

U.S. study says climate change is here, with more severe weather and economic impacts

Stephanie Paige Ogburn, Environment & Energy Publishing, 5-6-14

Climate change is happening now, with impacts that are hitting American citizens in their wallets and affecting their quality of life, according to the new National Climate Assessment report scheduled to be released today.

The report, the third National Climate Assessment, catalogs the ways in which climate change is affecting the United States.

A leaked summary document accompanying the report focuses on the fact that climate change is not an event scheduled to take place at some later date. The climate is already changing. The document points out the changes that Americans are currently experiencing, like more severe weather and rising seas.

"I think some of the key take-aways from this report, especially compared to the last report, are the impacts of climate change are not just something that we can look towards the future for but they are already occurring today," said Forbes Tompkins, a research analyst at the World Resources Institute who has been tracking the report.

Andrew Rosenberg, a scientist who led one of the report's chapters on oceans and directs the Center for Science and Democracy at the Union of Concerned Scientists, said the report outlines changes that are happening now in various systems from agriculture to water resources to forestry to oceans.

"There is an enormous amount of material that is just on the observed climate changes that have occurred. The data has built up, the scientific literature is coming fast and furious across very many fields," he said.

The summary document outlines some of these changes.

"Summers are longer and hotter, and extended periods of unusual heat last longer than any living American has ever experienced. ... Rain comes in heavier downpours. People are seeing changes in the length and severity of seasonal allergies, the plant varieties that thrive in their gardens, and the kinds of birds they see in any particular month in their neighborhoods," the document states.

Stronger link with severe weather

The report is firm on the science that humans are causing climate change. It dismisses other potential causes of warming, like solar cycles and volcanoes, often brought up as alternative reasons for warming by those who do not believe in human-caused climate change.

"Multiple lines of independent evidence confirm that human activities are the primary cause of the global warming of the last 50 years," it states.

A significant update in this report from the 2009 version is the stronger link between climate change and severe weather, as the science on that topic has strengthened in the last five years, said a source familiar with the report. The summary also focuses on the negative economic impacts of climate change.

The assessment also has eight regional chapters detailing climate change impacts for various parts of the United States, which will face different challenges as the climate changes.

For example, the Northeast is already experiencing increases in severe rains and higher-than-average sea-level rise. The report also details the health impacts of climate change for the first time.

This climate assessment is significantly longer than the previous one and includes a number of new chapters, such as two on adaptation and mitigation options.

The summary document closes with positive examples of adaptation and mitigation, showing how states and cities are acting to reduce emissions and adapt to a changing climate.

It gives examples of California's Global Warming Solutions Act, the Regional Greenhouse Gas Initiative and city actions to adapt to heavy rainfall events.

White House spotlights report

The National Climate Assessment Development Advisory Committee (NCADAC) will hold a conference call this morning where it votes on whether to approve the report. After the report is approved, it will be made available at the website globalchange.gov.

The assessment is produced through the U.S. Global Change Research Program, a collaboration of 13 federal agencies and departments with authors from the government and a wide swath of academia.

A draft was released in early 2013, and the final draft incorporates the many public comments made on the original draft.

The White House is hosting two events around the release today. One is a call with Office of Science and Technology Policy head John Holdren; White House adviser John Podesta; Jerry Melillo, chairman of the NCADAC; and Tom Karl, head of the National Oceanic and Atmospheric Administration's National Climatic Data Center.