



Statements and Speeches

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THE URGENT NEED TO CONTROL ACID RAIN

An Address by the Honourable John Roberts, Minister of the Environment, to the Georgia Conservancy League, Atlanta, June 24, 1982

...The reason I'm speaking to you today is because of an extremely dangerous threat that menaces the very life and productivity of our waterways: acid rain.

Acid rain has been the subject of a great deal of media attention lately, but let me briefly tell you about it. It is a particularly insidious form of pollution, because it cannot be detected by sight, smell or taste. In fact, the only way we can study acid rain is by using extremely sensitive scientific instruments, or by observing its effects: lakes and streams that have been killed or badly damaged by an increase in their acidity level. That is, they have been made too acidic by the long-range transport of air pollutants to support life. When this happens, it is too late to do anything but mourn for a lost resource.

Acid rain has other effects. The increased acidity of water can cause it to mobilize, that is, dissolve from the surrounding bedrock and soil, toxic metals such as aluminum and mercury. Acid rain also increases the acidity of soil, causing accelerated loss of useful nutrients, with implications for our forests and agricultural products.

The effects of acidic precipitation are becoming ubiquitous, and often it is beyond the ability of nature to cope with them. A limestone lake or stream, or an alkaline forest soil, has a natural buffering capability. But granite bedrock is very common in Canada, and has little buffering capacity. Likewise, much of our soil is naturally acidic to begin with and is very vulnerable to increased acidification.

Clean precipitation – normal rain or snow – usually has a pH value of 5.6, and rain with a lower pH is considered acidic. Rain ten times more acidic than normal is now common in parts of Canada; sometimes, it can be 40 times as acidic as normal.

Now even in a completely clean environment, it would still be possible for precipitation to be slightly acidic, due to natural causes. However, when I talk about the acid rain that menaces Canada and parts of the United States, I'm talking about a much more dangerous threat that comes from man-made pollutants such as oxides of sulphur and nitrogen. These result, among other things, from the burning of coal without proper safeguards in thermal power plants, from smelters, and from automobile exhausts. Sulphur dioxide and nitrogen oxide are the two main culprits responsible for acid rain.

Acidic
precipitation
common