Cool heads on global warming

It's time to get serious about global warming.

Evidence from more than 20 years of peer-reviewed studies, including research by scientists from the Nicholas School at Duke, shows we are experiencing unprecedented environmental change. We, not nature, are the most significant agents of this change. On this, there is broad scientific consensus.

Left unchecked, climate change will have far-reaching impacts on our lives.

Warmer temperatures would allow tropical diseases and invasive species to spread northward, much as Dengue fever already has spread to South Texas and appears headed for Tucson.

Polar ice melt and thermal expansion will cause seas to rise one to three feet by the century's end—enough for a storm surge to flood low-lying coasts in Florida, Louisiana and other states.

Changing rainfall patterns and extreme weather events would affect agriculture, particularly in the drought-prone Great Plains, and likely drive up the price of wheat, corn and other food staples.

Global warming cannot be prevented. But many scientists believe we have a 20-year window in which we can reduce the potential damage.

What can we do?

We must get serious—now—about reducing carbon dioxide, methane, soot and other greenhouse gas emissions, especially from coal-burning utilities.

Adopting a national or international allowance trading policy, or "cap and trade" program, would be a start. Cap-and-trading has a proven record for reducing emissions at reasonable cost. The EPA's Acid Rain Trading Program achieved steeper sulfur dioxide emission reductions at a greater cost savings than any other air pollution-control program to date.

Other possible approaches include reducing government subsidies that spur emissions; creating new taxes on emissions; giving larger tax breaks for energy efficiency and conservation; and investing more in alternative energy sources and public transportation for high-density areas.

Sequestering carbon dioxide in trees also holds promise. However, studies show forests alone would, at best, soak up only a small fraction of U.S. emissions.

Scientists and policy experts at the Nicholas School and worldwide are evaluating these and other possibilities. Our expertise is most beneficial when it is shared with policymakers, industry and the public. An open, ongoing dialogue is essential.

Finding solutions to global warming requires political will, common sense and uncommon science. More than anything, it requires action. It's not yet time to panic, but it is well past time for delay.

Our children and grandchildren may look back one day and say the most controversial aspect of global warming was why it took us so long to do something to curb it.

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Nicholas School of the Environment and Earth Sciences at Duke University

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