

National Human Rights Commission

Minutes of the National Conference on Silicosis held on 1st March, 2011 at New Delhi.

A National Conference on Silicosis was organized by the National Human Rights Commission (NHRC) on 1 March, 2011. The Conference was attended by the representatives of the concerned Central Government Ministries/organizations as well as State/UT Governments apart from the Non-Governmental Organizations (NGOs) working in this area. The objective of the conference was to assess the action taken by the State Governments to tackle the problem of silicosis, a disease of lungs caused by inhalation of dust containing crystalline silica. This was especially w.r.t. the action taken by the State/UT Governments on the preventive, rehabilitative and remedial recommendations issued by the NHRC in December, 2010. It was also the objective to obtain the advice/suggestions of the NGOs/technical institutions working in the area.

In the inaugural session chaired by Hon'ble Chairperson Justice Shri K.G. Balakrishnan, the welcome address was given by Hon'ble Member Shri P.C. Sharma. Shri P.C. Sharma highlighted the concerns of the Commission on the problems faced by the labourers and their families after being afflicted with this disease as a result of working in mines, quarries, quartz cutting industries etc. in States like Rajasthan, Madhya Pradesh and Gujarat as well as in other parts of the country. He stated that the labour working in unorganized sector was especially vulnerable, being totally devoid of social security benefits from their

employers. According to him, the requirements under the labour legislations are not being strictly adhered to. He stated that it was the duty of the employers to fulfill the obligations under these legislations and the State functionaries need to be held accountable for not ensuring their implementation in the area coming under their jurisdiction. The Factories Act, 1948 provides the Government with sufficient leverage to take measures for protection of workers especially, those in hazardous industries. Silicosis is a notifiable disease as listed in the Third Schedule for the purpose of Section 89 and 90 of the Act. As per Section 85 of the Act, if the State Government notifies to this effect, the Act shall apply to any place wherein a manufacturing process is carried on irrespective of the number of workers. The Commission has noted from the complaint received and the visits made by its investigation teams that the State Departments concerned as well as employers have not been properly implementing the labour laws. As regards silicosis, he stated that there was lack of awareness regarding the disease in comparison to the other diseases. He mentioned about the plight of tribal workers of Madhya Pradesh which was brought to the notice of the Commission. These tribal workers had returned to their native villages after contracting silicosis while working in factories in Gujarat. The Commission had recommended a sum of Rs. 3 lakhs each to be given by the State Government of Gujarat to the next of kin of 238 deceased and rehabilitation package by State Government of Madhya Pradesh to the 304 persons affected by silicosis. He also informed regarding the ex-gratia payment of Rs. 1 lakh announced by Government of Rajasthan for the next of kin of 21 persons who had died due to

silicosis contracted while working in the sand stone mines in Jodhpur. He also highlighted the need for the use of appropriate engineering devices as well as preventive gear for protection against inhalation of silica dust. He also highlighted the role of the civil society in this area.

Justice Shri K.G. Balakrishnan in his inaugural address stated that a clean environment and healthy atmosphere at work place is essential. He drew the attention of the participants towards Article 39 & Article 42 of the Constitution of India, according to which the State must ensure measures to protect the health of workers and to make provisions for securing just and humane conditions of work for them. He also mentioned about the Article 25 of UDHR and Article 12 of the International Covenant of Economic, Social and Cultural Rights. Regarding silicosis, Justice Shri Balakrishnan pointed out that it was a serious occupational health hazard which was preventable. The Commission, according to him, was deeply concerned about the issue and takes a serious view of the callous approach of institutions responsible for neglect in protecting the workers from this disease. The Supreme Court has also recognized the role that the Commission is playing to tackle this problem and has directed the concerned Government Departments to provide all necessary assistance to NHRC in addressing the problem. He stated that the Commission has adopted a twin-pronged approach to tackle the problem. On one hand, the Commission has recommended compensation for victims to be given by the concerned State Governments while on the other, several recommendations have been sent by the Commission to

all the concerned Governments on the preventive, rehabilitative and remedial measures to be taken to address the problem.

The next Session was chaired by Justice Shri G.P. Mathur, Member, NHRC. In his introductory remarks, Justice Shri Mathur stated that silicosis was one of the oldest occupational disease, which progresses even when exposure stops as it is irreversible. According to him, there is no cure of the disease and workplaces which produce crystalline silica dust must be identified in order to eliminate or at least, control this dust. He also highlighted the importance of diagnosis and health surveillance which are essential components of any programme aiming at elimination of silicosis. However, surveillance should be considered as a compliment to control strategies and never as a replacement for primary prevention. He mentioned about the ILO/WHO International Programme on the global elimination of silicosis launched in 1995 and training programme under the Prevention and Control Exchange(PACE) initiative of WHO. A basic document was also prepared by WHO on the subject. He highlighted the plight of tribals who were fighting a losing battle with the disease. According to him, labour laws were being flouted with impunity and workers who contract silicosis are quietly bundled off to their villages. A survey conducted by the Jhabua based Khedut Mazdoor Chetna Sangathan indicated that 128 persons have died and 277 were suffering from silicosis in just 20 villages in three blocks of Jhabua. A report published in a magazine conveyed that several persons working in Andhra Pradesh Mineral Development Corporation in District Mahaboobnagar were suffering from silicosis and 270 persons had already died. He stated that the

Commission had taken suo motu cognizance of this and called for a report from the concerned State Government. He also mentioned about other cases relating to Pondicherry, Jharkhand, M.P., Rajasthan, Haryana as well as Maharashtra which were brought to the notice of the Commission and the Commission had intervened in several of them. He pointed out that under Section 85 (1) (ii), even the contract workers were protected. He stated that the Commission in its meeting held on 1st May, 2008 had formulated a questionnaire consisting of ten questions and on which the Union and State Governments were directed to furnish information. He then invited the representatives of the State/UT Governments to make their presentations especially, with respect to the action taken on the ten point questionnaire as well as the recent recommendations sent by the Commission. The information conveyed by the representatives of the State/UT Governments in brief is given below :

Andhra Pradesh

Secretary, Labour Employment Training & Factories Deptt., Govt. of Andhra Pradesh stated that they have yet to reply to the questionnaire of NHRC. He stated that they will give a response in one week. No proper survey was conducted earlier and only recently, they have started the process. Joint inspections have been planned by the Industries Department, Mines Department, Labour Department and Health Departments. However, they are paying attention on preventive measures i.e. wetting up the area, providing masks etc. In reply to a question by Shri P.C. Sharma, Member, NHRC seeking details regarding

number of mines, quarries in the State and number of times, whether the officials of the Departments of the Industry or Labour had visited the sites, the State representative did not have sufficient information.

Assam

Shri Samiran Das, Additional Chief Inspector of Factories, from Assam stated that no case of silicosis had been detected in Assam till date. The major factories having the potential to cause silicosis in Assam are stone crushing units, silicate factories, glass cutting and toughening factories, brick kilns and cement manufacturing units. The total number of workers employed in these units are 24,212 and Number of female workers were 8,705. Presenting the item-wise action taken report on the recommendations of the NHRC, he stated that dust survey is being carried out in stone crushers, glass cutting units, cement and brick kilns once in a year. Steps are being taken to make it at least twice in a year. All the dust borne factories are instructed for medical examination of workers before entering into the employment and once in a year while in employment. Concerned Inspectors of factories are instructed to check the medical records and health registers during their inspection. Strict inspection and enforcement of various legal provisions by the Inspectors of factories to control the silica dust evolved during operation through engineering control and other measures like use of PPEs, sprinkling of water, ventilation, isolation, substitution and dust control is being carried out. Inspectors of factories along with Industrial hygiene laboratory personnel are monitoring the work environment in dust prone

factories for assessing the level of dust created and prevailing in the air to ensure that total dust content in the air does not exceed the level which may cause occupational injury to the workers. Awareness programme has been taken up by the Inspectorate by organizing seminars, training programmes etc. Two state level training and awareness programmes were arranged in the years 2010 and 2011 on identification and prevention of silicosis. Hoardings/banners on silicosis shall be displayed and distribution of leaflets and information brochures on silicosis shall be made in areas having concentration of dust prone factories, provided financial assistance is made available by the Union Government in response to the application already made.

The State Government is also planning to form Occupational Health & Safety Committee (OHSC) in the Silica prone factories. As part of rehabilitative measures, the issue of payment of treatment cost to the silica affected person including permanent, temporary or contractual workers by the employer would be taken up soon. Steps are also being taken up soon on the rehabilitation of the silica affected workers by offering alternative job or a sustenance pension in case of inability. Appointment of NGOs for provision of appropriate counseling in respect of monitoring and implementation of the programmes initiated for the benefit of silica exposed workers is also being considered. It was also pointed out that at present the Industrial Hygiene Laboratory of the Inspectorate is not equipped with the instrument to determine the silica content in the collected dust sample. The Ministry of Labour, Government of India, has been requested to make arrangement for the procurement of such instrument. It was also requested

that necessary steps be taken to bring the stone quarrying process under Factories Act to take care of the workers engaged in stone quarrying from the silica exposure.

Chattisgarh

Deputy Director, Industrial Health & Safety attended the Conference. He stated that there are 4010 registered factories in the State and 2,12,948 workers are employed in these factories. He stated that all the hazardous and silicosis prone factories are regularly inspected by the Inspecting Officers. He also informed that preventive measures like dust control through dust extraction system, ventilation, wet processing, processing in closed chambers have been taken. Workers are provided with dust masks. Annual medical check-ups being conducted by factory management. All workers are made aware of the disease by organizing medical check-up camps. He stated that there is no case of silicosis which has come to the notice of the Department.

Gujarat

The representative of the Government of Gujarat narrated the steps taken by the Government to prevent silicosis. He stated that there were 3 cases reported in the State during 2010.

Member, NHRC Shri P. C. Sharma mentioned that based on the report of District Magistrate, Godhra district and on the basis of the Commission's discussions with the Chief Secretary, a notice was issued to the State Government to pay

compensation to the silicosis victims. He also conveyed that it was doubtful if the workers are being paid wages as per Minimum Wages Act.

Member, NHRC Justice Shri G. P. Mathur queried about migrant workers from the State of M.P. to Gujarat. He asked whether they have any details about the migrated labour who contracted this disease while working in Gujarat and went back to their own state i.e. M.P. He also stated that it was the duty of Director, Factories to have such information. The State Government official did not have adequate information.

Haryana

The Deputy Director, Office of DGHS, Haryana stated that they have not conducted any ground level survey on the subject. However, through mobile medical vans Government of Haryana is conducting medical check-ups of workers/labourers of various factories. Till date, no case of silicosis has been reported. Justice Shri G. P. Mathur however, stated that people from the State had come and reported to the Commission that they have contracted silicosis. Shri Satyabrata Pal, Member, NHRC enquired whether any survey has been done which shows that cases of T.B. are unusually high or not to which he replied in the affirmative. The Members agreed to the assurance of the officer that the State Government would complete a detailed survey within 6 months with a condition that progress report would be sent every two months.

Madhya Pradesh

Principal Secretary, Department of Labour stated that 284 persons had died and 304 were suffering from silicosis and the Commission had given orders in this case for compensation which is under process. He stated that the State Government has requested the Commission to give time upto 31 March, 2011.

Justice Shri G. P. Mathur pointed out about cement factories in Satna and Rewa also. He queried whether the State Government had conducted any survey in these places. He gave directions to the State Government for full survey of the industries. Labour Department asked for three months time to survey the entire areas. Member, NHRC directed that the survey could be done in 6 months but the State should give periodic reports for every two months.

Manipur

Director, Health Services stated that no proper survey had been done in the State. He mentioned that there are no cement factories in the State but 23 registered stone crushers are there. They conduct health melas in each district, three times a year. Mobile vans with all the facilities like x-rays, labs etc. are also put to use. Justice Shri G. P. Mathur directed to hold a proper survey and train the doctors to detect the silicosis. He also directed the State Government Official to send the Commission a report within three months.

Mizoram

Senior Medical Officer representing the State Government stated that no proper survey has been conducted so far but 20 stone crushers are registered in the State. He also stated that there was no case of silicosis. Justice Mathur directed him to conduct a survey and report within three months.

Orissa

Special Resident Commissioner attended the conference. He could not give any details about the silicosis. Member, NHRC directed the State to give a proper reply within three months.

Punjab

State Surveillance Officer, IDSP, D/o Health & Family Welfare stated that there are 721 foundaries, 88 stone crushing industries, 9 ceramic glass factories, 4 cement factories in the State. A total of 12,701 labourers are engaged in these factories. He stated that till date, no case of silicosis has been detected. Director (Research and Medical Education) from Punjab Government stated that they issued instructions to all the medical colleges to report silicosis cases. However, no regular mechanism is existing in the State of Punjab. Member, NHRC Shri P.C. Sharma stated that the Commission had sent a list of persons affected by silicosis to the Punjab Government. But there is no response from the Government. He conveyed that complete information should be made available.

Karnataka

The representative stated that as far as survey of silicosis is concerned, it has been undertaken by the Labour Department but there are no cases of silicosis diagnosed in the State. Health Secretary has issued the instructions to District T.B. Officers to coordinate in conducting surveys. The officer prayed for 10 months time for carrying out a detailed survey regarding silicosis which was agreed to. Justice Sh. B.C. Patel, directed the State to send periodical report. Shri P.C. Sharma stated from now onwards, the Commission we will call review meetings of groups of States in batches every two months.

Rajasthan

The representative of the State informed that a DO letter had been sent to all concerned highlighting the need of using protective measures & medical monitoring, like pre-employment medical examination, routine check up every 3 years, pulmonary function test and annual evaluation for TB. Free medical investigations & treatment at all centers near the mining areas are being done. In follow up of the above directives in all the mining affected areas regular medical check up camps are being organized and free symptomatic treatment is provided. In case of suspected pneumoconiosis, the cases are referred to TB and Chest Dept. of Medical College. Pneumoconiosis Board has been constituted at SMS College, Jaipur for evaluation of disability and compensation. The Board is chaired by Professor and Head, TB and Chest Dept., SMS Medical College, Jaipur. He further stated that there are 19 districts and 33 CHCs which have been identified as silica prone areas in the State. He also stated that

compensation has already been paid to the NOK of silicosis victims as directed by the Commission.

Justice Shri B. C. Patel, Member, NHRC enquired whether all the persons working in the factories have been medically examined and how many persons are suffering from T.B. and silicosis.

Shri P. C. Sharma, Member, NHRC wanted to know whether the State responded to the Questionnaire of NHRC. The State Representative stated that the State responded partly to the questionnaire. The State was directed to carry out the detailed examination and submit a report.

Tamil Nadu

Principal Secretary, Department of Labour and Employment represented the State Government. He gave a brief presentation before the Commission. He stated that there are 826 factories and 69,377 workers. The silicosis control measures included rigorous dust control measures like substitution, complete enclosure, isolation, hydroblasting, good house keeping, personal protective measures and regular physical examination and case management. Possible interventions at the work site itself included engineering control of dust in work sites, training the workers on crystalline silica, respiratory protection program, work clothes, change and wash area, air monitoring program within the campus and medical surveillance. Current situation in Tamil Nadu was that all patients with chest symptoms are screened for tuberculosis under the Revised National

Tuberculosis Control Programme and cases identified with silicosis are referred to medical college hospitals for specialist treatment. Inspectors of factories are ensuring the use of personal protective gadgets, Medical facilities for the workers in organised sector are given through the company medical facilities or ESI network of dispensaries and hospitals. Workmen compensation is being given by Labour Board. Health facilities available in Tamil Nadu comprises of 1539 Primary Health Centres, 30 District Headquarters Hospitals, 280 Taluk and Non-Taluk hospitals, 18 Medical College hospitals, 191 ESI dispensaries and 11 ESI hospitals.

Activities proposed include formation of inter-sectoral co-ordination committee involving labour, industries, health departments, civil society organizations, labour union representatives, industrialists and other stake holders as well as starting of PG course in occupational health for doctors, engineers working in Government as well as in industries under the Tamil Nadu Dr MGR Medical University.

Tamil Nadu has already taken steps to include cancer as a notifiable disease. Similarly, Tamil Nadu Public Health Act, 1939 will be suitably amended to include silicosis and other major occupational diseases like asbestosis as notifiable diseases and establishment of occupational disease surveillance system. The steps also include formation of Occupational Disease Control Board with mandate including workmen's compensation and rehabilitation, research on engineering measures, use of substitutes, review of the implementation status of

schemes for control of occupational health hazards, data base on occupational health hazards and policy formulation. Dr. Balaganesh Kr. representative from Tamil Nadu also informed about the 3 types of silicosis depending upon exposure which are:

1. Acute : (0 - 6 years)
2. Accelerated : (10 to 15 years)
3. Chronic : (10 -30 years)

Uttar Pradesh

State T.B. Officer represented the State of UP and stated that no silicosis case has been reported. Justice Shri B.C. Patel directed the State to provide the Action Taken Report. Justice Shri G.P. Mathur questioned whether they have conducted any survey? Hon'ble Member also directed the State to conduct a fresh survey of all districts and not only from 11 districts which was already sent by the State Government. This should be for, both for organized and unorganized sector. The State prayed for 3 months more time to send the new survey report to the Commission which was granted.

West Bengal

After the State Government Officer gave his presentation, the Commission directed the representative of West Bengal to give action taken report and reply to the questionnaire. Member Shri Satyabrata Pal directed the State that survey

to be conducted must be comprehensive covering the unorganized sector also as the surveys should not be selective and cover all industries and all districts.

Delhi

Dr. K.S. Bhagotia, State Programme Officer, Delhi represented Delhi and informed about steps taken by the Government of Delhi which include availability of facilities like special clinic at Tajpur near Lal Kuan with facility of X-RAY, ECG, PFT etc., 197 Diagnostic Centres, 590 Treatment Centres including 6 Centres in Lal Kuan Area for TB besides the Centre for Occupational and Environment Health – Conducting AFIH course and a good network of hospitals. Rehabilitation Strategies include a decision to have a multi purpose hospital/CHC for the treatment of occupational diseases to be built at Tajpur near Lal Kuan; a medical team consisting of occupational health experts to immediately conduct clinical survey of the affected persons in Lal Kuan area; the Social Welfare Department to coordinate physical survey of the affected people; the Social Welfare Department will also assist for alternative livelihood opportunities for the citizens of Lal Kuan.

Medical assistance includes mobile medical vans now visiting for four days a week. It is distributing free medicines for silicosis and other respiratory and occupational diseases. The building of the hospital/PUHC at Tajpur with X-ray facility needed for the detection of silicosis is almost complete. The survey of the medical team is complete. A short report on the health survey has also been submitted to the Delhi Government. Silicosis Eradication is a State Level

Programme. The survey stressed on the need for continued surveillance of the health of the people and a further comprehensive study on the health of Lal Kuan victims. 44 candidates were identified by the medical team suffering from silicosis/ silico-tuberculosis. An expert group was constituted in MAMC under Prof. M. K Daga to further examine/Validate these patients and provide medical help/health care. 24 patients out of 42 have been reported to the Expert group for further confirmation. 21 patients were confirmed by the expert group to be suffering from Silicosis in Delhi. This list has been sent to concerned Commissioner under Workman Compensation Act and Chief Inspector of Factories for further action and help to the silicosis victims.

A National workshop on silicosis on 13th-14th January 2011 was organized by DHS Delhi in collaboration with PRASAR (NGO). More than 125 delegates participated in the National Workshop. The objectives of this workshop included to generate awareness in all strata of society for silicosis; to sensitize stakeholders towards plight of Silicosis Victims. It was represented by Directorate General Factory Advice Services (DGFASLI) and Labour Institutes, GNCT Delhi, Certifying Surgeon, District Nodal Officer, National Human Rights Commission (NHRC), State Government Centre for Budget and Governance Accountability (CBGA) and Centre for Worker's Management (CWM).

Justice Shri B.C. Patel enquired about how many factories running in Delhi both organized and unorganized. The representative of Delhi while answering the

question of the Commission informed that about 12500 registered factories running in Delhi and most of them are Garment Factories, 20 Metal polishing units. He further stated that medical examination is periodically conducted. Member Shri P.C. Sharma directed the State to send a latest report within 2 months.

The next session was chaired by Member, NHRC Justice Shri B.C. Patel. The session was earmarked for presentations by the NGOs. Member, NHRC first invited Dr. Ashish of Shilpi Kendra and Silicosis Peedit Sangh, M.P. to give his presentation.

According to Dr. Ashish, there are around 2000 affected persons in 3 districts of Madhya Pradesh viz., Jhabua, Alirajpur, Dhar. The affected area consists of 71 villages. As far as spread of silicosis in western M.P. is concerned, in 21 villages of Alirajpur district, 489 persons from 218 families were exposed, 424 were dead or found ill in 2007. During 2008, in 40 villages of 3 districts of Jhabua, Alirajpur, Dhar, the number of persons affected increased to 809. In 2010, as per NHRC order in 2 districts, 542 persons were affected (238 dead and 304 ill). In 2010, as per survey of Shilpi Kendra in 3 districts, 1135 persons (749 sick and 386 dead) were affected. The NHRC order has not implemented by both states of Gujarat and MP and in last 5 months a total 11 silicosis affected persons have died.

Among suggestions, it was stated that Silicosis board of Mandasor pattern should be extended to affected districts of Western M.P. Other suggestions were as under :

- In MP, the status of victims is very poor and ill and therefore, NHRC recommendation of granting sustenance pension should be implemented.
- All affected persons should be treated as BPL.
- A separate programme specially targeting silicosis victims should be designed which should cover health education as well as livelihood /social security
- Landless persons should be given land as most persons have taken loan.
- Earlier recommendations made by CPCB and DGFASLI made on behest of NHRC should be implemented.
- Comprehensive strategy to check migration should be designed which can include modifications in the MGNREGA scheme to provide more number of wage days (throughout the year) per family and family members entitled for employment increased.
- Many hazardous factories are still working in Godra and Balasinore 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.
- States should submit ATR every month to NHRC.

- It may also be remembered that once a person has contracted the disease which may be without any symptoms, it progresses even without further exposure to silica. That means a person may not be still in employment when he/she gets the disease. Many contract the disease after leaving work and die in remote villages in oblivion. Surveys are usually done on currently working factory labourers. This reality/problem needs to be kept in view.
- It is also important that it is most easy and cheap to diagnose silicosis. No CT Scan, No MRI, Only Occupational History and chest X-Ray is sufficient. This is as per international standards (ILO) and therefore, it can be diagnosed at any hospitals having X-ray facility.
- It was also stated that training of doctors is necessary.
- Survey should be divided into Two Parts. Survey should be of both, workers and ex-workers.
- Survey of silica producing Industry, mines, quarries etc. only should be done. Cement is limestone and not silica.
- For identification of industry producing silicon dust, silica detection equipment should be provided to factory inspectorate.
- Method 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.

- Apart from survey of workers, in silica producing factories, quarries etc, survey of ex-workers is needed. Actually tracing ex-workers is tricky job because most workers are casual workers and would not be recorded in factory/mines/quarry records. One method could be survey of areas where silicosis have been reported and also of the households of village in which existing workers and ex-workers live.
- 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, etc, record of employment.

Justice Shri B.C. Patel then asked Shri S.A. Azad of PRASAR to give the next presentation. The presentation highlighted the following:

- No compensation given in several cases of silicosis in Andhra Pradesh, Chhattisgarh, Haryana and M.P.
- Need to differentiate between relief and compensation
- NHRC should constitute a team to check on the nil report given by States.
- There is need to impose penalties on negligence shown by employers/officials

- A national registry should be set up at Centre and state level for filing cases.
- There should be a tripartite board at Centre and state level.
- TB should be included as occupational disease.
- We should take it up as a public health issue and it should be taken up at national level.
- Make a national task force for addressing all aspects of silicosis.
- Make a national data bank of all silicosis cases.
- Review of Factories Act, 1948, Contract Labour (Regulation and Abolition) Act 1970 and the Mines Act, 1952.
- Levy a cess on the mine owners and quarry owners to create a corpus to spend on welfare and compensation.

The next presentation was given by Shri Jagdish Patel of Peoples Training & Research Centre, Vadodara, Gujarat. He conveyed the following:

- NHRC recommendations regarding silicosis are a good start. It should lead to serious debate.
- NHRC recommendations need to be further developed. Particularly, they should suggest changes in legal provisions.
- It may further recommend Govt. of India to ratify ILO Convention no. 155 or 177 for the home based workers. That may resolve some of our problems.

- These recommendations, after amendments, should serve as National program for elimination of silicosis. Program should be time bound and have success indicators.
- Government of Gujarat issued notification in November, 2008 to the effect that even if one worker is employed, Factory Act will be applicable. This action needs rethink as it is not practical.
- No action has been taken by Government to identify units and cover them under Factory Act yet.
- Implementation of NHRC order backed by order of the Supreme Court is awaited to pay compensation to 238 confirmed cases of death.
- Govt. of MP has done some relocation of industry from residential area to industrial area successfully. This may be replicated elsewhere.
- No efforts by Govt. of Gujarat for rehabilitation or give relief to the victims. Workers cannot feed their families, let alone their treatment. It is an extremely serious situation.
- ESIC is biggest scheme for social security where workers and employers give major contribution. It is mandatory in notified areas. Godhra is notified area. Selected workers were registered under the Act but were not issued identity card under the Act nor under Factory Act. The numbers of days worked also were shown less so as to save on the amount of contribution. ESI accepted only 4 cases after lot of pressure. Rest were denied on the excuse that they did not work for mandatory 6 months. In 1992, ESIC

resolved to say that work for lesser period also can be entertained but local officers are adamant. High level intervention is required.

- ESIC have no standards to assess disability and panel members decide arbitrarily.
- Gujarat High Court has passed order to the effect that all cases of Silicosis be given 100% disability. ESIC should resolve to make it rule.

The presentation particularly focused on the problems of workers in Gujarat. It was also highlighted that in unorganized sector in Gujarat, the situation was as under:

- No legal protection available.
- Affected families live in extreme penury. They go hungry. Some philanthropic organizations extend some help which is inadequate. Widows, children, elderly get no relief. There is no welfare program, no compensation, no insurance.

In the organized sector, the situation is as under:

- ESI & Factory Act is applicable but situation is still not satisfactory.
- No exemplary punishment to the violators who caused hundreds of deaths.
- Affected families from ST community have received no relief, no compensation. They are compelled to sell land etc.

- The efforts made by the organisation were also highlighted. It was also stated that the provision of notification is in force for last 60 years but has not given us results. Now, we must seriously think of workers not covered by Factory Act. We should also make it mandatory to measure dust levels every 8 hours. Further, there is need to make compulsory to appoint Industrial Hygienists. 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. All states should have Rules on the line of Rajasthan Silicosis Rules. Notification to cover units employing 1 worker is not practical and we need to evolve some other. Disability assessment standards need to be developed.

Some of the limitations stated included:

- When victim does not have adequate financial resources to pay fees to the lawyer, s/he refrain from taking up legal battle. This is particularly true for higher courts.
- At lower level, it is difficult to find competent and experienced lawyer to take up the cause. Recently, after 8 years, MAT dismissed the petition of 30 petitioners because the lawyer made some mistake.
- Legal system is very slow and by the time the case comes for hearing the litigant dies. Since in case of Silicosis life expectance, after diagnosis is very low, system should offer faster justice.

- As regards ESI Act, it is based upon whether one is in insurable employment when diagnosed? If no, not eligible. This may be true for accident but not for disease. This needs change.
- The ESI and EC Act require continuous employment in respective employment for 6 months or as stipulated by the law. 1992 resolution by ESIC has tried to give some relief but wordings are either not clear or misinterpreted by the ESIC officials. No benefit is given under this resolution.
- 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.
- 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.
- In home based and other unorganized sector workers, since employer-employee relationship is not well established, it becomes difficult to locate the person from whom compensation may be claimed.
- Lack of diagnosis (they do not even suspect) by the doctor on paper is an important hindrance in any further action. Government as well as private

practitioners think that they do not have legal 'power' to write on paper what they suspect or what they have diagnosed. In some cases, there is conflict of interest and the doctors choose to be loyal to the employer rather than their profession.

- History of exposure is an important element in diagnosis. Dose of exposure is not known which may determine the expected response. Facilities for specific tests to confirm are also not available. Moreover, knowledge of the doctor on occupational illnesses is poor. There is also, no referral service available in most cases.
- Reliable data is absent. The data available is spread with DISH, ESIS and ESIC, NIOH, Health Department and voluntary agencies. There is need to centralize the data available with them. Data needs to be collected on number of workers in different occupations, number of workers exposed, list and number of workers affected, list and number of workers who have died and number of citizens (community) exposed- After base data collected, the data need to be updated continuously. There is also need to have detailed information on the type of work of the exposed workers, length of exposure, concentration of exposure, total and respirable dust, silica content, age and gender of the workers need to be collected. Map of affected areas may also be drawn and future projections should be made

The next presentation by Shri Samit Kumar Carr, Secretary General, Occupational Safety & Health Association of Jharkhand (OSHAJ) conveyed the following:

- Jharkhand is a mineral bearing State in India.
- History of mining and processing of metallic and non-metallic minerals are 300 years old
- More than 15,000 mines of different minerals, coal, copper, iron, quartz, granite, bauxite and uranium and several thousand related industries are currently operational.
- 10,000- 12,000 stone crushers, 45-50 ramming mass units, 192 iron ore crushers and 50 sponge iron units are there.
- Several thousand-construction sites are there.
- 77 types of production (including construction) units are identified for silica dust emission at workplace.
- Many of these units come under the unorganized sector- in rural and industrial areas of urban localities.
- A conservative estimate shows that 25-30 lakh workers of Jharkhand are affected due to silicosis.
- Pneumoconiosis is a preventable and incurable. Many silicosis victims are diagnosed as TB patients and there is no proper policy to prevent these occupational diseases.

Some facts about silicosis highlighted regarding the situation in Jharkhand were:

- K K Minerals: started in 1998 and run without NOC from JSPCB till 2010, there are many like this unit. 29 workers expired from 2002 to 2010 and several hundred workers are ailing. Average life span of workers of this unit is 33 yrs, prevalence is 100% among the workers engaged as operators in crushing, disintegrating, sieving, packaging loading & unloading for 1 year to 7 years. No health care was provided to them as per Rules. No dust collector was run and no proper safety measures were provided for the occupational safety & health of the workers. No compensation is provided to the kin of the deceased workers as per Rules and no rehabilitation is made available to the silicosis victims. District Commissioner, East Singhbhum never exercised his power to inspect the polluted sites. No proper action was taken by the concerned Government Departments as per the Rules even after being notified by the Civil Surgeon, East Singhbhum in 2005. Silicosis victims belong to ST, SC, MOBC and Minority Communities in Jharkhand. No workers were/are provided gate passes, minimum wages set for industry and mines, PF , other facilities as per the Rules. 2 workers expired in January 2011 and 42 silica dust affected workers are identified, some of them from closed unit and others are from the running unit of sister concern of same company. 3 out of 30 were chosen randomly for X-Ray.

- A group of Jharkhand Government's doctors identified 8 silicosis cases in Jharkhand in 2005 and the same was notified to Deputy Commissioner, East Singhbhum but no action was taken,
- Most doctors diagnosed the silicosis patients as cases of TB, Bronchitis, and issued one line of statement of not having a single case of silicosis in their district, but some of them later accepted that they did not carry out any health survey on silicosis.
- Planning Commission formed working groups for 10th and 11th 5-year plans and a report on OSH Board are hosted in the DGFASLI's website. When OSHAJ expressed willingness to be part of said board, the reply was that no such legislation was made till then to form OSH Board. Death due to mishaps in industry and mines and suffering and death due to different form of pneumoconiosis has become rampant in mining areas of Jharkhand.
- There is non-implementation of Factory Act 1948, Mining Act 1952 and The Workmen Compensation Act 1923 in Jharkhand.
- Denial of the fact of persistence of cases of silicosis in Jharkhand viz. the report Ref. No 225 (III) dt 30.04.2008 submitted to NHRC on 1st May 2008
- False, misleading, contradictory information are being provided to applicants on aforesaid report through RTI process that started in June 2008. Longest RTI process in Jharkhand is going on till today.

- Inputs provided in State Government's affidavit submitted to NHRC is baseless, incorrect, contradictory, irrelevant and was prepared violating the set norms of government protocol
- Not a single case of silicosis is referred to Regional Occupational Health Centre, Kolkata (Regional Centre of NIOH, Govt. of India).
- No response from the Government till end of 2010 to conduct investigation by the NIOH, ROHC, Kolkata, ITRC, Lucknow setting up of ODDC (Occupational Disease Diagnosis Centre) at ESI and Government Hospital and form a committee.

Some positive developments informed were as under:

- The Directorate General Health Services, Government of India has requested to Secretary, Health, Jharkhand Government & Mission Director and National Rural Health Mission to take appropriate action referring to the organizations concrete petition to identify and eliminate silicosis from Jharkhand.
- The office of the Chief Minister of Jharkhand has endorsed the Action Plan on silicosis Identification & Elimination Plan (prepared by OSHAJ) to Secretary Health Education & Family Welfare to take necessary steps.
- A five member separate cell named "Occupational Health Hazards Control Cell is formed" under NRHM. A pilot project in one or two district may be implemented in Jharkhand on identification and elimination of Silicosis for

which Occupational Disease Diagnosis Centre is suggested to be set up in East Singhbhum.

Some recommendations given were as under:

- A joint government committee should be formed under the Chief Secretary of Jharkhand comprising Health, labour and environment department of Jharkhand for continuing pneumoconiosis elimination program smoothly.
- Occupational Safety & Health Board should be formed
- 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 for the doctors on dust diseases as per WHO & ILO standard.
- State government must have a legislation to appoint certified surgeons mandatory by the polluting units or group of small units to certify the cases of dust diseases as and when required.
- Develop link with the Regional Occupational Health Centre Kolkata
- Preparation of statewide inventory of hazardous units and dust affected persons and medical surveillances for the affected persons

- A monitoring committee should be formed comprising public representatives IMA, NGOs, CBOs, Trade Unions and Human Rights groups.
- Setting up of the Occupational Disease Diagnosis Centre (ODDC) at district level ESI, Government hospitals and NRHM centers at different location.
- Collaborate with the NGOs and labour support group to start and run ODDC

In the next presentation made by Mine Labour Protection Campaign (MLPC), Rajasthan, Shri Rana Sengupta stated the following:

- Health camps and legal camps organized by MLPC apart from its outreach campaign
- Rs. 1 lakh interim relief for NOK of 21 victims in Jodhpur
- There is need for stronger collaboration, more timely action involving quicker diagnosis and health check ups.

The next session was chaired by Hon'ble Member, Shri P.C. Sharma during which organizations coming under the Ministry of Labour & Employment and M/o Health & family welfare were called upon to give their presentations. A short film on silicosis was also shown by Directorate General Factory Advice Service and Labour Institutes (DGFASLI), Mumbai. This film highlighted the plight of the workers suffering from the lethal disease and the problems faced by their families. In their presentation, the following aspects were covered:

- Main activities of the organization
- Important aspects of Factories Act, 1948
- Action plan on the recommendations of NHRC on silicosis including amendments to the Schedule XIII of MFR 120, approaching NIOH for obtaining the dust control devices samples for evaluation, suitability etc., publicity campaign, etc.

DG FASLI, Ministry of Labour and Employment, stated that he has written to all the State Governments to report the silicosis cases. They have given Nil report in the last three years. He stated that a Medical practitioner under Section 89 should report to the Chief Inspectors of the Factories. He suggested conducting awareness programmes for medical practitioners to diagnose silicosis.

He requested the State Government representatives if the doctors are not able to diagnose whether it is a case of silicosis or tuberculosis they can send the x-rays reports/x-rays to their office. They will diagnose the case and send the report immediately.

Dr. Waghle stated that if all the workers migrating from one State to Other state could be given identity cards through Central Monitoring System it will be 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.

Dr D. Behera, Director, LRS Institute of Tuberculosis and Respiratory Diseases, New Delhi representing the Ministry of Health & Family welfare in his

presentation highlighted the following:

➤ **Three types of silicosis:**

- Simple chronic silicosis From long-term exposure (10-20 years) to low amounts of silica dust. Nodules of chronic inflammation and scarring, provoked by the silica dust, form in the lungs and chest lymph nodes. Patients often asymptomatic, seen for other reasons.
- Accelerated silicosis (= PMF, progressive massive fibrosis) Occurs after exposure to larger amounts of silica over a shorter period of time (5-10 years). Inflammation, scarring, and symptoms progress faster in accelerated silicosis than in simple silicosis. Patients have symptoms, especially shortness of breath.
- Acute silicosis From short-term exposure to very large amounts of silica dust. The lungs become very inflamed, causing severe shortness of breath and low blood oxygen level. Killed hundreds of workers during Hawk's Nest Tunnel construction early 1930s.

➤ **Diagnosis of silicosis involves:**

- Abnormal chest X-ray (or chest CT scan) consistent with silicosis
- History of *significant* exposure to silica dust
- Medical evaluation to exclude other possible causes of abnormal chest x-ray
- Pulmonary function tests are helpful to gauge severity of impairment, but NOT for diagnosis.

- Lung biopsy rarely indicated (since no effective treatment, biopsy is done only when other diagnoses are being considered)
- Silicosis can mimic:
 - ◆ Sarcoidosis (benign inflammation of unknown cause)
 - ◆ Idiopathic pulmonary fibrosis (lung scarring of unknown cause)
 - ◆ Lung cancer
- Several other lung conditions (chronic infection, collagen-vascular disease, etc.)
- Can usually make right diagnosis with detailed history (occupational & medical) or, rarely, a lung biopsy.

➤ **Silicosis associated risks:**

- Tuberculosis
- Atypical Mycobacteria
- Fungal infections
- Bronchitis/Emphysema
- Pneumothorax
- lung cancer
- Degree of increased risk is highly variable; depends on several other factors, including immune system & exposure history (for TB), and amount of lung scarring, age & smoking history (for cancer).

➤ **Silicosis Management :**

- No specific treatment
- Prevention/Early diagnosis

- Symptomatic/Supportive
- Infections (Tb etc)
- Respiratory Failure
- Rehabilitation
- **Silicosis Screening through:**
 - Mass awareness (Organized/Unorganized Sector)
 - Occupational history
 - Symptoms
 - Pulmonary Function Tests
 - Chest Radiology
 - Medical curriculum - MCI
 - RNTCP- Special risk group
- **Silicosis prevention through:**
 - Engineering Control of Dust
 - Training on crystalline silica
 - Respiratory protection program
 - Work clothes, change and wash area
 - Air monitoring program
 - Medical surveillance
 - Housekeeping and Regulated Areas
 - Recordkeeping

The next presentation was made by Dr. Umesh Chandra Ojha from ESIC Hospital, Basaidarapur, New Delhi. He explained the activities of the ESI Corporation and the ESI scheme. He underlined the occupations which are at risk of contracting silicosis like quarrying, drilling, tunneling, abrasive blasting, stone cutters, pottery cutters etc. He also mentioned about the forms of silicosis as under :

- i) Chronic Silicosis – latency of 10 to 15 years after exposure
- ii) Accelerated silicosis – 5 to 10 years after exposure
- iii) Either of these may be simple or complicated pneumoconiosis
- iv) Acute silicosis – months to 5 years.

According to him, acute, chronic and accelerated silicosis may overlap in the same individual, patient or worker at the time of diagnosis. Silicosis is difficult to prevent since it is ubiquitous and it takes only a small chronic exposure to cause disease. He further stated that the dust control is the secret or the vaccine for controlling or eliminating acute and accelerated silicosis. Systemic steroids have been used and lung transplantation can also be considered. He explained the definition of occupational disease and that the ESI Corporation has set up five zonal occupational disease centres with a view to providing facilities for early detection and diagnosis of occupational diseases among ESI beneficiaries. He stressed upon deterrence and prevention and stated that monitoring of air quality and dust concentration in the workplace is essential to prevent silicosis and other pneumoconiosis. He emphasized that over the past four decades, the number of people dying with silicosis in the United States has declined dramatically because

of improved workplace protection, but it still accounts for potential life lost before age 65 years. 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.

Another presentation was given by Dr. Nag, Director, NIOH. He has stated that his organization can provide some publicity material to educate the employers/labourers. He said that there are 101 illustrations in different languages to see how we can manage the disease. Further, according to him, a diagnostic manual, narrating how silicosis can be diagnosed and what are the characteristics of the disease along with several examples is available with the NIOH.

He stated that there is no data available today about the cases of silicosis cases. He suggested all the State Governments to send the cases of silicosis to the NIOH for better approach for awarding compensation.

In the end, the proceedings of the day-long National Conference were summed up in brief by Joint Secretary (Trg.). He also thanked the Hon'ble Chairperson and Members, NHRC as well as all the participants representing the concerned Central Government Ministries, State/UT Governments and NGOs.

The important decisions and suggestions emanating from the Conference are listed below

- 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.
