



SPECIAL REPORT
TO
PARLIAMENT OF INDIA
ON
SILICOSIS

NATIONAL HUMAN RIGHTS COMMISSION

NATIONAL HUMAN RIGHTS COMMISSION

1. This is the first special report on the prevalence of silicosis in different parts of the country. The report is in accordance with the provisions of Section 20 of the Protection of Human Rights Act, 1993. It is an effort to describe the dreaded disease of silicosis which is both a grave health concern and a human rights issue. Its principal aim is to draw the attention of the parliamentarians towards the inhuman conditions faced by all those ailing from silicosis including their immediate family members.

2. Silicosis is an incurable lung disease caused by inhaling of dust containing free crystalline silica. The report is primarily based on cases reported to the Commission; information received from NGOs and gathered from the newspapers.

3. Considering the seriousness of the issue, the Supreme Court of India has also taken cognizance of

the matter. In fact, in Writ Petition (Civil) No. 110/2006 (People's Rights and Social Research Centre (PRASAR) vs Union of India and Ors), the Apex Court has passed an interim order directing thereby the Union Ministries of Health and Labour & Employment to provide all necessary assistance to the National Human Rights Commission for any action relating to silicosis. In addition, it has asked the Commission to take up confirmed cases of persons ailing from silicosis and recommend immediate medical relief to them through the State authorities. In cases of death due to silicosis, it has stated that NHRC may facilitate provision of compensation to the families of the deceased through the State authorities again.

4. The number of cases reported in the Special Report is certainly not exhaustive but the ones that have been mentioned are of serious nature and have been taken cognizance of by the Commission. After detailed enquiries have been conducted in these cases, the recommendations to the State Governments

/Union Territory Administrations to provide treatment and financial assistance have also been made.

5. The Commission has also made direct enquiries by sending teams from Its Investigation Division to places in Rajasthan, Gujarat and Madhya Pradesh. During the course of these enquires, NHRC teams interacted with a range of field officers including the District Magistrates and the Medical Officers. They have also interacted with the victims and the family members of those who had died on account of silicosis. Based on the information gathered from all of them, it was a revelation that there are umpteen numbers of cases in the country, and that, too, of poor labourers working in the unorganized sector, who have been worst affected by silicosis. A number of them had lost their lives following their protracted illness.

6. Taking into account the grave threat that silicosis poses to the workers, the Commission also organized a National Conference to discuss various aspects of this health issue. The Conference was attended by

government officials and representatives of non-governmental organizations.

7. The most disturbing feature of this problem is that in all cases, it is the poor labourer working in the unorganized sector who are the victims. The authorities have been evading the issue by arguing that these workers are from the unorganized sector and hence did not come within the purview of Employees State Insurance Corporation (ESIC) scheme of the Union Ministry of Labour which alone, according to them, is the authority competent to provide assistance to the affected persons. 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. In Delhi Jal Board Vs. National Campaign for Dignity, the Supreme Court has observed thus: "Preservation of human life is thus of paramount importance". In the reported cases and the information given by civil society, denial of treatment to the victims of the silicosis has also come to light. In this regard this is what the Supreme Court has observed in the

above quoted judgement "Government hospitals run
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by the state and the medical officers employed therein
are duty-bound to extend medical assistance for
preserving human life. Failure on the part of
government hospital to provide timely medical
treatment to a person in need of such treatment results
in violation of his right to life guaranteed under Article"

8. In a few instances, the Commission has
discussed the problem with the Chief Secretaries,
Labour Commissioners and the medical authorities of
the States of Madhya Pradesh and Gujarat. Their
stand, by and large, has been that the affected
persons are migrant labourers, and as such they did
not come under the purview of the ESIC scheme.
They do not subscribe to the plea that it should not
matter whether the affected person or worker is from
the organized or unorganized sector. In all cases, it is
the responsibility of the State to provide health security
to all the workers in their respective jurisdictions under
the existing laws. They were further advised that they
should not adopt a litigational or legalistic approach in

such matters but look at it from the lens of human rights only.

9. The State of Rajasthan is the only State which has taken a positive view on this issue and has not only provided financial assistance to the victims of silicosis but also created a fund for the welfare of workers belonging to the unorganized sector. The Government of Rajasthan has also introduced effective enforcement measures with a view to ensuring that workers do not inhale the dust which affects their lungs. However, there are still some States like Gujarat from where large number of confirmed cases has been reported but yet, the State has adopted an extremely rigid and legalistic approach. They have not responded to the Commission's show-cause notice to give financial assistance to the families of those who have died of silicosis or are suffering from it. The facile argument given by them is that these victims of silicosis do not come in the category of organised labour. Further they hold these workers migrated to

Gujarat from a neighbouring state and do not belong to it --- a factor which vendors then ineligible for any relief.

10. As has already been stated above, the cases of silicosis in this report are only representative. But, these are enough to arouse our concern towards the grave health hazards to which the poor migrant workers are exposed to.

11. Silicosis is a health hazard which exists in almost all the States where activities such as construction, building, mining, gem cutting etc. are going on. The State apparatus is insensitive to the safety and well being of those who are, on account of sheer poverty, compelled to work under most unfavourable conditions and regularly face the threat of being deprived of their life. The fact that all the affected persons are poor who can hardly afford to seek redressal or have recourse to the authorities for any assistance, it becomes imperative on the part of the Commission to impress upon the Government of India to pass a suitable

legislation having provisions for immediate relief and
suitable compensation in all reported cases of silicosis.



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CHAPTER – 1

Introduction

This is the first Special Report of the National Human Rights Commission (NHRC) necessitated by the prevalence of silicosis, a dreaded occupational disease which is affecting lakhs of workers in India. The main objective of the Special Report is to draw immediate attention of the Government of India and Members of Parliament towards the impact of this deadly disease on the lives of affected workers and their families. They suffer in silence without access to health care, social security and rehabilitation. The report is in accordance with the provisions of Section 20 of the Protection of Human Rights Act, 1993, as amended by the Protection of Human Rights (Amendment) Act, 2006 (PHRA).

The Report is intended to bring to light the pathetic conditions of labour involved in certain occupations which are at risk of this fatal disease. The risk is exacerbated by the negligence of Government officials who do not enforce the provisions of several labour laws in place to provide the requisite welfare and protection for workers. The employers, for small pecuniary savings involved, do not take necessary precautions available to ensure safety and security of workers against the onslaught of the disease. The situation strongly calls for the need to bring in substantive changes in the way the Inspectorate of Factories and other enforcement officers under the labour laws take up their duties in order to ensure adequate protection for workers. It also points to some needed changes in the existing legislation so as to cover the loopholes which the employers/officials surreptitiously use to serve their selfish and

vested interests. Few of these modifications are suggested at the end of this Report.

The ultimate aim of this Report is to bring about a situation where:

- labourers working in risk prone industries are suitably protected against the disease by taking recourse to latest technologically available precautionary measures.
- At the same time, if a worker contracts silicosis disease, his/her rehabilitation in terms of ensuring basic livelihood as well as health care should be automatically provided as an inherent right without necessitating the intervention of the NHRC.

Silicosis : A National Challenge

Silicosis is an incurable lung disease caused by inhalation of dust containing free crystalline silica. Crystalline silica or silicon dioxide (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. Occupations with exposure to silica dust include mining; tunneling; stone work and sand blasting. In all these occupations, workers 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. All those engaged in the manufacture of ceramics, glass and abrasive powders are also susceptible to silica dust.

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. Research studies conducted by the World Health Organization, Indian Council of Medical Research and the National Institute of Occupational Health have time and again brought forth the fact that 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.

These studies have further shown 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 ^{large} 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. It is, therefore, 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 :-A Human Rights Issue

Silicosis is both a health issue and a human rights issue. It has an impact not only on the right to life but also on the right to live with dignity of all those affected and their families. The Government agencies and employers under whose jurisdiction any such occupation is carried out in the absence of preventive measures, and which causes silicosis, are responsible for serious violation of human rights of the affected workers and their families. Furthermore, there is 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. These obligations on the part of Government agencies and employers become especially vital when the affected person has died. 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. Being casual and contract workers they are deprived of various social security benefits available to organized labourers under the existing labour laws from their employers.

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.

Taking note of the serious implications associated with silicosis disease and the adverse impact on human rights of people affected by it, as well as considering the fact that a large number of silicosis cases have been brought to the notice of the Chairperson and Members of the Commission, the issue has generated serious concern among them. The concerns and actions of the Commission have been spelt out in Chapter 2 of this Special Report.

CHAPTER – 2

NHRC's Concerns and Actions

The NHRC has taken a serious view of the callous approach adopted by the Government, especially at the State level towards silicosis. During the course of one of its National Review Meetings on Health convened on 6 March 2007, the Commission had categorically pointed out that silicosis is an occupational hazard that needs necessary Government intervention involving convergent action of the Ministries of Industry, Labour and Health, the National Institute of Occupational Health and the National Institute of Miners' Health (NIMH). The Commission recommended a comprehensive legislation and an effective operational mechanism to ensure the required care and rehabilitation of all affected persons and their families as well as prevention of further cases.

As a follow-up of its recommendation for convergence, the NHRC organized a meeting of various stakeholders on 24 April 2007. The participants to this meeting included representatives from the Ministry of Labour and Employment along with its Directorate General of Mines Safety, Dhanbad and Directorate General, Factory Advice Service and Labour Institutes, Mumbai as well as the Ministry of Health and Family Welfare and its National Institute of Occupational Health (NIOH), Ahmedabad. In this meeting, NHRC expressed concern over the fact that even though silicosis is a "notified disease" under the Factories Act, 1948, there is no authentic reporting system pertaining to people affected

by silicosis. After extensive deliberations, the following short-term and long-term recommendations were made by the NHRC:

Short Term

- Carry out vigorous publicity campaigns by making use of the electronic and print media at all levels in order to create awareness among workers, employers and medical practitioners about silicosis being a health hazard.
- Identify and monitor States/Union Territories with high number of silicosis cases.
- The identified States/Union Territories should issue a notification under Section 85 of the Factories Act so that the law is applicable also to entrepreneurs employing less than 10 labourers and they along with their employees become aware about their vulnerability to silicosis.
- The case study pertaining to Madhya Pradesh should be thoroughly studied and analyzed in order to comprehend the steps taken by the State with regard to the issue of silicosis prevention, health care and insurance in a convergent and comprehensive manner.
- Collect survey reports already available with different agencies to identify and map pockets with incidence of silicosis. The concerned State Government officials should then be summoned by NHRC for monitoring of steps being taken by them.

- Work towards removal of existing deficiencies in the context of silicosis prevention in the States/Union Territories including the enforcement machinery so as to ensure their overall efficacy.
- The Ministry of Labour and Employment to prepare a background paper for launching a national programme for eradication of silicosis.
- Work out a compensation package for victims of silicosis or next of kin affected by silicosis as well as its modalities.
- Invite select NGOs to share their experience of combating the problem of silicosis.

Long-Term

- Deliberate on the adequacy of existing laws and whether there is a need for separate/specific legislation on the issue.
- Constitute a National Working Group or a National Task Force or a National Core Group on Silicosis. The concerned Group or Task Force must work within the given time-frame and make recommendations which in turn may be taken-up with the Central/State Governments, as the case may be.

Constitution of National Task Force

In response to the above recommendations, the NHRC constituted a National Task Force on Silicosis under the chairmanship of one of its Members. The Task Force convened its first meeting in the NHRC on 6 September 2007.

The Task Force recognized the inadequacy of information base and need for creating a sound database regarding silicosis through a survey. Migration of labour was considered to be the main cause for lack of authentic information/data. During the course of the meeting, the situation regarding notification of silicosis under Section 85 of the Factories Act, 1948 was also reviewed. After extensive deliberations and detailed discussions, the following action points were identified:

- Emphasize that States/Union Territories have to assume primary responsibility for this issue.
- The Ministry of Labour and Employment to follow-up with States/Union Territories who have not yet issued notifications under Section 85 of the Factories Act, 1948.
- All States/Union Territories to undertake a survey either themselves or by engaging a public or private research institution.
- The Ministry of Labour and Employment to make available to NHRC a comprehensive survey form which covers all information required on silicosis and also focuses on the preventive mechanisms of States/Union Territories.
- Before the commencement of the required survey, there is a need to organize a pre-survey meeting. This meeting should be used as a forum to sensitize the State/Union Territory officials about the issue of silicosis and related safety of workers.
- Consider involving Panchayats in monitoring health-related aspects of silicosis.

In order to work out the details concerning the format of the survey and pre-survey meetings with all the States/Union Territories, a meeting on silicosis was convened in the NHRC on 29 October 2007. In the said meeting, it was suggested that along with giving the tolerable limits of dust level, the proforma prepared for the survey should indicate a list of engineering measures to minimize dust level and should also enclose a list of preventive methods. In this meeting, the Directorate General, Factory Advice Service & Labour Institutes (DGFASLI) was also requested to provide a list of confirmed cases of silicosis, which the Commission could take up as individual complaints.

Subsequently, in a meeting convened in the NHRC on 1 May 2008, it was reiterated that silicosis is an occupational hazard and could only be prevented if the working conditions of workers are properly regulated and needful precautions are adhered to by the employers, both in the organized and unorganized sector. It was further observed that none of the States/Union Territories have a policy that encompasses preventive, curative and rehabilitative measures that could be taken for the benefit of silicosis victims. Accordingly, NHRC directed that the Union Government and the States/Union Territories should furnish complete information with regard to the following points:

- (i) What steps the Government is taking to prevent and ultimately eliminate the problem of silicosis, within how much time-frame and how it proposes to monitor its actions?
- (ii) Whether the Government has undertaken any survey regarding the prevalence of silicosis? If yes, the total number of victims identified and the status of their treatment.

- (iii) How many complaints have been received by the States/Union Territories regarding the problem of silicosis and what steps have been taken by the Government?
- (iv) What steps have been taken to implement Schedule No. XIII prepared by the Directorate General Factory Advice Service and Labour Institute under model Rule 120 framed u/s 87 of the Factories Act, 1948?
- (v) How many Hospitals/Treatment Centres exist for diagnosis and treatment of the occupational disease – silicosis?
- (vi) Whether a policy has been formulated for simplifying the procedure to enable the workers to file claims for compensation?
- (vii) Whether the States/Union Territories have paid any compensation to the victims of silicosis? If yes, the details of such persons and the amount paid.
- (viii) What steps are contemplated by the Government to ensure that the workers employed in industries/factories/quarries/mines receive compensation?
- (ix) Whether the Government has evolved any policy for prevention and cure of silicosis and payment of compensation to the persons working in the unorganized sector?
- (x) Whether the Government proposes to constitute any Board or set-up any fund for the rehabilitation and insurance of all the workers affected by silicosis?

Action Relating to Supreme Court Directions

Looking at the gravity of the problem, the Supreme Court of India while hearing a Writ Petition (Civil) No. 110/2006 (*People's Rights and*

Social Research Centre (PRASAR) vs Union of India and Others), passed an interim order on 5 March 2009, whereby it issued directions to the Union Ministries of Health and Labour & Employment to provide all necessary assistance to the NHRC for any action concerning silicosis. In the said order, it further directed that the NHRC may take up specific and confirmed cases of persons suffering from silicosis and recommend providing immediate medical relief to them through the concerned authorities. In cases of death on account of silicosis, NHRC may facilitate in providing compensation to the families of the deceased through the authorities concerned. A copy of the Supreme Court interim order is annexed (**Annex. I**).

In view of the directions given by the Supreme Court, the Commission has adopted a two-pronged approach to tackle the issue of silicosis. Firstly, it is giving focussed attention to the individual cases and is making recommendations to the States/Union Territories to provide monetary compensation to the victims along with rehabilitation measures including medical relief. Secondly, it is recommending to the States/Union Territories to take preventive, remedial and rehabilitative measures for dealing with the problem of silicosis.

Constitution of Expert Group on Silicosis

In order to deal with the problem of silicosis in the country by ensuring necessary preventive, remedial and rehabilitative measures, the Commission constituted an Expert Group on Silicosis under the chairmanship of one of its Member. The other Members are :

- Director General, Directorate General of Factory Advice Services Labour Institute, Mumbai (M/o Labour & Employment, Government of India);
- Director General, Directorate General of Mines Safety, Dhanbad (M/o of Labour & Employment, Government of India);
- Director, National Institute of Occupational Health, Ahmedabad (Ministry of Health & Family Welfare, Government of India);
- Representative of M/o Commerce & Industry, Government of India;
- Representative of M/o Environment and Forests, Government of India;
- Representative, People's Rights and Social Research Centre (PRASAR), New Delhi;
- Advocate, Supreme Court of India, New Delhi; and
- Joint Secretary (Programme & Administration), NHRC, New Delhi.

The first meeting of the Expert Group was convened in the NHRC on 5 January 2010. After detailed discussions, the Expert Group identified the following silicosis-prone industries:

- All stone quarries and crushers
- Quartz mining
- Foundries
- Sand blasting
- Ceramics industries
- Gem cutting and polishing
- State/pencil industries

- Construction
- Glass manufacture industries
- Other mining industries

The Expert Group further suggested practical and implementable measures encompassing preventive, remedial and rehabilitative aspects in addition to important aspects relating to payment of compensation for tackling the problem of silicosis. Based on the advice tendered by the Members of the Expert Group and extensive consultations held with all the stakeholders, the NHRC has evolved a set of recommendations on various dimensions – preventive, remedial, rehabilitative measures and compensation to the affected persons. These recommendations were later forwarded to the Chief Ministers of all the States/Union Territories by the Chairperson of the Commission. The details of these recommendations are annexed (**Annex. II**).

National Conference on Silicosis

The NHRC on 1 March 2011 organized a National Conference on Silicosis in New Delhi. Its objective was to assess the action taken by the States/Union Territories on the recommendations made by the NHRC with regard to preventive, remedial, rehabilitative and compensation aspects. Besides, NHRC wanted to know from the States/Union Territories, the action taken on the ten points made by it in the meeting convened on 1 May 2008. The other objective was to discuss the present status with various non-governmental organizations and technical institutions dealing with the issue of silicosis. The important recommendations that emerged from the National Conference are annexed (**Annex. III**). Some of the important recommendations are as follows:

- All States/Union Territories should complete a detailed survey of their industries within 6 months, unless specific time-period is indicated by the NHRC.
- The NHRC will hold review meetings of concerned officials from few States/Union Territories in batches every two months.
- Silica detection equipment should be provided to factory inspectorate to identify industries producing silica.
- All persons affected by silicosis should be treated as Below Poverty Line families.
- Separate programme(s) specially targeting silicosis victims should be designed and it should cover health education as well as livelihood /social security.
- Many hazardous factories which continue to function need to be closed.
- States/Union Territories should initiate criminal proceedings against the factory owners under the provisions of Indian Penal Code and Factories Act, 1948 wherever the labourers have contracted silicosis.
- Silicosis is a public health issue and it should be taken up at the national level.
- The Government of Madhya Pradesh has done some relocation of industries from residential area to industrial area successfully. This example may be replicated in other States/Union Territories as well.
- Gujarat High Court has passed order to the effect that all cases of silicosis be given 100% disability. ESIC should resolve to make it a rule.

- All State Factory Inspectorates should have at least one Industrial Hygiene Expert.
- ESI Act is applicable to units employing less than 10 in Mandsaur. The pattern adopted in Mandsaur should be replicated in all the States/Union Territories of the country.
- All civil hospitals should have a separate OPD for occupational diseases.
- All the workers migrating from one State/Union Territory to another could be given identity cards to make it easier for the treating doctors to get the history of the work place, their exposure to the silica dust, working conditions and health conditions of the workers.

CHAPTER – 3

Human Rights Violation Cases

Number and Nature of Complaints

Till date, 72 cases of silicosis have been brought to the notice of the NHRC by non-governmental organizations and individuals from the States of Andhra Pradesh, N.C.T. of Delhi, Gujarat, Haryana, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Puducherry. In a few cases, the NHRC has also taken *suo motu* cognizance on the basis of press reports concerning silicosis.

On receipt and thorough examination of the complaints, the Commission has issued notices to the Chief Secretaries of the concerned States directing them to submit a report about the confirmation of the cases and given relief to the victims of silicosis or to the next of kin of persons who died due to silicosis.

Given below are in brief a few illustrative cases examined so far by the NHRC.

1. Complaint by PRASAR, New Delhi **(Case No.1053/30/2003-2004)**

Shri S.A. Azad, President, PRASAR, a non-governmental organization in New Delhi submitted a petition before the Commission on 13 June 2003 stating that on the basis of the survey conducted in Lalkuan area in the month of August 2001, silicosis was detected among the stone crushers, stone quarry workers, miners and construction

workers. The petitioner sought remedy for the occupational disease of silicosis on the ground that the State Government, contractors, agents, etc., were grossly negligent towards the working conditions of workers which resulted in silicosis among many of them. On these grounds, the petitioner requested for a grant of compensation for these workers. It was further submitted that in the year 1992, the Supreme Court of India in M.C. Mehta vs Union of India had ordered for the closure and shifting of the stone crushing, quarrying, mining and other activities from the Lal Kuan area to Pali in Haryana. The petitioner had enclosed a list of 83 persons alleged to have been suffering from silicosis.

The Commission on 30 September 2004 took cognizance and decided to club all the complaints regarding silicosis affected persons and their families received and registered in the Commission for necessary consideration and action.

On May 2008, the Commission after hearing the petitioners and representatives of various State Governments observed that the occupational hazard of silicosis is preventable if proper warning is given and the working conditions are properly regulated and monitored. Once the worker or other person is afflicted by silicosis, it becomes a constitutional obligation on the part of the Government to take appropriate measures for providing the necessary health care and rehabilitating the victims. The welfare of workers, especially those in the unorganized sector, should be given priority.

It is important to note that the complainant, Shri S.A. Azad, had pointed out in the initial report that 83 persons were found to be suffering from silicosis and 55 persons had died due to this disease. The complainant had also submitted that as per examination conducted by

the Centre for Occupational & Environmental Health in Maulana Azad Medical College, New Delhi, 44 more patients had been identified who suffered from silicosis. Lala Ram Swarup Institute of Tuberculosis & Respiratory Diseases, New Delhi had also identified 12 silicosis patients. The Commission on 6 October 2009, thereupon asked the complainant to assist the Commission by way of sending medical proof of persons who died of silicosis in Lal Kuan area.

In response, Shri S.A. Azad, in November 2009 furnished a list of 44 persons who were diagnosed as victims of radiological abnormalities in Lal Kuan area by the Centre for Occupational and Environmental Health, New Delhi. He also forwarded a list of 12 persons identified by Lala Ram Swarup Institute of Tuberculosis & Respiratory Diseases, New Delhi who died on account of silicosis. He also forwarded along with the aforementioned lists, the medical and identification certificates of the victims.

The Commission on 20 May 2010 sent the list to the Chief Secretary, Government of N.C.T. of Delhi with a request to provide information:

(i) As to whether any compensation has been provided to the victims mentioned in the list;

(ii) As to whether the persons suffering from silicosis have been given any medical treatment and rehabilitation package by the Government of N.C.T. of Delhi.

In spite of reminders, the reply is still awaited from the Government of N.C.T. of Delhi.

2. Complaint by Khedut Mazdoor Chetna Sangath
(Case No. 300/6/5/2007-2008)

In the given case, Shri Juwan Singh, Shri Shankar Talwade and Shri Bhim Singh associated with Khedut Mazdoor Chetna Sangath, a Trade Union of Bhil Tribals in Alirajpur District, informed the Commission on 30 July 2007 that the tribals of Alirajpur and Jhabua Districts of Madhya Pradesh who migrated to Gujarat in search of employment found work in the Districts of Baroda, Kheda, Panchmahal and Godhra, where stone is crushed. Despite being kept on work, these workers were not given any employment letter nor a record of their attendance was kept. They were also not provided any masks which they could wear while performing their duties. These workers on contracting silicosis returned back to their native Districts from where they had initially migrated. It was reported by them that 197 persons belonging to the Districts of Alirajpur and Jhabua had already died on account of silicosis. In their complaint, they also mentioned names of 12 mineral factories located in the Districts of Panchmahal and Godhra in Gujarat where these workers had found employment. They further enclosed a list of 489 labourers who were employed in these factories out of which 164 had died and the remaining 325 were suffering from silicosis. They sought the intervention of the Commission on their complaint as no relief had been given to the poor tribals either by their employers or by the Government.

On 21 August 2007, the Commission directed its Director General (Investigation) in the NHRC to depute a team for an 'on the spot enquiry' in the matter. The team from the Investigation Division of NHRC

inspected the concerned areas in Jhabua (Madhya Pradesh), Kheda, Panchmahal and Gandhi Nagar (Gujarat) and found that 96 labourers who had worked in the District of Godhra in Gujarat had died on account of silicosis. 118 labourers were suffering from silicosis in the Districts of Jhabua and Alirajpur in Madhya Pradesh. The team also submitted that the labourers being illiterate were totally ignorant about filing their compensation claims. Only three of them had filed claim cases under the ESI Act in Ahmedabad.

The Commission on 13 August 2009, ordered that the list of 96 labourers who had died on account of silicosis and the other list of 118 labourers who were suffering from silicosis be sent to the respective District Magistrates of Jhabua & Alirajpur. This, the Commission felt, would not only help in re-confirming the number of silicosis deaths but also the exact number of workers who were ailing from silicosis. The District Magistrates were also requested to inform the NHRC whether any compensation had been given to the next of kin of the deceased by the State Government. They were further requested to submit a report to the NHRC about any kind of arrangement being made by the State for the rehabilitation and medical care of the labourers suffering from silicosis as well as steps being taken by the State Government for controlling the problem of silicosis. The Chief Secretary, Government of Madhya Pradesh was also directed to depute a senior officer for providing the necessary assistance to the District Magistrates in preparation of the report to be submitted to the Commission within six weeks.

Pursuant to above directions, the District Magistrates on 8 October 2009 submitted a detailed report to the Commission informing that from

the survey conducted at the District level, it was found that 259 persons had died of silicosis and 304 persons were suffering from silicosis in Jhabua and Alirajpur Districts of Madhya Pradesh.

The Commission on 25 November 2009 also decided to call over the District Collectors of Jhabua, Alirajpur (Madhya Pradesh) and Godhra (Gujarat) in NHRC for a hearing. Accordingly, on 18 December 2009, the District Collector of Godhra informed the Commission that the State Government of Gujarat had taken several measures to prevent the ailment of silicosis. For example, protective masks were being supplied to all the labourers working in the District of Godhra. The District Collectors also submitted that so far no compensation had been given to the victims of silicosis by the State of Gujarat though the ESIC was providing medical services to the labourers suffering from silicosis. Considering the fact that the persons suffering from silicosis were residing in Jhabua and Alirajpur Districts, but working in the factories located in Gujarat, the Commission recognized it as an inter-state problem necessitating constitution of a Coordinating Committee comprising members of both the States.

The District Collectors of Jhabua and Alirajpur also submitted that the State Government of Madhya Pradesh was providing medical facilities to the workers suffering from silicosis and had taken various steps for their rehabilitation too. Thereafter, on 24 February 2010, the concerned District Collectors of Panchmahal and Godhra in Gujarat and Jhabua and Alirajpur in Madhya Pradesh also submitted their reports to the Commission. The Commission on 8 March 2010 observed that in a survey conducted by the District Magistrates of Jhabua and Alirajpur, it was found that 259 persons had died on account of silicosis. It was also

available on records that these labourers were working in stone crushing factories and after contracting the occupational disease of silicosis, they returned back to their native Districts of Jhabua and Alirajpur. All these workers had died due to carelessness of the enforcement agencies of the State of Gujarat. If the Inspectorate of Factories and other enforcement officers would have taken appropriate preventive steps, the lives of the workers who died of silicosis could have been saved. The Commission was of the view that it was the duty of the State enforcement agencies to take appropriate preventive steps by directing the factory management to take such measures which could have saved the workers suffering from the ailment of silicosis. Thus, the State of Gujarat had failed to save the lives of the workers who suffered from silicosis.

The Commission further observed that this was a case of violation of human rights of persons who died on account of silicosis and the next of kins of the deceased were entitled for compensation. Consequently, the Commission on 8 March 2010 issued a notice to the Chief Secretary of Gujarat u/s 18(a)(i) of the Protection of Human Rights Act, 1993 calling upon him to show cause as to why compensation be not recommended in favour of the next of kins, who died of silicosis.

The Commission on 11 June 2010 requested the Chief Secretaries of both the States to appear before the Commission along with their suggestions for compensating the victims of silicosis.

The Chief Secretary of Gujarat along with Principal Secretary (Labour) and other senior officers from the Government of Gujarat appeared before the Commission. The Chief Secretary of Gujarat submitted that only 238 persons as against earlier reported 259 persons,

had died on account of silicosis who may be considered for compensation. Out of the remaining 21 persons, three were found to be alive, 12 names were duplicate, one had died a natural death, four persons were found untraceable and one was a three-year old child. It was further submitted that out of 238 deceased persons, 148 were from Godhra in Gujarat and were entitled for compensation from ESIC as they were eligible for benefits under the provision of ESI Act, 1948. Under this Act, the legal heirs of the deceased are entitled for a monthly pension.

It was also mentioned that 90 persons were found to have been working in Uma Minerals, Gayatri Minerals, Jyoti Minerals and Akil Metal Industries in Godhra and the workers employed there were covered under the Workmen's Compensation Act.

The Chief Secretary of Gujarat assured that the State Government was ready to provide free legal aid and necessary support to the victims of silicosis for filing petition for compensation before competent authorities.

On the basis of the above, the Commission observed it was established that the tribals residing in Madhya Pradesh had gone to work in quartz / stone crushing factories situated in Godhra, Gujarat and after contracting the dreaded disease of silicosis they returned back to their native places and later died. It was also established that the State enforcement agencies of Gujarat had failed to adopt appropriate preventive measures, which could have saved the lives of the poor labourers. Thus, the Government of Gujarat had failed to protect the lives of workers who died of silicosis while working in stone crushing units in Gujarat and also the next of kins of the 238 persons. They were all entitled for compensation from the State Government of Gujarat.

The Commission recommended that a sum of Rs. 3,00,000/- (Rupees Three Lakhs only) each be given to the next of the kins of the 238 deceased (mentioned in the list submitted by District Collectors, Jhabua and Alirajpur) by the State Government of Gujarat.

Out of the above mentioned amount, it was also recommended that a sum of Rs. 1,00,000/- (Rupees One Lakh only) be given to the next of kins of the deceased in cash and rest of the amount of Rs. 2,00,000/- (Rupees Two Lakhs only) be kept in fixed deposit, which will be available to the next of kins of the deceased in the shape of monthly interest.

The Chief Secretary of Gujarat was asked to submit a compliance report along with the proof of payment within eight weeks. The Commission also recommended that 304 persons who were suffering from silicosis and were staying in Madhya Pradesh be given a rehabilitation package by the State Government of Madhya Pradesh. Further, the details of package awarded to each of the victims of silicosis be communicated to the Commission within eight weeks.

Pursuant to the directions of the Commission, the Government of Madhya Pradesh has submitted an Action Taken Report in respect of the rehabilitation package granted to 304 persons who were suffering from silicosis. The Government of Gujarat has also submitted a report in which they have raised certain points and have expressed their inability to comply with the recommendations of the Commission.

In a review meeting held on 10 June 2011, the Commission again sternly conveyed to the officials of Government of Gujarat the need for implementing its directions. So far, action on the part of Government of Gujarat is still pending.

3. Complaint by Occupational Safety and Health Association of Jharkhand

(Case No.1013/34/6/2007-2008)

In another case Shri Sumit Kumar Carr, Secretary General, Occupational Safety and Health Association of Jharkhand (OSHAJ), Jamshedpur on 8 August 2007 informed the Commission that in Village Teranga situated on Jaduguda Musaboni Road, M/s. K.K. Minerals and M/s. K.K. Sales are emitting silica dust which is resulting in occurrence of occupational diseases like silicosis among the labour working in the plant and leading to several cases of deaths among them. It was further submitted that these plants are established in the vicinity of residential areas, thus causing violation of prohibitory clause set by the Central Pollution Control Board and that there are no environmental safeguards and arrangements for protective measures concerning the health of the workers. He also submitted a list of 29 workers who were suffering from silicosis and enclosed the treatment record of the workers.

Pursuant to the directions of the Commission, the Principal Secretary, Government of Jharkhand, Department of Home vide communication dated 24 June 2010 submitted that the matter was being investigated by the Deputy Commissioner, East Singhbhum and had constituted the following teams for this purpose:

- (i) A team of Specialised Doctors under the Civil Surgeon, East Singhbhum, Jamshedpur; and
- (ii) A Joint Inspection Committee comprising officers of Mining Department and Jharkhand State Pollution Control Board, East Singhbhum, Jamshedpur.

The Medical Team examined six persons out of seven persons on 19 June 2010. One person, named Joba Hansada could not be traced out. There was suspicion about one another person named Rani Murmu, aged 35 years which was being examined along with other six persons out of which five were cases of suggestive pneumoconiosis. All these persons had past history of exposure to "Sada Pathar dust" which was suggestive of pneumoconiosis and therefore the possibility of "silicosis" remained in these patients. It was further submitted that with regard to 22 persons whom the complainant alleged had died due to silicosis, efforts were made to identify these persons, but the exact reasons for their death could not be ascertained though it was stated by the villagers that the deceased were working in the factory named M/s K.K. Minerals.

It was further submitted that the Joint Inspection Team comprising officers of Mines & Pollution Control Board also inspected M/s. K.K. Minerals and found that the unit was closed due to cancellation of No Objection Certificate by the State Pollution Control Board of Jharkhand. No labourer was found to be working in the unit during the inspection. It was further submitted that the State of Jharkhand had earlier taken steps against M/s. K.K. Minerals when it was found to be violating the pollution norms. M/s. K.K. Minerals had subsequently filed a writ petition before the High Court of Jharkhand and the Court had directed the State of Jharkhand that till further orders, no coercive steps be taken against M/s. K.K. Minerals. It was lastly submitted that the State of Jharkhand is duty bound to take steps in this regard. On this report, the comments of the complainant were called for. Consequently, the complainant submitted his detailed comments, according to which 24 persons had so far died of

silicosis and some of the workers who were working in M/s. K.K. Minerals were victims of silicosis.

The Commission on 13 December 2010 observed and ordered:

"Chief Secretary, Government of Jharkhand be asked to submit report (i) as to whether 24 persons mentioned in the list working with M/s. K.K. Minerals died due to silicosis; (ii) as to whether any financial assistance has been given to the next of kins of deceased who died of silicosis by the State of Jharkhand; (iii) whether the Government of Jharkhand intends to provide any medical assistance and rehabilitation package to the persons suffering from silicosis; and (iv) the Chief Secretary should also be asked to submit reply on the comments submitted by the complainant."

As there was no response from the State Government, the Commission on 17 March 2011 issued a reminder to the Chief Secretary, Government of Jharkhand requesting him to submit the response. The Principal Secretary of Jharkhand wanted a month's time to reply on the issues raised by the Commission and the same was granted.

CHAPTER-4

Mandate of Law: Suggested Changes

There are several labour welfare related legislations in place alongwith the administrative machinery to ensure their respective implementation. These are with the objective of ensuring the job security of the workers apart from providing them with social security benefits like medical assistance in case of illness or injury apart from compensation from employers wherever the latter is responsible. However, there are several problems which are coming in the way of benefits reaching the intended beneficiaries. Foremost among these is the fact that more than 90 percent of labour is working in the unorganized sector and majority of legislations are applicable to the organized sector. In other words, a large majority of workers do not get the benefit of the provisions of these legislations. In addition, employers deliberately adopt tactics to keep the worker outside the applicability of these legislations. They also neglect or avoid, with the connivance of concerned Government Labour Department employees, their obligations towards workers under the existing legislations. No records are maintained of their employment or salaries due to them and actually paid or for that matter, other benefits legally required to be made available to them.

These problems are especially evident in occupations prone to health hazards like silicosis. Here, neglect and non implementation of the existing legal provisions leads to immense suffering among labour. They suffer in terms of lack of health care and even incapacity to meet their livelihood and other basic necessities in life.

Accordingly, there is urgent need to address these problems and carry out the necessary changes in the legal provisions, wherever necessary as also strengthen the implementation of existing provisions in place. The detailed list of changes sought in the existing legislations is annexed (Annex. IV). Some of the important changes in provisions among them are given below;

The Factories Act 1948

➤ Suggestions

- Every person employed in the dangerous operations shall be examined by a medical practitioner possessing requisite qualification within 15 days of employment. No person shall be allowed to work after 15 days of employment unless certified fit for such employment by the medical practitioner.
- The periodic medical examination of the employee. Certificate of fitness and health register shall be kept readily available for inspection by the authority.
- Directions to all the industries to preserve health records of each workman for a period of 40 years from the date of beginning of the employment or 10 years after the cessation of the employment, whichever is later. The Honorable Supreme Court has given this particular direction in case of Consumer Education & Research Centre and others vs. Union of India which deals with Asbestosis.

(Relevant Section: Section 41C)

➤ Suggestion

- All the processes where silica dust is generated is hazardous in nature and therefore they should be notified by all State Governments under the factories Act, 1948.

(Relevant Section: Section 85)

➤ **Suggestion**

- All the manufacturing process/operations where silica dust is generated should be declared as dangerous operations and the state government should frame rules under this provision.

(Relevant Section: Section 87)

The Mines Act, 1952

➤ **Suggestion**

- Inspection of mines should be made compulsory every six months by the inspectors and the report to be made public. It should be made a part of this statute requirement. Chief Secretary of the State to be responsible for the implementation.
- Rules for inspection of dust producing areas should be framed and implemented with clear mention of all the activities to be inspected upon. The report should be made available to all workers and posted on the website of the concerned authority. Any violations of the prescribed limits should be strictly punished.
- Threshold limits for silica dust environment should be reviewed periodically.

(Relevant Sections: Section 5 to 9 & 11 & 22)

➤ **Suggestion**

- Occupational Health Survey to be made compulsory after every 6 months

(Relevant Section: Section 9A)

➤ **Suggestions**

- All inspection reports and information gathered should be made public and the existing secrecy provision should be removed.

(Relevant Section: Section 10)

➤ **Suggestion**

- There is a need for strict implementation of Section 23. However, fine for not reporting any accident is a paltry sum of Rs 500 or imprisonment upto 2 months. This penalty should be enhanced.

(Relevant Sections: Section 23 and 70)

➤ **Suggestions**

- Every person employed in the dangerous operations shall be examined by a medical practitioner possessing requisite qualification within 15 days of employment. No person shall be allowed to work after 15 days of employment unless certified fit for such employment by the medical practitioner.
- Each worker working in the hazardous process area should be periodically examined medically after every 6 months on the expenses of the employer. Medical examination should also be carried out at the time of cessation of employment.
- On the basis of above examination, if Silicosis is detected, the same will be notified to the concerned authorities.

(Relevant Section: Section 25, 26 and 27)

Workman's Compensation Act, 1923

➤ Suggestions

- The payment for medical expenses should be made by the employer directly to the hospital/doctor and workers should get cashless treatment facility.
- Amount of compensation is calculated as per disability percentage. For Silicosis victims, this disability should be considered as 100% as per High Court of Gujarat order under case number 3449 of 1999 (Babubhai vs. ESIC).
- Mechanisms for ensuring enforcement of the compensation order should be set-up. Compensation should be delivered within a period of 1 month from the date of order.
- In both the Acts (Employee Compensation Act, 1923 & ESI Act, 1948) a qualifying period is necessary to claim compensation. This has been a hindrance for workers to claim compensation. This should be removed and any worker found to be suffering from Silicosis (no matter for how long the employment was) should be compensated.

(Relevant Sections: Section 3, Schedule II and III)

Employees' State Insurance Act, 1948

➤ Suggestions

- This Act is applicable to the Factories of the organized sector. Suitable amendments are to be made so as to provide the benefit of this Act to all the workers including those in unorganized sector.
- Supreme Court directions in case of Customer Education & Research Centre and others vs. Union of India which deals with Asbestosis should be made applicable with regards to Silicosis-

1. "The ESI Act and the Workmen's Compensation Act provide for payment of mandatory compensation for the injury or death caused to the workmen while in employment. Since the Act does not provide for payment of compensation after cessation of employment, it becomes necessary to protect such persons from the respective dates of cessation of their employment till date. Liquidated damages by way of compensation are accepted principles of compensation. In the light of the law above laid down and also on the doctrine of tortious liability, the respective factories or companies shall be found to compensate the workmen for the health hazards which is the cause for the disease with which the workmen are suffering from or had suffered pending the writ petitions. Therefore, the factory or establishment shall be responsible to pay liquidated damages to the workmen concerned."

2. "All the factories whether covered by this ESI Act or the Workmen's compensation Act or otherwise are directed to compulsorily insure health coverage to every workers."

- Amount of compensation is calculated as per disability percentage. For Silicosis victims, this disability should be considered as 100% as per High Court of Gujarat order under case number 3449 of 1999 (Babubhai v/s ESIC).

(Section 52A and Schedule III)

CHAPTER - 5

Conclusion

The National Human Rights Commission is deeply concerned with the plight of the workers inflicted with the dreaded disease of silicosis. The concern of the Commission is towards the right of these workers and their families to lead a life of dignity which is being denied to them due to the callousness of the official machinery. As a result, these workers, most of whom are working as unorganized labour without any means to social security and job security are left unattended after they contract the dreaded disease. Most of these inflicted workers die without recourse to the necessary health care support. Their families suffer from loss of livelihood but no compensation is available to them from the State authorities.

The Commission having been informed of such cases of suffering and denial of human rights has sought to ensure compensation for the affected workers and their families. However, it may be understood that these are at best, ad-hoc or provisional measures to provide them relief. What is necessary as a long-term and concrete measure is to have in place a legislative and implementation system for automatic compensation as well as social security benefits to be made available to such affected persons without the need for intermediation by bodies like us. At the same time, there is immense need to ensure that the frequency of such cases is reduced to minimum by use of available technology and scientific means to put in place the preventive measures like wet drilling, face masks, etc. There is need to ensure proper utilization of the expertise available with specialized institutions like

National Institute of Occupational Health (NIOH) and Directorate General of Factory Advice and Labour Institutes (DG FASLI).

Initiatives by the concerned Government Departments in even a small measure on the above lines will go a long way in ameliorating the sufferings of large number of workers.

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Annex-I

ITEM NO.2

COURT NO.1

SECTION PIL

S U P R E M E C O U R T O F I N D I A
R E C O R D O F P R O C E E D I N G S

WRIT PETITION (CIVIL) NO(s). 110 OF 2006

PEOPLE'S RIGHTS & SOCIAL RES.CENTRE &ORS

Petitioner(s)

VERSUS

UNION OF INDIA & ORS.

Respondent(s)

(With appln(s) for exemption from filing O.T., directions, interim directions, permission to file additional documents and office report)

Date: 05/03/2009 This Petition was called on for hearing today.

CORAM :

HON'BLE THE CHIEF JUSTICE
HON'BLE MR. JUSTICE P. SATHASIVAM
HON'BLE MR. JUSTICE J.M. PANCHAL

Controlled
Assisted
2009

Supreme Court of India

For Petitioner(s) Mr. Colin Gonsalves, Sr. Adv.
Mr. Vipin M. Benjamin, Adv.
Mr. Alban Toppo, Adv.
Ms. Jyoti Mendiratta, Adv.

For Respondent(s) Mr. R. Shunmugasundaram, Sr. Adv.
Mr. V.G. Pragasan, Adv.
Mr. S.J. Aristotle, Adv.

Ms. Pinky Behera, Adv. for
Ms. Hemantika Wahi, Adv

Mr. Prashant Bhushan, Adv

Mr. S.W.A. Qadri, Adv.
Ms. Varuna Bhandari Guhnani, Adv. for
Mr. D.S. Mahra, Adv

Mr. Milind Kumar, Adv

for NHRC

Mr. Sanjay Parikh, Adv.
Ms. Anitha Shenoy, Adv.
Ms. Rashmi Nandakumar, Adv.
Mr. Jitin Sahni, Adv.

UPON hearing counsel the Court made the following
O R D E R

In our view, Central Pollution Control Board is a

18/3/09

necessary party to be impleaded as an additional respondent in this matter.

Let notice be issued to Central Pollution Control Board returnable after six weeks.

Learned counsel appearing for National Human Rights Commission (for short 'NHRC') states that pursuant to the directions, the NHRC has conducted a survey regarding the problem of silicosis which is affecting a large number of people working at the premises of stone crushers, stone quarry, construction work, glass factories, quartz crushing factories, stone mines and other silicon dust producing plants etc.. The Preliminary Report of NHRC shows that the problem of silicosis is prevalent in many States and further survey is to be conducted in this regard and since the Ministry of Health and Ministry of Labour, Union of India have to provide all necessary assistance, we direct the Ministry of Health and Ministry of Labour, Union of India to extend all further assistance to the NHRC for further action in this regard.

NHRC may take up the specific and confirmed cases of persons who are suffering from silicosis and shall recommend to provide immediate medical relief to them through the concerned authorities and in case of those persons who died because of silicosis, may provide for compensation through the concerned authorities.

Learned senior counsel appearing for the petitioner shall bring to the notice of the Court on the next date of

12/11/79

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-3-

hearing as to which States are to be impleaded as necessary parties-respondents in this matter.

List this matter after six weeks.

Chaw
18/03/2009

(Parveen K. Chawla)
Court Master

WVP
19-3-09
(Veera Varma)
Court Master

ph
18/3

Recommendations of National Human Rights Commission on Preventive, Remedial, Rehabilitative and Compensation Aspect concerning Silicosis

Preventive Measures:

1. The occupational health survey and dust survey on half yearly basis may be made mandatory in suspected hazardous industries. All the enrolled workers must be medically examined before entering into the employment. The workers should be clinically examined with Chest radiography and pulmonary function test to rule out any respiratory disorder.
2. State/UT governments should encourage development and promotion of various cost-effective engineering control measures to manage silica dust through surveillance of processes or operations where silica is involved.
3. Implementation of precautionary measures including the protective gears for the workers of silicosis prone industries may make mandatory by the concerned enforcement authorities.
4. Dust control devices should be installed to reduce the dust generation at the workplace. National Institute of Occupational Health (NIOH) has developed control devices for agate, grinding and quarts crushing industries based on the principle of local exhaust ventilation. The use of wet drilling and dust extractors may be enforced by respective regulatory authorities.

5. The workers vulnerable to silicosis need to be made aware of the disease through wide publicity campaigns with the use of electronic and print media. This will also improve self responding of cases and facilitate early detection.
6. Silicosis is a notified disease under Mines Act 1952 and the factories Act 1948. Silicosis may also be made a notifiable disease under the Public Health Act. As such all district/primary health centres/hospitals in the country, will have to report the cases/suspected cases of silicosis to the Government.
7. There is a necessity to develop Master Trainers to impart training to all public health doctors/paramedics for early diagnosis and detection of silicosis.
8. Less hazardous substitutes to silica should be found out for use in place of silica.
9. Industrial units which are silica prone should have an Occupational Health and Safety Committees (OHSC) with the representation from workers and Health Care Providers.
10. Silicosis control programme should be integrated with already existing Revised National Tuberculosis Control Programme (RNTCP).
11. A mechanism to have intersectoral coordination among departments such as Ministry of Health & Family Welfare, Ministry of Labour & Employment, Directorate General of Factory Advice Services Labour Institute, national Institute of Occupational Health, Tuberculosis Association of India and civil society organizations to evolve an appropriate strategy to deal with the dual problems of silicosis and tuberculosis may be set up at the center and state level.

Remedial Measures:

1. In each of the district where silicosis prone industry, quarrying or a big construction projects are on, there is a need to identify a facility for diagnosis of silicosis.
2. The District Tuberculosis Officer must collect and maintain accurate information and documentation on number of workplaces and workers at risk from silica exposure.
3. The accountability for the implementation and control over the rules & regulation of Laws must be reviewed time to time.
4. The National /State Social Security Board set up under The Unorganized Worker's Social Security Act, 2008 should recommend welfare schemes to be formulated for the welfare of the unorganized workers who are at the risk of contracting silicosis as well as those already affected and their families.
5. The Central Government may consider extending the Rashtriya Swasthya Bima Yojna, a health insurance scheme for BPL families and extended subsequently to some other vulnerable groups, to the workers at risk of contracting silicosis and their families.

Rehabilitative Measures:

1. The treatment cost of the silica affected person including permanent, temporary or contractual worker should be borne by the employer. The district administration should ensure its implementation and treatment.

2. The victims of silicosis should be rehabilitated by offering an alternative job or a sustenance pension if they are unable to work.
3. NGOs should be involved in monitoring and implementation of the programmes initiated for the benefit of silica exposed workers.
4. Appropriate Counseling should be provided to the person affected by silicosis.

Compensation:

1. The silica affected person should be adequately compensated.
2. Silicosis is a compensable injury enlisted under the ESI Act and the Workmen's' Compensation Act. Therefore a separate Silicosis Board similar to the one set up by the Government of Orissa may be formed in every State. The guidelines and model calculation of compensation may be framed under the ESI Act and the Workmen's Compensation Act.
3. The Board can carry out surveillance of silicosis cases and assessment of disability/loss of earning capacity resulting from the diseases for the purpose of compensation and rehabilitation.
4. The compensation could be calculated based on Disability Adjusted Life Year (DALY) developed by World Health Organisation. The attached annexure could be used as a reference for calculating compensation.

Calculation of compensation¹

WHO adopted strategy of the burden of disease essentially looks into the new metric of the Disability Adjusted Life Year (DALY) lost due to the disease. The DALY is a summary measure of population health that combines in a single indicator years of life lost from premature death and years of life lived with disabilities. One DALY can be thought of as one lost year of 'healthy' life and the burden of disease as a measurement of the gap between current health status and an ideal situation where everyone lives into old age free of diseases and disability. DALYs for a disease or health condition are calculated as the sum of the years of life lost (YLL) due to premature mortality in the population and the years lost due to disability (YLD) for incident cases of the health condition.

With due consideration of different estimates, it might be possible to arrive at DALY values associated to the silicosis. As a hypothetical example, a calculation to arrive at the DALY values for silicosis, some observations of NIOH studies are shown herewith. During the period from 1981 to 2004, 12 studies have been conducted at NIOH and different work processes such as slate pencil workers, agate workers, quarry workers, ceramic and pottery workers. The prevalence of silicosis has been reported in the range of 12 to 54% in different occupational groups. The average age of workers ranged from 27 to 43 with the duration of exposure varied from 5 to 19 years.

¹ It is a model calculation. Wherever possible the data for the local population should be used.

Let us consider that the total number of workers exposed to silica in India with potential risk to contract with silicosis is ~30 lakhs and the onset of silicosis is at the age of 27 years and the duration of exposure when silicosis reported is 8 years. The survival time data regarding silicosis patients in India after diagnosis of the disease are not available. The literature reported mean survival time (Lou and Zhou, 1989) of silicosis patients after diagnosis is 12.2 years. With the detailed calculation method available for DALY one can arrive at average age of death of silicosis patient of around ~40 yrs. The life expectancy at the age of 40 yrs is 31.5 yrs and taking discount of 3% into consideration, the life expectancy at the age of 40 yrs becomes 21.82 yrs. Taking the prevalence of silicosis at 32%, the total workers that might have contracted silicosis ~9.6 lakhs. Current data regarding mortality due to silicosis in India are not available. For the purpose of the calculation the mortality due to silicosis is taken as 2.3% (Nakagawa, et.al 1985). That means the mortality number is ~twenty two thousand. The summated YLL and YLD yielded the DALY value as ~520262 yrs., and accordingly the total number of years lost per silicosis patient can be arrived at ~23 years. With minimum income of a worker of Rs.36, 000/- per annum, the estimated amount of compensation to a silicosis patient might be arrived at Rs. ~13 lakhs due to disability adjusted life year lost of ~23 years.

Limitations

This approach of estimation of compensation has certain limitations due to the non-availability of some basic estimates such as the total exposed population, prevalence estimate based on large scale study, survival time of silicosis patient after diagnosis, disability weights, etc. In the above hypothetical calculation the disability weight for silicosis patients is taken as 0.006.

Abbreviation

DALY	Disability Adjusted Life Year
ESI	Employee State Insurance
NIOH	National Institute of Occupational Health
OHSC	Occupational Health and Safety Committees
YLD	Years Lost due to Disability
YLL	Years of Life Lost

Annexure- III

Recommendations of National Conference on Silicosis

- All State Government should complete a detailed survey of the industries within 6 months, unless specific period indicated by the Commission as in case of some States.
- The Commission to call review meetings of concerned officials of few States in batches every two months.
- Silica detection equipment should be provided to factory inspectorate to identify industries producing silica.
- Survey should be divided into two parts. Apart from survey of workers, in silica producing factories, quarries etc, survey of ex-workers is needed.
- Silicosis Board of Mandasor pattern should be extended to affected districts of all States.
- Need to differentiate between relief and compensation
- In MP, the status of victims is very poor and ill and therefore, NHRC recommendation of granting sustenance pension should be implemented early.
- All affected persons should be treated as BPL.
- Separate programme specially targeting silicosis victims should be designed which should cover health education as well as livelihood /social security.
- Earlier recommendations made by CPCB and DGFASLI made on behest of NHRC should be implemented.
- When a victim suffering from Occupational Disease dies, ESIC is to be notified before last rites are performed to ascertain cause of death. They also want post mortem to be done. It is difficult for the

people from poor strata of the society to follow the process involving police. Also, it is not in line with the culture to keep the body for long time before funeral. This stipulation, therefore, requires change.

- Method of diagnosis should involve: 1st Step-Screening of persons who worked in silica dust producing factories and have symptoms like cough-breathlessness. 3 simple questions -(a) Are you breathless? (b) Have you worked in a "high risk industry"- to be defined; (3) Did you have the symptoms before starting work? 2nd Step-Medical examination and chest X-rays by doctor at designated "X-ray" center. 3rd step- Sending of X-rays to expert readers for final opinions.
- Comprehensive strategy to check migration should be designed which can include modifications in the MGNREGA scheme to provide more number of wage days.
- Many hazardous factories are still working, they should be closed.
- State should initiate criminal proceedings against the factories under the provisions of IPC and Factories Act where the labourers have contracted silicosis.
- DGFASLI should give standard questionnaire to all States. This should include name, address etc, work history- worked/is working in identified industries, duration of work, hours of work each day, type of work done, level of dust exposure, wages received, symptoms related to chest, wasting, weight loss, record of employment etc.
- Silicosis is a public health issue and it should be taken up at national level.

- Govt. of MP has done some relocation of industry from residential area to industrial area successfully. This may be replicated elsewhere.
- Gujarat High Court has passed order to the effect that all cases of Silicosis be given 100% disability. ESIC should resolve to make it a rule.
- All State Factory Inspectorate should have at least one Industrial Hygiene Expert.
- ESI Act is applicable to units employing less than 10 in Mandsaur. This should be extended to whole of India.
- All civil hospitals should have OPD for occupational diseases.
- Moreover, a worker may not have required legal documents to support his employment like identity card or attendance card or pay slip as well as length of exposure, when he is out of employment. This stipulation, therefore, requires change.
- Functioning of separate cell under NRHM / state health department should be started.
- Introduction of special courses of "Environment & Occupational Health" for the Junior Doctors and interns which has to be initiated by the State Government
- Immediate recruitment of certified surgeons, radiologists and chest specialists and their capacity building & training arrangement to be made on dust diseases as per WHO & ILO standard.
- Setting up of the Occupational Disease Diagnosis Centre (ODDC) at district level ESI, Government hospitals and NRHM centers at different location.
- Limiting exposure to harmful dusts can be achieved further by suppressing dust generation, filtering or capturing dust particles,

diluting the concentration with fresh air, and using personal protective respiratory equipment as further possible means of the preventing silicosis.

- All the workers migrating to one State to Other state could be given identity cards to make it easier for the treating doctors to get the history of the work place, their exposure to the silica dust, working conditions and health conditions of the workers.

Annex. IV

Changes Sought in the Existing Legislations

Act	Provisions	Action required to be taken
<u>Factories Act 1948</u>		
1.	Section 2(c) (b):- the section identifies 29 industries as hazardous under First Schedule. Foundries, Cement, Glass & Ceramic, Ferrous Metallurgical Industries, Power Generating Industries and Grinding of glazing of metals have the potential of exposure to free silica	<ul style="list-style-type: none"> Gems and Jewellery industry may be added
2.	Section 7:- Mandatory written notice to be given before using any premises as a factory at least 15 days in advance. This shall include name and situation of the factory and name and address of the occupier as well as	<ul style="list-style-type: none"> Factories where exposure to Silica is involved like stone crushing, agate industry etc do not follow the provisions of Section 7, therefore, the whereabouts of such factories are not known to the Chief Inspector of factories.

	number of workers occupied.	
3.	Section 7(A):- the section deals with the general duties of the occupier of factory premises. Sub section 3 prescribes for a written statement to be prepared by the occupier regarding the health and safety of the worker.	<ul style="list-style-type: none"> • Non compliance. Seeking enforcement of these provisions.
4.	Section 8 & 9:- Deals with the appointment and powers of the factory inspectors. Every District Magistrate shall be an inspector for his district.	<ul style="list-style-type: none"> • All vacancies for the factory inspectors to be filled within 6 months. • The inspectors must carry out their duties in accordance with Section 9. • Inspection of premises will be made every month by the factory inspectors for the first 3 years after these directions and the report made publicly available, the inspections can then reduce in frequency. Chief Secretary of the state to be responsible for the implementation of the direction. • Obstructing the inspector, failure to produce the documents etc, is punishable under Section 95.
5.	Section 10:- Certifying surgeons. The section deals with the appointment of certifying surgeons and their responsibilities.	<ul style="list-style-type: none"> • Though the provisions here deal with appointment of certifying surgeons, however, adequate number of Occupational Health Institutes do not exist. Directions to set-up these institutes is necessary. • All states to fill all vacancies

		<p>within 6 months for certifying surgeons qualified in industrial health and occupational Health and Safety.</p> <ul style="list-style-type: none"> • Each district should have at least one certifying surgeon.
6.	<p>Chapter 3(Sections 11 to 20) deal with health. In particular section 14 speaks about controlling the dust and fumes.</p>	<ul style="list-style-type: none"> • All these provisions are ignored in most of the Factories. Strict enforcement of these provisions is required. In factories where silica dust is generated, the compliance and implementation of Section 14 is extremely important.
7.	<p>Section 41B deals with compulsory disclosure of information by the occupier where hazardous processes are involved and is mandatory. All information regarding the hazards has to be disclosed to the Chief Inspectors, Local Authority and the general public.</p>	<ul style="list-style-type: none"> • This provision is hardly implemented. It is required to be implemented strictly. • Failing to comply with this provision is punishable under Section 96A • Report of Dust sampling by employers should be made available to the public
8.	<p>Section 41C:- Requires the occupier to maintain accurate and up-to-date health records of the workers and provides for medical</p>	<ul style="list-style-type: none"> • Every person employed in the dangerous operations shall be examined by a medical practitioner possessing requisite qualification within 15 days of employment. No person shall be allowed to work after 15 days of

examination of every workers while he is in job and after he has ceased to be in Job.

employment unless certified fit for such employment by the medical practitioner.

- The periodically of medical examination the employee. Certificate of fitness and health register shall be kept readily available for inspection by the authority.
- Directions to all the industries and the official-respondents to maintain compulsory and keep preserved health records of each workman for a period of 40 years from the date of beginning of the employment or 10 years after the cessation of the employment, whichever is later.
- The Honorable Supreme Court has given this particular direction in case of Consumer Education & Research Centre and others Vs. union of India which deals with asbestosis.
- Failing to comply with this provision is punishable under Section 96A

9.

Section 41F:- This Section deals with the Permissible limits of exposure of chemical and toxic substances. The standards for silica dust has been prescribed long back which is required to be revised as per section 41(F)

- Review of the standards of silica dust by the Central Government.
- Industrial hygiene labs of the factory inspectorate to be set-up in all states (if not in place already) and should be equipped with qualified industrial hygienist and required instruments within 6 months.
- Regular monitoring for dust levels to be done by employers.
- Rules and procedures for

	(2) by the central government.	<p>inspection and monitoring of dust producing arras should be framed and implemented with clear mention of the interval of inspection, time and operation during which inspections will take place.</p> <ul style="list-style-type: none"> Any violations of the prescribed limits should be strictly punished. All inspectors to be equipped with relevant equipments to enable dust measuring and monitoring as per provisions in the Act, the TLV limits should be reviewed after every 5 years. Work environment monitoring should be done once in 8 hr shift. Failing to comply with this provision is punishable under Section 96A
10.	Section 85:- Power to apply the act to certain premises	<ul style="list-style-type: none"> All the processes where silica dust is generated is hazardous in nature and therefore they should be notified by all state governments under the factories Act, 1948.
11.	Section 87:- this section deals with the framing of rules by state government where manufacturing process or operation can cause serious risk of bodily injury. It enumerates the areas which will be covered under such	<ul style="list-style-type: none"> All the manufacturing process/operations where silica dust is generated should be declared as dangerous operations and the state government should be directed to frame rules under this provision.

	rules.	
12.	Section 89:- This Section deals with the responsibility placed on medical practitioners to report any occupational disease to the authorities like the chief inspector or others as specified. There is a provision of fine on the medical practitioner in case the disease is not reported	<ul style="list-style-type: none"> • Reporting of silicosis and silica related Occupational Diseases by medical practitioners should be strictly enforced and in case of any violation a fine of Rs. 10,000 should be applicable which will be added into the Silicosis relief fund. Medical practitioners the diseases should be rewarded Rs. 1000 per case they report.
13.	Section 90:- deals with the power provided to the state government to appoint a competent person to inquire cause of any accident in a factory or into any case the disease specified in Third schedule has been contracted	<ul style="list-style-type: none"> • The section should be utilized and enforced by the state government • Independent agency to conduct an Occupational Health and Safety survey in these industries.
14.	Section 91A:- Provides for safety and Occupational health surveys by the Chief Inspector, DGHS, DGFASLI.	<ul style="list-style-type: none"> • This provision came into force on 26 January 1976 but no safety and occupational health survey has been done in hazardous operations generating silica dust. A State/UT wise and National survey is necessary.
15.	Section 111A:- Workers	<ul style="list-style-type: none"> • The report of any factory inspection should be made

	have right to obtain information related to health and safety at work	available to all workers and placed on the website to the monitoring authority
16.	Section 113: deals with the powers of Centre to give directions.	<ul style="list-style-type: none"> Centre should monitor the implementation of the Act by giving necessary directions to the State/UTs
Mines Act 1952		
17.	Section 2(J) defines 'mine' to which the Act applies.	
18.	Section 5 to 9 & 11 & 22 release to appointment of inspectors and Certifying Surgeons, Inspections, powers and duties. Section 22 gives Inspector's power to give notice if he finds anything requiring attention on account of health of workers. There can be fine of Rs. 5000 under Section 72B	<ul style="list-style-type: none"> All vacancies for the inspectors to be filled within 6 months. Inspection of mines will be made every month by the inspectors for the first 3 years after these directions and the report made publicly available, the inspections can then reduce in frequency. Chief Secretary of the state to be responsible for the implementation of the direction. Rules for inspection of dust producing areas should be framed and implemented with clear mention of the interval of inspection, time and operation during which inspection will be made available to all workers

		<p>and placed on the website of the monitoring authority. Any violations of the prescribed limits should be strictly punished.</p> <ul style="list-style-type: none"> • Pollution Control Board and other Entities should monitor the Silica threshold level strictly and any violations should be punished with repeat offenders being shut down. • Steps should be taken to prevent Silicosis and proper engineering control mechanisms should be installed in all premises. Government should provide soft laons to small enterprises who cannot afford the initial high capital costs for such installations. Workers should be provided with personal Protective equipments and it should be ensured that the equipment is maintained property and is in sound working condition at al times. • Threshold limits for silica dust environment should be defined and monitored strictly. • Central Government to ensure its full implementation.
19.	Section 9A deals with Occupational Health Survey	<ul style="list-style-type: none"> • To be made compulsory after every 6 months • The provisions of Chepter 4 regarding certifying surgeons and chepter IVA regarding medical examination of employed or to be employed in mines as per Mines

		Rules 1955 should be complied with
20.	Section 10 deals with secrecy of information obtained by the inspectors during inspections and entails a fine on the Inspector in information is disclosed	<ul style="list-style-type: none"> • All inspection reports and information gathered should be made public
21.	Section 23 requires the mine owners to report any accident and pasting it on notice board	<ul style="list-style-type: none"> • The provision should be strictly implemented. However, fine for not reporting any accident is under Section 70 a paltry sum of Rs 500 or imprisonment upto 2 months. This punishment should be enhanced
22.	Section 25, 26 and 27:- These Sections deal with the provision of notifying the concerned authorities about the Occupational Diseases. It also talks about the medical practitioner being fine if the disease is not reported. The maximum fine although is a paltry Rs. 50. Section 26 gives power to direct investigation in the causes of disease. The	<ul style="list-style-type: none"> • Every person employed in the dangerous operations shall be examined by a medical practitioner possessing requisite qualification within 15 days of employment. No person shall be allowed to work after 15 days of employment unless certified fit for such employment by the medical practitioner. • Each worker working in the hazardous process area should be periodically examined medically after every 6 months on the expenses of the employer. Medical examination should also be carried out at the time of cessation of employment.

report of such an investigation can be published by the Central Government under section 27.

- Record of medical examination and appropriate test carried out by the said medical practitioner shall be maintained in a separate register and results shared with the employee.
- Certificate of fitness and health register shall be kept readily available for inspection by the authority.
- Directions to all the industries and the official-respondents to maintain compulsorily and keep preserved health records of each workman for a period of 40 years from the date of beginning of the employment or 10 years after the cessation of the employment, whichever is later. The Honorable Supreme Court has given this particular direction in case of Consumer Education & Research Centre and other Vs. Union of India which deals with asbestosis.

- Reporting of Silicosis and Silica related Occupational Diseases by medical practitioners should be strictly enforced and in case of any violation a fine of rs 10,000 should be applicable which will be added into the Silicosis relief fund
- The Central Government should direct investigation into the causes of disease Silicosis with which approximately 10 million are stated to be suffering. The report of such investigation be made public.

23.	Section 48:- Register of persons employed	• There is non-compliance of this provision. The inspectors should ensure full compliance of this provision
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Employee's Compensation Act, 1923 (earlier Workman's Compensation Act, 1923)	Section 3:- this section deals with the compensation to be provided in case of injury or accident to a workman during the course of employment. This section enables workers suffering from occupational diseases to avail compensation. Schedule II of the act includes persons employed in factories, construction works and other hazardous occupations. As per the Act, the occupational diseases should be contracted while in the service of the employer in the specified employment. Schedule III of the Act divides the occupational	<ul style="list-style-type: none"> • Only cash compensation is granted. (Medical benefits are also now reimbursed). The payment for medical expenses should be made by the employer directly. • As per Section 2(n) certain categories of employees are not covered. • Amount of compensation is calculated as per disability percent. For Silicosis victims, this disability should be considered as 100% as per High Court of Gujarat order under case number 3449 of 1999 (Babubhai v/sESIC) • Mechanisms for ensuring enforcement of the compensation order should be set-up. Compensation should be delivered within a period of 1 month from the date of order. • In both the acts (Employee Compensation Act, 1923 & ESI Act, 1948) it is strated that a period is seen as QUALIFYING period to claim compensation. This has been a hindrance for workers to claim compensation. This should be removed and any
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	disease into three parts namely Part A, Part B, and Part C. for diseases specified in part A there is no qualifying	worker found to be suffering from Silicosis (no matter for how long the employment was) should be compensated.
ESI Act 1948	Section 2(8):- this section deals with the definition of the employment injury	•
	Section 51A:- This section deals with the presumption as to accident arising in course of employment and states that, an accident arising in the course of an insured	•
	person's employment shall be presumed, in the absence of evidence to the contrary, also to have arisen out that employment.	
	Section 52A deals with occupational diseases. Schedule III of the act lists the Occupational diseases	• All compensation claims filled under the Acts to be processed urgently and disposed within 3 months from the date of filling of claims.

	<p>in three parts, with silicosis listed under Part C of the Schedule. For diseases specified in Part A there is no qualifying period of employment. For diseases specified in Part B a person should have been employed in the specified a person should have been employed in the specified employment for a continuous period of 6 months before the disease is contracted. For the</p>	<ul style="list-style-type: none"> • In both the acts it is stated that a period of employment is required for the disease to occur. Though it is logical, the period is seen as QUALIFYING period to claim compensation. This has been a hindrance for workers to claim compensation. This should be removed and any worker found to be suffering from Silicosis (no matter for how long the employment was) should be compensated. ESIC had resolved in 1992 in this regard and this resolution should become part of the Act.
	<p>diseases specified in Part C, the qualifying period is specified by the Employee State Insurance Corporation which is set up under the Act.</p>	<ul style="list-style-type: none"> • In ESI Act, compensation is due from the date OF confirmation and assessment by the Special medical Board. The Act is silent on the time period within which the claimant should be examined by the Board. In such circumstances, claimants have to wait for as long as two to three years for the Board to examine their claims. No compensation for the waiting period is paid. This should immediately changes by amending law to the effect that the compensation is due from the date of

		<p>injury/diagnosis/first suspected.</p> <ul style="list-style-type: none"> • In order to ensure effective implementation of these Acts: <ol style="list-style-type: none"> 2. Worker should be immediately given the employment card, within maximum 7 days. 3. Where ESI Act is applicable, the ESI inspectors should ensure that all workers are registered under the ESI Act. 4. Where ESI Act does not apply, in addition to Employee's Compensation Act, an insurance scheme for medical benefits and compensation for the dependents should be taken by the employer. <ul style="list-style-type: none"> • Supreme Court directions in case of Customer Education & Research Centre and others vs. Union of India which deals with Asbestosis should be made applicable with regards to Silicosis-
		<ol style="list-style-type: none"> 3. "The ESI Act and the Workmen's Compensation Act provide for payment of mandatory compensation for the injury or death caused to the workmen while in employment. Since the act does not provide for payment of compensation after cessation of employment, it becomes necessary to

		<p>protect such persons from the respective dates of cessation of their employment till date. Liquidated damages by way of compensation are accepted principles of compensation. In the light of the law above laid down and also on the doctrine to tortious liability, the respective factories or companies shall be found to compensate the workmen for the health hazards which is the cause for the disease with which the workmen are suffering from or had suffered pending the writ petitions. Therefore, the factory or establishment shall be responsible to pay liquidated damages to the workmen concerned."</p>
		<p>4. "All the factories whether covered by this ESI act or the Workmen's compensation Act or otherwise are directed to compulsory insure health coverage to every workers."</p> <ul style="list-style-type: none"> • Amount of compensation is calculated as per disability percent. For Silicosis victims, this disability should be considered as 100% as per High Court of Gujarat order under case number 3449 of 1999 (Babubhai v/s ESIC).