

Report says climate change is here, lays out U.S. impacts

By Chris Adams

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WASHINGTON — Saying climate change has “moved firmly into the present,” a federal scientific panel released a report Tuesday that catalogs the impacts of such changes, saying some would be beneficial “but many more are detrimental.”

The American Southeast and Caribbean region, for example, is “exceptionally vulnerable” to rising sea levels, extreme heat events, hurricanes and decreased water resources, the report said. Seven major ports in that region are vulnerable to sea level rise. And residents can expect a significant increase in the number of hot days – defined as 95 degrees or above – as well as decreases in freezing events.

“Large numbers of southeastern cities, roads, railways, ports, airports, oil and gas facilities and water supplies are vulnerable to the impacts of sea level rise,” the report concludes. Among the cities most at risk: Miami and Tampa, Fla., Charleston, S.C., New Orleans and Virginia Beach, Va.

The findings, from the U.S. National Climate Assessment, were the result of a three-year project involving more than 300 experts and top administration officials, including President Barack Obama’s science and technology adviser. The report was called for in Obama’s climate action plan, launched last year.

In the Midwest, the report says, longer growing seasons and rising carbon-dioxide levels will increase the yields of some crops, though those benefits will be progressively offset by extreme weather.

In the Great Plains, rising temperatures are leading to increased demands for water and energy. That might constrain development and increase competition for water among communities, agriculture and energy production.

In the Southwest, which in the report includes California, snowpack and streamflow amounts are projected to decline, decreasing the reliability of surface water supplies and threatening the region’s production of specialty crops. Warming, drought and insect outbreaks tied to climate change have increased wildfires as well as affected people and ecosystems.

In the Northwest, changes in snowmelt have been observed and will continue, reducing the supply of water. The combined impact of increasing wildfires, insect outbreaks and tree diseases has already caused widespread tree deaths and is “virtually certain to cause additional forest mortality by the 2040s and long-term transformation of forest landscapes.”

A draft of the report had previously been released, and the report’s authors received more than 4,000 public comments.

Climate-change skeptics attacked the report. The Cato Institute, a Washington-based libertarian research center, sent out its assessment Monday, saying the report “overly focuses on the supposed negative impacts from climate change while largely dismissing or ignoring the positives from climate change.”

It said the “bias . . . towards pessimism” has implications for the federal regulatory process because the report is cited as a primary source for the science of climate change in justifying federal regulations.

Since the U.S. National Climate Assessment “gets it wrong, so does everyone else,” Cato’s authors said.

The report lays out climate-change scenarios that have affected or may affect different regions and sectors of the economy.

The state-by-state, region-by-region impacts are what White House officials said in a conference call Tuesday might help move the climate-change debate forward. Calling it “actionable science,” White House adviser John Podesta said on the conference call that the report would give people information on observed climate changes in their parts of the nation.

“For decades we’ve been collecting the dots on climate change,” added Jerry Melillo, a scientist at the Marine Biological Laboratory who led the committee that oversaw the report. “Now we are connecting those dots.”

The report on the Southeast and Caribbean is 22 pages. Reports on each region of the country are available on the National Climate Assessment’s website.

In the Southeast and Caribbean, for example, the report notes that the region warmed during the early part of the last century, cooled for a few decades and is warming again. The report says the global sea level rose about 8 inches in the last century and is projected to rise another 1 to 4 feet this century.

As a result, the coastline of Puerto Rico around Rincon is being eroded at a rate of 3.3 feet per year; 56 percent of Puerto Rico’s population lives in coastal communities.

The report zeroes in on southeast Florida, saying “just inches of sea level rise will impair the capacity of stormwater drainage systems to empty into the ocean.” That’s led to states and cities

adapting by building barriers to keep the water out, accommodating the intruding water or retreating.

The report cites the Southeast Florida Regional Climate Change Compact as an “excellent example” of collaboration among county, state and federal agencies to adapt to changing circumstances. The compact among four South Florida counties is designed to help them work together on mitigation and adaptation strategies. It seeks to influence climate and energy legislation and funding as well as to share technical resources and assessments.

As for hurricanes, projections suggest that warming will cause tropical storms to be fewer globally but stronger, with more Category 4 and Category 5 storms.

In Louisiana, a state highway used to deliver oil and gas resources is sinking at the same time the sea level is rising, resulting in more frequent and more severe flooding during high tides and storms, the report says.

Throughout the Southeast, freshwater supplies from rivers, streams and groundwater sources are at risk from accelerated saltwater intrusions due to higher sea levels.

Not all climate changes are bad, the report concludes. Some, such as a longer growing season in some regions and a longer shipping season on the Great Lakes, “can be beneficial over the short run.”

“But many more are detrimental, largely because our society and its infrastructure were designed for the climate that we have had, not the rapidly changing climate we now have and can expect in the future,” the report says.