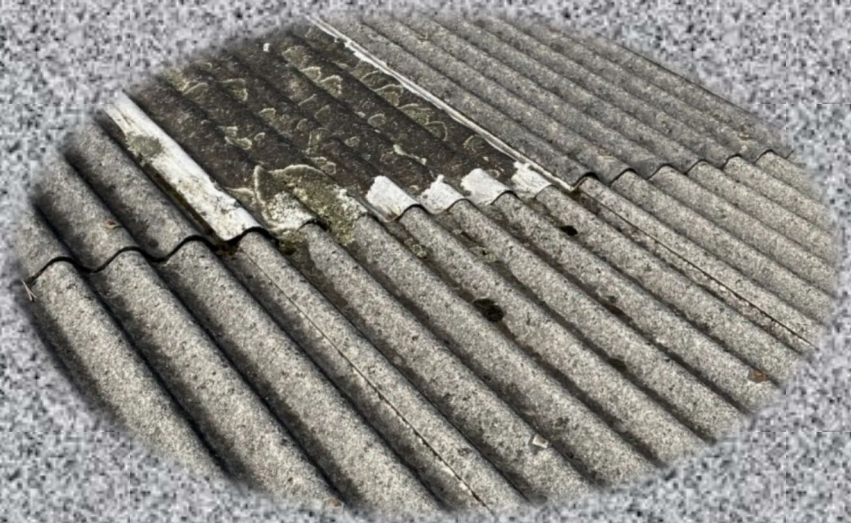
POLICY BRIEF

Working and Living Environment of the Labour in the Hazardous Industry: Legal Remedy for Migrant Workers and their Families in the Asbestos Industry and Construction Industry



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Gopal Krishna

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"My father Mr Dayakrishan Sharma had served the Indian Navy 41 years. My dad was admitted for days, all night I would read about mesothelioma, I asked my father if he had ever got in contact with Asbestos to which he replied, asbestos was used in Naval Dockyard. I asked him if he was sure- he said of course, it was a material used for fire insulations and he had been present many a times when the process was on. I was astonished, my father got this deadliest form of cancer due to exposure to asbestos at work, in defence -- in the Indian Navy!"

-Chandni Sharma, daughter of a victim of malignant mesothelioma, one of the deadliest forms of cancer which is caused by exposure to asbestos[1]

"I lost my mother due to mesothelioma for no fault of hers. We have not used asbestos at all however it seems the fibers have spread in the environment. Only those who have suffered this dreadful disease can know the pain and I have seen my mother go through enormous pain during these years. I stay in Mumbai and yes I have the medical records. There is no cure for mesothelioma and I hope one day we find it."

-Amit Kumar Jain[2]

1. Introduction

The mineral fiber which is associated with the ancient tales about the miraculous pieces of cloth that would not burn was asbestos. Greeks referred to 'asbestos' as a magic mineral. Romans weaved asbestos into a cloth-like material. The term "asbestos" was used to refer to "linen...used for making shrouds for royalty which keep the ashes of the corpse separate from the rest of the pyre" in antiquity[3]. Chinese sources referred to it as the "fireproof cloth".

The carcinogenic asbestos mineral fiber is used for the manufacture of a variety of asbestos based products mainly as asbestos-cement sheets,

asbestos-cement pipes, brake shoes, brake linings, textiles and ropes. Asbestos-cement industry is by far the largest user of asbestos fibre worldwide accounting for about 95% of all uses. Asbestos causes mesothelioma and cancer of the lung, larynx, and ovary. It is also associated with cancer of the pharynx, stomach cancer, and colorectal cancer. There is no safe level of exposure to asbestos, and some 70 countries have banned it. These countries realised that its safe and controlled use is not possible.

The asbestos mineral fiber-based manufacturing industry originated in England in 1870. It was widely used by 1898[4]. Asbestos has about 3000–4000 uses for asbestos based products[5]. Asbestos products have been extensively employed in commercial and industrial settings for fire prevention, sound insulation, insulation and construction since the late 19th century.

At least since early 1970s, there has been growing awareness as to the risk of asbestos. In 1972, Denmark banned the use of asbestos for thermal and noise insulation and waterproofing. In 1980, it banned all uses of asbestos with the exception of asbestos-cement roofing. In 1973, US banned the use of spray-applied surfacing asbestos-containing material for fireproofing/insulating purposes. In that very year Sweden banned asbestos spraying. In 1980, Israel introduced a series of restrictions on the use of asbestos from the 1980s which eventually amounted to a *de facto* ban on the use of asbestos. Israel introduced its first ban on the use of asbestos including amosite, chrysotile, crocidolite, anthophyllite, tremolite, actinolite, and any mixture that contains one or more of these fibers in its Work Safety Regulations. Since 1977, WHO has recognized that all varieties of asbestos, including chrysotile are carcinogenic.

Although the use of asbestos-containing materials has drastically decreased in the developed countries because of the deadly asbestos-induced diseases, India is the world's largest asbestos importer. India is the largest consumer of imported asbestos. India is the world's fourth largest exporter of asbestos. According to United States Geological Survey (USGS), India used 408,000t in 2021 and 424,000t in 2022. As per Government of India, India imported 436,119t in 2021 and 403,292t in 2022. India imported asbestos to the tune of 3,61,164 tonnes in 2019-20. It's import decreased by only 1% as against 3,64,105

tonnes in the previous year. "Almost entire import was that of chrysotile asbestos" according to the *Indian Minerals Year Book 2020* published in November 2021[6]. It reveals that although India banned mining of all kinds of asbestos including chrysotile asbestos due to its harmful health effect, it continues to import it from Russia, Brazil, Kazakhstan and China. It disregards the fact that Brazilian Court has banned its use in Brazil. The country was responsible for 55% of global asbestos imports in 2022. Out of all the imported chrysotile asbestos in India, 85% is from Russia and 3% each is from Brazil, Kazakhstan and Hungary.

2. What is Asbestos and its Use?

The name 'asbestos' is of Greek origin. It means incombustible and indestructible. The non-combustibility of asbestos is very natural because it is an inorganic silicate mineral. 'Asbestos' is a generic term that is applied to a number of naturally occurring, hydrated mineral silicates. It occurs in rock and soil. It is non-biodegradable.

Asbestos is a group of six naturally occurring silicate minerals, made of soft and flexible jagged or curly fibers (Crocidolite, Tremolite, Amosite, Actinolite, Anthophyllite, Chrysolite). It is found in large natural deposits or mixed with other minerals (e.g., vermiculite or talc). It can be divided into two groups: amphiboles and serpentine. The serpentine group comprises only of white chrysotile asbestos, remaining varieties of asbestos come within the amphibole group.

Asbestos is used in the manufacture of insulation, textiles, construction materials, and various appliances because of its characteristics. The major consumers of asbestos cement asbestos include private industries, public sector undertaking like steel plants, fertilizer projects, aluminium projects, entities of governments like railways, defence establishments, irrigation department, rural housing scheme and tribal welfare scheme and private users in poultries, acquaculture, storage godowns, individual houses, cowsheds, garages, and stair cases. It is used for panels on vertical and horizontal beams, main water pipes, water tanks, slates and tiles and ceiling tiles.

It has been used in building construction materials for insulation and as a fire retardant because of its fiber strength and heat resistance. It

has been used in a wide range of manufactured goods, mostly in building materials like roofing shingles, ceiling and floor tiles, paper products, and asbestos cement products, friction products like automobile clutch, brake, and transmission parts and in heat-resistant fabrics, packaging, gaskets, and coatings.

Asbestos may be found in attic and wall insulation produced containing vermiculite, vinyl floor tiles and the backing on vinyl sheet flooring and adhesives, roofing and siding shingles, textured paint and patching compounds used on walls and ceilings, walls and floors around wood-burning stoves protected with asbestos paper, millboard, hot water and steam pipes coated with asbestos material or covered with an asbestos blanket or tape, oil and coal furnaces. It can be found in schools, hospitals, courts, legislatures, workplaces and drinking water.

'Asbestos' is a proven hazardous substance. The Chemical Review Committee of UN's Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade has established that all forms of asbestos including white chrysotile asbestos are hazardous substances and are carcinogenic. All forms of asbestos are listed under the UN list of hazardous chemicals of the Rotterdam Convention with the exception of chrysotile asbestos.

3. Indian Scenario in Global Context

India is solely dependent on foreign asbestos. Some 70 countries including 1) Algeria, 2) Czech Republic, 3) Iran, 4) Malta, 5) Serbia, 6) Argentina, 7) Denmark, 8) Iraq, 9) Mauritius, 10) Seychelles, 11) Australia, 12) Djibouti, 13) Ireland, 14) Monaco, 15) Slovakia, 16) Austria, 17) Egypt, 18) Israel, 19) Mozambique, 20) Slovenia, 21) Bahrain, 22) Estonia, 23) Italy, 24) Netherlands, 25) South Africa, 26) Belgium, 27) Finland, 28) Japan, 29) New Caledonia, 30) Spain, 31) Brazil 32) France, 33) Jordan, 34)New Zealand, 35) Sweden, 36) Brunei, 37) Gabon, 38) South Korea, 39) Norway, 40) Switzerland, 41) Bulgaria, 42) Germany, 43) Kuwait, 44) Oman, 45) Taiwan, 46) Canada, 47) Gibraltar, 48) Latvia, 49) Poland, 50) Turkey, 51) Chile, 52) Greece, 53) Liechtenstein, 54) Portugal, 55) United Kingdom, 56) Colombia, 57) Honduras, 58) Lithuania, 59) Qatar, 60) Uruguay, 61)

Croatia, 62) Hungary, 63) Luxembourg, 64) Romania, 65) Ukraine, 66) Cyprus, 67) Iceland, 68) Macedonia and 69) Saudi Arabia have banned asbestos of all kinds. India has banned mining of its own asbestos mines but it chooses to import thousands of tones of white chrysotle asbestos.

India's first asbestos cement sheet factory was started in Kymore, Madhya Pradesh by Turner and Newall company, a UK based company in 1934, ten years after the first diagnosis of asbestosis, an incurable disease was done in the UK in 1924[7]. It is still operating under Everest Industries Limited, its present owner. The factories of the Everest company are located in Nashik, Coimbatore, Kolkata and Roorkee. Its Kolkata unit was established 1938. The entire asbestos fiber requirement is imported and received in ships at Kolkata port. Another asbestos cement factory was established in 1943-44 in Dalmianagar, Rohtas, Shahabad, Bihar. This first asbestos factory of Bihar was also dependent on imported raw asbestos mineral fibre[8]. By 2024, there are over 100 asbestos cement sheet factories in the country operated by a cartel of over a dozen companies who are members of Asbestos Fiber Cement Product Manufacturers Association. There are six major players in this industry, namely, Everest Industries Ltd. (EIL), Hyderabad Industries Ltd. (HIL), Ramco Industries Ltd. (RIL), Sahyadri Industries Ltd. (SIL), UAL Industries Ltd. (UAL), and Visaka Industries Ltd. (VIL). In East India, the popular brands of asbestos cement sheets are: Ramco, Konark, Everest, Charminar, Utkal, Visaka, Upal and Rhino. In North India, the popular brands are: Everest, Charminar, Ramco and Upal. In South India, Everest, Charminar, Ramco, Visaka, Malabar, Swastik, Tancem are popular brands. In West India, Everest, Charminar, Ramco, Visaka, Upal and Swastik are the popular brands of asbestos cement sheets. These brands are heavily advertised without disclosing their adverse health effects. Besides asbestos cement roofs, the asbestos cement road reflector are being used in various municipalities and Public Works Departments in Mumbai, Uttarakhand and other places under Road Safety and Road Furniture Division as a road/highway divider and crash barrier.

A writ petition was filed in 1986 by Gujarat based Consumer Education and Research Centre (CERC) in the Supreme Court of India in the backdrop of global action against asbestos-related diseases. The petition raised several issues relating to safety of asbestos, and adequate

compensation to the victims of asbestosis. The petitioner had applied for remedial measures to fill in legislative gaps, to require mandatory compensation for occupational hazards and diseases or death to employees in 1986. The petition prayed for adequate mechanisms for diagnosing and controlling asbestosis and for award compensation to those suffering from asbestos related diseases[9]. The Court allowed the public interest petition of CERC. The Supreme Court granted relief in the context of ongoing ban on asbestos world over.

The Court directed that the Government of India and the State governments have to amend their rules and regulation as per the resolution of International Labour Organisation (ILO). The ILO resolution of 2006 recommends elimination of asbestos of all kinds for elimination of asbestos related-diseases. It directed that a compensation of Rs 1 lakh be paid to the asbestos victims. The Court has directed the companies to "maintain health records of every worker up to a minimum period of 40 years from start of employment or 15 years after retirement or cessation of employment." Subsequent to the verdict of Supreme Court of India in 1995, France prohibited the manufacture, processing, sale, importation, domestic marketing, possession for sale, offer and transfer of all varieties of asbestos fiber regardless of whether the substance had been incorporated into the materials, products or devices in 1997[10].

Responding this decision of France, Canada approached the WTO's Dispute Settlement Body in 1998 to establish a dispute resolution panel to review the decision taken by France[11]. The hearing took place on January 17, 2000 at WTO Headquarters on Lake Geneva. The final report of the panel was submitted to the parties on July 25, 2000. The panel in its report upheld the decision taken by France and defended by European Communities. The report stated that all members of WTO have the right to set its own desired level of protection against risk arising from exposure to asbestos.

The panel report of WTO on "European communities- measures affecting asbestos and asbestos containing products", has observed that "….the more that is imported into a country, the more deaths there are from cancer caused by asbestos. Analysis of the data for ten western countries shows a very clear and strong co-relation between cases of mesothelioma and consumption of asbestos per inhabitant,

measured by amount of imports. A study was conducted where the rates of cancer in the ten countries were compared with the total amount of asbestos imported per inhabitant (the study analyses the statistical correlation between the two values). This correlation is extremely strong (the very revealing correlation coefficient is 0.70). It is important to note about 95.5 of all asbestos used in the world is chrysotile. According to European Commission, the number of cases of cancer increases proportionally with the increase of imports of asbestos into each country[12]. European Communities carried the responsibility of proving that ban on white chrysotile asbestos is "necessary to protect human life". The four scientists appointed by WTO concluded that there is no safe level of exposure to any kind of asbestos, the claim of "controlled use" is unrealistic and safer substitutes for chyrsotile are available.

Canada's appeal against the Panel Report before the WTO's Appellate Body was also unsuccessful. The Appellate Body upheld the finding of the Panel Report, that the measure at issue is "necessary to protect human … life or health", within the meaning of Article XX(b) of the GATT 1994. Canada did not succeed in establishing that the French measure against chrysotile asbestos was inconsistent with the obligations of the European Communities under the covered agreements. This WTO case was formally about a French decision but in reality it was about Canada's motivation to continue its exports of white chrysotile asbestos to developing countries like India.[13] The decision of the WTO's Appelllate Body in the asbestos case is consistent with Indian Supreme Court's directions but India and Brazil had opposed the intervention of the WTO.

The Supreme Court has underlined that "Mere adoption of regulations for the enforcement has no real meaning and efficacy without die professional, industrial and governmental resources and legal and moral determination to implement such regulations"[14]. Despite such clear directions the legal responsibility of the employers, producers and regulators with regard to grave threats to workers, the proximate community at risk, consumers and the society in general has not been fixed so far. It is apparent that the concerned public institutions have turned the workers, their families and the unsuspecting communities into risk bearers who can be exposed to the harmful consequences of asbestos based products.

4. Resistance of Workers and Villagers in Bihar

The struggle with Khet Bachao Jeewan Bachao Jansangharsh committee and Paryawarn Bachao Jeewan Bachao Sangharsh Samiti in the remote villages of Bihar led to the stoppage of the West Bengal based Balmukund Cement & Roofings Ltd's plant at Chainpur-Bishunpur, Marwan, Muzaffarpur, West Bengal based Utkal Asbestos Limited (UAL)'s plant at Goraul, Vaishali, Rajasthan based A Infrastructure Ltd's plant at Pandaul Industrial Area, Madhubani, Telangana based Hyderabad Industries Ltd's plant at Kumarbagh Industrial Area, West Champaran and Tamil Nadu based Nibhi Industries Pvt. Ltd's plant at Giddha, Ara, Bhojpur.

Hearing a case against a proposed asbestos based plant in Bihar, Justice J.N. Singh of Patna High Court apprehended a Bhopal Gas Tragedy like situation due to asbestos plants of Tamil Nadu based Ramco Industries Ltd in Bihiya, Bhojpur, Bihar. He wondered as to whether any pollution control board has or should have the power to relax the norms, meant to control environmental pollution and safeguard the humanity from health hazards and any recurrence of Bhopal Gas Tragedy[15]. In the aftermath of the Patna High Court's judgement, Bihar State Pollution Control Board revoked the No Objection Certificates given for the construction of asbestos based plants in Bhojpur, Muzaffarpur and Vaishali.

But the struggle of villagers from Bihiya, Bhojpur is still underway because Tamil Nadu based Ramco Industries Limited's plants at Industrial Area, Bihiya, Bhojpur, Bihar is operating two factories of 1,20,000 MT/annum capacity of asbestos cement sheet plant (with clearance) and 2 lakh MT/annum capacity of cement grinding (without clearance) despite Bihar Chief Minister's promise to make Bihar free from hazardous asbestos factories. The chief minister informed the State Assembly, "We are not using asbestos sheets in government projects and schemes, nor are we providing any incentive to promoters of asbestos factories"[16]. He vowed to provide *pucca* houses to the poor without the harmful asbestos roof. The housing need of the poor families left out of the PM Awas Yojana would be covered by CM Awas Yojana.

The strike by workers of the asbestos based factories of Ramco Asbestos Industries in Bihiya, Bhojpur demonstrated the predicament faced by the asbestos based factories in general. The communication from the district administration revealed that the management of the factory refused to enter into dialogue with workers who were on strike raising issues like absence of medical facility for workers, safety gear for workers and identity card despite the intervention of the Block Development Officer (BDO), Bihiya[17]. The workers informed the BDO that in the event of injury or handicap while working at Ramco's factory, the workers are asked to leave the factory after first aid. Instead of bearing the cost of treatment, the workers are sacked. The workers informed that the company uses anti-social elements to threaten them. The communication stated that local people who gathered at the site of asbestos based factory were also agitated and raised the issue of air and water pollution with the BDO.

In the backdrop of the struggle against environmental and occupational health diseases, Awadhesh Narain Singh, Chairperson of Bihar Legislative Council observed, "Buying asbestos is akin to buying cancer" and "pain of asbestos related diseases is worse than the pain of unemployment"[18]. The workers, their families, villagers and consumers who constitute a community of the same fate, continue to suffer due to air pollution, water pollution and disposal of asbestos waste of the asbestos based factories.

5. Asbestos Factories in West Bengal and Judgement of Calcutta High Court

Directorate General, Factory Advice Service and Labour Institutes (DGFASLI) took note of prevalence of asbestosis and related disorders in an asbestos fiber processing unit in West Bengal in 1996 in its study[19]. But instead of taking remedial measures, UAL Limited, a asbestos based company is being awarded environmental excellence award and occupational health and safety in the state.
Drawing on Supreme Court's verdict of 1995, Calcutta High Court's verdict of 2017 sought removal of carcinogenic-asbestos that has been used for roofing in the Court's buildings[20]. This has implications for all asbestos laden buildings and products and asbestos based factories across the country.

Prior to this, in a reply to National Human Rights Commission (NHRC) dated July 5, 2012, Deputy Secretary, Labour Department, Government of West Bengal submitted that there are four asbestos based units in the district of Paschim Medinipur: 1) UAL Limited, 2) Ramco Industries Limited, (3) Neelachal Natural Resources Pvt Limitedand (4) Visaka Industries Limited. The reply revealed that "Six persons of UAL Bengal Ltd having some respiratory ailments, diagnosed as suffering from Pulmonary Koch's were treated and subsequently fit to join work in the non-dust area." It disclosed that in the Everest Industries Ltd., Garden Reach in the district of Kolkata "One person having some abnormality in X-Ray Chest, diagnosed as fibrotic lung disease were made unfit and alternate placement facilities were provided." The reply submitted that "No case of compensation has been reported in the above units though alternate facility has been recommended for few workers in some units on medical ground". The reply does not inspire even an iota of confidence.

The report of the Committee prepared by the National Institute of Occupational Health (NIOH) titled Environment, Health and Safety Issues in Coal Fired Thermal Power Plants of the year 2011 pointed out that "whenever asbestos fibres are used for insulation and other purposes, the possibility of asbestosis among workers due to inhalation of asbestos fibres cannot be ruled out"[21].

In the aftermath of the Supreme Court's directions in the CERC case (1995) and Occupational Health and Safety Association (OHSA) case (2014), Calcutta High Court's order has the potential set the process of making West Bengal free of asbestos based products in motion. The order seeks removal of carcinogenic-asbestos that has been used for roofing in the Court's buildings.

The Court's order reads: "When the entire renovation is undertaken, it is expected that the High Court and the PWD or, any other body entrusted with the renovation will ensure that the asbestos-sheets, which have been used for roofing, would be replaced by any other materials which are non-carcinogenic"[22]. This order of the High Court is consistent with, Supreme Court's verdict in CERC case. Upholding the jurisprudence of personhood, it observed, "The development of the carcinogenic risk due to asbestos or any other carcinogenic agent, does not require a continuous exposure. The cancer risk does not cease

when the exposure to the carcinogenic agent ceases, but rather the individual carries the increased risk for the remaining years of life." This observation referred to medical and scientific literature to arrive at its inference. The Court recorded that "The exposure to asbestos and the resultant long tragic chain of adverse medical, legal and societal consequences, remains the legal and social responsibility of the employer or the producer not to endanger the workmen or the community of the society. He or it is not absolved of the inherent responsibility to the exposed workmen or the society at large."

A medical camp organised at the Kolkata branch of Everest Industries Limited found that fifty percent of the workers were diagnosed with asbestosis in 2018. The findings of the camp was suppressed by the company, some workers were suspended and the protesting workers were victimised. Journalists who have covered the asbestos-related diseases wonder: "How many scientific reports will it take to understand the risks and how many will have to travel and die before the country bans asbestos once and for all"[23]. There has been similar reports of victimisation of protesting workers in the asbestos factories in Bihiya, Bhojpur, Bihar[24].

In such a context, the order of Calcutta High Court underlines the unprecedented environmental and occupational health crisis with regard to the unnoticed epidemic of asbestos related diseases in West Bengal in particular and in the country in general.

6. Role of National Green Tribunal

In its submission before the National Green Tribunal (NGT), Asbestos Fiber Cement Product Manufacturers Association referred to the Supreme Court's judgement of 1995 but omitted significant part of the directions with regard to ILO resolution and the compensation to the certified victims. In its submission, the Union Ministry of Environment, Forests and Climate Change (MOEFCC) acknowledged that asbestos 'can enter the air, water and soil from weathering, renovation, or demolition of manufactured asbestos products' and 'People are likely to be exposed to asbestos through inhalation of airborne fibres'. But it is apparent that it has ended up misleading the Principal Bench of the NGT in a case seeking directions for stopping the use of asbestos roofs in schools as a measure of public health,

safety and environmental health under the precautionary principle at the pan India level[25]. Unmindful of the incurable asbestos related diseases which establishes the crying need to address this public health crisis, in its affidavit MOEFCC has erroneously submitted that "Asbestos in the building does not spontaneously releases fibres..."[26]. Contrary to this submission, several scientific studies have demonstrated the fact that asbestos in the building does spontaneously release fibres. The research has demonstrated an increased risk of disease to residents likely to be affected by emissions from asbestos cement roofs. It is biologically plausible that asbestos roofing can cause asbestos related diseases in members of the general public. A study published in the *American Journal of Industrial Medicine* has concluded that 'Based on the precautionary principle, asbestos-free roofing should be used for new construction and existing asbestos cement roofing (ACR) should be removed under controlled conditions at the earliest opportunity. Epidemiological studies have demonstrated a risk of disease associated with proximity to ACR, while ongoing environmental emissions of asbestos from installed ACR have also been demonstrated."[27] ACRs pose ongoing risk through out their life cycle.

The petition filed in the NGT draws on a scientific paper published in the reputed *Nature* journal titled 'The natural reduction of threat in selected systems of old buildings containing asbestos' which underlines the harmful effect of having asbestos roofs[28]. With reference to Asbestos Cement Material (ACM), the paper observes that "Regarding the process of changes in dust concentration during the operation of buildings, it can be assumed that buildings are subjected to opposing factors during their operation. The first group of factors includes: ageing of products, operational vibrations of products and ACM structures caused by the building environment, mechanical damage caused by renovation works, air movement in rooms, etc. They cause an increase in the concentration of dust in the air"[29]. It concludes that "Active behavior in buildings with asbestos is a cause of above-normal dust pollution. For this reason, children and young people should not use buildings with asbestos, regardless of their physical condition"[30]. It can be inferred that what is applicable to children and young people is applicable to older people as well.

Taking cognisance of the impossibility of safe and controlled use of all kinds of asbestos including white chrysotile asbestos, WHO has recommended elimination of all kinds of asbestos for elimination of incurable asbestos related diseases[31]. Some six dozen countries have banned it to safeguard human health. According to WHO, "Asbestos is a proven human carcinogen (IARC Group 1). No safe level can be proposed for asbestos because a threshold is not known to exist"[32]. The laws, regulations and judicial pronouncements which do not factor in the recommendations of WHO and depend on conflict-of-interest ridden scientific studies seem to fall in the category of scientism.

In its submission MOEFCC has cited relevant rules under the Environment (Protection) Act, 1986 with regard to hazardous asbestos waste but without showing its application and implementation in the present context. It has submitted that "the waste asbestos generated from the Production of asbestos or asbestos-containing materials are regulated under the Hazardous and Other wastes (Management & Transboundary Movement) (HOWM) Rules, 2016, and has been classified as under S. No 15 of Schedule I of Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 (hereinafter referred to as 'HOWM Rules') which includes (i) Asbestos-containing residues; (ii) Discarded asbestos and (iii) dust and particulates from exhaust gas treatment…the import of waste asbestos (dust and fibers) is prohibited in the country…." The fact is that all asbestos based products including roofs will become waste at the end of their life cycle. This implies that the law must apply to asbestos based products through out its life cycle which creates a compelling logic for its trade, manufacture and use to be banned, the way waste asbestos import is banned.

7. Laws and Regulations

Asbestos is a threat to life throughout its life cycle. Prior to Calcutta High Court's verdict, National Human Rights Commission (NHRC) had passed an order recommending that the asbestos sheets roofing should be replaced with roofing made up of some other material that would not be harmful[33]. These orders are consistent with the 29 year old verdict of the Supreme Court but they do not ensure complete compliance with it.

While "Grant of fresh mining leases and renewal of existing mining leases for Asbestos" has been banned by the Ministry of Mines in the country on health grounds[34] but India continues to import asbestos from Russia and other countries. This situation illustrates that there is no communication between different ministries in this regard.

The three schedules under Occupational Safety, Health and Working Conditions Code, 2020 which amalgamates 13 laws including the Factories Act, 1948, the Mines Act, 1952, the Contract Labour (Regulation and Abolition) Act, 1970, the Inter-State Migrant workmen (Regulation of Employment and Conditions of Service) Act, 1979, the Dock Workers (Safety, Health and Welfare) Act, 1986 and the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996, is yet to come into force. It refers to asbestos and asbestos related disease, asbestosis, an incurable disease, implying its hazardous nature. The manufacture, handling and processing of Asbestos and its products have been declared as hazardous process under Factories Act, 1948 which continues to be in force.

The Factories Act has three schedules. Schedule I provides the list of industries involving hazardous process. The asbestos industry—specifically activities involving the manufacturing, handling, and processing of asbestos—is listed as a hazardous industry under Schedule I of the Factory Act. Section 89 of the Act requires medical practitioners to report any occupational disease listed in Schedule III of the Act to the Chief Factories Inspector or other relevant factories. Schedule III of the Factories Act lists notifiable occupational diseases, including asbestosis. Schedule II lists the permissible level of chemical substances in the work environment, including asbestos. Section 85 of the Act empowers state governments to declare any industrial operation as hazardous. In some cases, companies that do not comply with factory regulations may be ordered to be closed down temporarily until the unit is able to meet the requirements set forth in the notice served under Section 40 (1) of Factories Act. These provisions are not enough to protect the workers from the enviro-occupational risks associated with non-biodegradable asbestos fibers because compliance with these provisions is limited by paucity of competent factory inspectors. The new labour codes have not addressed this weakness of the old laws.

The Code on Social Security, 2020 has consolidated nine worker related laws including the Employees' Compensation Act, 1923, the Employees' State Insurance Act (ESI), 1948, the Building and Other Construction Workers Welfare Cess Act, 1996 and Unorganised Workers' Social Security Act 2008 but it has come not come into force in its entirety. Schedule IX of the pre-existing Indian Building and other Construction Workers (Regulation and the Employment and Conditions of Service) Act, 1996 lists hazardous processes such as roof work and demolition but it does not include processes involving the handling or repairing of asbestos products such as asbestos cement pipes or sheets. Schedule II of the Building and Construction Workers Act lists asbestosis as a notifiable occupational disease, but it does not include lung cancer or mesothelioma despite mounting scientific evidence of their connection to asbestos exposure in construction activities.

Under the Employees State Insurance (ESI) Act of 1948, the Employee State Insurance (ESI) Corporation is responsible for paying compensation to insured workers for scheduled occupational diseases such as asbestosis and lung cancer, including mesothelioma. However, there is no provision to compensate environmental asbestos victims or those who suffer due to secondary exposure.

The provisions for compensation are listed under Section 52 A of the ESI Act. Under Part B of Schedule III of the ESI Act the provisions state that the qualifying period to claim compensation for the diseases listed in Part B of the Schedule is 6 months. Lung cancer and mesothelioma caused by asbestos are included as occupational diseases under Part B of Schedule III of both ESI and Employee's Compensation (EC) Act. Asbestosis is included in Part C of Schedule III of the ESI Act (and EC Act). This means that workers must be employed for a minimum of three years before they can claim compensation under the ESI or EC Act. This is required according to a notification of the Government of India[35]. These provisions ignore the reality of contract and casual migrant and non-migrant workers.

Schedule III is common to both ESI and Employee's Compensation Act. Workers who are not insured under the ESI Act can claim compensation under the Employee's Compensation Act, 1923. The

legal struggle for compensation are complicated and time consuming. Moreover, many workers, especially those employed by contractors face difficulties establishing the employee-employer relationship required by law. In terms of medical diagnosis, workers run into problems because medical certificates are not available or doctors use different standards to evaluate disability due to occupational health hazards. The problem of wrong diagnosis of dust and fiber related lung diseases, including asbestos, as tuberculosis (TB) is quite rampant. Even when workers have won claims under the Employee's Compensation Act, the claimant is not be paid the amount as ordered by Compensation Commissioner. There are instances wherein compensation has not been paid to workers despite the recommendations of the NIOH.

In its reply the Union Ministry of Health and Family Welfare informed the Parliament that "The Indian Council of Medical Research (ICMR) has informed that major health hazards of asbestos include cancer of lung, mesothelioma of pleura and peritoneum and specific fibrous disease of lung known as asbestosis. All types of asbestos fibers are responsible for human mortality and morbidity." It has been admitted that studies by NIOH, Ahmedabad show that workers when exposed to higher workplace concentration of asbestos fiber have higher incidence of interstitial lung disease and pulmonary function impairment. DGFASLI has intimated data of workers suffering from Asbestosis in factories registered under the Factories Act, 1948. It has informed that 21 Asbestosis cases were reported in Gujarat in 2010 and 2 cases in Maharashtra in the year 2012[36]. The reply did not reveal whether compensation was paid to them.

At the 5th India-EU Joint Seminar on "Occupational Safety and Health", Union Ministry of Labour revealed that "The Government of India is considering the ban on use of chrysotile asbestos in India to protect the workers and the general population against primary and secondary exposure to Chrysotile form of Asbestos"[37]. It noted that "Asbestosis is yet another occupational disease of the Lungs which is on an increase under similar circumstances warranting concerted efforts of all stake holders to evolve strategies to curb this menace". The Vision Statement on Environment and Human Health of Union environment, forests and climate change ministry states that "Alternatives to asbestos may be used to the extent possible and use

of asbestos may be phased out"[38]. But the ministry continues to grant environmental clearance to asbestos based factories.

India's Supreme Court and High Courts have consistently expressed their serious concerns regarding exposure to these carcinogenic mineral fibers and has asked the central and state governments to update their laws as per fresh resolution of ILO, which has sought elimination of future use of white chrysotile asbestos to safeguard human health. But the governments in India have not complied with its directions so far. Instead of complying, the government informed the parliament that "There is no proposal under the consideration of Ministry of Environment, Forest and Climate Change (MoEFCC) to prohibit the use of asbestos in the country"[39]. It claims that there is "Ban on grant of fresh mining leases and renewal of existing mining leases" in compliance with Supreme Court's verdict of January 1995[40]. The fact is that this ban pre-dates the verdict.

Indian MOEFCC continues to grant the Environmental Clearance (EC) to industries engaged in asbestos milling and asbestos based products under schedule 4 (c) of the Environment Impact Assessment Notification, 2006 under Environment (Protection) Act, 1986.

The Occupational Safety, Health and Working Conditions Code and the Code on Social Security ought to provide a standing operating procedure to remedy these deficiencies to ensure relief for the workers and their families and to improve the working and living conditions in the hazardous industry. The environmental laws are yet to be amended to outlaw grant of permission for setting up asbestos based factories and discourage operation of existing factories.

8. Endless Wait for Compensation

UN agencies took note of the Kymore asbestos factory in Katni, Madhya Pradesh, which was first operated by a subsidiary of UK's Turner & Newall, and later by a subsidiary of ETEX/Eternit, a Belgian company between 1992-1998. Belgian ETEX/Eternit was a shareholder of five asbestos factories in India during 1989-2001, ETEX/Eternit sold its Indian subsidiary prior to Belgian ban on asbestos. The company processed asbestos and sold a range of products including asbestos-cement building materials as well as

asbestos-containing textiles, jointings, brake linings, friction materials and millboards from sites in Kymore, Mulund, Sewri and Ghatkopar, Mumbai, Garden Reach, Kolkata and Podanur, Tamil Nadu. Turner & Newall sold off its remaining assets in India in 1994.

These agencies have recorded that the workers, their families, consumers and unsuspecting citizens at Kymore asbetsos factory and its vicinity face risks of exposure to asbestos fibre. Some ex-workers and their family members have reported manifestation of asbestos-related diseases. The prevalence of asbestosis to the tune of 3-9% among factory workers has been found. The UN agencies-the Working Group on the issue of human rights and transnational corporations and other business enterprises, the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes and the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health- have written about the human rights implications of exposure to asbestos from this asbestos fibre cement factory, which used to be partly owned by Belgium-based company, ETEX/Eternit. It was first incorporated as "Asbestos Cement Limited", subsequently the company changed its name to "Eternit Everest Limited" on September 18, 1990 because of its association with Eternit Group (now ETEX), headquartered in Belgium[41]. These UN agencies wrote to the Government of India with regard to the factory but have not received any response regarding the plight of the victims of asbestos related diseases.

From 1934 to 1994, Turner & Newall (T&N) operated asbestos factories including the Kymore asbestos factoryin India. Their factory operated by Hindustan Ferodo Limited in Mumbai employed 1200 workers. In 2001, T&N company set up a fund to pay compensation to asbestos disease victims who had been exposed to asbestos dust by its various companies. In November, 2010, 97 Indian citizens were awarded compensation. The total of these claims which was paid out is Rs 30,458,881. This is the first time that Indian workers got compensation for occupational disease sustained at the hands of a foreign employer. The compensation underlines an acknowledgment of the wrong which has been done to the workers. It is a warning to current employers that they too will be held accountable for the harm they do to the workers. The fact remains the meager amounts paid by

the T&N trust is an act of adding insult to the injury suffered by the victims of asbestos related diseases. The silence of the Maharashtra Government is inexplicable. The ministry of commerce and industry informed the Parliament that "The names of places where maximum number of asbestos sheets/pipes are manufactured are Maharashtra, Tamil Nadu and Andhra Pradesh" but no compensation fund has been set up in these states and in other asbestos consuming states.

9. Trustworthy and Untrustworthy Scientific Studies

In February 1966, the Ministry of Industry and Supply, Government of India constituted a panel of eight officials under the Chairmanship of Dr. S. P. Varma, Industrial Adviser, Directorate General of Technical Development to examine "possible substitutes for asbestos cement products" like asphaltic roofing sheets among others issues[42]. The panel included asbestos industry representatives from Asbestos Cement Limited-Hindustan Ferodo Limited, Hyderabad Asbestos Cement Products Limited, Digvijay Cement Company Limited. This was not the first time that the asbestos companies were included in the government's panel to study asbestos and its substitutes.

It has been admitted in the Parliament that the National Institute of Occupational Health (NIOH) conducted "Study of Health hazards/Environmental hazards resulting from use of Chrysotile variety of Asbestos in the country" got 26 % of its funds from the Asbestos Cement Product Manufacturer Association and 76 % from Ministry of Chemicals and Fertilisers, a ministry which has been opposing listing of white chrysotile asbestos in the UN list of hazardous chemicals[43]. The study was done at the behest of the the ministry "in the context of ongoing developments under the Rotterdam Convention to bring this chemical in the Prior Informed Consent (PIC) ambit"[44]. The health status of workers of Kolkata based asbestos sheet manufacturing unit of Everest Industries Ltd was subjected to study by NIOH. The study period was for two weeks in the month of August through September. These are the months of rainy season wherein the risk of having asbestos fibers or suspended particulate matters in air likely to be low. The time period for the study was so narrow that it cannot capture the health status of workers because asbestos related diseases have a latency period of several years. The study admits that 12 out of 200 workers of the factory did not give

their consent to subject themselves to the study[45]. It implies that only 94% of the workers allowed themselves to be studied. The study made no attempt to ascertain the health status of 6% of the workers in violation of the Supreme Court's judgement of 1995 in the CERC case seeking "health records of every worker up to a minimum period of 40 years from start of employment or 15 years after retirement or cessation of employment."

The minutes of the meeting of the Review Committee of the study by NIOH provided details about the status of the Everest Industries Limited. The minutes was obtained from NIOH under the Right To Information Act, 2005. The minutes of the meeting of Review Committee dated April 18, 2007 states that it was decided that "S. Ganesan of ICC (Indian Chemical Council) and NIOH representatives will redraft/re-word the Kolkata report keeping in view the international sensitivities[46]." The minutes of the meeting of Review Committee dated September 14, 2006 showed "about 32% of the workers with impaired lung function. The major abnormality was restrictive type." Out of 13 participants of the meeting of the Review Committee, seven were representatives of asbestos industry from Hyderabad Industries Limited, Everest Industries Limited, Ramco Industries Limited, UAL Limited, Visaka Industries Limited, Sahyadri Industries Limited and Asbestos Cement Products Manufacturers Association. In some meetings of the Review Committee, the officials from Asbestos Information Centre (AIC), a asbestos industry entity and Indian Chemical Council, an industry body were also present.

The role of AIC came out from the information accessed under the Canadian Access to Information Act. The information dated March 4, 2003, from the Natural Resources Ministry of Canada revealed that "The Indian government has worked diligently in cooperation with the Indian Asbestos Information Centre (AIC) and the Canadian Asbestos Institute." Canadian High Commission in India wrote, "A ruling which states that subjecting a worker to asbestos is a violation of human rights could have far reaching consequences whether or not it is binding". The Information made available the Canadian right to information law shows that Second Secretary (Commercial), Canadian High Commission in India was in correspondence with India's ministry of environment, labour and commerce "to discuss promotion of the safe-use of chrysotile asbestos and confirm India's continued

market access and policy approach (controlled-use) re chrysotle asbestos". The same Canada has made the life and health of its citizens safe by banning all kinds of asbestos including white chrysotile asbestos but India is yet to do so.

The outcome of this conflict-of-interest ridden study was doctored to safeguard the interest of the industry, instead of public health[47]. The study recommended: "In general, education and training of the workers should be regularly conducted. These programmes should cover the health hazards associated with asbestos exposure, safe handling of asbestos and the preventive measures available so as to make the environment totally safe for the workers"[48] disregarding the fact that safe and controlled use of asbestos has not been possible in the 70 countries that have banned it. This recommendation of the NIOH's study is consistent with the position of the sponsor of the study.

From information obtained under the Right To Information Act 2005, it also came to light that the industry consultation prior to finalization of the NIOH's study report was put as a pre-condition by the sponsor of the study. The minutes of the meeting of Review Committee dated December 19, 2006 reads: "The report will be finalized after due discussions with the asbestos industry." Prior to this a letter from the Under Secretary to the Government of India, Department of Chemicals and Petrochemicals, Ministry of Chemicals and Fertilisers to the Director, NIOH dated April 24, 2006 reads: "After submitting the draft report, NIOH will organize a national workshop to discuss the findings with the relevant industry stakeholders and based on the feedback the final report will be prepared". It is evident that the NIOH's study is indefensible.

This questionable study by NIOH is repeatedly cited and published by the industry and the government to defend continued trade, manufacture and use of white chrysotile asbestos and to oppose its listing as a hazardous chemical in the UN list. It is unmindful of the fact that even this study refers to "Hazardous Substances Database. National Library of Medicine" at page no. 118, which includes asbestos.

A dossier on the NIOH's study stated that the study is ill-conceived and methodologically flawed. It is a travesty of what is considered credible science. It concluded:"the fact that it is sponsored reviewed, and vetted by those who stand to gain or lose from its verdict makes it absolutely unethical….It is clear that the study needs to be urgently debated and reviewed. Unless and until the foregoing doubts and allegations are addressed, the study cannot absolve itself from the charges of being unscientific, tendentious and unethical[49]."

The NIOH's study did not factor in the asbestos exposure incidents at Alang beach, Bhavnagar, Gujarat has been acknowledged in the report of the Committee of Technical Experts (CTE) on Hazardous Wastes relating to Shipbreaking set up by the Supreme Court. The committee found that 16 per cent of the workers suffered from asbestosis. The final report of CTE took note of asbestos victims in the ship-breaking industry. It cited the "Medical Examination of the Asbestos Handlers" by a team of NIOH which concludes, "The X ray examination by NIOH showed linear shadows on chest X rays of 15 (16 %) of 94 workers occupationally exposed to asbestos. These are consistent with asbestosis…"[50] This study is consistent with the study that confirmed increased incidence of overall cancer, esophagus cancer, and trachea, bronchus, and lung cancer which has been found associated with the level of exposure to asbestos among shipbreaking workers[51]. The 15 workers who were found exposed to asbestos fibers and who were identified by the NIOH have not been given compensation in compliance with the direction of the Supreme Court. The NIOH studies are considered significant because it is the only agency authorized by the Court to certify asbestos related diseases in the country in its order dated January 27, 1995.

The "National Study on Occupational Safety, Health and Working Environment in Asbestos Cement Product Industries" done by Directorate General Factory Advice Service and Labour Institutes (DGFASLI) under the Ministry of Labour and Employment found that out of 2603 workers, 10 cases were found to be suspected cases of asbestos related disorders. The study was carried out during November 2018-February 2019 covering 50 functional asbestos cement product industries of the country. In a paper published in *Public Health Action*, Dr. R. Singh and Prof. A. L. Frank have examined the DGFASLI's study. They have concluded that "This study has some

potential limitations, including the possibility that disease latency could be a factor, as the presence of disease may only be revealed decades after exposure. Furthermore, there appears to be no record of external peer review by an organisation outside the one conducting the study"[52]. The industry sponsored NIOH's study too had faced similar criticism. It is also not clear as to whether these 10 victims of asbestos related disorders/diseases identified in the DGFASLI's study have been given compensation as is required as per the judgement of Supreme Court. The fact remains that this study does not capture the enormity of public health crisis which has engulfed workers and their families besides consumers through secondary exposure. It is estimated that 50, 000 Indians are dying every year due to exposure to carcinogenic fibers of all white chrysotile fibers and other asbestos fibers.

In compliance with the order of National Green Tribunal (NGT) dated January 7, 2020, the Jharkhand government informed that health check up of 565 local residents was done. It revealed that symptoms of asbestosis disease had been found in 164 out of 565 local residents of Roro asbestos mines, Chaibasa, West Singhbhum district after the lease given to Hyderabad Asbestos Cement Product Limited lapsed in 1983. It did not disclose whether these 164 resident have been compensated in compliance with Supreme Court's directions.

WHO has pointed out that "The burden of asbestos-related diseases is still rising, even in countries that banned the use of asbestos in the early 1990s. Because of the long latency periods attached to the asbestos related diseases, stopping the use of asbestos now will result in a decrease in the number of asbestos-related deaths only after a number of decades"[53]. These observations of WHO have not inspired action in India.

10. Alternatives

A Technical Committee by Ministry of Industry to examine the health impact of asbestos in 1994. The Office Memorandum stated: "The Department has generally not been recommending any case of Industrial License to any new unit for the creation of fresh capacity of asbestos products in the recent past due to the apprehension that prolonged exposure to asbestos leads to serious health hazards"[54]. Such apprehensions led to search for the substitutes of asbestos.

There are specific alternatives for specific needs. For instance, as substitute fibers in fiber-cement products, the materials used as substitutes for asbestos in fiber-cement sheet and pipe are polyvinyl alcohol, cellulose, and polypropylene fibers. The mixture of polyvinyl alcohol-cellulose and polypropylene fibers-cellulose are used in fiber-cement sheets, and cellulose are used in non-pressure pipes used for sewerage, etc. There are alternatives of asbestos cement pipes and sheets besides polyvinyl alcohol fibers and cellulose in fiber-cement roofing sheet.

To illustrate the enormity of alternative, it is noteworthy that for asbestos-cement corrugated roofing sheet, substitute products include fiber-cement roofing using: synthetic fibers (polyvinyl alcohol, polypropylene) and vegetable/cellulose fibers (softwood kraft pulp, bamboo, sisal, coir, rattan shavings and tobacco stalks, etc.); with optional silica fume, flyash, or rice husk ash. It also includes: Microconcrete (Parry) tiles, Galvanized metal sheets, Clay tiles, Vegetable fibers in asphalt, Slate Coated metal tiles (Harveytile), Aluminum roof tiles (Dekra Tile), Extruded uPVC roofing sheets, Recycled polypropylene and high-density polyethylene and crushed stone (Worldroof), Plastic coated aluminum and Plastic coated galvanized steel. For asbestos cement pipes, the alternatives are: Cast iron and ductile iron pipe, High-density polyethylene pipe, Polyvinyl chloride pipe, Steel-reinforced concrete pipe (large sizes) and Glass-reinforced polyester pipe. Similarly, alternatives are available for Asbestos-Cement Water Storage Tanks, Asbestos-Cement Rainwater Gutters; Open Drains (Mining Industry) and Asbestos-Cement Flat Sheet (ceilings, facades, partitions).

In a significant development, ministry of railways has ordered removal of asbestos roofs from all railway buildings including over 7,349 railway platforms across the country[55]. It invited offers for "Procurement of Non-Asbestos "K" Type Composition Brake Blocks"[56].

It is significant that in its reply the Executive Engineer, Central Public Work Department (CPWD), Ministry of Urban Affairs has submitted to the NGT that as per Delhi Schedule of Rates (DSR)- 2021 published by the CPWD, a comprehensive technical document for execution of

civil works which is used by several departments, institutions, public sector undertakings, architects and builders besides CPWD "no item based on Asbestos material has been provided and therefore, the Asbestos materials are not considered to be used in the works being executed by CPWD or any other works associated with Ministry of Urban Affairs"[57]. The DSR consists of rates of different type of materials, hire charges of machinery and labour. The DSR-2021 have the items for different types of roofing like RCC Roofing, Galvanized Steel Sheet Roofing, Organic/Inorganic synthetic fiber cement, corrugated and semi corrugated roofing, stone slab roofing, insulated board roofing etc which are going to be asbestos free.

11. Right to Health as Part of Right to Life

The ministry of labour set up an Advisory Committee in 2012 to implement Supreme Court order dated January 27, 1995. Its Terms of Reference included incorporation of specific directions vide ILO's Resolution of 2006 introducing a ban on all mining, manufacture, recycling and use of all forms of asbestos. Several years have passed but the report of the Advisory Committee is yet to see the light of the day. If the Supreme Court's 29 year old verdict and it six directions are read in the light of the scientific, medical and legal findings at a global level, there is a compelling reason for banning the import of all kinds of asbestos by India because human biology is same world over.

Asbestos in air at work place is a major cause of adverse effects on the health of industrial workers.[58] The risk of asbestos related exposure is there in shipbuilding, railway engineering sites, manufacturing of asbestos based products, metal plate workers, carpenters, plumbers, gas fitters, construction workers, builders and production fitters and electricians. The maintenance and building workers, plumbers, electricians, joiners, computer installers, telephone installers and fire alarm installers face high risk of exposure to these carcinogenic fibers.

ILO has estimated that between 610,000 – 635,000 deaths are annually caused by work related cancers. The asbestos component of this figure could be as high as 100,000 including asbestosis, lung cancer and mesothelioma, assuming that world labour force is about 2.7 billions[59].

In the Occupational Health and Safety Association (OHSA) case, the Supreme Court recalled the decision in CERC case wherein it has been held that the right to health and medical care to protect one's health and vigour, while in service or post-retirement, is a fundamental right of a worker under Article 21 read with Articles 39(e), 41, 43, 48-A and all related Articles and fundamental human rights to make the life of the workman meaningful and purposeful with dignity of person. The Court held that "the compelling necessity to work in an industry exposed to health hazards due to indigence to bread-winning for himself and his dependents should not be at the cost of health and vigour of the workman....Right to health i.e. right to live in a clean, hygienic and safe environment is a right flowing from Article 21. Clean surroundings lead to healthy body and healthy mind. But, unfortunately, for eking a livelihood and for national interest, many employees work in dangerous, risky and unhygienic environment"[60].

The expression 'life' assured in Article 21 of the Constitution does not connote mere animal existence or continued drudgery through life. The right to human dignity, development of personality, social protection, right to rest and leisure are fundamental human rights. Not prohibiting the import of asbestos is a violation of Article 21 of the Indian constitution. In CERC case related to asbestos and OHSA case, the Court held that the right to health to a worker is an integral facet of meaningful right to life to have not only a meaningful existence but also robust health and vigor without which worker would lead life of misery. Lack of health denudes his livelihood. Compelling economic necessity to work in an industry exposed to health hazards due to indigence to bread-winning for himself and his dependents, should not be at the cost of the health and vigor of the workman. Facilities and opportunities, as enjoined in Article 38, should be provided to protect the health of the workman. Provision for medical test and treatment invigorates the health of the worker for higher production or efficient service.

The Court has held that "the jurisprudence of personhood or philosophy of the right to life envisaged under Article 21, enlarges its sweep to encompass human personality in its full blossom with invigorated health which is a wealth to the workman to can his livelihood to sustain the dignity of person and to live a life with dignity and equality"[61]. Jurisprudence of personhood has upheld the primacy

of the right to life and dignity and has established right to health and healthcare.

12. Conclusion

Unmindful of the wisdom of WHO, ILO, Supreme Court, Calcutta High Court, Patna High Court, Chief Minister of Bihar and other ministries of environment, health and labour, Indian Ministry of Commerce and Industry has issued a the Asbestos or Fibre Cement based Products (Quality Control) Order, 2024 pertaining to goods and articles made from asbestos or fibre cement based products[62]. This order disregards the findings of WTO's Appellate Body which makes a case for phase out of asbestos and asbestos based products. This order mandates that such products must adhere to the corresponding Indian Standard 2098:1997, specifically focusing on (Asbestos Cement Building Boards). India has communicated this order to WTO's Committee on Technical Barriers to Trade about its Asbestos/Fibre Cement based Products (Quality Control) Order.

It is apparent that the position of ministry of commerce and industry remains caught in the time warp of of 2000 when India and Brazil had protested against the approach of WTO's Appellate Body in the matter of French ban on Canadian chrysotile asbestos. With the passage of time Canada itself has abandoned the position it took before the WTO's judicial forum and has banned mining, trade and use of chrysotile asbestos which used to be exported to India. The ministry of commerce and industry seems oblivious to the right to health of persons, citizens and workers. Meanwhile, the Brazilian Supreme Court delivered a decision prohibited production and commerce of asbestos throughout Brazil. The Court declared the law, which regulates the exploration of minerals in the country and allows for the utilization of asbestos in a "controlled" fashion to be unconstitutional. It was analyzing a case involving the law in the State of Rio de Janeiro, but the ban is valid for the entire country.[63] This decision has created a new pattern of integration between international and constitutional law for future cases focused on collective fundamental rights. But Indians will continue to be victims of Brazilian asbestos because it has not prohibited external trade.

The secondary exposure to asbestos used in construction has resulted in higher incidence of cancer among those living under asbestos roofs. The situation in India is aggravated among the most deprived and marginalized communities because as many as 16.4 per cent in the rural areas and 20 per cent in the urban areas live and work under asbestos roofs. Some 79 per cent of Dalits live in such houses. This came to light from the 2011 Census figures released on the Scheduled Caste households by amenities and assets by the Office of the Registrar General & Census Commissioner.

Although mining of all kinds of asbestos is technically banned in India, the Minister for Chemicals and Fertilizers and Minister of Health Family Welfare informed the parliament that "Government of India has not banned the use of any type of asbestos in the country….the chrysotile asbestos is not included in Annexure-III of the Rotterdam Convention and is imported without any prior consent"[64]. It appears quite unreasonable to defend import of a hazardous substance without prior informed consent procedure, which is an established norm under the UN laws.

What is hazardous poisonous in some 70 countries cannot be non-hazardousness and non-poisonous for India. If Indian asbestos is carcinogenic and is rightly banned in India, it is indefensible to imply that non-Indian asbestos of are non-carcinogenic and do not deserve to be banned on scientific and medical grounds. This situation has arisen because there is a manifest conflict of interest between one minister's role as a health minister and chemicals minister when the same person heads both the ministries. It is apparent that the mandate of the ministry of chemicals is not letting him fulfill the mandate of the ministry of health. The mandate of the former includes promotion of substances and chemicals like asbestos. The mandate of the latter is to prevent promotion of substances and chemicals like asbestos to safeguard the health of present and future generation of Indians. The new government formed in June 2024 did not address this predicament.

Instead of refusing to see the writing on the wall, ministry of chemicals and the ministry of health should pay heed to the steps being taken by ministry of urban affairs for adopting non-asbestos approach. This shows a healthy path to most of the urban development departments

and urban local bodies, which are yet to stop usage of asbestos in all the municipalities and in some 7, 935 urban centres.

The ministry of rural development and panchayati raj is yet to apprise all the panchayats to refrain from procurement of construction of asbestos cements sheets and other asbestos based products to ensure asbestos free villages.

It emerges that when defending the indefensible asbestos factories becomes a compulsion of officials of the ministry of commerce, finance, chemicals and defense, disasters like the one witnessed in the Bhopal based factory of UCC's hazardous plant end up becoming the order of the day. The reference to the disaster of 1984 by Patna High Court in the asbestos case is relevant because Union Carbide Corporation (UCC), the US company was also in the asbestos business whose liability is now owned by its buyer US based Dow Chemicals Company. Dow has assigned $ 2.2 billion dollars for compensation fund to the victims in US where 10, 000 people are dying every year from asbestos related diseases. In India, no such asbestos fund has been created by the asbestos companies and their association to compensate the victims of asbestos related diseases.

The policy makers, law makers and law enforcers who are concerned with commerce and finance ministries are yet to acknowledge that Indian workers, their families and the communities in the vicinity of asbestos based factories, buildings and products and the consumers of these products face the risk of intragenerational and inter-generational adverse health impact in the business as usual scenario. The union ministry of finance had announced that asbestos related diseases will be covered under Rashtriya Swasthya Bima Yojana (National Health Insurance Scheme) but this is hardly sufficient in the absence of environmental and occupational health infrastructure, competent medical personnel and a medical education syllabus which caters to environmental and occupational diseases. The fiscal incentives provided to the asbestos industry has led to increase in the use of asbestos products. Such incentives make asbestos artificially cheaper than its safer alternatives. India should find ways to eliminate asbestos-related diseases by phasing out asbestos based industries, buildings and products to safeguard the life of Indian working class in particular and all the Indians and foreigners residing in India in general. In the light

of Court's judgments and the recommendations of the WHO, ILO and the Chemical Review Committee of the UN, India should break the stalemate of over 17 years and support listing of white chrysotile asbestos in Annex III of the Rotterdam Convention by consensus, to prevent preventable but incurable diseases and deaths. It should prepare a asbestos decontamination plan by preparing a register of all the workers who handle asbestos and asbestos products and a register of asbestos laden buildings and products.

Government should desist from relying on conflict-of-interest ridden studies and ministers. So far the Cabinet Committee on Economic Affairs has not been successful to ensure that government's own vision gets translated into action by preventing ministries of finance, commerce, defense, chemicals and environment from promotion of all kinds of asbestos including white chrysotile asbestos. There is a compelling need to compensate the victims of primary and secondary exposure of carcinogenic asbestos mineral fibers by drawing lessons from the countries that have banned it. This is the only way to provide just legal remedy for the public good.

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