

# Korean Asbestos Strategy

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## Abstract

*Asbestos consumption in Korea peaked at 2.2 kg/person/year in 1992. It came down to 0.5 kg/person/year in 2001, but is still higher than in most other developing countries. After 30 years of widespread use of asbestos, the first case of an asbestos related health effect was recognized in 1993, when an asbestos textile worker was diagnosed with mesothelioma after 19 years of working in the industry. Thereafter, lung cancer cases were reported for compensation of asbestos exposures. One notable finding in these cases is that most of them had been exposed to asbestos by using, not manufacturing, asbestos products. Very few of them had worked in a workplace where asbestos exposure was ever measured, and hence we have no idea about the future potential of asbestos disease development.*

*Here, in dealing with persistent asbestos problems in Korea in a strategic way, three potential intervention points are proposed: technical, managerial, and socio-cultural. In this scheme, the most important underlying principle is to enable the empowerment of subjects or interested parties by giving them a voice and the chance of participation in the collection and evaluation of data and decision making processes. Few of these strategies have ever been implemented in Korea. Most of the previously implemented strategies involved the use of official workplace measurements and a health check-up program at the workplace, often without any meaningful results. Only when the program was used at the demand of the involved parties could problems be identified.*

*Still asbestos is used, and discussion about the banning of asbestos is not taking place in Korea. One of the major hurdles to the final ban of asbestos in Korea will be how to give the inaudible victims their voices back and thus enable them to tell their stories.*

## Introduction

Asbestos consumption in Korea increased rapidly from the 1970s onwards with the expansion of economic activities, mostly in construction, shipbuilding and automobile manufacturing. The import of asbestos into Korea peaked in 1992 and the current figure is approximately one fourth of its maximum. Nowadays, after 30 years of asbestos exposures, we are beginning to observe its adverse health effects, especially lung cancers and mesotheliomas among various workers. Although belated, administrative controls began to be implemented from the 1990s, and the permissible exposure limit at the workplace has been lowered to 0.1 fiber/cc from 2003. However, we have not yet got to the point of banning asbestos in all sectors and activities of society, and this

paper describes the current situation regarding asbestos problems and potential strategies to highlight and solve these problems in Korea.

## 1. Asbestos problems in Korea

The first asbestos related adverse health effect was recognized in Korea when an asbestos textile worker was diagnosed with mesothelioma after 19 years of work in 1993. Five more mesotheliomas and 12 lung cancers were reported thereafter for the compensation of asbestos exposures. One notable finding of these cases is that most of them had been exposed to asbestos by using, not manufacturing, asbestos products. Very few of them had worked in a workplace where asbestos exposure was ever measured. As these industries had never been checked for asbestos problems, we have no ideas about the future potential of asbestos disease developments.

	Industries and occupations of asbestos compensated workers
Lung cancer	underground facility keeper, foundry worker, plumbers, auto mechanic, maintenance workers, welder, and boiler maker
Mesothelioma	asbestos textile, ship-building worker, boiler operator, mechanic, miner at serpentine mine, construction worker
Asbestosis	asbestos textile, ship building

Asbestos exposure levels where measurements were made have fallen steadily. In the asbestos textile manufacturing industry, the exposure level was around 5-10 fibers/cc in the 1980s and then fell to 1-5 fibers/cc in the 1990s. Nowadays, no asbestos textile manufacturing company is operating in Korea. However, friction materials are still made by small businesses.

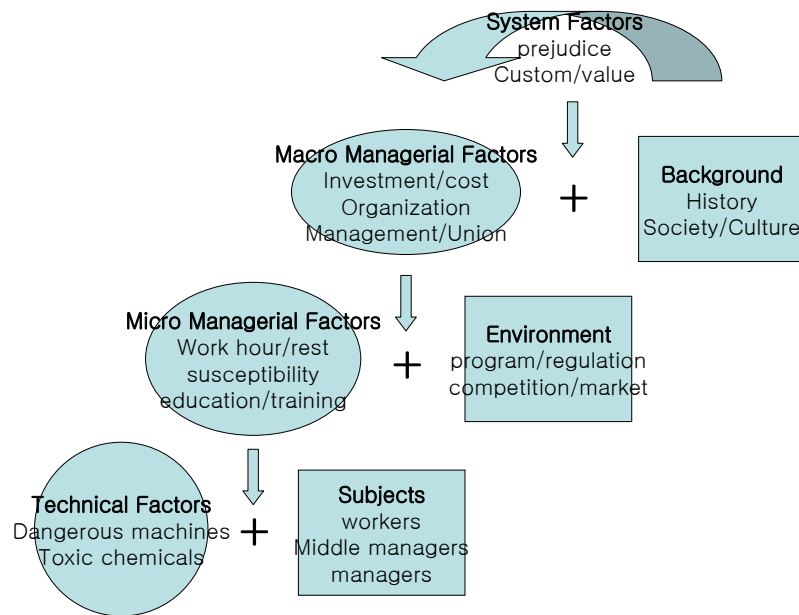
	Geometric Mean (fibers/cc)								
	1984	1987	1988	1989	1991	1992	1993	1994	1996
Construction	0.40	0.27	0.23	0.53~0.15	0.52	0.08	0.17	-	0.14
Friction	1.70	-	-	0.42	0.68	0.19	0.10	0.67	0.55
Textile	6.70	4.4~5.9	2.57	0.49~2.0	3.93	2.09	1.22	1.21	1.87
Asbestos board	-	-	-	1.04	-	-	-	-	-
Repair auto	-	-	1.60	0.85	-	-	-	-	-
Gasket	-	-	-	0.05	-	-	-	-	-
Repair ship	-	-	2.45	-	-	-	-	-	-
Shipbuilding	-	-	-	-	-	-	-	0.02	-
Brakepads	-	-	0.35	-	-	-	-	-	-
Rectification	-	-	-	-	-	0.10	-	-	-

One way to estimate the gross exposure level is to calculate the use of raw asbestos per capita per annum, and it had peaked to 2.2 kg/person/year in 1992 in Korea. It came down to 0.5 kg/person/year in 2001, but is still higher than in most other developing countries.

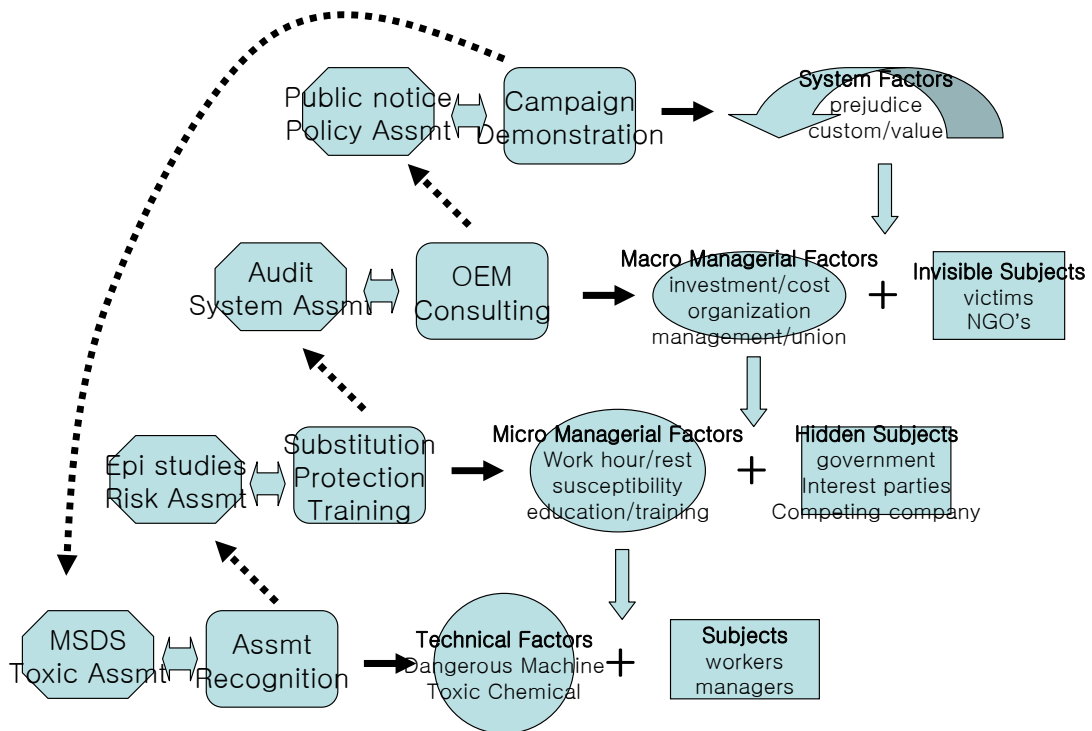
## 2. Strategies to break and change the status quo of asbestos problems

In general, three different levels of intervention points can be delineated in tackling the occupational health hazards: technical, managerial, and socio-cultural. These three different levels correspond to epistemological perspectives of creation and propagation of health hazards. Technical intervention points pertain to specific health risk factors (measured by various natural sciences) such as infectious agents, toxic chemicals and physical stressors. Managerial intervention points pertain to how these technical factors are interwoven into labor processes and exposure-prone

activities through organization and management of labor and everyday activities, such as education and training, workplace protection, and job placements. Socio-cultural intervention points pertain to what is cherished and valued instead of factual reality, so that these points represent the system of actions and inactions based on value preferences and prejudices.



These three intervention levels should be tackled all together if any intervention program is to be successful. However, interventions in one level usually lead to the creation of the need for higher interventions.



In most cases, the easiest and most accessible intervention points are technical factors. One potential and most frequently used strategy is to provide the opportunity for observation and recognition of specific health hazards. The observation and recognition of hazards in this way can lead to various actions, and experiences of successful protection may eventually change the values and beliefs of all interested parties and the general population.

Here, in dealing with persistent asbestos problems in Korea in a strategic way, three potential intervention points are proposed. In this strategy the most important underlying principle is to enable the empowerment of subjects or interested parties by giving them a voice and a chance of participation in the collection and evaluation of data and decision making processes:

- technical intervention points – provide opportunity for observation and recognition of hazards;
- managerial intervention points – enable the search of action and protection in devising alternatives;
- socio-cultural intervention points – compare and change the value system concerning the relative importance of health hazards.

## **2-1. Technical Interventions**

Two broad groups of technical points should be examined in the first place, health hazard recognition and assessment of exposure potentials.

Recognition of health hazards:

- sentinel health effects surveillance and feed-back to interested parties;
- mesothelioma registry and feed-back to interested parties;
- occupational disease compensation review board with attendance of patients.

Assessment of exposure potentials:

- public notice of renovation status of public buildings;
- workplace measurements and feed-back to interested parties.

## **2-2. Managerial Interventions**

In managerial interventions, alternative labor processes should always be sought and promoted by the involved parties. One of the mechanisms is to set up a health and safety committee with representatives of interested internal parties. The agenda of the committee should include alternative labor processes of all sorts. Another mechanism is to utilize the audit processes by external members to investigate the whole organization and propose benchmarking points from other organizations.

Internal Health and Safety Committee with input points from:

- workers;
- managers.

External Audits with input points from:

- governments;
- competing companies.

### **2-3. Socio-cultural Interventions**

To have a powerful socio-cultural intervention, the most important point is to give a voice to the victim groups so that their stories can be heard and compared with other problems of society. By the same token, the voice of NGOs should be encouraged to represent the invisible subjects of the society.

Victim groups:

- legal assistance;
- administrative assistance.

NGOs:

- administrative assistance.

### **3. The implication of the Korean situation for other countries in Asia**

Only a few of the above strategies have ever been implemented in Korea. Most of the strategies actually implemented involved the use of official workplace measurements and health check-up programs at the workplace. However, routine official programs resulted in no meaningful outcome, and only when the program was used at the demand of the involved parties, could problems be identified. One example was the demand of regional construction workers' unions to have their members checked for possible health effects from asbestos. Another example was the subway workers' union's involvement in asbestos exposure measurements during renovation of subway stations. Meanwhile, rounding up of victims by lawyer groups was not successful in that the cooperation by physicians and workers was not enough to connect directly with victims.

At present, the asbestos industry, especially in the construction sector, is dying in Korea because of market shrinkage. The administrative control by the government that has been tightened since the late 90s contributed to this trend. Actually, this was made possible because of the growth of labor and civil movements in Korea since the late 80s. In 1987, the demand for more social democratization was unleashed by a massive people's demonstration, and this led to a change in social customs and beliefs including the presidential election process. This change in social attitude was soon reflected in the technical investigation of problems, and led to a change in the management practice of industries.

However, asbestos is still used, and discussion about the banning of asbestos is not taking place in Korea. One of the least sophisticated points in the strategy concerns socio-cultural interventions; the voice of asbestos victims is too small to demand the abolishment of asbestos usage entirely. No formal representation or association has been formed for victims and NGO activities have been too

broad to represent them. One of the major hurdles to the final ban of asbestos in Korea will be how to give the inaudible victims their voices back and thus enable them to tell their stories.

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