

Asian indoor pollution

メタデータ	言語: eng 出版者: 公開日: 2017-10-05 キーワード (Ja): キーワード (En): 作成者: メールアドレス: 所属:
URL	http://hdl.handle.net/2297/2412

ASIAN INDOOR POLLUTION

Kazukiyo KUMAGAI

The University of Tokyo, Japan

Abstract

Indoor air quality is an important determinant of population health and wellbeing. People in modern societies spend more than 90 % of their time in indoor spaces such as at home, work, school and in vehicles. Exposure to the hazardous airborne agents present in many indoor spaces causes adverse effects such as respiratory disease, allergy and irritation of the respiratory tract. Improperly or poorly ventilated combustion appliances pose a real risk of acute poisoning by carbon monoxide. Indoor exposure to radon and environmental tobacco smoke increases the risk of lung cancer. Many chemicals encountered indoors cause adverse sensory effects, giving rise to a sense of discomfort and other symptoms. Therefore, for example WHO Working Group was convened to agree on a set of statements on “The right to healthy indoor air” derived from fundamental principles in the field of human rights, biomedical ethics and ecological sustainability. However, many health symptoms and risk has been and still is reported in indoors all over the world including Asian countries.

There is a wide range of factors which effects to indoor environment in Asia, i.e. the climate zone from tropic to polar, the income from absolute poverty to high, and the places people living from rural to urban area. These factors will effect to the construction method, heat insulation and air tightness of the building, ventilation system, materials installed, heating and cooking systems, furniture and household brought in by the occupants, which will directly effect to health of the occupants by IAP. IAP is caused by a variety of sources that release gases or particles into interior spaces. Air quality deteriorates further if ventilation is not sufficient, dilution with cleaner outdoor air is limited, and if additional factors such as high temperature and humidity are added.

For example, chemicals from buildings materials, mold in damped buildings are a major issues in the developed Asian countries, however indoor smoke from solid fuel used during cooking in unventilated houses is still a top 10 cause of burden disease in China and India, well above the impact of urban outdoor air pollution.

The aim of this lecture is to share information and experience, look for the collaborating points and partners, to control IAQ which is often inadequate in spite of its significant role in determining health, and to protect “The right to healthy indoor air” in Asian countries.