Science for Environment Policy



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No form of asbestos is safe: report calls for a universal ban

A recent report calls for an urgent, worldwide ban on the mining and use of asbestos. It argues that there is no safe use of asbestos that can prevent occupational and environmental exposure and urges all countries to use safer alternatives to asbestos in order to protect the health of their citizens.

Asbestos is used to make woven insulation and fireproofing materials. It can also be mixed with cement products to make products such as asbestos boards, roofing and pipes for the building industry. Although 52 countries, including all Member States of the EU, ban all forms of asbestos, over 2 million tonnes of asbestos is mined annually, mainly in Russia, China, Kazakhstan, Brazil, Canada, Zimbabwe, and Colombia. Almost all countries in Asia, Eastern Europe, Latin America and Africa continue to use asbestos and in developing countries there is often little protection for those that work with or use asbestos products.

Asbestos can cause asbestiosis (permanent scarring of the lungs) and cancer, especially of the lungs and larynx (voice-box), in addition to mesothelioma (cancer of the lining around the lungs, heart or abdominal organs). Exposure is primarily through inhalation of the fibres and health effects can take many years to appear after exposure. The researchers suggest the asbestos cancer pandemic may kill more than 10 million people in total before asbestos is banned globally.

Past exposure to asbestos is estimated to cause 20,000 asbestos-related lung cancers and 10,000 instances of mesothelioma in people across Western Europe, Scandinavia, North America, Japan and Australia each year. In 2006, the World Health Organisation (WHO) estimated around 125 million people were exposed to asbestos at work.

Many people are exposed to asbestos in the environment, especially from construction materials containing asbestos. Schools, homes and offices in the developed world may still retain asbestos-type building materials, whilst asbestos building materials are currently used in large quantities in the developing world.

One type of asbestos, chrysotile (white asbestos), accounts for almost 100 per cent of the asbestos currently produced and used around the world and for 95 per cent of the historical use of asbestos since 1900. There have been industry suggestions that white asbestos is substantially less harmful than other forms of asbestos and that it can be used safely in the correct conditions. However, epidemiological and toxicological studies and laboratory experiments demonstrate that it does cause various types of cancers, including lung cancer and mesothelioma.

In calling for a universal ban on the mining and all use of asbestos, the researchers point out that illnesses and deaths associated with asbestos are preventable. Other products can be safely used as substitutes, for example, ductile iron pipe, high-density polyethylene pipe and metal-wire-reinforced concrete pipe can be used in place of asbestos-cement water-pipes. Asbestos sheets used as low-cost building materials can be replaced with fibre-cement made with polymer or cellulose fibres that are greater than 10 micrometres in diameter, which are typically too large to be inhaled.

1. See: www.who.int/occupational_health/publications/asbestosrelateddisease/en/index.html

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