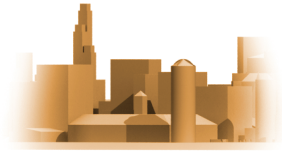


Nov. 28, 2018

# 12 Key Takeaways in the White House Climate Assessment

The congressionally mandated Fourth National Climate Assessment, which was released by the White House on Black Friday, foresees hundreds of billions of dollars in annual damage to the economy by the end of the century unless greenhouse gas emissions are quickly and significantly reduced. Working under a 60-member federal advisory committee, the report was prepared by 300 scientists and reviewed by 13 agencies, including NASA and Defense, and the National Academy of Sciences. The assessment claims that climate is changing much faster than it would from any natural variation, with overwhelming evidence pointing to human activities as the cause — particularly emissions of greenhouse gases from the burning of fossil fuels.

When asked by reporters about the projected massive economic losses from climate change, President Donald Trump rejected the estimate. “I don’t believe it,” he said. “No, no, I don’t believe it.”



## 1 COMMUNITIES

More intense and frequent extreme weather events are damaging the infrastructure, ecosystems and social systems that benefit communities.

Future climate change will bring further disruptions, especially for lower-income and marginalized areas.



## 2 ECONOMY

For the U.S. to avoid substantial damage to its economy, significant reductions in emissions are necessary, along with an increase in adaptation efforts. Otherwise, annual losses in some sectors could cost hundreds of billions of dollars by the end of the century.



## 3 WATER

Climate change is intensifying droughts, increasing the frequency of extreme downpours, diminishing snowpack and reducing surface water, which threatens availability of water in some areas. Water shortages are leading to groundwater depletion. Rising seas increase flooding and saltwater contamination. Adaptation to the changes is limited.



## 4 HEALTH

Pollution from increasing wildfires and ground-level ozone raises health risks. Rising air and water temperatures will increase the frequency of heat-related deaths, allergic illnesses and vectorborne, waterborne and foodborne diseases — and compound the mental health problems associated with relocation and diminished livelihoods.



## 5 AGRICULTURE

Although climate change might increase productivity in some areas, increasing temperatures, water scarcity, erosion and outbreaks of pests and diseases are expected to diminish overall yields. Mitigating such impacts will require changes in farming practices and significant short- and long-term investments.



## 6 INFRASTRUCTURE

Without adaptation, aging energy and transportation systems will be further degraded by increasing heat, wildfires and flooding, raising the frequency of power outages, fuel shortages and service disruptions. Rising seas threaten hundreds of billions of dollars in coastal properties and infrastructure.



## 7 OCEANS/COASTS

Even with significant emissions reductions, rising seas, increasing water temperatures, high-tide flooding, ocean acidification, retreating arctic sea ice, coastal erosion, higher storm surges and heavier downpours will increasingly threaten marine and coastal ecosystems. Some fisheries will decline, along with coastal property values, but more than half of the damage can be avoided with conservation measures and other adaptive responses.



## 8 TOURISM/RECREATION

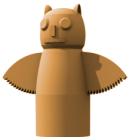
The quality of outdoor recreation will decline with projected increases in smoke from wildfires and with the disappearance or degradation of coral reefs, snow and ice cover, hunting and fishing habitats and other ecosystems that attract tourists and provide income for tourist economies.



## 9 ECOSYSTEMS WITH BENEFITS

As climate change continues to alter ecosystems and biodiversity, it will affect the services they provide, such as filtration of air and water, protection from coastal flooding, pollination, provision of wood and fiber and many other benefits.

Increased frequencies of wildfires and outbreaks of destructive insects and diseases threaten to further degrade forests. Without substantial and sustained emissions reductions, extinctions and major alterations to ecosystems are unavoidable.



## 10 INDIGENOUS PEOPLE

Climate change has already transformed certain ecosystems upon which native populations depend, and is projected to increasingly disrupt their economies and well-being. Some communities are already taking adaptive steps, such as relocation and development of renewable energy on tribal lands.



## 11 INTERCONNECTIONS

The effects of climate change on one system can cascade into other critical systems, such as food distribution, energy, transportation, public health, international trade and national security. A focus on anticipating interconnected effects can lead to better management responses.



## 12 ACTIONS TO REDUCE RISKS

Although mitigation and adaptation efforts from communities, governments and businesses have increased, more immediate and substantial reductions of greenhouse gas emissions are needed to avoid the most severe consequences of climate change.

Sources: U.S. Global Change Research Program, POLITICO staff reports

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