

climate change on the fragile ecosystems of the Arctic and vice versa. As Dr. Schneider pointed out, methane is by far the most lethal of all the greenhouse gases and much of the world's methane is locked up in the arctic tundra. What will happen when rising temperatures begin to unlock that gas?

We heard yesterday from Dr. Boulva that much more needs to be done on the effects of climate change on the oceans and vice versa. These interactions are quite complex. More work needs to be done and more money spent—I hate to tell you—on the famous general circulation models. These are the Cadillacs of the climate change business. I suppose in these days of the decline of the North American automobile industry, these are the Mercedes-Benzes of the climate change business. These are the models to which Dr. Schneider referred. Very few countries in the world can do this sort of modelling, and by all reports we are rather good at it. Our own atmospheric environment service scientists are in the forefront in this work and will need to maintain this position if we are to maintain our place at the global bargaining tables.

Finally, Dr. McLaren referred to the paucity of research in the human sciences. Although there is never enough money for scientific research, the physical scientists are not nearly as badly off as the social scientists. Yet here is where many, if not most, of the answers must lie, for while the climate scientists may soon be able to tell us with some certainty what will happen to rainfall patterns on the Prairies or Great Lakes water levels or whatever, who is working on the policy and social implications of that shift? We have heard reference to our own lack of knowledge in this area time and time again, Mr. Miller pointing out that most Canadians knew little, if anything, about climate change, Mr. MacNeill pointing out that while we know a great deal about subsidies for the forestry industry and the fossil fuels industry in the United States, we have no comparable data for Canada. We simply must find a way to make some breakthroughs in this area.

Dr. Arthur has just pointed out in one of her responses the real limitations of the impact models, again a form of social science research. I find it appalling that we have impact models that deal with the doubling of carbon dioxide concentration and yet take no account of the decrease in the ozone layer.

Mr. Chairman, I have spent a good deal of my life working in the non-profit research area in Britain and the United States. On returning to Canada I have been struck by the relative paucity of this sector and by the relative poverty of the few institutions in it. These public policy research institutes do much to enrich the debate on these issues in those countries. They have a credibility both with the public—and Mr. Miller has already made the case that this is the point in this country—and with policy-makers. They are the source of much of the transparency that exists in public policy-making in the United States. The American institutions are in fact the source of much of the data that your witnesses have quoted to you in the past few days.