

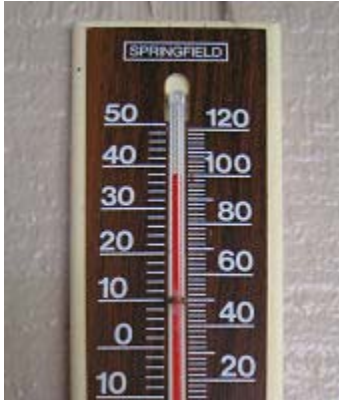
# Global warming experts paint a bleak picture of N.J.'s future



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BY JOE TYRRELL

NEWJERSEYNEWSROOM.COM



Global warming will force changes in New Jersey lifestyles, health and businesses by the middle of this century, according to the latest scientific projections.

At current rates, by the 2050s, rising tides will threaten Atlantic City and Long Beach Island.

Month-long spells of 100-degree weather will kill more people in the New York/North Jersey metropolitan area, with the greatest danger in urban "heat islands" like Newark and Jersey City.

Garden State farmers will have to find replacements as some traditional crops fail to thrive in a hotter growing season. Peanuts, anyone?

Ground-level ozone from traffic congestion and upwind power plants, most in other states, will settle across central New Jersey like a belt, increasing respiratory problems.

Scientists, business leaders and state workers swapped these predictions and more at a Rutgers University conference on state climate change preparedness. They were not simply sitting around a coal fire telling horror stories.

Co-sponsored by the Public Service Enterprise Group and Clean Air, Cool Planet, a New Hampshire-based non-profit, the participants came together to help prepare for climate change at the state and local levels, even if national leadership is missing.

Their efforts drew high-profile support from two former governors.

Optimistically, Democrat Jim Florio pointed to the state's activism in adopting solar power, planning wind power and requiring clean-energy investments by utilities.

Pessimistically, Republican Tom Kean cited the lack of national leadership on the issue. The only hope, he said, would be if the public forces complacent politicians to adapt to a changed climate.

Policymakers have "known for a long, long time" about the warming trend and its connection to increased burning of fossil fuels, Kean said. The latest research, including some by former skeptics, has simply confirmed the findings.

"We know the science, and we know the science is accurate," Kean said.

It is time for informed citizens to stand up and "confront those who don't believe in the science of it for the ignorant people that they are," he said.

Being more diplomatic for a change, Florio agreed but called for a "bipartisan effort" to help the country adapt to the changes already set in motion, as well as stemming the pollution that powers them.

Some New Jersey communities are already suffering from the changes. While no single storm can be attributed to the changing climate, the two largest recorded floods on the Raritan River are Hurricane Floyd in 1999 and Hurricane Irene this year, said Anthony Broccoli, a director of Rutgers' Climate and Environmental Change Initiative.

"From 1902 to 2001, there were 18 recorded flood events of the Delaware River at Trenton," Broccoli said. "From 2002 through this year so far, there have been nine."

State Climatologist Dave Robinson showed photos of a major intersection in Manville, deeply flooded several times since Floyd, which seemed like a once-in-a-lifetime storm.

"I never though I'd be back at the same intersection for times, taking the same photo," Robinson said. "And the water is highest in the most recent one, Irene."

The United States already has seen an average temperature increase of 2 degrees Fahrenheit over the past 50 years, with coastal areas experiencing an eight-inch wise in sea level, said Kim Knowlton, a Columbia University clinical professor of environmental health sciences.

"In some of these impacts, New Jersey has been ahead of other places in feeling the effects," she said.

For example, a combination of higher water and slowly sinking land has made Atlantic City one of the East Coast locations where sea level rose more than a foot over the last century, Knowlton said.

While coastal flooding makes a dramatic photo, Knowlton said the wider health problems being caused by the warming climate have attracted less attention. Increased heat at night is a major contributor to illness, she said.

By the 2050s, the New York/North Jersey metro area could see a 70 percent increase in heat-related deaths, "and that's with no population increase," Knowlton said. The current trend is toward month-long periods of 100-degree weather, she said.

If the country and world continue with business-as-usual energy policies, New Jersey will see a 6-14 F. average temperature increase this century, she said. Before then, it can expect "a month of days above 100 degrees," she said.

On top of another sea level rise of more than two feet, "what's considered a storm of the century now for Atlantic City could happen every year or two," Knowlton said.

Meanwhile, while ground-level ozone is projected to increase throughout the area, Mercer, Middlesex and Monmouth counties would be hardest hit, she said. Respiratory problems from pollution would combine with the increase in those from allergies in hotter and often-wetter weather, she said.

The culprit is an increase in so-called greenhouse gases, primarily carbon dioxide. They interfere with the Earth's natural cooling process by blocking the radiation of infrared heat back into space, trapping it like a greenhouse.

Of course, greenhouses are already a familiar sight in New Jersey, where landscaping and nurseries have become a dominant form of agriculture. They often draw negative reactions, but expect more of them, according to Robin Leichenko of the Rutgers initiative.

While 70 percent of New Jersey "farms" have sales of less than \$10,000 — that is, they are tax shelters or failing — the state's agriculture is among the most productive per acre in the country, Leichenko said.

But that means some cash crops, especially berries, that flourish under current conditions and are sensitive to change, she said. While blueberry growers may be able to substitute southern varieties, cranberries do not offer that option.

"That's a whole section of the industry at risk," Leichenko said.

Even crops that withstand the heat may cost more to grow here in the future. Leichenko noted that some field crops in Florida get 15 to 32 applications of insecticides, while those in the Northeast get several or none.

Megan Linkin, an assistant vice president at Allianz Risk Transfer's New York office, said that while New Jersey has experienced expensive weather disasters, it has not seen its "nightmare scenario." That would be a major hurricane hitting southern Ocean County squarely from the south and continuing straight north, effectively covering the state.

Even without such a telemovie disaster, the Port of New Jersey/New York and environs is very vulnerable to the effects of high water and fierce storms, according to Linkin.

"It's second only to Miami in the value of assets exposed to coastal flooding," she said. "It's second only to Tokyo in exposure to wind damage."

While businesses and communities can take such factors into consideration in their risk assessments and disaster plans, conference participants were reluctant about how much help they will get from the national government or global institutions.

The 1997 Kyoto Protocol set targets for many countries to reduce their greenhouse emissions by next year. But the United States, the leading per-capita polluter, quickly reneged. As a "developing" nation, China was not even covered by the limits, and in the wake of the recession has overtaken America as number one in total air pollution.

The leading worldwide body, the Intergovernmental Panel on Climate Change, has been meeting in South Africa, but with little mention of Kyoto. The group's latest report focuses on exactly the sort of climate hazards discussed in New Brunswick, but whether that sways national or even state policy is unclear.

"Kyoto is expiring, and there aren't even any negotiations," said Rutgers economist. For any climate policy to be effective, "there has to be a price put on carbon" fuel that reflects the damage it does to health and environments, he said.

No help here. Kean and Florio agreed it was wrong for Gov. Chris Christie to pull New Jersey out of an effort to do just that, the Regional Greenhouse Gas Initiative.

That decision was "a shame," Kean said, because New Jersey stands to benefit more if power plants in upwind states shift from using dirty coal and oil to cleaner-burning fuels.

RGGI has implemented a regional "cap and trade" system, which began as an attempt to create a profitable market from the otherwise costly changeover to less-polluting power sources.

The United States and much of the world did that in the 1990s, establishing a system to buy and sell credits as way to reduce acid rain by weaning utilities from burning heavy-sulphur coal. Plants that were above pollution limits could buy credits from those who were below, allowing a gradual transition.

**Joe Tyrrell** may be reached at [jtyrrell@newjerseynewsroom.com](mailto:jtyrrell@newjerseynewsroom.com) or followed on twitter @jtyrrell87.

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**Change**

8. Friday, 02 December 2011 11:41

*(Rockhound)*

If you look back at the Earth's past, you will see scars from nature's own doing all around us. We should all stop pointing fingers at each other, trying to say one thing is better than the other. When the east coast was in the middle of the giant land mass, when Antarctica was green with vegetation, did man do anything at that time causing the world to change. Learn to work together for the solutions and for the change that is always coming. Look behind to see what is ahead, as we all aged so our planet Earth.

**the future is now**

7. Friday, 02 December 2011 10:08

*(Gail Zawacki)*

It's much worse even than the article depicts, because the extreme, dangerous weather that will accompany global warming is completely unpredictable. Look at the winds on the west coast! and all the other record-breaking events just this past year, in the US. Tornadoes, floods, snow storms, the list goes on and on.

Furthermore, although there was discussion of the damaging health effects from ground-level ozone, which are well known and linked to epidemics of cancer, asthma, emphysema, and even diabetes, Autism and Alzheimers, there was no mention of the even greater sensitivity of vegetation.

Ozone enters plants through stomates of leaves and needles, where it impairs the ability to photosynthesize, and also causes physiological, internal injury. Trees particularly are being killed by ozone, because they are exposed season after season. But agricultural yield and quality are also significantly reduced.

If we do not switch to clean sources of energy - and this WILL require enormous efforts to conserve and use power for only the most essential services - the ecosystem will collapse, and food will become first unaffordable for many, and then scarce. Moreover, the US should take the lead on building a green economy, because the constantly rising background level ozone is now a global problem, with precursors traveling from Asia to our country.

None of this is unknown in science, there is a massive amount of research going back decades. But academics don't like to talk about it, because the only solution is wildly unpopular with American consumers and politicians. If that is too scary for the children, imagine how scary it will be when the grocery store shelves are empty.

<http://witsendnj.blogspot.com/> has links to published research, and photos of leaves with classic symptoms of ozone exposure.

**More global warming garbage**

6. Friday, 02 December 2011 09:55

*(mbabbitt)*

By people who should know better but somehow cannot think themselves out of a CO2 box. Since 1900, precipitation and highest daily rainfall totals have not increased. Flooding does not imply more rainfall. Pavement has -- and it does not soak up water. Perhaps NJ's drainage system needs improvement? Duh.

<http://www.real-science.com/age-superstition-ignorance> Another global warming baloney frenzy.

**Less than 10 Years Left**

5. Friday, 02 December 2011 06:01

*(Orkneygal)*

There are less than 10 years left until human caused Climate Change becomes irreversible, according to the UN.

"A senior environmental official at the United Nations...says entire nations could be wiped off the face of the earth by rising sea levels if global warming is not reversed.....Coastal flooding and crop failures would create an exodus of "eco-refugees", threatening political chaos...governments have a 10-year window of opportunity to solve the greenhouse effect before it goes beyond human control...."

Link

<http://tinyurl.com/6x8r9yc>

**climate change**

4. Thursday, 01 December 2011 16:49

*(talis4)*

Here is what I find absolutely mind-boggling about the masses of a\$\$es in the right wing moron (rwm) world. It's a world of opposites. The only people claiming that there is no human impact on climate change are people hired by the oil companies. Yet, in the topsy turvy world of ignorance is strength, up is down, fox is god; the double digit IQ crowd believe that the folks with an agenda are the 99% of scientists that hold a view BASED ON SCIENCE.

It doesn't matter what university they are associated with. It doesn't matter where their funding comes from. They are all motivated by THE GOVERNMENT to prove man-influenced climate change.

Now, WHY would the government want to invent climate change? BECAUSE they love creating rules and regulations to fatten themselves up. Just ask the rwm's.

So while RIGHT WING MORONS grasp at straws, they ignore the fact that the very idiots that tell them what to believe are paid advocates of the very corporations that would benefit from an absence of regulations.

Let me give you an example:

Scientist:  $1 + 1 = 2$

rwm: that's your opinion

Scientist: no, it is an imperical fact (in base 10)

rwm: you are a paid lacky of the government trying to impose your communist views of Math on the American People!!!!!!!!!!!!!!

There is no reasoning with a group of people that are so pathetically stupid, ignorant and averse to reason that it is a wonder they can feed and dress themselves.

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**global warmibng?**

3. Thursday, 01 December 2011 15:14  
(pbosko)

This article is the biggest bunch or crap I have seen in a long time. And, you think it is hot now. Wait until future green laws kick in and the price of power goes up so much you will not be able to afford to cool your house in the summer.

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**Read wikipedia**

2. Thursday, 01 December 2011 13:47  
(Daniel Cardenas)

The article is absurd. The best scientific estimates of ocean rise by mid century is 3 inches.  
[http://en.wikipedia.org/wiki/Current\\_sea\\_level\\_rise](http://en.wikipedia.org/wiki/Current_sea_level_rise)

Comments (1)

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**Fear Mongering**

1. Thursday, 01 December 2011 12:56  
(mememine69)

Stop scaring our kids with this needless panic.

yvComment v.1.20.0