

IPCC Releases Climate Change Report

By Don Sutherland

At 4 am EST, the Intergovernmental Panel on Climate Change (IPCC) released its latest physical science report on climate change. The report considered 14,000 scientific papers, including some of the latest research on climate change.

The language was dramatically toughened from the Firth Assessment that preceded it. The evidence that greenhouse gas emissions from human activities are responsible for pushing the global temperature to its highest level in 125,000 years is now unequivocal. The report also underscored the reality that climate change is driving an increasing number of increasingly severe extreme weather events—searing heatwaves, damaging droughts, intense flooding rainfall, and devastating wildfires. The report warned that the time to avoid the worst effects of climate change by rapidly rolling back fossil fuel combustion is at hand.

Some excerpts:

- *It is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred...*
- *The scale of recent changes across the climate system as a whole and the present state of many aspects of the climate system are unprecedented over many centuries to many thousands of years...*
- *Human-induced climate change is already affecting many weather and climate extremes in every region across the globe. Evidence of observed changes in extremes such as heatwaves, heavy precipitation, droughts, and tropical cyclones, and, in particular, their attribution to human influence, has strengthened since the Fifth Assessment Report (AR5) [in 2013]...*

Overall, the report is a devastating indictment of human inaction on perhaps the gravest threat to arise during the course of human experience. Fossil fuel combustion has continued to grow even as knowledge of the link between its greenhouse gas pollution and climate system damage has increased markedly since the IPCC released its first report in 1990. Despite this increasing knowledge, global policy makers did not act. In doing so, they became unwitting accomplices of the industries and actors responsible and, today, those who don't act, will be the knowing accomplices of those actors.

This report presents a stark last warning for rapid, robust, and sustained decarbonization. Will the world's leaders put the public interest and stabilization of the global climate ahead of the interests of major fossil fuel companies and related industries? If so, the damage can still be limited.

Will they choose to punt the hard choice that needs to be made now, while a relatively smooth transition is still possible, to a future generation? If so, they will squander the chance for a

meaningful transition leaving society with little choice but to make economically and socially disruptive changes in a last-ditch effort to avoid catastrophe.

In a worst-case, the inaction of today's policy makers could risk irreversible and devastating damage, including but not limited to a shut down of the Atlantic Meridional Overturning Circulation, substantial loss of Greenland's ice sheet, disintegration of some of Antarctica's ice shelves, mass extinctions, and mass crop failures.

Where should policymakers do now?

COP26 presents an opportunity for the world's leaders to offer credible commitments aimed at advancing the Paris Agreement's goal of limiting warming to 1.5°C. But that's no longer enough. Much more is needed.

In the immediate term, a global ban on all new oil and gas exploration and drilling should be pursued at the international level. A rapid phase-out of the use of coal for energy production—in less than a decade—should be adopted. For the medium-term, a comprehensive plan to wind down fossil fuel combustion should be developed in combination with clean electricity standards, technology transfer protocols, investment in new technologies, and funding for adaptation to the climate changes already in the pipeline should be agreed. Investment and other forms of technical assistance will need to be provided to the developing countries who bear least responsibility for the accumulated greenhouse gas emissions and some of the greatest risks from the consequences of climate change.

The scientists have spoken—for the sixth time. Will the policy makers listen this time? Will they rise to the moment to adopt the course necessary to secure humanity from the grave and growing threat of anthropogenic climate change?

Recent historic experience isn't very encouraging. But from that experience there are some nuggets of hope—the global effort to address Ozone depletion being one example—to suggest that humanity is not destined to succumb to the great challenge now before it.