

KEY FINDINGS OF THE 2018 IPCC AND U.S. NATIONAL CLIMATE ASSESSMENT REPORTS

Intergovernmental Panel on Climate Change – Special Report

In October 2018, the Intergovernmental Panel on Climate Change (IPCC), the foremost worldwide authority on climate change, issued a [Special Report](#) and its **most extensive warning** yet. The report explained the large difference in risks and benefits between a 1.5 degrees C and 2.0 degrees C rise in temperature and indicated that the impacts of a 1.5 degrees C temperature rise would be noticeably worse than the impacts we are currently experiencing.

“One of the key messages that comes out very strongly from this report is that we are already seeing the consequences of 1.0 degree C of global warming through more extreme weather, rising sea levels, and diminishing Arctic sea ice, among other changes,” said Panmao Zhai, co-chair of one of the IPCC working groups.

Additional key messages from the report include:

- Government pledges made through the Paris Agreement, for 2030, will now not be sufficient.
- Failing to keep temperature rise below 1.5 degrees C will cause dangerous changes to the planet, and staying below this level will require “rapid, far-reaching, and unprecedented changes in all aspects of society,” including land use, energy, industry, buildings, transportation, and cities.
- Projections indicate that the world is currently headed towards 3.0 degrees C, and we are likely to reach the 1.5 degrees C level between 2030 and 2052. Thus, **global emissions of CO₂ need to be reduced 45 percent below 2010 levels by 2030** to avoid a significant loss of Arctic ice and coral reefs, and severe droughts and floods.
- Limiting warming to 1.5 degrees C will be difficult, but is possible, and doing so will bring many benefits compared to limiting warming to 2.0 degrees C. **Changes that individuals, organizations, and civil society make to reduce greenhouse gas emissions can have a big, positive impact.** It is not a matter of which solutions are needed; all solutions are needed.
- The financial cost of climate change mitigation may be high, but the financial and planetary (e.g., human, ecosystem, species) cost of inaction will be much higher.

United States Fourth National Climate Assessment – Volume II

In November 2018, the U.S. government released its own report on climate change, the [Fourth National Climate Assessment, Volume II](#). This report, which focused on the United States, explained the seriousness of climate change and provided the following key points:

- The earth’s climate is now changing faster than at any point in the history of modern civilization.
- The evidence of human-caused climate change is overwhelming and continues to strengthen. Climate-related threats to Americans’ physical, social, and economic well-being are rising.
- *The impacts of global climate change are already being felt in the United States and are projected to intensify in the future*—but the severity of future impacts will depend largely on actions taken to reduce greenhouse gas emissions and to adapt to the changes that will occur.
- **Decisions made today determine risk exposure for current and future generations** and will either broaden or limit options to reduce the negative consequences of climate change.