

Maine can lead way to cleaner, cooler world

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As we battle the cold and the snow this winter, arguments about Maine's efforts to slow climate change are warming up. This follows the passage in 2003 of a bill that, among other things, requires the Department of Environmental Protection to develop a long-term climate action plan for the state to reduce greenhouse gas emissions to 1990 levels by 2010, 10 percent below 1990 levels by 2020, and ultimately to a level that is 75 to 80 percent below 2003 levels. These goals are the ones adopted by all New England states and the Atlantic provinces of Canada.

I testified in favor of this legislation as a geographer and research scientist who has studied climate impacts for over 40 years and as a review editor for the assessments of climate change undertaken by the world's scientists every five years. I then told the Legislature's Natural Resources Committee that the world's knowledgeable scientists, with few exceptions, agree that:

- Greenhouse gases are rising and will continue to rise unless we reverse their course. Current levels of carbon dioxide are greater now than any time in the past 400,000 years.

- That these gases are playing the major but not unique role in the increase of global temperature and related changes in precipitation and extreme climate events. We are experiencing the warmest climate in at least a thousand years.

- That the impacts of such temperature increases are already evident especially in Arctic and sub Arctic regions, in changes in glaciers and sea ice around the world, and everywhere in the hundreds of documented changes in the distribution and wellbeing of plants and animals.

- While no specific drought, flood, storm, forest fire can be credited to the climate change under way, it is likely that the growing toll of such extreme events is connected to both global warming and related increases in both drought and extreme precipitation observed around the world.

And most knowledgeable Maine scientists would also state:

- While these global trends are very clear, there is much variability from place to place and from year to year, and Maine well illustrates this.

Over the last century the most northern of our three climate divisions has shown some cooling, the central division little change, and the coastal regions where most of our citizens live, considerable warming.

· But over the long run, major climate-related changes in our forests, Gulf of Maine aquatic life, coastal sea levels and climate-dependent activities such as winter sports can be expected.

·And that there is a small but significant risk from three big possible threats that could actually make Maine much colder by changing the Gulf Stream, or much warmer by releasing frozen methane gases and completely changing our forests, or raise sea level much, much higher from accelerated Arctic and Antarctic melting."

Now in 2005, there is even more evidence to support these conclusions, and despite the current cold, last year was the fourth warmest on record.

Over the last year, the Department of Environmental Protection worked to put together such a climate action plan with the advice of a stakeholders group and a panel of Maine scientists for which I served as co-chair. The Climate Action Plan contains 55 actions that can be undertaken by the State, its industries, and its citizens to reduce greenhouse gas emissions and a number of these are being developed in the legislature or will be made into rules by the Department.

Almost all of the proposed actions have an estimate of the amount of greenhouse gas emissions to be reduced and a best estimate as to the costs to be encountered. Based on these, many of the proposed actions should be cost-free as energy efficiency actions actually save money. And many of them will also help provide other benefits for cleaner air, water, and land.

Not everyone in Maine is happy with these proposed actions including some who took part in the broad stakeholder process that produced these actions. To argue that global warming is not a serious concern and that nothing should be done about it is becoming more difficult. Thus at every level, those who oppose or question action often do so by arguing for more study. Such an effort is a bill submitted by Rep. Henry Joy (LD 72) that would require further information before the state could promulgate rules to reduce greenhouse gases.

In addition to the currently available estimate of emissions to be reduced by a proposed rule and the estimated cost per ton avoided, the bill seeks information that is not available or is not meaningful. For example the bill asks that for any action, the amount of global warming avoided be specified. Currently, the accepted scientific estimates of the amount of global warming from a doubling of greenhouse gasses varies between 2.7 and 8.1 degrees F., a factor of three, and this will be revised in the forthcoming 2007 assessment. But even within a factor of three, any single action we take in Maine with our 1.3 million people will have only a very small effect on the warming caused by emissions from 6 billion people.

What is important is that at the very least we in Maine do our share to reduce our emissions and at the very best - dirigo - lead the way to a cleaner, cooler world.

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