

The Economic Impact of the Banning of the Use of Asbestos in Brazil

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translated from Portuguese by Daniel Berman

Asbestos is considered to be a carcinogenic substance by the World Health Organization (WHO) which recommends the substitution of this mineral fiber by alternative materials. Resolution 162 (of which Brazil is a signatory) approved in 1986 by the International Labour Organization (ILO), made the same recommendation, in addition to prescribing measures for the prevention and control of health risks. In 2006 the ILO moved forward in this area with a new resolution advocating the elimination of all forms of asbestos. At present, 58 countries prohibit the utilization of this mineral fiber. Despite the recognized disease-causing potential of all kinds of asbestos, and the fact that there is no safe limit of exposure, the type of asbestos known as chrysotile is still utilized in Brazil and in other countries, mostly in the manufacture of fiber-cement products, such as roof tiles and panels and water tanks.

In 2004, the federal government in Brazil created an inter-ministerial commission to re-examine the use of chrysotile, in the wake of the decision by the European Community (Directive 1999/77/EC), to ban--- as of January 1, 2005--- the use of asbestos in all countries which had not yet adopted this measure. Although no new policy was put forward by the inter-ministerial commission---which made possible the interpretation that the use of chrysotile asbestos is still allowed---a number of Brazilian states and counties have passed legislation which implements the recommendations of the International Labour Organization to ban all types of asbestos. The state-level initiatives have been challenged by the Brazilian Chrysotile Institute (IBC) or by the government of Goiás (the only chrysotile mine in Brazil, is located in Minaçu County in the State of Goiás. The mine itself is owned by the Sama company, a property of the Eternit Group). At present, for example, the Federal Supreme Court is in the process of issuing a ruling upon the constitutionality of a law passed by the State of São Paulo which bans the use of asbestos in that state.

The defenders of the continued use of asbestos base their position on the following economic arguments:

- a) The prices of non-asbestos fiber-cement roof tiles and panels are supposedly higher than those of fiber-cement tiles which contain asbestos. According to IBC,

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products which utilize artificial fibers are 30% to 40% more expensive, and the banning of asbestos-cement tile would increase this difference in prices.

- b) Banning of asbestos use would be likely to put pressure on Brazil's international balance of payments because it would require the importation of synthetic fibers. According to the IBC, the damage might total US\$180 million/year, a figure which we believe to be clearly exaggerated, since Brazil already supplies 31% of its internal demand for asbestos from imports which cost only US\$14 million/year.
- c) It is argued that there would be a negative effect on jobs and income throughout the entire range of asbestos-containing products. Asbestos advocates stress that a total of 170,000 jobs have been created in the mining, manufacture, transport, distribution, and resale of asbestos products and that an asbestos ban would have a very serious effect on this entire line of products. However if we take into account both the direct and indirect jobs, this estimate is inconsistent with known facts. By law, companies which handle asbestos—whether in production, transport, or purveying of services—are required to register with the Ministry of Work and Employment (MTE) and, according to February 2005 figures in this registry, these companies employed 16,863 workers, of which 3,893 were in the fiber-cement sector and 453 in the mining sector.
- d) When the question of the loss of tax revenues is examined, the Sama company pays 53 million reais (US\$31 million) per year in federal, state, and county taxes and 9 million reais (US\$6 million) in valued-added taxes (ICMS). IBC goes on to point out that Minaçu County, the State of Goiás, and the Federal government receive 3.3 million reais/year (US\$2.0 million) in royalties through a mining tax on mineral extraction (CFEM).
- e) And finally, there would be a very strong negative effect on Minaçu County in Goiás because of the local importance of asbestos mining.

In our research we found, however that the supposed higher prices of non-asbestos products have not been confirmed. The research we have seen shows that the prices of fiber-cement products with and without asbestos are practically the same, especially since the IBC assumes, mistakenly, that the proposed change to asbestos-free fiber-cement products would be immediate and total, which we believe is unlikely. Defenders of asbestos products have made other incorrect assumptions as well:

- i) that Brazil lacks high-quality non-asbestos products and technology;
- ii) that businesses will be unable to supply the increased demand resulting from the race to convert to alternative products;
- iii) that the termination of the production of asbestos fiber will impede productive activity at all levels of the use of fiber-cement products;

- iv) and finally, that raising the demand for alternative fibers will not be sufficient to stimulate investments in Brazil to meet that demand, which will have to be met through imports.

The research results we have developed at Unicamp have made it possible for us to come to opposite conclusions and to refute these incorrect hypotheses. The real facts are as follows:

- 1) Brazil can already count on a supply of alternative fibers to asbestos, since the supply of alternatives has already reached an advanced stage and can certainly be completed in a very short time;
- 2) Even with a ban in the production of asbestos fibers, there will be no downstream supply problems in the fiber-cement industry. The negative economic effects will be felt only in the sphere of asbestos extraction (which in 2007 employed 156 workers in mining and 210 in primary processing). The problems here can be dealt with through policies of support to the affected region (tourism, for example, can become a promising alternative for Minaçu). The jobs in the manufacture of fiber-cement products and their transport and sale will still exist whether or not the raw material is asbestos or a synthetic fiber. The negative employment effects in the mining sector can be reversed through investments in alternative technologies in the fiber-cement industry through the use of synthetic fibers or other alternative materials. So it is likely that new businesses will develop, including those which specialize in asbestos removal.
- 3) Furthermore, we do not expect serious changes in the prices of alternative products. During a short transition period, these products may cost up to 10% more, which will be alleviated by the fact that special safety procedures will not be necessary during the installation, maintenance, and remodeling with non-asbestos fiber-cement products. Banning asbestos will eliminate the constant risk to workers and occupants of building projects, and the special costs of demolition, removal, and disposal of asbestos waste will be avoided. At this point we should recall that the recently-approved National Policy on Solid Wastes prescribes measures to oblige companies which employ environmentally hazardous technologies to assume responsibility for dealing with these hazards. Furthermore, we must take into account that in addition an increase in the supply of non-asbestos fiber-cement roof tiles and panels, there are other types of tiles, especially ceramic tiles, where there is a very strong price competition. For those reasons there will be no shortage of roof tiles and other fiber-cement products, nor do we anticipate an increase in the cost of construction triggered by an asbestos ban. It is well known that upward price pressures are common during periods of prosperity in the construction industry, which are unrelated to an asbestos ban. Thus, for example, the price per ton of asbestos fiber produced by Sama rose 20% between the first and second semester of 2008, according to the National Department of Mineral Production (DNPM).

During the 20th century, the asbestos industry, in collaboration with some leaders of the field of occupational medicine, sought to discount evidence against the use of asbestos. With the asbestos ban in an increasing number of developed countries, the producers of chrysotile turned their attention to the developing countries, in an effort, once again, to repeat traditional strategies for the legitimization of the use of asbestos. The most striking example is that of Canada, which prohibits the use of asbestos internally, but is still a significant exporter of the product, mostly to poor countries in Africa and Asia.

It is in this context that the debate over the ban on asbestos in Brazil continues. The lead asbestos-producing group in our country is working toward a strategy of encouraging the use of its product in developing countries. Instead of giving up asbestos as a raw material and betting on substitute materials, the Eternit group has opted to ignore the health and environmental effects of asbestos use, and to participate in the movement in defense of its "controlled use." At the same time, with the contraction of asbestos use in the internal market, Eternit has been expanding its sales to countries which have not yet banned the product. As the company with a monopoly on the production of asbestos in Brazil, Eternit has continued to manufacture fiber-cement products which use asbestos. So while maintaining its position as the principle local consumer of asbestos, it has at the same time begun to prepare itself to participate in the market of asbestos-free fiber-cement products.

Despite the lack of federal action, in the last decade Brazil has made serious progress in building its capacity for substitution of asbestos with alternative fibers, with safe options which take into account technical specifications as well as the protection of human health and the environment. The adaptation of these production techniques is simple and can be carried out in a short period of time. A significant part of the fiber-cement industry in Brazil is already up-to-speed with these technologies and has the capital necessary for a changeover.

Effective control of the risks created by asbestos will require a complete ban on the mining, transport, manufacture, sale, and utilization of asbestos, in all its forms, throughout Brazil. There will of course be people who defend the continuation of exportation, using the argument that our country continues to earn precious foreign exchange (exports of asbestos by Sama total US\$50 million per year). But it is absolutely essential to note that Brazil exports asbestos to poorer countries in the so-called periphery, thus putting millions of people at risk for their lives. Ignorance about the malignantly fatal effects of working with asbestos exacts a human price, but this price will not be paid by those who earn big money from this profitable and macabre commerce.