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The Transnational Implications of Acid Rain

INTRODUCTORY REMARKS

By John Roberts*

Ladies and gentlemen, it is a pleasure to be with you. I had hoped to spend much more time with you than simply this morning, but we are bound up in the Canadian Parliament at the moment with Constitutional proposals and a procedural filibuster in the House of Commons which simply made it impossible for me to leave. We never knew at what time we might have to face a vote, and I had hoped to be here with you yesterday, but I understand Ray Robinson, my assistant deputy minister filled in very well for me. In fact, he did so well on Canadian television we are considering never sending him anywhere else again. I suppose last night I became a long-range airborne politician and was able to drive here from Ottawa to be with you, and I am very pleased to have the opportunity to address this conference and to take part in the open and informed discussion of the legal implications of acid rain with a learned body such as your own.

The rule of law has traditionally been applied to Canadian-American relations and I hope it will continue to be applied, especially with reference to acid rain, which is the topic of my address to you today. Before focusing on acid rain itself, however, I want to convey something of the flavor of Canada-United States environmental relations. One of the best ways of doing this is to talk for a few moments about a subject to which we attach great importance, and that is the International Joint Commission.

The Boundary Waters Treaty of 1909, though applying only to water, contains a clear prohibition against polluting across the Canadian-United States boundary “to the injury of health or property,” and this has served as a guiding principle in Canada-U.S. environmental relations for seven decades. This principle means that we’re prepared to limit our respective national freedom of action for the common mutual benefit. The Treaty also provided us with an effective mechanism, the International Joint Commission (IJC), for handling transboundary pollution problems as well as those involving water levels and flows. Indeed, the IJC mechanism is something which, in my view, has not been equalled by any other two countries, and we can be rather proud of its accomplishments. Through the IJC we have developed a series of practices, based on a clear legal principle not to injure one another, under which both countries submit

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themselves to what almost amounts to third party involvement.

There are two ways, basically, in which we use the Commission. The first is as a quasi-judicial body. In this role the Commission actually makes binding decisions in response to applications for certain changes in water levels crossing the boundary. For example, IJC Orders of Approval had to be secured to permit the St. Lawrence Seaway to be developed. No dam can be built in one country that would back up water into the other without either a formal agreement with the other country or an IJC Order of Approval. Often these prove to be rather touchy issues between our two countries.

The second way we use the Commission is as an advisory body. It has been the practice of both countries, when faced with a difficult transboundary environmental issue, to submit what is called a Joint Reference to the Commission asking the IJC to study the matter and to come up with recommendations. It was such a reference that led to the IJC report which served as a basis for negotiating the Great Lakes Water Quality Agreement of 1972. The IJC's responsibility to report on the implementation and adequacy of that agreement, and of its successor signed in 1978, in a kind of continuing reference.

The IJC's report recommending major changes in North Dakota's enormous Garrison Diversion Irrigation Project to avoid injury in Canada resulted from another joint reference. Of course, the garrison diversion is a major question to us and particularly to Western Canadians.

The examples go in both directions. The IJC has recently completed an examination of the possible downstream effects on the United States of a proposed thermal power plant on the Poplar River in Saskatchewan. These examples are in the water area, but we've also asked the IJC in the field of air quality. There are two air pollution boards currently reporting to the Commission, one reports regularly on the transboundary air pollution problems coast to coast and another monitors the progress of programs to improve air quality in the Detroit-St. Clair Rivers area on the Michigan-Ontario border.

The key to the success of the IJC lies in its collegial character. This is the point that I want to stress. The three Americans and three Canadians on the Commission must be prepared to rise above their national origins and to examine issues on their merits. The IJC has an excellent record in this regard. It has rarely divided along national lines and it is extremely important that both governments respect this philosophical base for the IJC's activities and not look to their own commissioners to parrot or echo a national line. Otherwise, using the IJC would simply mean transferring a disagreement between our two countries from one bilateral forum, that of government negotiations, to another. That would be pointless! This same principle must apply to the boards of experts which the Commission usually appoints to assist it in particular tasks.

I stress to some extent the importance we attach to the IJC and the principles which have been at the root of its operation and which we ex-
pect to continue to be because at the present time there are three vacancies on the American side of the IJC. We hope those vacancies will be filled soon and that the longstanding traditions of the operations of the IJC will be continued. I don’t mean to imply any criticism when I say there are three vacancies on the American side, because there are two vacancies on the Canadian side. We are moving quickly to provide our two Commissioners and we expect the American government will do the same on their side.

My point is to underline the cooperative character of our joint efforts to manage our transboundary environmental relationship. However, my topic today is acid rain, therefore I should, before leaving the subject of the IJC, at least explain why we are not using the Commission to deal with that very large problem.

Historically, we have submitted joint references to the IJC in situations where it appeared that the insertion of the neutral third party could help the two countries resolve a difference. Where good progress is being made in bilateral discussions between governments on an issue, we would not normally need such a third party contribution.

So far, it is our view that there are no basic disagreements between the United States and Canada on the acid rain issue. Experts in both our countries agree that acid rain is a menace to us both and it is a serious and urgent problem. I tend to say acid rain because I think the phrase long-range transportation of airborne pollutants is a bit of a mouthful. When I say acid rain it is not necessarily rain, but airborne particulates are part of the problem as well. For handiness of expression I’ll use acid rain to apply to them both. Both our countries recognize that this problem is a real and urgent one. The memorandum of intent, which our two governments signed last August, indicates this area of agreement quite clearly. Let me quote from the preamble to that document:

The government of Canada and the government of the United States of America share a concern about actual and potential damage resulting from transboundary air pollution, including the already serious problem of acid rain.

The memorandum goes on to say:

Both countries recognize this is an important and urgent bilateral problem as it involves the flow of air pollutants in both directions across the international boundary, especially the long-range transport of airborne pollutants.

As you know, President Reagan visited Ottawa earlier this month. It was a measure of our concern for environmental problems that one of the two major items to be placed on the agenda for discussion with him, his officials and cabinet representatives was acid rain. I am pleased to report that the President said all of the right things. He specifically affirmed his administration’s desire to meet the commitment of the Memorandum of
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Intent to begin the final stage of formal negotiation of a bilateral air quality agreement by June of this year. So there is every indication, up to the present time at least, that we'll stay on track for the negotiation of the international agreement.

Therefore, the direct involvement of the IJC is not needed at this point. The negotiation of the agreement will undoubtedly consider, however, the possibility of using the IJC to monitor the implementation of an air quality agreement just as the IJC is now used to monitor the Great Lakes Water Quality Agreement.

I am, of course, pleased that the current level of Canada-U.S. understanding has made it unnecessary to involve the IJC for the preparation of the agreement. We certainly could not afford further delay. We need immediate action on acid rain and I propose to tell you why.

I am not going to spend a long time cataloguing the kinds of damage that are caused by airborne pollutants, but it is important to understand that the problem is real, serious and well documented scientifically. As you are probably aware, a large and growing number of lakes in Canada and the United States are now so acidified that they can no longer support fish and related forms of life. Their clear blue waters often appear quite attractive, but to all intents and purposes, they are dead. Hundreds of thousands of lakes in Canada face a similar fate over time because the geological formations around them cannot continue indefinitely to buffer or to neutralize the acid falling on them. Literally, quite literally, acid rain is in that sense a rain of death.

Acid rain adds to the effects of local pollutants in attacking building surfaces, monuments and other outdoor structures. If you visit Ottawa, as I hope most of you will, you will find that the Parliament buildings are sheathed in scaffolds because we have found that our Parliament buildings absorb the acidity from acid rain. The buildings have now eroded to the extent that we have to undertake a complete, drastic overhaul of the exterior facade of the building. We don't have a current estimate of the cost of this kind of damage. If you think about it for a moment, however, you can see that it must be staggering. In Europe it is the building and monument damage that has aroused the most widespread concern over acid rain. There are some figures which estimate that in the United States alone the erosion of buildings ranges somewhere between two or three billion dollars a year.

To move to another area of impact of acid rain, some drinking water supplies may be contaminated by toxic metals leached out of the soil by acid rain. Some groundwater supplies already are being affected. Some crops have been damaged by artificial exposure to highly acidic deposition under experimental conditions.

Acid rain is leaching magnesium and calcium from forest soils which, in Canada, are already nutrient poor. Normally these key elements for forest growth would be replaced by decomposing forest litter. Some recent specific observations suggest, however, that the acidity is slowing
down this decomposition process as well. This could affect the productivity and yield of our forests, especially over the long term.

These effects, and others I have not cited, are not merely aesthetic, although aesthetic damage is serious enough. There is a very heavy economic penalty in acid rain and it extends far beyond the sports and commercial fishing and the hunting lodge and tourist business, important as they are to a great number of people in my country and the Canadian economy as a whole.

When I say that acid rain could affect the productivity of our forests in Canada, I am talking about a resource that is a prime generator of economic activity in my country; it employs up to 10 percent of our national labor force. In our northern latitudes, and with relatively poor soil in many forested areas, forest productivity from an economic perspective is already marginal. Even a small reduction in that productivity could seriously affect our international competitiveness. No Canadian government can really accept such a threat.

Right now, about eight million tons of sulphur dioxide or derivatives are falling on Canada every year, mostly in the eastern half of the country. About half that amount of oxides of nitrogen and their derivatives are also falling on us. Far more than is falling in the United States.

Atmospheric computer modeling tells us that at least half of the acid rain falling in Canada originates from emissions released in the United States. This proportion rises to 70 percent in some very sensitive areas. I ask you to take a moment to consider what that means. It means that no matter what we do in Canada, and we are moving to reduce our own emissions, we cannot resolve the problem ourselves. We need effective cooperation from the United States if we are to resolve the problem.

It doesn’t take much imagination to see that in the absence of any corrective action, the acid rain situation is going to get worse. The switch from oil to coal in Canada and in the United States, particularly in thermal power generation, could lead to a significant increase in acid-causing emissions. I do want to stress that we are not opposed to shifting to the use of coal. We do insist that as that shift is made the technology now available be used to ensure such a shift takes place with complete protection for environmental interests.

Even if there were no increase in acid rain or sulphur dioxide generation by the movement toward coal, the effect will still worsen the situation because our sensitive environment is already being seriously overloaded with acid rain. In short, our target must be that current emissions from existing sources be reduced.

Canada, for its part, has taken action pending negotiation of a Canada-U.S. agreement to reduce its own emissions as called for in the Memorandum of Intent. The largest single emitter of acid-causing pollutants in Canada is INCO’s huge smelting operation in Sudbury, Ontario. Uncontrolled, that smelter could produce 7200 tons of sulphur dioxide a day. Regulations issued since the Memorandum of Intent have reduced
INCO's legally allowable emissions from 3600 tons a day to 2500 tons a day, and that will drop to 1950 tons next year. I hope, and I believe, that we can get the emissions down to less than 1000 tons of the future years. New regulations are going to effectively reduce sulphur dioxide emissions from Ontario's thermal power stations by 43 percent before the end of this decade despite an expected increase in the demand for electricity.

Canada's Parliament recently unanimously enacted legislation designed to make it possible for the United States to activate Section 115 of the United States Clean Air Act, which authorizes the Environmental Protection Agency (EPA) to take special action to reduce emissions from plants that adversely affect a foreign country. That situation is a bit complex and perhaps takes a little explaining.

Section 115 of the U.S. Clean Air Act requires the EPA, if certain provisions are met, to call on State administrations to revise their State Implementation Plans to prevent or eliminate endangerment to public health and/or welfare in a foreign country from air pollutants originating in those states. This section enables the EPA to implement necessary corrective action within the State Implementation Plans. There are, however, two conditions which have to be met before Section 115 can be invoked. First, the EPA must be in receipt of reports or studies from a duly constituted international agency which concludes that emissions are causing or contributing to endangerment in a foreign country. Secondly, the foreign country involved must provide the United States reciprocally with the same legislative protection as that provided in the United States Clean Air Act.

The first of the two conditions was met with the publication of the report by the International Joint Commission identifying acid rain as a transboundary problem and calling on the governments to deal with it. The second condition was reciprocity legislation. Parliament passed Bill C-51, an amendment to the Canada Clean Air Act just before Christmas.

There is no question that our legislation does provide reciprocal rights to the United States. In a letter to Senator George C. Mitchell in January of this year, the former administrator of the EPA, Douglas Costle, wrote:

In my view the amendments to the Canada Clean Air Act give adequate authority to the government of Canada to provide essentially the same rights to the United States as Section 115 provides to Canada.

Mr. Costle went on to say:

Both statutes allow the state or province, as appropriate, to take action to remedy air pollution affecting a foreign country. If the state or provincial government fails to develop an adequate remedy, the federal government is authorized to establish emission limitations.

The legislative setting, therefore, exists between our two countries to enable reciprocal action to take place. I am anxious to see the United
States move in the area of existing controls.

If I may say so, any objective analysis of Canada's response over the years to the incidence of transfrontier pollution originating in Canada, shows we're willing to act quickly. To put it another way, we've traditionally taken full account of U.S. concerns, and the provinces have generally been willing to modify their pollution control requirements where good evidence of actual or likely damage to the United States has been forthcoming. One example, a famous one of which international lawyers are aware, is the Trail, British Columbia, Smelter Arbitration of the 1930s. The tribunal which settled the issue held that Canada was responsible for the conduct of the Trail smelter and it imposed, in perpetuity, a regime of control over the emissions of the sulphur dioxide from that smelter. That regime has been followed ever since.

Particularly relevant to any consideration of acid rain is the following quotation from the tribunal's official findings:

Under the principles of international law as well as the law of the United States, no state has the right to use or permit the use of its territory in such a manner as to cause injury by fumes, in or to the territory of another, or the properties or persons therein, when the case is of serious consequence, and the injury is established by clear and convincing evidence.

Once again, in the case of acid rain, we are trying to apply that same principle of international law. A more recent expression of the concept is Principle 21 of the Stockholm Declaration of 1972, a declaration endorsed by both our countries. Principle 21 states:

States have, in accordance with the charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction.

The point I am trying to make, of course, is that we must ensure that the rule of law prevails in the relationship between our two countries. Our challenge is to move from the legal principles involved, which both countries accept, to the actual mechanisms whereby we can effect a reduction in emissions. The problem is not with principles; it is the implementation.

The traditional approach in both countries to controlling existing sources of pollution is to set an ambient standard of air quality around a plant. That is, an allowable concentration of pollution in the air. An easy way of meeting such standards has been the construction of high stacks designed to disperse the pollutants over wider areas and reduce their concentration in the area where the ambient standard applies. That method won't work for acid rain because the problem is not one of particular concentration in the air, but of total loadings of acid-causing pollutants on the ground and in the water, often very far from the sources. Unfortu-
nately, the U.S. Clean Air Act is not now structured to deal with this kind of problem, except possibly through the use of Section 115.

Tolerable loadings of acid for sensitive areas must be calculated. Then the needed reductions must be translated through atmospheric transport computer models into emission reductions at the sources. Five such models, both U.S. and Canadian, are being used to allow comparisons to take place and to ensure accuracy. That work is proceeding well in the Canada-U.S. work groups established under the Memorandum of Intent signed last August. I am confident that the degree of precision needed to provide us with practical guidance on control regimes should be achieved this year. The best information we have is that the results of the computer analysis are converging. This is really the basic knowledge we must have if we are to establish realistic controls on emitting sources with assurance of the consequences of what those controls would mean in terms of the reduction of acid loadings at the sensitive arrival points for pollution.

The United States is a large powerful country. Some cynics might observe that if the United States wants, it can tell us in Canada to deal with the acid rain problem as best we can without seeking corresponding action from the United States. I should stress that while acid rain is a problem for Canada, it is equally a problem for the United States in economic terms and in its impact on health. It is a common problem jointly engendered.

We are not asking for favors. We are not asking for charity in relation to resolving that problem. We are simply asking the United States to take action in terms of its own long-term best interests. We are not asking for charity, but for enlightened self-interest.

The United States is a powerful country, but it is also a country which has displayed over the years moral leadership in the international community. That moral leadership which the United States has displayed comes directly from exercising its great power with restraint. It comes from recognizing, in effect, the rule of law and not the rule of force. As I demonstrated in my earlier remarks, there can be few relationships between countries which better demonstrate the rule of law than that between Canada and the United States. That is why I am optimistic that together we will control acid rain. We will accept that we cannot damage one another for our own profit. I encourage you to join me in that optimism and to work toward the reduction of this menace that respects no boundaries.

Thank you very much.