

Climate Change 2018, Brief Summary

The world stands on the brink of failure when it comes to holding global warming to moderate levels, and nations will need to make unprecedented sacrifices to cut their carbon emissions over the next decade, according to a landmark report from the United Nations Intergovernmental Panel on Climate Change (IPCC), written by scientists from 40 countries and released on October 6, 2018. Findings from that report are incorporated into this Summary.

1. Several gases, called greenhouse gases – carbon dioxide, methane, nitrogen oxide, water vapor, CFCs, HFCs and perfluorocarbons - are produced/increased by human activities. These gases rise up into the atmosphere and trap in heat. Carbon dioxide, produced by the burning of fossil fuels, is responsible for 70% of this heat. The increase of heat is causing extreme weather events, drought, famine, migrations, melting ice caps and glaciers, rising seas, flooding of coastal areas, acidic oceans, mass die-offs of tropical coral reefs, wildfires, annihilation of wildlife, diseases and deaths, and will continue to do so for the indefinite future.
2. In the words of the environmentalist Bill McKibben: “Our old familiar globe is suddenly melting, drying, acidifying, flooding and burning in ways that no human has ever seen. We’ve created, in a very short order, a new planet, still recognizable but fundamentally different. Change - fundamental change - is our best hope on a planet suddenly and violently out of balance.”
3. 2.7 degrees F rise in global mean temperature since the mid-1850s is the line that scientists agree we must not cross, because if we do, the world will experience ecological and social disaster. At present, we are halfway there, due to greed of the few and indifference of the many. To avoid racing past warming of 2.7 degrees F over preindustrial levels would require a “rapid and far-reaching transformation of human civilization of a magnitude that has never happened before.”
4. Regardless of this unprecedented danger, we are constantly increasing our burning of fossil fuels because of: A) great profits by the corporate sector and wealthy individuals; B) lawmakers who receive great sums from those corporations and individuals in return for favorable legislation; and C) indifference of the majority due to ignorance, apathy and a strong focus on the here and now. Suffering that’s geographically distant or far into the future matters little or not at all to that majority. As of late 2018, there is no effort in sight capable of bringing greenhouse gas emissions to a halt and then reversing them.
5. Human activities have caused warming of about 1.8 degrees F since the 1850s, the beginning of large-scale industrial coal burning. Most of that rise has occurred in recent decades, due to extraordinary growth in the last several decades of the economy, population, affluence and technology.
6. To prevent this rise of 2.7 degrees F, emissions of greenhouse gases must be reduced by 45 percent from 2010 levels by 2030, and by 100 percent from 2010 levels by 2050. The IPCC also found that the use of coal as an electricity source would have to drop from nearly 40 percent today to between 1 and 7 percent by 2050. Renewable energy - solar and wind - would have to increase from 20 percent of the electricity mix today to as much as 67 percent. “We’ve got a decade or so to get Climate Change under control, and there is no such thing as a gentle glide path. We have to take a firm grip on the emissions curve and wrench it downward.”
7. At this point in time (2018), we humans are increasing our production of carbon dioxide every year. From 2005, to 2017, global energy-related carbon dioxide emissions rose by 21 percent. Today, global carbon emissions are 60% higher than in 1990. Developing countries represent the largest increases in fossil fuel demand. Much of future demand will come from China, India and Indonesia, whose peoples much prefer economic growth to environmental health. Which is understandable, since they yearn for the higher standard of living that they see in developed countries and can be obtained only, in their eyes, by burning more fossil fuels.
8. To make all of this worse, carbon dioxide, the most consequential of the greenhouse gases, accumulates in the atmosphere for decades, if not centuries.
9. Which means that since the fossil fuels we are burning now are producing carbon dioxide that will accumulate during the coming decades, and since, in addition to the accumulated carbon dioxide,
over

we will burn more fossil fuels during those decades than we are burning now, the global mean temperature during and after those coming decades will far surpass that of 2018, inflicting on us ever-worsening consequences unless we undertake radical measures very soon to halt and reverse our burning of fossil fuels – a complete mobilization of the world’s resources. Unfortunately, such radical measures are not on the horizon. The bottom line is that the world is woefully off-target.

10. To exacerbate this situation, President Trump has mocked the science of human-caused Climate Change, eviscerated the EPA, scorned the IPCC, acted to increase the burning of fossil fuels, especially coal, and withdrawn from the 2015 Paris Agreement on Climate Change.
11. In addition, control of certain conditions (methane escaping from Arctic permafrost and seabeds, carbon escaping from burning forests, rapid melting of Arctic ice sheets) which are currently propelled by humans is on track to shift out of our hands (tipping points) and be taken over by irreversible, natural forces which will steadily worsen those conditions until they have devastated our planet. Only 7-10 years remain before several of these tipping points kick in and then it will be too late to halt the steady intensification of those conditions. Our only recourse then will be to stand on the sidelines and watch helplessly, lamenting the departure of the Earth we once knew and loved.
12. In light of the above, what makes sense now is to halt the production of fossil fuels as soon as possible and replace them with 1) renewable sources of energy - solar, wind, nuclear and hydro power and; 2) energy conservation in buildings, transportation and industry. We can only hope that if at some point the champions of ecological justice will prevail, a good portion of life will remain and a more responsible human nature will emerge. That point will be reached when the number of committed participants becomes sufficiently large.
13. Essential activities for committed participants include:
 - A) Keeping abreast of climate change developments.
 - B) Taking control of federal, state and local governments and using their resources to radically increase conservation of energy and renewable sources of energy. The path to control of the U.S. federal government is control of state governments. Many state governments are currently making beneficial changes which the federal government refuses to make.
 - C) Altering our personal lifestyle with respect to – population size, solar and wind energy, home and building insulation, size and location of homes, public transportation, fuel-efficient cars and appliances, diet, organic food, traveling (especially by air), socially responsible investing, patronizing companies that operate in an environmentally just manner and shunning those that don’t, reusing and recycling, planting trees, energy-efficient lighting, food (especially organic). Every change in these activities, however small, makes a difference.
 - D) Enlisting additional participants from relatives, friends, neighbors, church and school members, business associates.
 - E) Engaging in these activities in Small Groups, for the sake of mutual support, sharing of knowledge, experiences and resources, persistence, and joint activities. If not in a Small Group, then individually.
14. A significant effect of our gaining control of government is that those whom we elect to prevent the calamitous consequences of Climate Change will be disposed to create in every respect a just, caring and democratic society, thus eliminating the other grave injustices which afflict American society – economic, political, environmental, military, racist, imperialistic and sexist.
15. The prospects for not only our children and grandchildren, but also for all of humanity and nature, are not bright. We have an Administration in Washington which, in league with much of the corporate world and wealthy individuals, scorns and derides the findings, policies and programs of the world’s climate scientists. We must do our best to counter that Administration’s efforts, as well as the efforts of all the other powerful forces which are intensifying the consequences of Climate Change. Our brothers and sisters across the globe, and all of nature, call upon us for a maximum commitment, today and in the future.

**To learn more about participating, contact John Conner: The Grassroots Coalition
21431 Marlin Circle, Shade Gap, PA 17255 814-259-3680 grassroots1@pa.net**