It has been hard to implement the ideals of this agreement. The problems have proven to be far more complex than they appeared in 1978, but governments are starting to implement the 1978 principles.

The task ahead is daunting. No one is even certain how much pollution is going into the Great Lakes, though it has been estimated in the hundreds of thousands of tonnes per year. Scientists have identified over 360 synthetic chemicals in the lakes. some of them known to be highly hazardous. In 1985. Environment Canada scientists calculated that 9 t a day of toxic chemicals were flowing down the Niagara River alone, site of the worldfamous Niagara Falls.

The Niagara region, particularly on the U.S. side, has been a major chemical-manufacturing centre for decades. As a result the land along that river is dotted with dozens of chemical dumps, including

the infamous Love Canal, near Buffalo, New York, which is so hazardous that hundreds of people had to be evacuated from homes around it.

In recent years, the two nations have started to spell out more detailed pollution reductions for the lakes in a series of laws and agreements. These include a 50per-cent reduction in chemicals flowing into the Niagara River. Ontario, the highly industrialized province which borders on four of the lakes. has enacted laws that call for the virtual elimination of discharges of persistent toxic substances into the province's waters.

Scrubbing the Air

Air pollution has been an equally difficult problem and has caused some of the greatest strains in Canada-U.S. relations.

It is not a new issue. In the early 1920s, American farmers complained that sulphur fumes blowing across the border from a smelter in Trail, British Columbia, were destroying their crops. Farmers finally received compensation and the smelter was cleaned up. Hearings on the issue established the principle in international law that a country must not pollute the atmosphere to the injury of

In the 1980s, it has been Canada's turn to press the United States on an even bigger transboundary air problem, that of acid rain.

another nation.

A decade ago it became apparent that the millions of tonnes of acidic air pollution were having a disastrous effect on Canada's environment. Scientists said that most of it was coming from copper and nickel smelters and from coal-burning power plants. Canadian researchers also determined that half that pollution falling on Canada originated in the United States, particularly in dozens of huge power plants in the industrialized mid-west.

Their tall smokestacks, built to move the pollution away from local residents, were adding to a veil of sulphate particles in skies, and prevailing winds carried much of the pollution across the northeastern part of the continent.

As a result more than 3 million t a year of U.S. sulphur pollution falls in eastern Canada each year. In some regions, U.S. sources are responsible for 70 per cent of the fallout. Canadian governments have asked for years that the transboundary pollution be reduced to levels that the environment can sustain without damage.

In 1980, the two countries agreed, in a Memorandum of Intent, to negotiate a clean air pact. But the new U.S. administration that took office in 1981 believed that more scientific study was required and



The greenhouse effect could bring about enormous environmental disasters. Areas that now are fertile foodproducers could be turned into deserts.

as a result little progress was made on an agreement to reduce pollution.

There are signs of change in the United States. For years public pressure has been building in favour of a major reduction in acidic air pollution. President George Bush has proposed a cut of 10 million tons of sulphur air pollution by the year 2000.

Even though acid rain talks between Canada and the United States were stalled for years, environment officials in both nations worked closely on another common problem threats to the ozone layer. In this case the United States was one of the nations pushing for very strong controls on chemicals that destroy stratospheric ozone. Both countries were strong supporters of an agreement that became the Montreal Protocol to protect the ozone layer.

