

National Conference on Silicosis

25th July 2014

MANAGEMENT OF SILICOSIS: BEST PRACTICES

Samit Kumar Carr, Secretary General

**Occupational Safety & Health Association of Jharkhand
(OSHAJ)**

&

National Convener (Jharkhand Chapter)

**Rising Occupational Safety & Health Network of India
(ROSHNI)**

Sincere thanks to

NATIONAL HUMAN RIGHTS
COMMISSION OF INDIA

For awarding compensation to
the kin of dead SILICOSIS VICTIMS of
MUSABONI, EAST SINGHBHUM

Silicosis affected Families of Musaboni

&

Occupational Safety & Health Association of Jharkhand

25-07-2014

MINERAL DEPOSITS IN JHARKHAND

Jharkhand possesses a large reserve of mineral wealth: hematite, coal, uranium, copper ore, bauxite, mica, graphite, kainite, sillimanite, limestone, asbestos, quartz, granite, vanadium, dolomite, china clay, etc.

Economy of Jharkhand is based upon large mining, mineral processing, metal manufacturing, cement and electrical energy producing industries.



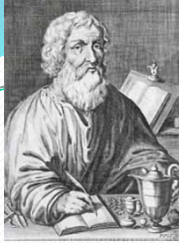
MINERAL BASED INDUSTRIES IN JHARKHAND

- 16000 mines, coal washeries, power plants , iron & steel plants, cement plants, alumina, copper smelters and uranium processing units, refractory and factories, including:
- 14000 /15000 stone quarries & crushers,
- 60 ramming mass (quartz grinding) units,
- 192 iron ore crushers,
- 40 sponge iron units,
- Several thousands building and road construction sites are also active.

IMPACTS OF UNSAFE MINING & MINERAL PROCESSING

THE IMPACTS ARE INTERRELATED TO:

- **Governance:** Non-functioning of govt. regulatory agencies and administration cause dust/environmental pollution at work place.
- **Environment:** Dust /environmental pollution from various sources at work place causes silicosis and other forms pneumoconiosis.
- **Health & Life:** Impacts on workers' health due to Silicosis leading to
 - Early separation from job,
 - Death at premature age,
 - Children and families socially and economically unsecured.
- **Socio-economic issues:** Children and women become most vulnerable,
 - Children stop education, become child labour, get married during childhood,
 - Women become domestic aid and construction workers and in some cases they have to leave in-law's house.



SILICOSIS /PNEUMOCONIOSIS

- **Silicosis** is the oldest occupational lung disease caused by the long-term inhaling of silica dust. The father of medicine, Hippocrates, diagnosed silicosis in 430 BC. The symptoms of silicosis and other dust related diseases are quite similar. Pneumoconiosis includes other dust-related diseases that have widespread incidence in mining areas.

Source /Dust	Pneumoconiosis /Occupational Lung Diseases
Silica	Silicosis
Iron Dust	Siderosis
Asbestos	Asbestosis
Coal	Coal Worker Pneumoconiosis
Beryllium	Berylliosis
Strontium	Strontiosis



ILO & WHO ON OCCUPATIONAL LUNG DISEASES

GLOBAL & NATIONAL SCENARIOS

ILO report reveals:

- 2.02 million out of the 2.34 million die every year from wide range of work-related diseases .
- 6,300 work-related deaths happen everyday
- 5,500 workers die everyday due to work-related diseases.
- 160 million cases of non-fatal work-related diseases occur annually.

The figures of ILO are most conservative ones as cases of silicosis are either not reported or underreported from underdeveloped/most of the third world countries.

SILICOSIS PREVALENCE RATE AMONG THE WORKERS IN INDIA

- ILO: In India, about "10 million workers employed in mining, construction and various industries are exposed to silica dusts"
- **Silicosis prevalence rate among the workers in India :**
 - Slate Pencil 54.7%
 - Ceramic 15.1%
 - Agate Grinding 29.1%
 - Stone Cutting 19.1%
 - Quartz Grinding 41.7%

OSHAJ ESTIMATES:

- **50-55% out of 123.63 Lakh workers exposed to silica dust since 2001 to 2011 in Jharkhand.**
 - Conclusion: 25-30 lakh workers suffering from Silicosis/ pneumoconiosis in Jharkhand ,therefore 5-6 million children are affected and similar situation persist in other mineral bearing states of India

BEST PRACTICES

TOWARDS SILICOSIS IDENTIFICATION & CONTROL

- Community & RTI Initiatives
- Knowledge Sharing Programmes
- OSH Victims Services-Identification, Counseling, Relief and Children Support Programme
- Stakeholders Sensitization
- Formation of JOSH Cell by the Govt. of Jharkhand
- Formulation of State Rule to bring all the silica dust generating units under 'Hazardous Process'
- Developing of 'Jharkhand State Action Plan For Prevention & Mitigation of Silicosis' by the Govt.
- Advocacy Initiatives
- Networking

COMMUNITY & RTI INITIATIVES

COMMUNITY INITIATIVES

- Village /Panchayat /Block level consultations
- Silicosis affected workers & families' gathering mass deputations, public seminar
- Filing petitions to the concerned departments for compensation & rehabilitation
- Linking with the govt. offices for access to social security through govt. schemes

RTI INITIATIVES

- Eight RTI petitions were filed regarding:
 1. Whether health survey on silicosis conducted by govt. of Jharkhand
 2. No. of factories and level of dust concentration at different stone, iron ore and quartz crushers, etc.
 3. Policy and legal definition of org. and unorganised sectors
 4. No. of certifying surgeons and factory inspectors are posted
 5. No. of units registered under Factories Act 1948 and ESI Act 1948 in Jharkhand.

AWARENESS RAISING PROGRAMME

OSH/SILICOSIS CAMPAIGN IN JHARKHAND, WB & ORISSA



सिलिकोसिस: पेशागत फेफड़े की बीमारी सिलिकोसिस एक घातक लाईलाज फेफड़े की बीमारी है, जो स्वाँस लेते समय हवा में मिश्रित क्रिस्टलाइन सिलिका एवं ग्रेनाइट धूलकण फेफड़े में जम जाने के कारण होती है। चिकित्सा के उपाय भी सीमित हैं। ऐसे में धूल उत्सर्जन एवं धूलकणों पर नियंत्रण रखकर ही इस खतरे से बचाव के उपाय किये जा सकते हैं।

पेशागत जोखिम

बीमारी के लक्षण

- > स्वाँस लेने में तकलीफ
- > बुखार
- > ओठ और कान के नीचे में नीलापन होना

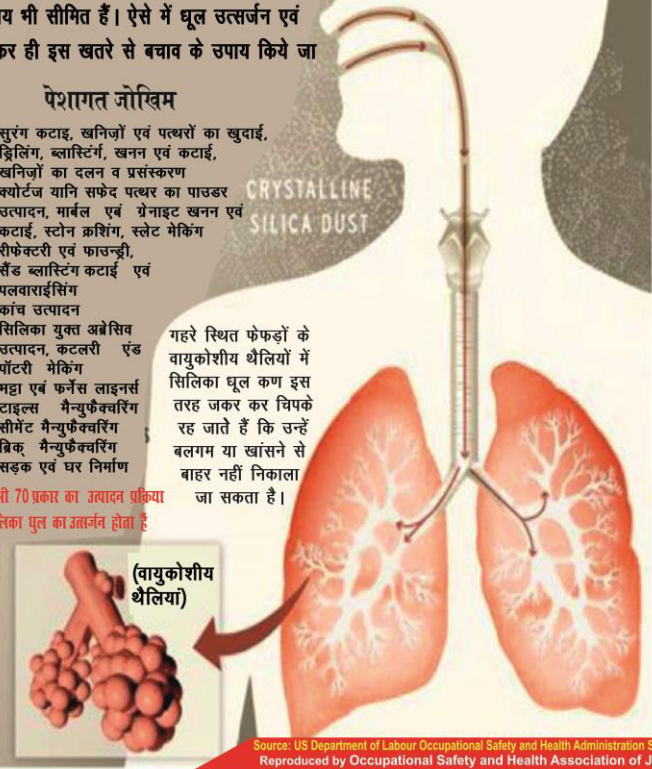
लगातार बढ़ने वाली बीमारी

- > थकावट
- > सर्वाधिक स्वाँस की तकलीफ
- > भूख नहीं लगना
- > सीने में दर्द
- > स्वाँस रुक जाना

सुरंग कटाई, खनिजों एवं पत्थरों का खुदाई, ड्रिलिंग, ब्लास्टिंग, खनन एवं कटाई, खनिजों का दलन व प्रसंस्करण क्वार्ट्ज यानि सफेद पत्थर का पाउडर उत्पादन, मार्बल एवं ग्रेनाइट खनन एवं कटाई, स्टोन क्रशिंग, स्लेट मेकिंग रीफेक्टरी एवं फाउन्ड्री, सैंड ब्लास्टिंग कटाई एवं पलवार्राईसिंग कांच उत्पादन सिलिका युक्त अत्रेसिव उत्पादन, कटलरी एंड पॉटरी मेकिंग भट्टा एवं फर्नेस लाइनर्स टाइल्स मैनुफैक्चरिंग सीमेंट मैनुफैक्चरिंग ब्रिक् मैनुफैक्चरिंग सड़क एवं घर निर्माण

इसी तरह और भी 70 प्रकार का उत्पादन प्रक्रिया है जहाँ सिलिका धूल का उत्सर्जन होता है

स्वाँस के साथ धूल खींचने की वजह से फेफड़ों में निशान युक्त मांस-तंतु पैदा होने के कारण हवा से ऑक्सीजन को सोखने (निकालने) की क्षमता कम (क्षीण) होती जाती है।



OSH VICTIMS SERVICES- IDENTIFICATION COUNSELING & RELIEF PROGRAMME

- **Documentation** of Occupational & Clinical Histories of the Workers
- **Counseling of** dust affected workers not to work in hazardous sites
- Books, clothes, exam & tuition fees are provided to selected children appearing Jharkhand Board Exam
- An aspirant is facilitated to pass ISc and to join the BSc Nursing Course this year

Silicosis Identification by Dr. Kunal Kr. Datta and Dr. Tapan Kr. Mohanty at medical camp organised by OSHAJ



STAKEHOLDERS SENSITIZATION

Ex-Chief Minister
Jharkhand Honb'le
Mr Arjun Munda
approved and issued
order on 24.11.2010
to implement Silicosis
Identification &
Elimination Plan as
developed by OSHAJ

संजय बसु

मुख्यमंत्री के आम सचिव
झारखण्ड, राँची

अ0सं0 पत्र सं0...../मु0म0सं0

दिनांक

महोदय,

माननीय मुख्यमंत्री, झारखंड को सम्बोधित श्री संमीत कुमार कार, महासचिव,
Occupational Safety & Health Association of Jharkhand, Shatabdi, Sonari,
Jamshedpur द्वारा प्राप्त आवेदन पत्र जो सिलिकॉसिस बीमारी का चिन्हीकरण एवं
इसके उन्मूलन कार्यक्रम से संबंधित है, मूलरूप में संलग्न है।

निदेशानुसार आग्रह है कि आवेदन पत्र में वर्णित तथ्यों के आलोक में आवश्यक
कार्रवाई करने की कृपा की जाय।

सादर!

भवदीय
ह0/-
(संजय बसु)

सेवा में,

सचिव,
स्वास्थ्य चिकित्सा शिक्षा एवं परिवार कल्याण विभाग,
झारखण्ड, राँची।

ज्ञापक...73006324/म. / मु0म0सं0

दिनांक. 24/11/2010

प्रतिनिधि:- श्री संमीत कुमार कार, महासचिव, Occupational Safety & Health
Association of Jharkhand Shatabdi, Sonari, Jamshedpur को सूचनार्थ प्रेषित।

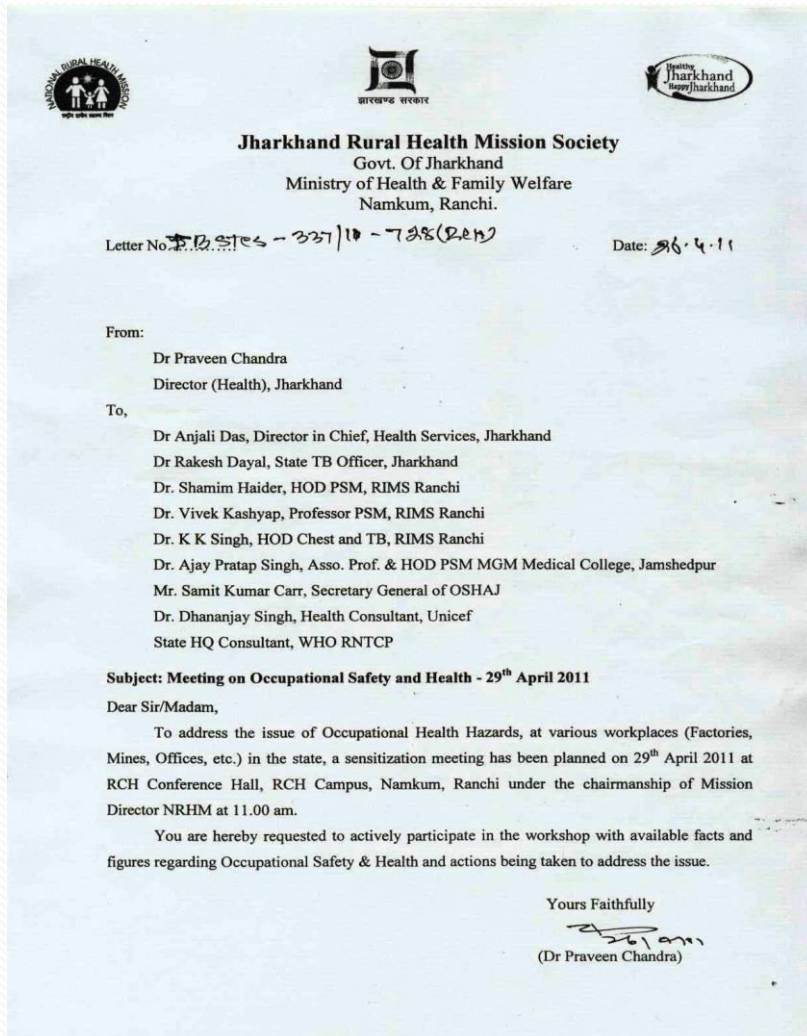
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(संजय बसु)

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SENSITIZATION MEETINGS/WORKSHOPS

Sensitization meetings were also held on 6.01.2011, 24.11.2011 & 28.04.2012

Representatives of WHO, UNICEF, OSHAJ and officers of mines, departments of labour, health and SPCB are the part of the process



Sensitization Meeting on Occupational Safety and Health, Jharkhand
RCH Conference Hall
29th April 2011




Agenda		
1100	Welcome address	Dr Praveen Chandra (Director, Health-NRHM, Jharkhand)
1110	Keynotes and Objectives	Mrs. Aradhana Patnaik (MD-NRHM, Jharkhand)
1130	Introduction to Occupational Safety and Health	Dr. Rakesh Dayal (State TB Officer, Jharkhand)
1200	Legislative aspects of Occupational Safety and Health	Dr Syed Imran Farooq (WHO-RNTCP Consultant -HQ, Jharkhand)
1230	Prevention of Occupational diseases	Dr Shamim Haider, HOD Department of PSM, RIMS, Ranchi
1300	Overview of Occupational Health Hazards in Jharkhand	Mr. Samit Kumar Carr (Secretary General, OSHAJ)
1330	Lunch	
1415	Open House	
1500	Road Ahead.....>>>>	
1545	Conclusive remarks	Mrs. Aradhana Patnaik (MD NRHM, Jharkhand)
1600	Vote of thanks	Dr Anjali Das (Director in chief, Health Services, Jharkhand)

OSH INITIATIVE BY GOVT. OF JHARKHAND

JOSH CELL was formed by the Govt. of Jharkhand on 18.06.2011 headed by the Ex-MD, NRHM & Labour Commissioner, Jharkhand

WHO UNICEF & OSHAJ are also part of the cell.

Cell is defunct at present

झारखण्ड ग्रामीण स्वास्थ्य मिशन समिति
स्वास्थ्य एवं परिवार कल्याण विभाग

पत्रांक TB/STCS-337/2010-7.8.(HSH) दिनांक 18.6.2011

कार्यालय आदेश

राज्य स्तर पर Occupational Health Hazard के रोकथाम एवं निदान हेतु राष्ट्रीय ग्रामीण स्वास्थ्य मिशन समिति झारखण्ड के अंतर्गत Jharkhand Occupational Safety and Health Cell का गठन किया जाता है। अभियान निदेशक, एन.आर. एच. एम. की अध्यक्षता में गठित Cell में निम्नलिखित पदाधिकारियों को सदस्य के रूप में मनोनीत किया जाता है।

1. आराधना पटनायक, भा0 प्र0 से0 अभियान निदेशक, एन.आर.एच.एम., झारखण्ड	-	अध्यक्ष
2. डा0 प्रवीण चन्द्र, निदेशक स्वास्थ्य सेवाएँ,	-	उपाध्यक्ष
3. डा0 राकेश बयाल, राज्य यक्ष्मा पदाधिकारी, झारखण्ड	-	सदस्य सचिव
4. डा0 शमीम हैदर, विभागाध्यक्ष पी.एस.एम., रिम्स, रांची	-	सदस्य
5. डा0 विवेक कश्यप, प्रोफेसर पी.एस.एम., रिम्स, रांची	-	सदस्य
6. डा0 के0 के0 सिंह, विभागाध्यक्ष, टीबी एवं छाती रोग, रिम्स, रांची	-	सदस्य
7. डा0 अजय प्रताप सिंह, सह प्राध्यापक, पी.एस.एम., एम.जी.एम., जमशेदपुर	-	सदस्य
8. सुमित कुमार कार, महासचिव OSHAJ	-	सदस्य
9. डा0 धनंजय सिंह, स्वा0 परामर्शी UNICEF	-	सदस्य
10. डा0 सैयद इमरान फारुक, राज्य मुख्यालय परामर्शी आर.एन.टी.सी.पी., WHO	-	सदस्य
11. गैर सरकारी संस्था/सिविल सोसाइटी के एक प्रतिनिधि जो Occupational Health में काम कर रहे हों	-	सदस्य

मनोनीत सदस्य कोषांग के अंतर्गत नियमित रूप से संबंधित कार्यों का संपादन करेंगे।

यह आदेश तत्काल प्रभाव से लागू रहेगा।

ज्ञापक 7.8.(HSH) दिनांक 18.6.2011.

प्रतिलिपि:- 1. निदेशक प्रमुख, स्वा0 सेवाएँ, झारखण्ड को सूचनार्थ।
2. संबंधित पदाधिकारियों को सूचनार्थ प्रेषित।

(18.6.11.)
(ए0 के0 सरकार)
अपर मुख्य सचिव

(18.6.11.)
(ए0 के0 सरकार)
अपर मुख्य सचिव

GOVERNMENT'S INITIATIVES

- Govt. of Jharkhand formulated State Rule as per Factories Act 1948 on 10.07.2012 to bring quartz and other silica dust generating units under hazardous process.
- Govt. of Jharkhand developed State Action Plan for Prevention and Mitigation of Silicosis on 27.07.2012. But postmortem clause was added in the state action plan that goes against the labour related rules and regulations.
- Govt. doctors of Jharkhand had conducted improper way of medical investigation till May 2014 but finally medical investigation of workers properly done in June 2014.
- Govt. of West Bengal also developed Silicosis Control Programme after OSHAJ & NHRC's interventions

BEST PRACTICES

IDENTIFYING INCORRECT RECOMMENDATIONS

Silicosis Control Programme through Revised National Tuberculosis Control Programme(RNTCP) is incorrect:

1. RNTCP is a project based government programme.
2. TB is **communicable** and **curable** disease while silicosis is **non communicable** and **incurable** disease.
3. Most of the RNTCP centers do not have chest X-Ray and lung function test arrangements.
4. Most of the RNTCP centers do not have experienced doctors on dust diseases.
5. RNTCP centers (DOT) failed to detect silicosis cases in Jharkhand, West Bengal and Orissa.
6. We could raise demand of silicosis control programme that will not appear as constraint before RNTCP.

BEST PRACTICES

IDENTIFYING INCORRECT & CONTRADICTIONARY NOTIONS

RAJYA SWASTH BIMA YOJNA

- Amount fixed under RSBY can not serve the purpose of treatment of silicosis affected workers

ERRONEOUS SILICOSIS CONFIRMATION METHOD DEVELOPED BY GOVT. of JKD

- Postmortem
- Lung Biopsy
- High Resolution Computerized Tomography (Scanning)

For denying to pay compensation

- Irrational mindset constraints to identify silicosis cases.
- Access to medical report is still difficult for affected workers.

UNORGANISED SECTORS

- There is no legal definition of Unorganised Sectors as per RTI Information of Directorate General Mines Safety , Govt. of Jharkhand.
- Labour related Acts & rules are not applicable for unorg. Sectors
- **CONTRADICTIONARY POSITIONS:**
 - Ministry of Labour & Employment GoI considers quartz grinding, stone crushers and slate pencil units belong to unorganised sectors
 - DGFASLI considers all these belong to organised sectors

BEST PRACTICES

RAISING CORRECT DEMANDS

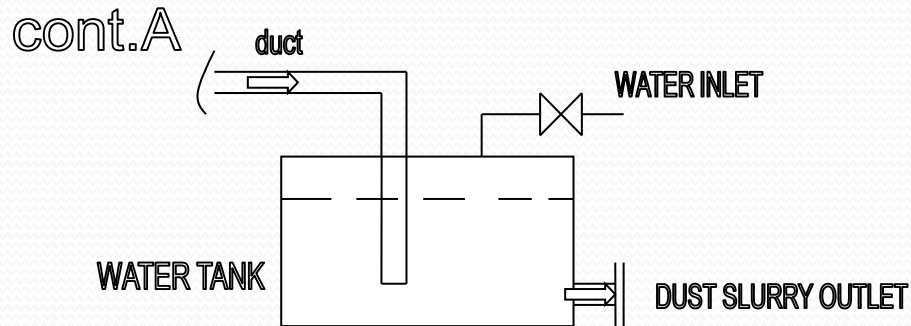
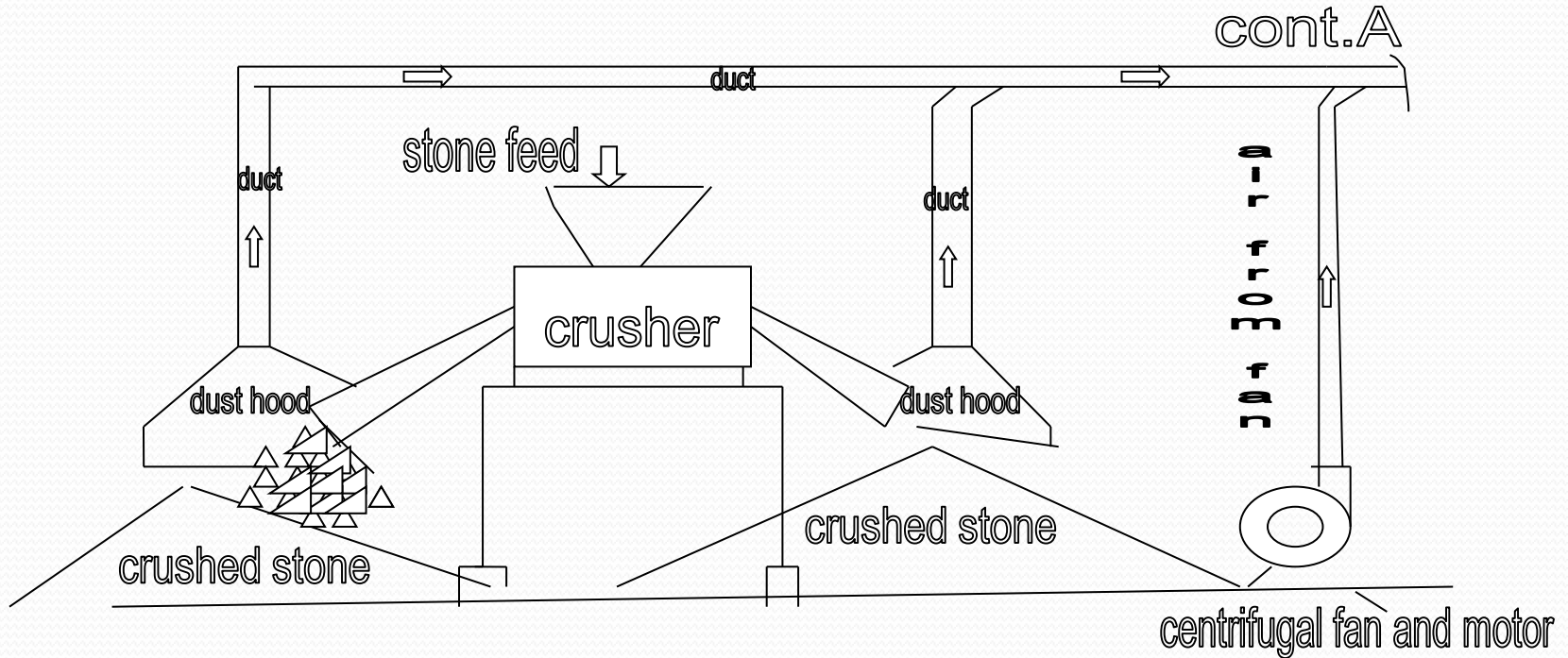
Compensation should be paid to the kin of workers who do not have medical records

- This group belonged to same epidemiological cohort out of which some do not have medical records.
- Government regulatory agencies and district administration did not ensure work place safety by checking environmental pollution and routine medical check up as per law.
- As the govt. departments failed to protect the lives and to keep medical records of the workers, therefore, same amount of compensation should be paid to the kin of the workers who do not have medical records .

Recommendation to implement The Workmen Compensation Act 1923 /ESI ACT 1948

- Vienna Declaration 1993 considers Work Place Safety & Social Security as issues of HR as right to life is one of its important aspects.
- But recommendations for compensation may be awarded according to WC & ESI Acts.
- Supreme court ordered on 26.11.1996 to implement WC Act 1923 while the unit was not even registered under Directorate of Factories.

DESIGNING OF LOW COST DUST COLLECTORS FOR STONE CRUSHERS BY OSHAJ



CONCLUSION & RECOMMENDATIONS I

- Pneumoconiosis board should be formed or reactivated in all the states and union territory of India.
- Occupational Disease Detection Center (ODDC) should be opened in every district level government and ESI hospitals.
- A national policy and programme should be designed for identification, control and elimination of silicosis & other occupational lung diseases and to work jointly with ILO & WHO.
- OSH should be viewed as a fundamental right in the Constitution of India.
- Government of India should ratify recommendations of ILO's Conventions on Occupational Safety & Health (convention nos. 139, 155, 161, 162, 176, 184 and 187).

CONCLUSION & RECOMMENDATIONS II

- NHRC should declare award of compensation for the kin of the workers who does not have medical records as proof of silicosis or may think for a legal step to implement Supreme Court order of November 1996 if necessary.
- Government should formulate policy and definition that differentiate between organized and undefined sectors and lists of industries/units to be prepared accordingly. Also a status list of the specific industries and mines come under the purview of Factories Act 1948/ESI Act 1948/ Mining Act 1952 should be prepared by the government.
- Decision of Ministry of Labour & Employment on August 2011 that changed status of some factories from organized to unorganized sectors should be amended.
- Experts from Eastern Region to be included in experts committee from Jharkhand, Orissa, West Bengal, Bihar, Chattisgarh, Assam and North Eastern States.



Thank you
JOHAR