

The global asbestos struggle today

La lotta globale contro l'amianto oggi

Barry I. Castleman*, Tushar Kant Joshi**

* Environmental Consultant, Garrett Park, MD, USA

** Centre for Occupational and Environmental Health, Lok Nayak Hospital, New Delhi, India

Summary

Global asbestos use dropped by half in the 1990s but has remained over 2 million metric tons per year in the new century. Most of the people in the world still live in countries where asbestos is widely used, with few safeguards, despite bans in over 40 countries around the world and the virtual elimination of asbestos in the leading industrial nations. For countries experiencing rapid industrialization, the use of asbestos in the coming generation of construction materials would have dire public health consequences. The case of India, where asbestos use is still rapidly expanding even in the face of growing public health opposition, is illustrative. The recent commitment of the World Health Organization, the International Labour Organization, and the World Bank Group to take action on asbestos offers new hope that the *impasse* in lowering global asbestos use will be overcome. Progress so far has depended on the dedicated efforts of many individuals and institutions of civil society, including doctors, unionists, environmentalists, lawyers, politicians, government officials, public health workers, journalists, and asbestos victims' groups. Working together worldwide, civil society has pushed back powerful interests and created conditions for improved development and health in one country after another in the global asbestos struggle. Eur. J. Oncol., 12 (3), 149-154, 2007

Key words: asbestos, public health, international organisations

Riassunto

L'utilizzo mondiale dell'amianto è diminuito della metà negli anni '90, ma è rimasto di oltre 2 milioni di tonnellate per anno nel nuovo secolo. La maggior parte delle persone nel mondo vive ancora in paesi dove l'amianto viene usato su larga scala, con poche precauzioni, a dispetto di divieti in oltre 40 paesi in tutto il mondo e l'eliminazione virtuale dell'amianto nelle principali nazioni industrializzate. Per i paesi in rapida crescita industriale, l'impiego dell'amianto nei materiali di costruzione di nuova generazione potrebbe portare a conseguenze gravissime di salute pubblica. Il caso dell'India, dove l'uso dell'amianto è ancora in rapida espansione, a dispetto della crescente opposizione da parte degli addetti della sanità pubblica, è significativo. Il recente impegno dell'Organizzazione Mondiale della Sanità, dell'*International Labour Organization* e del Gruppo della Banca Mondiale di prendere una posizione riguardo all'amianto offre una nuova speranza di superare l'*impasse* nella diminuzione dell'utilizzo globale dell'amianto. Finora il progresso è dipeso dall'impegno di molti individui ed istituzioni della società civile, tra cui medici, sindacalisti, ambientalisti, avvocati, politici, funzionari, lavoratori della sanità pubblica, giornalisti e gruppi di vittime dell'amianto. Lavorando insieme a livello mondiale, la società civile ha respinto potenti interessi e ha creato le condizioni per migliorare lo sviluppo e la salute, in un paese dopo l'altro, nella lotta globale contro l'amianto. Eur. J. Oncol., 12 (3), 149-154, 2007

Parole chiave: amianto, sanità pubblica, organizzazioni internazionali

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Address/Indirizzo: Dr. Barry Castleman, Environmental Consultant, P.O. Box 188, 4406 Oxford Street, Garrett Park, MD 20896, USA
Tel. +1/301/9339097 - E-mail: barry.castleman@g.mail.com

Introduction

Over 90% of world asbestos use is in asbestos-cement pipe, flat sheet, and corrugated roofing sheet. Most of the rest is used in brake linings and pads. Smaller amounts are used in industrial gloves and gaskets, etc. Asbestos dust exposures from the use, disposal and replacement of these products can be quite significant. The major asbestos mining countries are Russia, Canada, Kazakhstan, China, Brazil and Zimbabwe.

“Controlled use” of asbestos was soundly rejected by the World Trade Organization (WTO) in 2001, in a decision upholding the asbestos ban in France and, in effect, all national asbestos bans. Global asbestos consumption dropped by half in the 1990s but has levelled off since then (fig. 1). Over 40 countries have asbestos bans in place, including the 27 countries in the European Union. Asbestos is also now banned in Chile, Argentina, Uruguay, Honduras, Kuwait, Saudi Arabia, Jordan, Australia, Japan, the Seychelles, New Caledonia and Gabon. Egypt, Croatia, Vietnam, Peru, South Korea and South Africa are moving to end their consumption of asbestos products. Following the 2006 elections, the United States Congress

is expected to enact legislation to ban asbestos in 2007, mainly to halt the importation of asbestos brake linings and asbestos-cement sheet products.

At the same time, asbestos use is increasing by 9% per year in India, and new asbestos plants are being built. Asbestos use is also increasing in other countries, primarily China, Ukraine, Indonesia, Kazakhstan, Iran, Kyrgyzstan and Thailand. Most of the people in the world still live in countries where asbestos products continue to be used, under poorly controlled conditions.

An analysis of the experience of 33 countries has shown that national asbestos consumption, after a latent period of 30-40 years, was proportional to the number of deaths from mesothelioma and asbestosis. These deaths were accompanied by probably even more numerous asbestos-related deaths from lung cancer, laryngeal cancer, and gastrointestinal cancers. The accompanying costs for health care, lost productivity, human suffering, and the management of asbestos hazards in buildings and waste disposal are enormous. Such burdens are still largely preventable for countries that have not used that much asbestos in the past and move to ban asbestos rather than go on using it for years to come^{1,2}.

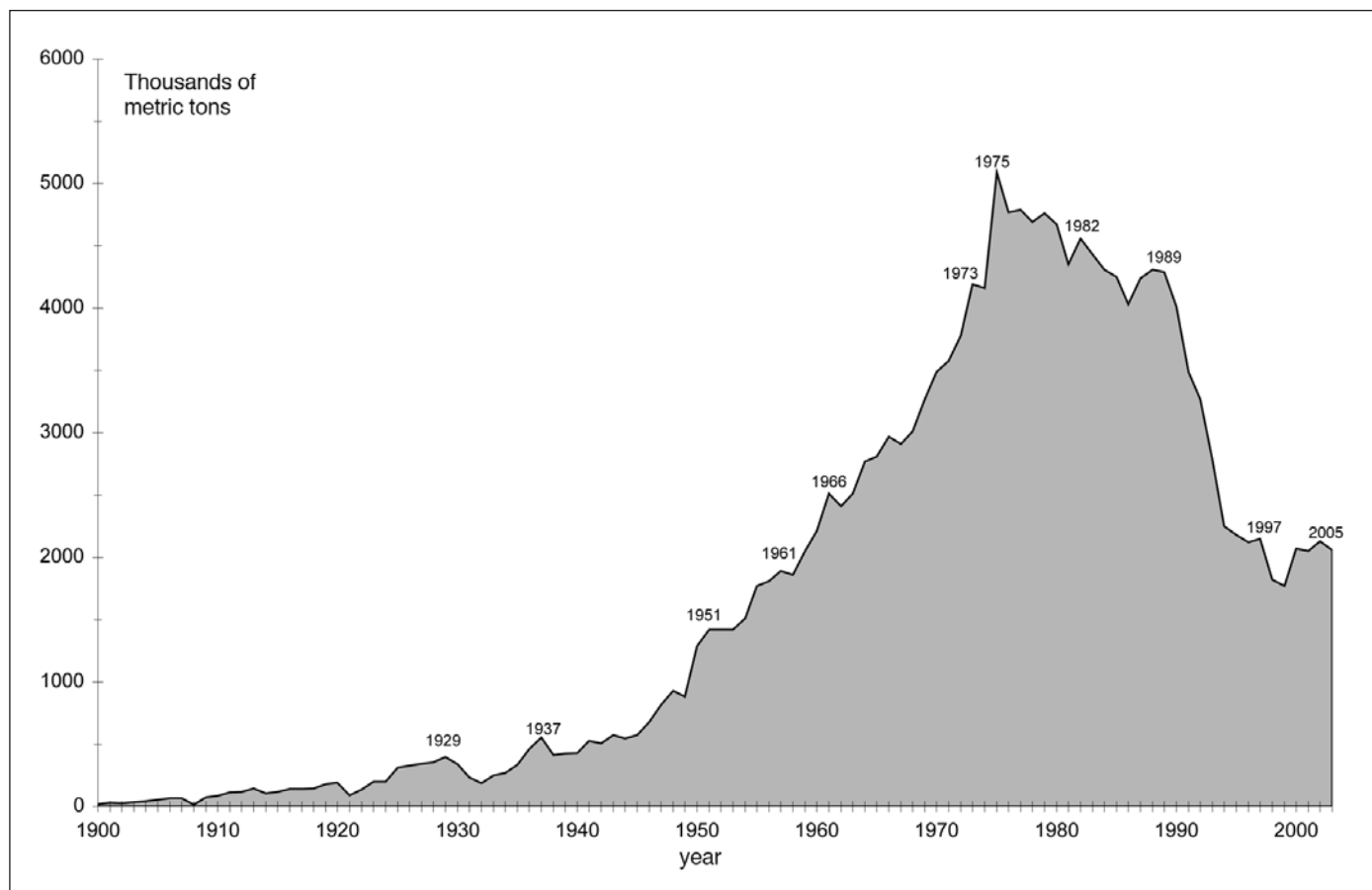


Fig. 1. World production of asbestos, 1900-2006

Graph designed by Mr Stephen Berger, on the basis of data supplied by Mr Robert Virta of the US Geological Survey

Canada's rôle and the asbestos industry in the 21st Century

With almost all of its asbestos exported to poor countries, the government of Canada remains the major obstacle to progress on asbestos. In 2006, Canada threatened South Africa with a trade challenge at the WTO, joining the government of Zimbabwe in pressing South Africa to allow the continued sale of asbestos and asbestos products. More seriously, Canada led other asbestos producing and consuming countries to take the unprecedented step of blocking the inclusion of chrysotile asbestos under the UN Rotterdam Convention. This convention has until now required pre-export notification that a substance is banned as a hazard in multiple parts of the world. Pesticides still involved in international trade have been so designated without dispute, and the precedent of chrysotile asbestos being exempted raises serious concerns about the future of this minimally burdensome instrument of international public health. Obtaining prior informed consent before exportation amounts to little more than placing warning labelling on the products. Canada and other asbestos mining and manufacturing countries have blocked inclusion of chrysotile asbestos under the Rotterdam Convention since 2004, and the next time this will come up for consideration will be in 2008.

Canada's rôle has been criticized by Canadian health scientists Colin L. Soskolne and David V. Bates[†], and members of Canada's Parliament, including Pat Martin, have called for Canada to close the asbestos mines and pension off the remaining miners, who number less than 1000. The Canadian press has disclosed internal government memos that acknowledge that competing asbestos-mining countries could easily put Canada's mines out of business, but this is not done because Canada plays such a unique rôle in defending asbestos. Canada has for years supported a "Canadian Chrysotile School" of researchers who blame asbestos deaths mainly on the historic use of other varieties of asbestos (together amounting to about 5% of global consumption). These scientists travel to India, Brazil, Indonesia, South Africa and other countries where controversy has been raised over asbestos, making the case for the "magic mineral" at medical meetings and arranging media interviews. In March 2006, the Canadian Embassy and the Indonesian asbestos industry arranged a conference in Jakarta. Dr. Zulmiar Yanri, Indonesia's Director of Occupational Health, boycotted the conference after being excluded from a rôle in its planning³.

No more multinational asbestos corporations remain, only national enterprises. Close relations with government and media ownership ensure their profitability, through minimization of the costs of prevention and

compensation. These business interests are also intimidating to trade unionists and public health workers who have called for protection and compensation of asbestos-exposed workers, public health campaigns on asbestos, and banning asbestos⁴.

The asbestos situation in India

According to the World Health Organization (WHO), the developing South East Asian countries now have the largest number of workers directly exposed to asbestos. The WHO believes asbestos to be the most important occupational carcinogen, causing 54% of all deaths from occupational cancers⁵.

The asbestos exposures in India are significant and will result in an increase in related malignant illnesses in the future. According to studies conducted by the Indian National Institute of Occupational Health (NIOH) in the 1980s and 1990s, there were 18 asbestos-cement factories located in different parts of the country. The NIOH carried out environmental epidemiological studies in four asbestos-cement factories located in Ahmedabad, Hyderabad, Coimbatore and Mumbai. The reported prevalence of asbestosis in these factories varied from 3% to 5%. The levels of asbestos fibres were found to be higher than the permissible levels of 2 fibres/ml in two of the factories. In the asbestos textile industry, the average levels of airborne asbestos fibres varied from 216 to 418 fibres/ml. This is so far above the permissible level that one would expect a very high eventual incidence of asbestosis in the exposed workers. The prevalence of asbestosis reported was 9%⁶. In 2005, the number of asbestos-cement units stood at 32 (fig. 2)⁷.

The Indian asbestos-cement manufacturers have formed a powerful trade association, the Asbestos Cement Products Manufacturers Association (ACPMA), which works in close concert with the Montreal-based Chrysotile Institute. ACPMA currently has 12 members having 38 manufacturing units located in various states and having a gross annual turnover of approximately US \$500 million. They spearhead the propaganda to claim chrysotile asbestos is harmless and can be safely used under controlled conditions. The figures of imports and exports they provide are much higher than the ones provided by the government of India for the corresponding period⁸.

The plight of Indian asbestos workers was placed before the Supreme Court of India through a writ of petition filed by the Consumer Education and Research Centre (CERC), Gujarat. The judges directed the Union and state governments "to review the standards of



Name of the States	Nr. of chrysotile plants
Assam	1
Andhra Pradesh	3
Gujarat	1
Jharkhand	1
Haryana	1
Karnataka	1
Kerala	1
Madhya Pradesh	2
Maharashtra	9
Orrisa	1
Tamil Nadu	6
Uttar Pradesh	1
West Bengal	2
Rajasthan	1
Union territory of Dadra and Nagar Haveli	1
Total	32

Fig. 2. State-wise distribution of asbestos-cement plants in India

Members Reference Service. Lok Sabha Secretariat, Parliament library and reference and research, documentation and information service, Government of India⁷

permissible exposure limit value of fibre... in tune with the international standards reducing the permissible limit". The court directed the NIOH to examine YAN employees in the asbestos industries and to certify cases of disability. Ten years later, less than 30 had been compensated for occupational disease from asbestos, out of an estimated workforce of 100,000 people exposed to asbestos in India⁹.

The government of India remains ambivalent on chrysotile asbestos use. The Ministry of Environment and Forests sponsored an international conference on Environmental Health in New Delhi in 2002, and in its final communiqué stated: "*Environmental epidemiological studies are required to be carried out near to industrial estates and hazardous waste disposal sites to estimate the extent of health risks including from asbestos. Alternatives to asbestos may be used to the extent possible and use of asbestos may be phased out*". But in his reply to a question raised in the upper house of Indian Parliament in the year 2004 on banning all asbestos use in India, the Minister for Environment and Forests said that: as "*no scientific study establishing that the use of white asbestos causing lung cancer is available, it is not considered as desirable to ban*

the use of white asbestos". India has ratified only 41 international labour standards accepted by International Labour Organization (ILO). This does not include the Convention Nr. 155 on Occupational Safety and Health, 1981, or Nr. 162, the Asbestos Convention, 1986.

An increasing number of scientists, trade unionists, and members of civil society are joining the anti-asbestos campaign. It was demonstrations from such people which prevented the French ship Clemenceau from docking in India for shipbreaking in Gujarat, because of the presence of asbestos and other hazardous materials that had not first been removed from the old ship¹⁰.

It is hoped that in India the next generation of construction materials will not contain asbestos, as it becomes more widely accepted that this is a hazardous, discredited technology.

Positive developments at international organizations

The year 2006 brought major new initiatives from international bodies. The ILO passed a resolution in June

2006 explicitly supporting national asbestos bans for the first time. Introduced at the initiative of the Workers' Group, the Committee on Safety and Health proposed a resolution on asbestos which was adopted by the ILO at the International Labour Conference in 2006. The resolution calls on the ILO to "*promote the elimination of future use of all forms of asbestos and asbestos-containing materials in all member States*"¹¹.

The WHO concluded in 2006 that "*the most efficient way to eliminate asbestos-related diseases is to stop the use of all types of asbestos*". The WHO has inaugurated an asbestos action programme and is now working with the ILO to help countries around the world develop national plans to eliminate asbestos use and minimize the hazards from in-place asbestos materials. The only opposition statements received on the WHO policy paper on asbestos came from asbestos-mining countries Kazakhstan and Zimbabwe¹².

The World Bank is avoiding the use of asbestos-cement materials in tsunami reconstruction in Indonesia. The World Bank is drafting a best-practices guidance note to help project officers select safer materials in new construction projects and minimize asbestos hazards in infrastructure renovation: this is undergoing internal review and will be finalized this year.

The international development banks have been moving against asbestos in new building and industrial projects. In 2005, the World Bank specified that asbestos-cement materials should not be used in replacing roofing in a Ukraine schools renovation project. The International Finance Corporation (IFC), the arm of the World Bank Group that lends to the private sector, financed a non-asbestos brake pad manufacturing plant in China in 2005. IFC performance standards revised in 2006 urge avoiding use of hazardous materials where hazards to workers and the community under normal conditions of use and disposal cannot easily be prevented, such as the use of asbestos in building materials.

The new initiatives from the international organizations are a hopeful sign that progress in lowering world asbestos consumption can be resumed. Global asbestos use declined by half in the 1990s but has since then stabilized at over 2 million metric tons per year, following the Asian economic crisis of 1998. The United Nations agencies and development banks may be able to provide the critical impetus to overcome obstacles to the change to safer alternative technologies. Efforts to ban asbestos, regulate exposure, and obtain compensation for workers disabled by asbestos are coordinated by the non-governmental organization, International Ban Asbestos Secretariat (IBAS), in London. The IBAS organizes international conferences (such as Tokyo in November

2004, and Bangkok in July 2006) to gather together government officials, scientists, doctors, lawyers, unionists, politicians, journalists, and others concerned about the effects of asbestos on public health around the world¹³.

Concluding thoughts about compensation

Dr. Irving J. Selikoff, renowned for his life's work on asbestos, concluded that the asbestos catastrophe resulted in part from human failure to anticipate its scale.

The situation he described in a paper published after his death refers to the industrial nations where asbestos companies and their insurers have had to bear substantial financial responsibility for the toll of asbestos disease.

Dr. Selikoff said:

*"The asbestos disaster did not result from superficial miscalculations. Rather, it resulted from very careful calculations, many of which were wrong. They were made not only by scientists but by individuals who were skilled in making estimates (e.g., auditors and actuaries for insurance companies that provided policies to companies making asbestos products). They were wrong in their predictions and are now liable for huge sums of money. These are troubling reflections, particularly when we remember that "statistics are human beings with the tears wiped away"*¹⁴.

The toll in human suffering is increased where the responsible parties escape, with impunity, liability for the tragic human consequences of their actions, as is the case in countries where there are still thriving asbestos industries. It seems that one of the essential requirements of the asbestos business in the world today is that few, if any, of the workers harmed can obtain compensation. National laws and policies that allow such a situation to be perpetuated obstruct the progress of public health, thus permitting much preventable human suffering to occur.

References

1. Lin R-T, Takahashi K, Karjalainen A, *et al.* Ecological association between asbestos-related diseases and historical asbestos consumption: an international analysis. *Lancet* 2007; 369: 844-9.
2. Wagner GR. The fallout from asbestos. *Lancet* 2007; 369: 973-4.
3. Castleman BI. Asbestos is not banned in North America. *Eur J Oncol* 2006; 11 (2): 85-8.

4. Kazan-Allen L. The asbestos war. *Int J Occup Environ Health* 2003; 9: 173-93. http://www.ijoeht.com/pfds/0903_KazanAllen.pdf
5. Sengupta AK. Asbestos and health, WHO policy on elimination of asbestos-related diseases. National Workshop on Asbestos in India. Centre for Occupational and Environmental Health, MAMC, December 3, 2006.
6. Generation of database on occupational diseases. National Institute of Occupational Health, Ahmedabad, India. Achievements, 1995 <http://www.icmr.nic.in/pinstitute/nioh.htm>
7. Government of India. State-wise distribution of asbestos-cement plants in India. Members reference service. Lok Sabha Secretariat, Parliamentary library and reference and research, documentation and information service. Ref. nr. 10/Ref. 2005; subject - asbestos industry, January 4th, 2005.
8. Joshi TK, Bhuva UB, Katoch P. Asbestos ban in India: challenges ahead. *Ann NY Acad Sci* 2006; 1076 (1): 292-308.
9. Murlidhar V, Kanhere V. Asbestosis in an asbestos composite mill at Mumbai: a prevalence study. *Environ Health* 2005; 4: 24. <http://www.ehjournal.net/content/pdf/1476-069X-4-24.pdf>
10. Sharma K. French ship must not enter India. *The Hindu*. Jan. 7, 2006.
11. <http://www.ilo.org:80/public/english/bureau/inf/pr/2006/34.htm>
12. http://www.who.int/occupational_health/publications/asbestos_relateddiseases.pdf
13. www.ibas.btinternet.co.uk
14. Selikoff IJ. Asbestos disease – 1990-2020; risks of asbestos risk assessment. *Adv Mod Environ Toxicol* 1994; 22: 133-45.