which are actively involved in perusing this issue, members of National Task Force constituted by the NHRC to look into this problem and to suggest measure to prevent this disease. Also, various government officials from DGFASLI, DG mines safety, Ministry of Industries, Ministry of Labour and Health dealing with silicosis were contacted including officials from the field enforcement agencies in Delhi, Haryana and Uttar Pradesh.

## **1.8 Scheme of Chapters**

### **CHAPTER 1-INTRODUCTION**

### **CHAPTER 2. SILICOSIS IN INDIA**

### **CHAPTER 3 LEGAL PROVISIONS**

### **CHAPTER 4. CURRENT SCENERIO**

### **CHAPTER 5. SUMMERY OF FINDINGS AND RECOMMENDATIONS**

### **CHAPTER 6. CONCLUSION**