

## Chapter 11:

# Deplorable Cost of Corporate Greed: A Study of The Asbestos Industry In India

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## Background

The history of asbestos usage goes back to the 1800s but the business of manufacturing asbestos products in India was started in 1934 when the first plant was established in Kymore, Madhya Pradesh. The industry later expanded with the establishment of factories at Mulund (Mumbai) in 1937, Calcutta in October 1938 and Podanur near Coimbatore in Tamil Nadu in 1953 by a British company called Turner and Newall. Following this, many factories came up across the country. Asbestos, which was considered a ‘*mirakel*’ mineral, started being mined in the states of Rajasthan, Karnataka, Jharkhand, Andhra Pradesh and Odisha.

‘Asbestos’ is a term encompassing various naturally occurring fibrous silicate minerals— Actinolite, Tremolite, Crocidolite, Anthophyllite, Amosite and Chrysotile. Asbestos was once used widely in the production of many industrial and household products because of its useful properties, including fire retardation, electrical and thermal insulation, chemical and thermal stability, and high tensile strength. However, the imports of crocidolite, actinolite, anthophyllite, amosite and tremolite are restricted in terms of Interim Prior Informed Consent (PIC) Procedure of Rotterdam Convention for Hazardous Chemicals and Pesticides.<sup>iii</sup>

In 1986, the government restricted the expansion of existing asbestos mines in India citing health impacts. In 1993, mining of asbestos was banned by restricting permission for any fresh grant or for renewal of mining lease. However, there was no ban on the use, manufacture, export, and import of chrysotile (known as white asbestos). Further, despite the ban on mining, several mines

in Andhra Pradesh continued production, as reported in all official documents of the Mines Department. Some mines in Rajasthan, where asbestos was present as an associate mineral, also continued production by removing reference to asbestos from the Mineral Lease of the mine.

In October 2015, on the basis of a statement made by the Rajasthan and Jharkhand governments, the National Green Tribunal (NGT) passed an order in the matter of Environics Trust versus Union of India and Others<sup>iv</sup> that all the asbestos mines have been closed down and abandoned. Having noted the failure of mine owners to submit final closure plans (as per Indian Bureau of Mines Guidelines of Mine Closure Plan<sup>v</sup>), the NGT directed the states of Rajasthan, Karnataka, Jharkhand and Andhra Pradesh to conduct surveys and ensure scientific closure of the mines and restoration of the environment. Meanwhile, the implementation of the order for restitution of the sites is still underway and being monitored by the NGT in the matter of Kalyan Bansingh & Others Vs HIL Ltd. & Others<sup>vi</sup>.

Despite the ban on mining, to meet industry requirements in India, asbestos continues to be imported in large quantities. India’s asbestos requirement is met through imports from Russia, Kazakhstan, Brazil and China.<sup>vii</sup> As per the IBM mineral yearbook 2017 on Asbestos, in 2015, India imported over 370,000 tonnes of asbestos, with the trade value totalling over \$239 million. This represents over 57 per cent of the share of total imports of asbestos worldwide. Imports were mainly from Russia (60 per cent), Kazakhstan (26 per cent) and Brazil (14 per cent). Chrysotile asbestos fibres make up a majority of these

imports.<sup>viii</sup> However, the Ministry of Commerce data indicates fluctuations in the quantity of import and a decline between 2015 and 2017. (See Table 1). India also exports the Asbestos Containing Materials to USA (27 per cent), Egypt (7 per cent), UAE (6 per cent), Saudi Arabia & Poland (4 per cent each) and Sri Lanka (3 per cent).<sup>ix</sup>

Over 90 per cent of asbestos-fibre produced today is Chrysotile.<sup>x</sup> The range of applications in which asbestos has been used includes: roofing, thermal and electrical insulation, cement pipe and

sheets, flooring, gaskets, friction materials (e.g. brake pads and shoes), coating and compounds, plastics, textiles, paper, mastics, thread, fibre jointing, and millboard.<sup>xi</sup> Asbestos is used as a loose fibrous mixture, bonded with other materials (e.g. Portland cement, plastics and resins), or woven as a textile.<sup>xii xiii</sup> Other products still being manufactured with asbestos content include vehicle brake and clutch pads, roofing, and gaskets. More than 90 per cent of all the production is used in commercial applications and these products are also being used as low-cost building materials.<sup>xiv</sup>

Table 1 - Import Data of Raw Fibre of Asbestos in India

IMPORT DATA OF RAW FIBRE OF ASBESTOS IN INDIA MINISTRY OF COMMERCE, GOVERNMENT OF INDIA, DECEMBER 2018						
YEAR	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
AMOUNT (IN LACS)	1,19,917.39	1,90,040.33	1,32,989.87	1,71,681.05	1,48,655.11	1,12,793.70
QUANTITY (THOUSAND KG)	3,76,593.72	4,58,301.94	2,82,357.38	3,96,257.56	3,52,586.88	3,09,447.75

## Asbestos and its health hazards

Asbestos has been recognized as a health hazard and the cause<sup>xv</sup> of various diseases and cancers<sup>xvi</sup> and is considered a health hazard if inhaled.<sup>xvii</sup> Today, several academic as well as international research institutions have scientifically proven the cause-effect relationship between asbestos, including the still-in-use chrysotile, and cancer. The current global estimate of the annual death toll from asbestos is 2,55,000<sup>xviii</sup>, resulting from occupational and environmental asbestos exposure. The International Agency for Research on Cancer (IARC) classifies all forms of asbestos as carcinogenic to humans (Group 1). In humans, there is convincing evidence that asbestos causes mesothelioma (a cancer of the pleural and peritoneal linings); and lung, larynx and ovarian cancer. There are also positive associations between asbestos exposure and pharynx, stomach and colorectal cancer (IARC, 2012).

The science on the risk of developing human disease (e.g. different types of cancer and chronic lung disease) following exposure to any form of

asbestos is unequivocal. Even a basic appraisal of the most recent primary scientific literature confirms the overwhelming evidence that all forms of asbestos are a major health concern, causing devastating disease on a global scale<sup>xix</sup>, from historic as well as current exposures in the workplace and in non-occupational settings. No new research is needed to prove causation between asbestos and asbestos-related diseases. Differences in the relative potency of the different forms of asbestos to cause disease is not relevant – they all cause disease. Furthermore, differences in lung bio-persistence of different forms of asbestos are not relevant. It is well established that accumulation of asbestos fibres, in particular Chrysotile fibres, in pleural tissue (the lung lining), not lung tissue, causes mesothelioma (e.g. Suzuki and Yuen, 2006; Kohyama and Suzuki, 1991). As there is no known level of exposure that would prevent the likelihood of asbestos-related diseases occurring, the risk to human health now and in the future when the asbestos is disturbed or deteriorates is

unacceptable.

Mesothelioma is a type of cancer with a long gestation period<sup>xx</sup> following initial asbestos exposure. It can affect workers<sup>xxi</sup> as well as their family members, who may inhale dust from the worker's clothes; and also those within the vicinity of asbestos air pollution point sources<sup>xxii</sup>. Asbestos exposure is also responsible for other diseases such as asbestosis<sup>xxiii</sup> (a chronic lung disease in which there is scar-like tissue formed in the lungs (pulmonary fibrosis)). This decreases the elasticity

## Legal Framework

### *International principles*

Though the Asbestos Convention C162, providing for regulation of activities involving exposure of workers to asbestos in the course of work<sup>xxv</sup> was passed in 1986 at the General Conference of the International Labour Organization (ILO), it was not ratified by India.<sup>xxvi</sup> While India is party to the United Nation's Basel Convention on Transboundary Movement of Hazardous Wastes and Their Disposal of 1989, the objective of which is to reduce movement of hazardous waste between nations, it has not ratified the Ban Amendment, which prohibits export of hazardous waste from a list of developed countries to developing countries such as India.<sup>xxvii</sup> This has hollowed the effect of the Basel Convention in the context of India, which continues to be a dumping ground for hazardous asbestos waste arriving at ship breaking yards through old ships, sale of ships for salvage, etc.

The World Health Organization (WHO) passed a resolution in 2005 at the 58th World Health Assembly urging member states to pay special attention to cancers for which avoidable exposure is a factor, including exposure to chemicals at the workplace and in the environment.<sup>xxviii</sup> This was followed by a resolution passed at the 60th World Health Assembly by which WHO was asked to carry out a global campaign to eliminate asbestos-related diseases (ARDs).<sup>xxix</sup> The ILO adopted a resolution in 2006 at the 95th Session

of the lungs, making breathing more difficult, with shortness of breath the most common symptom.

As there is no known safe level of exposure to asbestos, even a very minimal exposure represents a health risk. Globally, half of the deaths from occupational cancer<sup>xxiv</sup> is considered to be caused by asbestos exposure. In addition, it is estimated that several thousand deaths annually can be attributed to exposure to asbestos at home. Almost 70 countries have banned the use of asbestos in any form.

of the International Labour Conference declaring all forms of asbestos, including Chrysotile, as carcinogenic and resolving to eliminate future use of asbestos and identification and proper management of asbestos currently in place.<sup>xxx</sup> The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade was adopted by the Conference of the Plenipotentiaries in 1998 and entered into force in 2004<sup>xxxi</sup>, which was ratified by India in May 2005<sup>xxxii</sup>. The WHO along with ILO also prepared an outline for development of national programmes for elimination of ARDs in 2007.<sup>xxxiii</sup> The WHO along with organisations such as ILO has been since running a global campaign towards eliminating the hazards of asbestosis and ARDs.

### *Recognition of asbestos linked hazards in domestic legislation*

Asbestos linked activities fall in the red category of most polluting industries and require prior environmental clearance from the authorities, irrespective of the size of the establishment. Asbestos is listed as a hazardous waste under the Environment Protection Act, 1986. Ministry of Environment and Forest, vide Notification dated 13.10.1998, under Sections 3 (1) and 6 (2) (d) of Environment (Protection) Act, 1986 and Rule 13 of Environment (Protection) Rules, 1986, has prohibited the imports of waste asbestos (dust and fibre), being a hazardous waste detrimental to

human health and environment. Asbestos is also regulated under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, which under Schedule I<sup>xxxiv</sup> lists production of asbestos or asbestos containing materials as a process generating hazardous waste and holds the industry responsible for safe and environmentally sound management of the hazardous waste. The industry is also required to obtain an authorisation under Rule 6 from the State Pollution Control Board (SPCB) for managing the hazardous and other wastes, for grant of which the SPCB is required to assess and satisfy itself that facilities to manage hazardous waste are in place. The Ministry of Environment, Forests and Climate Change (MoEF&CC) issued a notification in October 1998 prohibiting the import of waste asbestos (dust and fibres) under the Environment Protection Act and Rules, 1986.<sup>xxxv</sup>

The Indian Factories Act, 1948<sup>xxxvi</sup>, recognises manufacturing, handling and processing of asbestos and its products as a hazardous industry under Schedule I of the Act. Schedule II lists the permissible level of asbestos in the work environment. Schedule III of the Act lists asbestosis as a notifiable occupational disease, thereby recognising it as an occupational hazard. However lung cancer and mesothelioma are not included in the list. Section 41C of the Factories Act pins specific responsibility on the industry in relation to hazardous substances to maintain accurate and up-to-date health records of the workers and provide access to the

health records to the workers, and to provide for medical examination of every worker before, during and after the employment, as prescribed. Section 89 of the Factories Act requires the medical practitioners to report any occupational disease in Schedule III of the Act to the Chief Factories Officer or relevant factories. The Indian Government has published under Schedule XIV – ‘Handling and Processing of Asbestos, Manufacture of any Article or Substance of Asbestos and any other Process of Manufacture or otherwise in which Asbestos is used in any Form’<sup>xxxvii</sup> as a Dangerous Operation under Section 87 of the Factories Act.

The Building and Construction Workers (Regulation and the Employment and Conditions of Service) Act, 1996<sup>xxxviii</sup>, recognises as hazardous, processes such as roof work, demolition, work in contained spaces under Schedule IX, but does not include handling or repairing of asbestos products. Schedule II of the Act only recognises asbestosis as a notifiable occupational disease, leaving out lung cancer and mesothelioma.

Though there is a need to make legal provisions stronger, the existing law as it stands regarding asbestos is almost entirely ignored by industry. With 93 per cent of the workers in the affected industries being in the unorganized sector, the protections granted under the labour laws fail to reach the affected workers.<sup>xxxix</sup>

### **Compensation – a hollow term**

The Employee’s State Insurance Corporation is responsible for paying compensation to insured workers under the Employee’s State Insurance (ESI) Act, 1948. Workers who are not insured under the ESI Act can claim compensation under the Employee’s Compensation Act, 1923. Both these Acts recognise the scheduled occupational diseases such as asbestosis under Part C of Schedule III, and lung cancer and mesothelioma caused by asbestos under Part B of Schedule III of the respective Acts. A worker suffering from Asbestosis must be employed for a minimum of three years before they can claim compensation under either Acts<sup>xl</sup>. However, there is no provision to compensate environmental asbestos victims or those who have had secondary exposure.

The existing process of applying for compensation disadvantages the worker and is time consuming and ridden with difficulties. Contract workers have to surmount the hurdle to first establish the employer-employee relation to be eligible to apply for compensation. Workers also face difficulty proving the ARD, due to misdiagnosis of disease as tuberculosis. Even where compensation is eventually awarded, the workers are faced with non-implementation of orders and delay on account of the appeal process and for enforcement of the order. The workers in Rajasthan who were exposed to the mines are fighting for justice and their rights. “Bhagwati Mathur, a housewife in Vaishali Nagar, Ajmer, was diagnosed in December, 2012 as suffering from mesothelioma a lung cancer caused by inhalation of particles found in asbestos and get no relief from state”.<sup>xii</sup> This explains the dismal number of compensation awards granted to workers inspite of the massive number of workers exposed to asbestos and suffering from ARDs. Though the Rajasthan is the only state that has pneumoconiosis board with a panel of doctors that certifies the disease. Currently, the government of Rajasthan is paying compensation from its District Mineral Fund, but are on their way to launch a policy and its framework this year.

### ***Indian judicial precedents recognising the harms of asbestos***

In 1995, the Supreme Court of India, in the matter of Consumer Education and Research Centre and Others versus Union of India and Others<sup>xiii</sup>, while recognising the health impacts of asbestos industries, passed several directions including to maintain health records for every worker up to a minimum period of 40 years from the beginning of employment in asbestos industry or 15 years after retirement, whichever is later. This judgment upheld the right to health and medical care of a worker as a fundamental right under Article 21 of the Indian Constitution, read with Articles 39(c), 41 and 43 of the Indian Constitution, to ensure a life of dignity for the workers. The Supreme Court also noted that the asbestos companies in India are bound by the rules “All Safety in the Use of Asbestos” issued by ILO. However, the directions are far from being implemented.

In 1998, the National Human Rights Commission (NHRC) in Case No. 673/30/97-98<sup>xiii</sup> recommended the replacement of asbestos sheet roofing with roofing made up of some other material not harmful to the inmates. In 2009, the Kerala State Human Rights Commission recommended that the state government replace

roofs of government school buildings, ensure that private schools also replace their asbestos roofs and ensure that no new school is allowed to use asbestos roofs.<sup>xiv</sup> In January 2014, in the matter of Occupational Health and Safety Association versus Union of India and Ors. the Supreme Court dealt with the adverse effects of asbestos when used in insulation in Coal Fired Thermal Power Plants and possibility of asbestosis in workers due to inhalation of asbestos fibres.<sup>xv</sup>

### ***Lack of Legislative Intent***

In 2011, the Supreme Court of India, relying on claims of compliance of directions passed by it in 1995 and observing that it is for the legislature to issue a ban, dismissed a petition filed by an NGO – Kalyaneshwari for ban of asbestos.<sup>xvi</sup> Although a private member bill<sup>xvii</sup> was introduced in November 2014 in the Rajya Sabha for total ban on import and use of white Chrysotile asbestos and to promote the use of cheaper and safer alternative to white asbestos, no legislation for ban of white asbestos has been passed in the country to date. Meanwhile, the Asbestos Information Centre and the Asbestos Cement Products Manufacturers Association, which are leading industry organisations, have consistently refused to acknowledge the extent of the problem.

There has also been a failure on the part of the Indian government to provide incentives to the alternatives of asbestos,<sup>xlviii</sup> to enable phasing out of the products altogether.

In February 2014, the Ministry of Health and Family Welfare published a press statement on asbestos related diseases, admitting that all types of asbestos fibres are responsible for human mortality and morbidity.<sup>xlix</sup> It has relied upon studies carried out by the National Institute of Occupational Research, an institute of Indian Council of Medical Research, Ahmedabad, which shows that workers when exposed to higher workplace concentration of asbestos fibre have higher incidence of interstitial lung disease and pulmonary function impairment. It has reported the reduction of air borne fibres by the Indian Government to 20.1 fibre/cc. It has also acknowledged data intimated by Directorate General Factory Advice Service and Labour Institutes under Ministry of Labour & Employment of workers suffering from asbestosis in factories registered under the Factories Act, 1948, that 21 cases were reported in Gujarat in 2010 and two cases in Maharashtra in the year 2012. Needless to add, these figures constitute gross underreporting on the part of the authorities / companies, failure to acknowledge the ARDs and lack of monitoring, survey and documentation of all the asbestos factories for ARDs.

In 2016, the NHRC in an order passed in Case No. 2951/30/0/2011,<sup>l</sup> ignored its own order of 1998 and Supreme Court order of 1995 and refrained from prohibiting use of carcinogenic fibres of white asbestos, relying upon a questionable report filed by the National Institute of Occupational Health.

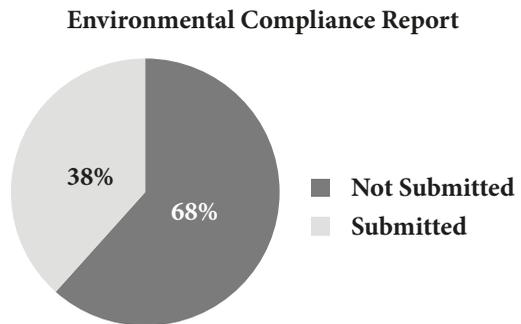
At the 9th meeting of the Conference of Parties (COP) to the Rotterdam Convention held in Geneva in May 2019 on Prior Informed Consent procedure for certain hazardous chemicals and pesticides in International Trade, the Indian delegation, consisting of MoEF&CC and other ministries, joined countries like Pakistan and Russia to oppose listing of white chrysotile asbestos in the United Nations (UN) list of hazardous chemicals. By doing this, India

contradicted its own position under domestic law, having recognised asbestos as hazardous material in various domestic legislations and having banned its mining. Since the listing of hazardous chemicals requires consensus, the opposition by just seven countries, including India and the asbestos companies, led to the deferring of the consideration of listing of chrysotile in the UN list of hazardous chemicals to the 10th meeting of the COP to the Rotterdam Convention. Meanwhile, the MoEF&CC conveniently failed to even mention the position taken by it at the Geneva meeting in its official press release.<sup>li</sup>

### **Poor environmental regulatory mechanism**

According to the MoEF&CC website,<sup>lii</sup> there are 112 large asbestos-containing material manufacturing plants present in India. There will be several more which may have established prior to the Environment Protection Act coming into force or are operating without clearances and hence are operating without any safeguards and permissions.

62 per cent of these industries have not submitted any environmental compliance report, which have to be submitted every six months, on even one occasion. Only 38 per cent of them has ever been inspected by the ministry. It is also well known that a significant quantity of asbestos is generated in Ship Breaking Yards, which are largely unnoticed. Alang in Gujrat is one such place where workers are exposed to hazardous asbestos fibres during ship-breaking.



**Figure 1- Compliance Status of Asbestos Industry (As per MoEFCC data 2108)**

### **Lack of infrastructure and skills for diagnosis of victims**

Since asbestos-related diseases require specialised skills for diagnosis, there need to be specialists and trained doctors. Further since it is a notifiable disease, the medical practitioners generally avoid committing to their diagnosis on paper. Several states do not even have the adequate facilities of X-ray and ILO plates even if skilled doctors are available. Such situations not only delay the

treatment but also add on to the future burden of disease.

In Denmark, every worker has to contribute to the government work injury scheme; hospital doctors must report all occupational diseases as well as suspicions of diseases which could be work-related. Such mandatory regulatory mechanisms are needed in order to develop an adequate process of victim database generation and compensation.

## **Conclusion**

The need of the hour is a total and unconditional ban of asbestos in the country, and systematic work towards eliminating asbestos from the environment and human ecosystem. What we need is political will and legislative intent. Brazil, which up until a few years back was the third largest producer of chrysotile asbestos in the world, saw a brilliant breakthrough when the Federal Supreme Court, by a majority verdict in November 2017, prohibited the mining, processing, marketing and distribution of

chrysotile (white) asbestos in Brazil.<sup>liii</sup> As one of the largest exporters of the hazardous material, India has already surpassed its capacity to deal with the carcinogenic asbestos fibres and wastes entering and polluting its work environment and natural ecosystem daily. Immediate action is needed to stop the impending doom staring at us if asbestos use and manufacturing continues unabated.

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