

Administration Issues Dire Climate Assessment

In the News

In the flurry of family activities and holiday shopping, Americans may not have noticed the release by the Trump administration on Black Friday, the day after Thanksgiving, of Volume II of the Fourth National Climate Assessment. The multi-agency, 29-chapter report compiles data from a team of 300 leading scientists and another 700 contributors.

The assessment follows on the heels of a similar report issued in October by the United Nations Intergovernmental Panel on Climate Change, which cites over 42,000 comments from experts and government officials. That report claims that temperatures around the world will rise to a tipping point of 2.7 degrees Fahrenheit above pre-industrial levels as early as 2030.

Unless dramatic changes at all levels of society are implemented quickly, both reports assert, the world faces a risk of increasingly intense, frequent and extended incidents of extreme drought, extreme heat, wildfires, floods, food and water shortages, and displacement and poverty for hundreds of millions of people.

While the compilation of the National Climate Assessment (NCA) is required by law, President Trump has expressed a lack of confidence in its conclusions and stated his intention to withdraw the United States from initiatives such as the Paris climate accord, which aims to lower global temperatures by cutting emissions of greenhouse gases.

The U.S. has decreased its per capita emission rate of gases such as carbon dioxide by over 12 percent since the 2007 peak, compared to minuscule changes in the European Union and *increases* greater than 40 percent in highly populated China and India.

"The global average temperature is much higher and is rising more rapidly than anything modern civilization has experienced," said David Easterling, director of the Technical Support Unit at the National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information. "This warming trend can only be explained by human activities."

The NCA lists many ways global warming is already impacting the nation:

1. **Economic Impact:** Increasingly severe and frequent weather events attributable to climate change damage and destroy property, pushing property values down in affected communities. They burden our nation's already aging and deteriorating critical energy, communication and transportation infrastructures, which may lead to power outages and fuel shortages of greater frequency and longer duration.

The NCA states that "annual losses in some economic sectors are projected to reach hundreds of billions of dollars by the end of the century -- more than the current gross domestic product (GDP) of many U.S. states."

2. **Environmental Impact:** Sea level rise, catastrophic flooding, storm surges, loss of coral reef and sea ice habitat in coastal regions, and more frequent and intense forest fires threaten biodiversity, the purity of air and water, and the very survival of native species of plants, animals and humans. Crops that depend on stressed species for pollination are also at risk.

Damaged ecosystems degrade hunting, fishing, agriculture, timber, recreation and tourism industries, as well as activities indigenous people rely on for subsistence. Warmer oceans provide an environment where invasive species such as red tides or algae bloom thrive, further degrading habitat that sustains marine life.

3. Industrial Impact: Water shortages and pollution will increasingly cause greater risks and expense to agriculture, energy production, health, industry, recreation, and the environment. Some regions will be inundated with too much water while others struggle to have sufficient supplies.

4. Food Supply Impact: Food insecurity is likely as water shortages, soil erosion, drought, flooding, diseases and pests threaten the health of livestock, causing crop yields and quality to decline and prices to rise for many agricultural products that will, as a result, become less available.

5. Health Impact: Health risks will increase with poorer air quality, extreme weather events, more frequent and intense heat stress, and exposure to viruses transmitted by insects and pests, or water-borne and food-borne diseases. More people and animals in more regions of the country will suffer more severe and frequent bouts of asthma and allergies.

Due to climate change, ticks and mosquitoes that were once confined to a limited geographic range will migrate to new regions, exposing more people to Lyme disease and viruses such as Zika, West Nile and dengue.

More people will suffer from mental health problems, especially if climate change results in loss of homes, employment or community devastation, requiring relocation of "environmental refugees."

6. Community Impact: The NCA points out that climate change disproportionately impacts communities of color, indigenous people, the elderly, children and the poor, who are at greater risk for illness and death. They also often lack resources to mitigate their vulnerability, and may be less able to prepare for and cope with extreme weather and climate-related events.

While the NCA does not propose specific policies, it does recommend that individuals, businesses, communities and governments act decisively, rapidly and creatively to adapt to the "new normal" of a warmer Earth, to develop technology to increase community resilience, reduce the risks associated with climate change and mitigate the potential damage it brings with it.

"If we're going to run this country like a business, it's time to address climate as the threat multiplier we know it is before more lives are lost," said Robert Bullard, an environmental scientist at Texas Southern University.

More on this story can be found at these links:

Fourth National Climate Assessment: Volume II (Impacts, Risks, and Adaptation in the United States). *The National Climate Assessment*
Summary for Policymakers of IPCC Special Report on Global Warming of 1.5°C Approved by Governments. *IPCC.CH*

The Big Questions

1. What changes have you seen in climate, weather and the environment in your lifetime? To what do you attribute those changes?
2. What factors should be considered when making decisions about how to manage natural resources?
3. What scriptures inform your understanding of the relationship of humans to the environment?
4. How aware are you of your own impact on climate change? Do you believe you can effect change by your own small and large actions? What role does faith play in your decisions about how you interact with natural resources?
5. How would you define "environmental justice"? Where do you see environmental justice or injustice in the world today?

Confronting the News With Scripture and Hope

Here are some Bible verses to guide your discussion:

Isaiah 24:4-6

The earth dries up and withers, the world languishes and withers; the heavens languish together with the earth. The earth lies polluted under its inhabitants; for they have transgressed laws, violated the statutes, broken the everlasting covenant. Therefore a curse devours the earth, and its inhabitants suffer for their guilt; therefore the inhabitants of the earth dwindled, and few people are left. (For context, read 24:1-11.)

Questions: When and where have you seen this prophecy fulfilled in your lifetime? How do you react to the way Isaiah implicates "the inhabitants of the earth" and pronounces them guilty, responsible for the withering of the world and the loss of human life? What should humans do with that sense of guilt?

Genesis 2:15

The LORD God took the man and put him in the garden of Eden to till it and keep it. (For context, read 2:15-20.)

The word translated "keep" is based on the Hebrew word *shamar*, which means to sustain something with love and care.

In the twin creation accounts in Genesis 1 and 2, God gives the first man and woman two charges that at first glance may seem to be in conflict: "Be fruitful, multiply, fill the earth, subdue it, have dominion" over the created world and its inhabitants, and "Till and keep" the garden of Eden. The first responsibility may suggest human dominance while the second seems to propose a more nurturing role for human beings in relation to the environment.

Is it possible to fulfill both charges? How are we to understand these tasks God gave to human beings?

First, from the context, we learn that God intended for all creatures to flourish along with humans. In Genesis 1:20, 22 God declares, "'Let the waters bring forth swarms of living creatures, and let birds fly above the earth across the dome of the sky.' ... [And] God blessed

them, saying, 'Be fruitful and multiply and fill the waters in the seas, and let birds multiply on the earth.'"

God never intended for humans to flourish at the expense of other creatures, but that we should learn to coexist with them so that all life thrives. While God invites us to enjoy the fruit of the land, we must remember that God also gave the vegetation to the beasts of the earth and the birds of the air. Creation is not for human use alone, but is meant to be shared with other created beings. We are not meant to "fill the earth" to the extent that other species become extinct to accommodate our exploitation of natural resources.

Second, since God provides for the needs of animals, and we are created in God's image, we should reflect that image by caring for animals as well. One way we do that is to preserve habitat upon which animals rely.

Of course, when we "sustain the earth with love and care," it is not only the earth or the animals that are blessed: humans also reap the benefits.

Questions: How do these commands apply, if at all, to humans today? In what ways do you balance the two commands in the way you live?

Responding to the News

1. You may want to review lists such as *35 Easy Ways to Stop Global Warming* to remind yourself of ways you can lessen your own contribution to warming global temperatures.
2. You can get a rough idea of your own carbon footprint here, or check your local library or the internet for similar tools.
3. You may wish to review various theological approaches to the meaning of stewardship of creation, as well as educational resources, found at these websites:

Environment. *United States Conference of Catholic Bishops*

Mainline Protestant and Orthodox Environmental Perspectives and Resources. *National Religious Partnership for the Environment*

Creation Justice Resources -- Educational Resources for All Ages. *Creation Justice Ministries*

Prayer

Creator God, teach us how to care for and protect your world as trustworthy stewards. Help us and our civic leaders to make wise, loving and courageous decisions about how we live as we face challenges greater than we have ever known before. For your glory and honor. Amen.