**Indoor PM2.5 in East Asian countries: A review of sources, health effects, and mitigation techniques**

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# Abstract

PM2.5, or fine particulate matter, is an airborne particle with an aerodynamic size of 2.5 microns or less which poses a greater threat to humans. People spend the majority of their time at home, thus it is crucial to understand indoor air quality. Health issues are raised from exposure to PM2.5. It depends on the infrastructure, air circulation, and insulation which are ultimately related to the country profile. This review selected East Asia countries that highlight the sources of PM2.5 and its associated health risk. As per our knowledge, data from North Korea is absent. The main sources of indoor PM2.5 include outdoor air pollution, indoor combustion, and building materials. Exposure to indoor PM2.5 has been associated with various health effects, including respiratory and cardiovascular diseases, cancer, and cognitive impairment. The article continues by addressing mitigating techniques to lower indoor PM2.5 concentrations in east Asian countries, such as better ventilation, the use of cleaner fuels and stoves, and regulatory reforms. However, the effectiveness of these techniques depends on various factors, such as building design, occupancy patterns, and cultural practices. The documented literature provides a valuable resource for policymakers, researchers, and stakeholders who are working to improve indoor air quality in developing countries facing similar challenges.

**Outline**

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