

Scientists Tackle a Global Problem on a Local Scale

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By Alex Nussbaum

Staff Writer

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North Jersey could be a proving ground for techniques that help fend off global warming -- but the region has to act now, a prominent scientist warned on Tuesday.

Robert Socolow, a Princeton engineer whose thinking has influenced Al Gore, told a meeting of scientists in Lyndhurst that local agencies should be experimenting with solar, wind and other energy alternatives to speed the shift away from greenhouse-gas-spewing fossil fuels.

State officials, meanwhile, need to find a way to rein in development and get people driving less, he added. And society needs to at least consider more controversial options, such as nuclear power and off-shore wind farms.

"We are making the choices in our lifestyle and it is driving the climate," Socolow said during the kickoff of a three-day scientific conference at the New Jersey Meadowlands Commission.

The symposium, sponsored by the commission, is drawing 150 researchers from universities and government agencies to discuss the local impacts of warming, the health of the Meadowlands' natural areas and the region's potential for renewable energy projects.

The gathering comes as both the state Legislature and Congress consider tough measures to rein in greenhouse pollution from cars, power plants and other sources -- and how to do it without wrecking the economy.

The alternative, Socolow and other researchers warned, is a potential future of extended heat waves and punishing storms.

Their worst-case scenarios were grim: By the century's end, average temperatures could rise anywhere from 4 to 7 degrees in the region, said Columbia University climatologist Radley Horton.

That may not sound like much, but it means extremes will also come along more often, he added. Heat waves could be more likely, brewing smoggier skies. Droughts could be longer.

But torrential rainstorms could also hit more often -- washing more pollution into local water supplies.

"You could have some potentially nasty feedbacks here," Horton said.

Socolow's studies of potential global warming solutions, done with Princeton colleague Stephen Pacala, were cited by Gore in his documentary, "An Inconvenient Truth," and by other policymakers grappling with the issue.

Change may not come without sacrifice.

Drivers may have to settle for less powerful but more fuel efficient cars. Businesspeople may have to give up their air trips and settle for more videoconferences. And plans for more coal-fired power plants will have to be shelved.

Replacing the hundreds of coal plants now on the drawing board worldwide could require tripling nuclear energy suppliers -- or accepting 1 million new wind turbines dotting the landscape. New

Jersey, Socolow noted, hasn't been able to even begin a feasibility study of offshore wind farms because of local objections.

"Every solution has a dark side that can generate opposition," he said.

What's needed, he argued, is a "bottom-up" approach by local agencies such as the Meadowlands Commission to experiment with solar or other solutions and quickly find the best alternatives.

Doing nothing risks unleashing a variety of climate "monsters," such as melting polar caps that could swamp huge swaths of the coast, Socolow said.

"There are many monsters behind many doors, each rattling the door knobs the higher we go in temperature," he said.

E-mail: nussbaum@northjersey.com