Greenhouse Effect Predicted Impact Life In Maryland

COLLEGE PARK, MD — Global warming. The greenhouse effect. We've all heard the phrases, but to many of us, that's all they are — theoretical terms that have no meaning in our daily lives. So we don't think much about them.

But we should, according to three speakers at a recent symposium on the University of Maryland campus at College Park.

"The greenhouse effect is not a theory," Alan Miller, executive director of the university's Center for Global Change, told the audience at "Enhancing Community Vitality VII," an educational event for Maryland community leaders. The symposium is sponsored annually by the University of Maryland Cooperative Extension Service and its Institute for Governmental Service, with cooperation from several other state agencies and organizations.

"We have lots of evidence that greenhouse gases produce global warming," Miller declared. The controversy involves how fast the warming occurs and the effects it will have. In essence, we are living an experiment."

There are indications that sea levels have risen more than three feet in the last 300 years or so, noted Dr. J. Court Stevenson, a professor at the university's Center for Environmental and Estuarine Studies. But this rise is not the result of a slow and steady increase.

"Ocean levels appear to be rising at an accelerating — almost exponential — rate," he said. "In previous centuries, the sea levels probably rose less than a foot every hundred years. We think the rise over the last century has been more like 1.3 feet."

Maryland is already feeling the effects of rising sea levels. Marshes, such as the one at the Eastern Shore's Blackwater National Wildlife Refuge, are being drowned. And adjacent farm fields are turning into marshes as salt water creeps inland. The state is at risk of losing up to 80 percent of its wetlands, according to Miller.

Stevenson agreed.

"The Maryland coast will be changed dramatically by global warming and rising sea levels. But the effects won't stop there," he added.

"The whole state will be affected one way or another. Waterfront property will be eroded, Ocean City could lose its beach, and groundwater supplies may have to be regulated to ensure sufficient drinking water for Maryland's growing population."

In addition to raising sea levels, an increase in average global temperatures — even one as small as 1 or 2 degrees Centigrade could cause drastic changes in global weather patterns, according to Miller. Wind and precipitation patterns could be drastically altered. Air pollution would worsen, and the ecology of the Chesapeake Bay could experience severe stress.

"There's even a theory, though it's hard to test," he noted, "that a rise in temperature will increase the ferocity of hurricanes."

So what can Maryland residents do to prevent this bleak picture from becoming a reality?

"We probably won't be able to prevent climatic changes," Miller said, "but if we can slow the rate of change, the effects will be less."

"Unfortunately, there isn't a magic bullet, a single solution to the problem," added Cathy Zoi of the Environmental Protection Agency's Global Climate Change Division. "But there are lots of small, separate changes and strategies that can reduce emissions 3 percent here, 10 percent there. Taken together, these reductions can have a large impact."

Energy production, including the burning of fossil fuels and the production of electricity, produces/generates/creates more than half (57 percent) of all greenhouse gases. But alternatives to many currently practiced, environmentally expensive methods of energy production are being explored or are already available, according to Zoi.

These alternatives include energy-efficient, cost-effective lighting technologies and photo-sensitive windows that can reduce heating and cooling losses; also nuclear power and natural gas.

"If every home in the United States used natural gas for stoves, heating systems and hot water heaters, we could reduce carbon dioxide emissions 3 to 5 percent," she said.

Methane produced by landfills could also be harnessed as a source of energy This possibility holds great potential for Mary-

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