

Health effects of air pollution

[Environment](#), [Pollution](#)



Air pollution could affect the climate, the environment, and human health. Among these areas, the health is the main focus of this paper (Thomson Scientific, 2005).

Polluted air may contain one or more hazardous substances that affect human health. The term of measurement for this is “particulate matter” or the number of particles of potentially hazardous substances as percentage of air.

This includes a wide range of pollutants. Examples of particulate matter includes road dust, diesel soot, fly ash, wood smoke, nitrates in fertilizers, sulfate aerosols, lead, and arsenic to name a few.

The suggested Federal limit of an “average” of 50 micrograms of “particulate matter” per cubic foot of air in one year period is considered poor air quality (Gore, 2005).

Health effects of air pollution could be short-term or long-term. Effects will depend on the individual’s sensitivity. When it comes to the extent of harm, it usually depends on the total exposure to damaging chemicals. Short-term effects may include simple symptoms such as headaches, nausea and allergic reactions.

These symptoms could lead to irritation of the eyes, nose and throat. There are also severe cases which could lead to upper respiratory infections such as pneumonia and bronchitis. It may be short-term but the effects are severe and will need more medical attention. Air pollutants also have long-term effects which include lung cancer, chronic respiratory disease, and heart disease.

These effects could even damage the brain, nerves, liver or kidneys. According to the National Resources Defense Council, some 64, 000 people in the USA may be dying prematurely each year from cardiopulmonary causes linked to air pollution (Gore, 2005).

The most affected people were the children, and the elderly. In addition, people with health problems such as asthma, heart disease also suffer more when air is polluted. In 1995 study by the American Cancer Society and Harvard Medical School, air pollution accounts for about 300, 000 premature deaths in USA each year (Gore, 2005).

Children are one of the most affected by air pollution because they have not yet fully developed their immune system. Simple cigarette smoke and smoke coming from exhausts of motor vehicles could be detrimental to them.

Researchers have reported in their long study that children teenagers in Southern California were likely to have diminished lung function because of severe air pollution. The study made by James Gauderman of University of Southern California and his colleagues was published in New England Journal of Medicine on 1, 759 children ages 10 to 18 in a dozen Southern California communities.

The study was concluded that the reason for the diminishing lung function came primarily from car exhaust. It was found out that 7. 9 percent of the 18-year-olds in the highest pollution areas had lung capacities that were less than 80 percent of what they should have been.

Among those subjected to the least-polluted air, 1.6 percent had underperforming lungs. It was also reported that there were similar effects when children live in the home of a mother who smokes. Estimated was half a million die prematurely every year in the United States as a result of smoking cigarettes (Gore, 2004).

Just like children, elderly and people with health problems are most at risk in polluted air. As people grow older, they encounter more and more health problems which could be aggravated by air pollution. The exact impact may not be thoroughly understood but long term exposure may increase susceptibility to infections.

Also to be taken into account is the duration of the exposure and concentration of the particulate matter in the air. It is estimated that polluted air shortened the lives by an average of one to two years. In the great “ Smog Disaster” in London in 1952, four thousand people died in few days due to high concentrations of pollution (Gore, 2005).

There are many steps made to protect human health against air pollution. American Lung Association is very active and recommends the use of heat recovery ventilator or an energy recovery ventilator remove stale polluted air (Gore, 2005).

A treaty called Kyoto Protocol in 1997 entered as part of United Nations Framework Convention on Climate Change made a great impact on reducing air pollution. The treaty aims to reduce emission of dangerous gases such as carbon dioxide, methane and nitrous oxide by industrialized countries which

affects the health of their citizens. One measure adopted in the treaty to reduce harmful discharges is creation of carbon emission (CO) credits.

Those who failed to observe the restriction will be ordered to install necessary equipment to reduce the air pollution under pain of severe financial sanction or buy (CO) credits.

The credits are like ordinary commodities. They could sell to it to companies that find it difficult to comply with the emission restriction. If the market value of the (CO) credit is higher than the cost of pollution reduction equipment, they will be forced to comply thus, reducing the air pollution that affects human health.

According to reports, these (CO) credits are now being traded in the exchanges of Chicago Climate Exchange in the US, European Climate Exchange in United Kingdom, Nord Pool in Norway and PowerNext in France. (Palabrica, 2007).

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