

Global Warming Will Alter Character of the Northeast

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Global warming is poised to substantially change the climate in the Northeast if heat-trapping emissions are not curtailed. The extent and impacts of the change depend on the choices that governments, businesses and citizens make today. So concludes the first study released today by the Northeast Climate Impacts Assessment (NECIA), a collaboration between the Union of Concerned Scientists (UCS) and a team of independent scientists from universities across the Northeast and the nation.

“The very notion of the Northeast as we know it is at stake,” said Dr. Cameron Wake, Research Associate Professor at the University of New Hampshire’s Climate Change Research Center and co-lead of the report. “The near-term emissions choices we make in the Northeast and throughout the world will help determine the climate and quality of life our children and grandchildren experience.”

The two-year study, *Climate Change in the U.S. Northeast*, employs state-of-the-art science to project the regional consequences of continued reliance on energy sources such as coal and oil that produce high levels of heat-trapping emissions versus shifting to clean and renewable energy to power our economy. The climate report is the first NECIA product, with additional analyses underway to assess the impacts of global warming on forests and agriculture, coastal and marine resources, human health, and urban centers across the Northeast, as well as options for mitigation and adaptation. A major synthesis report of these findings is expected in early 2007.

While the two emissions scenarios lead to similar consequences in early decades, the report finds the scenarios lead to starkly different outcomes as children born today reach middle-age. The projections analyze the impacts in 30 year increments: 2010-2039, 2040-2069, and 2070-2099.

Average annual temperatures. Under the higher emissions path, temperatures are projected to increase 6.5-12.5°F by the end of the century. An increase of 3.5-6.5°F is projected on the lower path.

Extreme heat days in cities. By the end of the century, many Northeast cities can expect 30 or more days over 90°F under the lower emissions scenario, and 60 or more days per year under the higher emissions scenario. Currently, Northeast cities experience one or two days per summer over 100°F. This number could increase to three to nine days under lower emissions and 14 to 28 days per year under higher emissions.

Less snow. Across the Northeast, the number of days with snow on the ground will be reduced by 50 percent in the higher emissions scenario, but only by 25 percent under the lower scenario. More winter precipitation will fall as rain. Both projections will likely have implications for winter recreation and tourism in the region.

Droughts. Droughts in the region are projected to be much more frequent on the higher emissions path.

Extreme precipitation events. Under both emissions scenarios, more frequent and more intense heavy rainfall events are expected.

“The Northeast’s economy and lifestyle is built around the seasonal cycles—pleasant summers, winter recreational opportunities, and iconic fall foliage,” said report co-lead Katharine Hayhoe, Research Associate Professor in the Dept. of Geosciences at Texas Tech University.

“Fortunately, the worst consequences of global warming can be avoided by reducing our emissions starting today.”

Though global warming is a global problem, the Northeast has a central role to play. Ranked against the nations of the world, the Northeast is the seventh largest emitter of carbon dioxide, the most important heat-trapping gas. Historically, the Northeast has been a leader in clean air policy, directly influencing federal policy. As a recognized innovator on many levels, from policy to technology, the Northeast region is poised to lead the way on emissions reductions, nationally and globally.

Reducing heat-trapping emissions is the most important step to curbing the rate and extent of climate change. Increasing industrial and building efficiency, switching to renewable energy sources such as wind, and driving more efficient vehicles are clear steps the Northeast can take.

“Lowering emissions provides a tremendous opportunity for the Northeast,” said Dr. Peter Frumhoff, Director of the Global Environment Program at UCS and Chair of the NECIA synthesis team. “We can use our intellectual capital to lead the world in innovative technologies and practices that we will all need to leave a healthy climate for future generations.”

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To read the new report, visit www.climatechoices.org .

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