



Silicosis and Mining Safety

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Saharia tribe miners in Madhya Pradesh have appealed to the government to treat them for silicosis rather than **Tuberculosis**.

- Recently the **sandstone mining industry in Rajasthan** also demanded modernization of working conditions in mining and quarrying areas.
- Silicosis is more **prevalent among miners** who are exposed to dust containing **crystallized silica** which turns quarrying and mining villages into “**widow villages**”.
- Maximum miners in these states **do not have any identity proof** and **cannot make a thumb impression** on government documents since **their fingerprints have faded**.

Silicosis

- Silicosis is one of the most **prevalent occupational health illnesses** in the world.
- It is a **progressive lung disease** caused by **inhalation of silica** over a long period of time.
- Silicosis is characterized by shortness of breath, cough, fever and bluish skin.
- Silicosis is an **incurable condition** with its **potential to cause permanent physical disability**.
- Silicosis occurs most commonly in people working in the quarrying, manufacturing, and building construction industries.
 - **Silica (SiO₂/silicon dioxide)** is a **crystal-like mineral** found in abundance in sand, rock, and quartz.
- It is also reported from the population with non-occupational exposure to silica dust from industrial as well as nonindustrial sources.
- Exposure to large amounts of free silica **may not be noticed** because **silica is odourless, non-irritant and does not cause any immediate health effects**, but long-term exposure is associated with pneumoconiosis, lung cancer, pulmonary tuberculosis, and other lung diseases.

- **Diagnosis is a challenge** because it is difficult to even find out **if a person has tuberculosis or silicosis**.

The nodules that collect to form a mass can take up to **20 years to be identified in chest x-rays** and the victim notices symptoms only after many years of exposure to silica.

- Steps taken by Government of India to **reduce and to prevent incidents of Silicosis include:**

- In India, more than **10 million workers are at risk of silicosis** and thus it is recognized as occupational diseases by the **Factories Act and Employees Compensation Act**, which mandates employers must pay compensation to workers who are afflicted.

In India silicosis is prevalent in Gujarat, Rajasthan, Pondicherry, Haryana, Uttar Pradesh, Bihar, Chhattisgarh, Jharkhand, Orissa and West Bengal among the workers of construction and mining.

- **Factory Act of India (1948)** mandates a well-ventilated working environment, provisions for protection from dust, reduction of overcrowding and provision of basic occupational health care.
- Silicosis is a **notified disease** under the **Mines Act (1952) and the Factories Act (1948)**.

Saharia Tribe

- Most of the **Saharia (or Sor) of India** live in the state of **Madhya Pradesh**. But also found Odisha, Andhra Pradesh, Bihar, Tamil Nadu, West Bengal, Rajasthan and the Plains division of Assam.
- They speak the **Munda language** that belongs to the **Austro-Asiatic language** family.
- The Saharia tribe is divided based on occupation into **five sub-tribes:**
 - The **Arsi** are weavers.
 - The **Muli** are ironworkers.
 - The **Kindal** are basket makers.
 - The **Kumbi** are potters.

Source: IE