



Nature does not recognize borders. Winds can carry pollutants released into the atmosphere thousands of kilometres away from their emission point. If there is one area where humans are clearly dependent on each other on this planet, it is here. A nuclear accident in one country contaminates the neighbouring countries' milk; acidifying gases released by one kill the forests of another. This is why Canada is using every possible means to encourage nations to act together on the issue, either by hosting international conferences, taking an active part in preparing conventions and treaties, or by encouraging scientific exchanges.

Throughout the country researchers have noticed that the quality of the air in Canadian cities has improved since the first regulations on air pollution went into effect over 10 years ago. Samples collected jointly by federal and provincial governments indicate a decrease in pollutants. The amount of sulphur dioxide (SO_2) in the air — one of the main causes of acid rain — has decreased, due partly to a lower sulphur content in fuels and progress in industrial techniques. Regulatory measures have brought about a considerable reduction of particles in suspension, while the amount of lead in the atmosphere should continue to decrease with the total elimination of lead gasoline in 1990. Nitrogen oxides (NO_x), the first stage of smog generation, are present in smaller quantities, as is carbon monoxide, thanks to the widespread use of anti-pollution devices on cars, energy conservation and climate factors. Also foreseen is a steady decrease in ozone pollution, which at ground level is harmful to plants and humans.

Despite progress achieved thus far, there remain a number of world-wide problems that are not only unsolved but worsening. The greenhouse effect, the thinning of the ozone layer and acid rain threaten not only Canada's environment, but also that of the whole planet.

The greenhouse effect

Human activity causes many gases to be released, which add to the "greenhouse" effect, as it is called, in the atmosphere. These gases, particularly carbon dioxide (CO_2) produced by fossil fuels such as carbon and fuel oil, collect and hold in the atmosphere ever-increasing amounts of solar heat reflected by the earth. This phenomenon is causing a rise in temperatures all over the planet. The next 50 years could see a rise of 1.5 to 4.5°C, which would lead to marked variations in wind and precipitation patterns. Canada, as a northern country, would be particularly affected.