

FAQ - Pollutants and their effects

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17:56 16/03/2009

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Pollutants and their effects

Pollutant matters released in atmosphere by human activities cause many environmental problems, some of which are already evident, while other are considered potentially very dangerous. Major discussed-on topics are related to acid rains, to greenhouse effect, to the impoverishment of stratospheric ozone, to air quality degradation episodes that many times do affect the daily life of hundred thousands of human beings.

Emission inventories generally take into account the following atmospheric pollutants:

- sulfur oxides (**SO₂**);
- nitrogen oxides (**NO_x**);
- non-methane volatile organic compounds (**NMVOC**);
- methane (**CH₄**);
- carbon monoxide (**CO**);
- carbon dioxide (**CO₂**);
- ammonia (**NH₃**);
- nitrous oxide (**N₂O**);
- total suspended particulate (**TSP**) or particulate matter with diameter below 10 m (**PM₁₀**);
- heavy metals (**As, Cd, Cr, Cu, Hg, Ni, Pb, Se and Zn**);
- organic chloride compounds (**dioxins, PCB**, ecc.).

Those pollutants can be grouped as:

- primary pollutants, which are released directly in the atmosphere by natural phenomena or by anthropogenic sources, such as for example SO₂, NO, NH₃, CO, CO₂;
- secondary pollutants. which are engendered in the atmosphere by chemical or physical reactions of primary pollutants, such as for example NO₂, SO₃, O₃, various acids, aldehyds, ketones.