

Think Locally About Impact of Global Warming

Published on December 11, 2000

The Press Democrat © 2000 Chris Coursey

So here we are in the grip of what weather experts say is an unusual cold spell, threatened with electric blackouts caused by, among other things, a shortage of power plants.

Not exactly prime time for a discussion of global warming.

But the truth is, there's no good time to talk about this subject. After all, it's tough to get excited about the fact that the average air temperature on planet Earth has increased 1 degree in the past 100 years. And even if that disturbs you, it's pretty daunting to contemplate a solution that requires a fundamental change in lifestyle, like giving up our cars.

When the problem is one of global proportions, it's always easier to let someone else worry about it.

But what if, for example, you were told that global warming might mean that what now are called "100-year flood events" on the Russian River in the future will occur on a frequency of every 10 years?

What if, for example, you were told that the micro-climate down the road that's now perfect for growing prime pinot noir in the future will be better suited to table grapes?

What if, for example, you were told that your favorite ski area that now gets an average annual snowfall of 400 inches in future winters will get half of that precipitation as rain?

Chris Field, a biology professor at Stanford and a member of the advocacy group Union of Concerned Scientists, believes that if you think about global warming on a more local scale, you're more likely to be concerned about it. Last year, he helped create a report on "California's Changing Climate," and last week he summarized it for participants in Sonoma County's Leadership Institute for a Sustainable Future.

"We still have a lot to learn about climate change," Field said. "But we know enough about it to say that it needs to be included in every dialogue about planning and policy from the local level to the international scale."

It wasn't that long ago that every discussion about global warming included "the other side" -- the argument that there's no proof that human activity is changing Earth's climate.

But today, that dissent has largely disappeared. In its place is a debate not about whether the climate is being changed, but how to slow or stop that change.

Last month's U.N. conference on climate change in the Netherlands failed to reach agreement on new protocols for reducing carbon dioxide emissions. European nations, which already have made significant reductions, refused the U.S.'s proposal to credit existing forests and grasslands in this country's efforts to clean up the atmosphere.

But the pressure for change won't go away. Field said the International Panel on Climate Change's soon-to-be-released report will more definitively lay out a future in which continued burning of fossil fuels -- largely in coal-fired power plants and internal combustion engines -- will drive up global temperatures by as much as 6 degrees in the next 100 years.

Field said that translates into a "high certainty" that California will experience warmer, wetter winters -- as much as 5 to 6 degrees warmer and 20 to 40 percent wetter. Consequently, precipitation that now falls as snow in the Sierra will turn to rain, exacerbating winter flooding while at the same time reducing snowpack, on which the state relies for spring water storage.

"In other words, we're going to have more water in the winter, when we usually have enough or more than enough, and less water in the summer, when the need is greatest," he said.

A global rise in the sea level by 8 to 12 inches -- combined with increased runoff -- will increase frequency of coastal flooding. Competition for water in summer months -- already increasing on the North Coast and prompting calls for greater conservation -- will become more intense. Temperature changes combined with shifts in precipitation levels will force plant and animal species to migrate to find their comfort zones.

But it's cold outside. And we need more power plants. So let's worry about this climate change thing later, OK?

Call Coursey at 521-5223 or e-mail ccoursey@pressdemocrat.com.