



When Climate Prophecy Fails

The Coming Confrontation with Reality

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Executive Summary

There are four ways in which actual global trends are diverging more and more from the predictions upon which climate activists base their claims of impending catastrophe and allegedly “inevitable decarbonization” of the world economy.

After almost thirty years of measurement, the gentle rise in average global temperatures is near the bottom of the range projected by the Intergovernmental Panel on Climate Change (IPCC). If, as many now expect, the world enters a cooling trend over the next few decades, average temperatures will fall entirely outside that range, and demonstrate conclusively that the IPCC models do not provide a reliable foundation for climate policy.

Fossil fuels (oil, natural gas and coal) now supply 84% of global energy needs, and consumption of oil and natural gas is rising at its fastest rate in history, with no current prospect of subsiding. If, as projected by all major authorities on global energy supply and demand, these trends continue through to 2030 and beyond, driven by economic growth in Asia, why would people in the OECD countries accept the claims of climate activists that they must reduce their use of fossil fuels?

Global greenhouse gas (GHG) emissions increased, not decreased, by 12 per cent over the past decade, despite claims that the world must sharply reduce emissions. Even if global emissions were to stabilize, as some forecasters suggest, that will represent a major departure from the “pathways” to reduced emissions that climate alarmists say is essential. At which point will the claims of rapid decarbonization become untenable?

Following the COP21 conference in Paris in 2015, many OECD countries submitted plans about how they would reduce GHG emissions by 2030. Many developing countries submitted similar plans conditional upon receiving financial assistance in the form of the Green Climate Fund (i.e. U.S. \$100 billion per year). When countries report on their progress before the November 2020 COP, it will become clear that nine out the ten largest GHG emitters are not on track to meet the 2030 targets. The total contributions to the Green Climate Fund, as of mid-2018, were \$10.2 billion. Despite the certain calls for more aggressive emission reductions, it will be clear by the end of this year that the entire U.N. artifice of supposed commitments to decarbonization is flawed.

When reality fails to match prophesy, those who follow climate and energy policy developments closely will see the rationale for drastic transition crumble. The Canadian public, unfortunately, may not react until climate taxes and other measures impose intolerable costs on the average person. We do not have a crystal ball for that.

When Climate Prophecy Fails

The Coming Confrontation with Reality

In western countries with advanced economies, there is little doubt about the immense political power of those who control climate policy. In Canada, there are actually three separate theses at the centre of this movement.

- **The first** is that increasing human emissions of greenhouse gases (GHG) will cause catastrophic climate change sometime within the next century.
- **The second** is that this catastrophe can be avoided by urgent actions to reduce GHG emissions.
- **The third** is the notion that implementing highly expensive and intrusive government measures here in Canada can achieve those emissions reductions because it is assumed that other countries will ‘follow the climate leader’ – and our efforts will be accompanied by comparable actions in the countries, like China, where emissions growth is the highest.

The three theses are fundamentally a product of the highly politicized reports of various United Nations organizations, including notably the Intergovernmental Panel on Climate Change (IPCC). The adherents to these views are absolutely persuaded that use of fossil fuels that give rise to most GHG emissions will fall significantly over the period to 2050 and that the world energy system will “transition” to a new model. Such activists often claim that emissions will decline by at least 30% from 2005 levels by 2030 and by 80% to 100% by 2050. Professor Ross McKittrick, [in a recent article](#), referred to the believers in impending catastrophe as “the C group”. I shall refer to them as ‘climate activists’ – in that they are people who believe politicians should ‘take action’ on climate, though the range of actions proposed may range from a desire to reduce pollutants to a complete banishment of the use of fossil fuels. Many of these people are acting from a sincere belief that climate change is strictly caused by human activity and use of coal, natural gas and oil, and that limiting the use would cause the climate to be ‘stable’ and that extreme weather events would stop happening.

What might happen if the climate reality is completely different from what the climate activists believe? What happens when climate prophecy fails?

The Science- Plausible Scenarios for Global Temperatures to 2050


A few weeks ago, Judith Curry, one of the world's foremost climate scientists, published an analysis of the many factors that might determine global temperatures over the next 30 years. Her analysis is based upon using present conditions and empirical observations, rather than exclusive reliance on climate models, as the baseline for studying possible future climate change.

Climate 'models' are complex computer simulations that project future warming based on inputs like the ratio of carbon dioxide or a country's so-called 'carbon budget'. These are computer simulated projections that are used by government policymakers to set climate and energy policies. Until recently, these simulations had a set formula about the warming effect of carbon dioxide on climate change (known as 'climate sensitivity'); however, recent research has shown that carbon dioxide's effect is much less than previously presumed. In her recent analysis, Dr. Curry used the newest results from academic and other expert studies, including information concerning climate model sensitivity to carbon dioxide emissions.

According to the methodology employed in the IPCC models, the amount of warming the world will experience is roughly proportional to cumulative carbon emissions. The relationship between temperatures and cumulative emissions is referred to as the transient climate response to cumulative carbon emissions, or TCRE. The current estimates of TCRE range from those used by the IPCC (0.8 degrees C to 2.5 degrees C) to "observationally constrained" (i.e. founded on actual measurements) estimates in the range of 0.7 Degrees C to 2.0 degrees C.

Although the media present climate change as strictly human-caused, the IPCC definition of 'climate change' recognizes that natural factors are also pivotal factors. But in the IPCC simulations, many natural factors are poorly represented. The mandate of the IPCC is to study human-caused climate change, the organization is highly political, and this leads many critics to believe that their reports are biased.

The IPCC models take little or no account of factors unrelated to human activity that may influence the climate. By contrast, in Dr. Curry's recent work, she examines these factors, including notably variations in solar activity, volcanoes, and natural climate variability. All



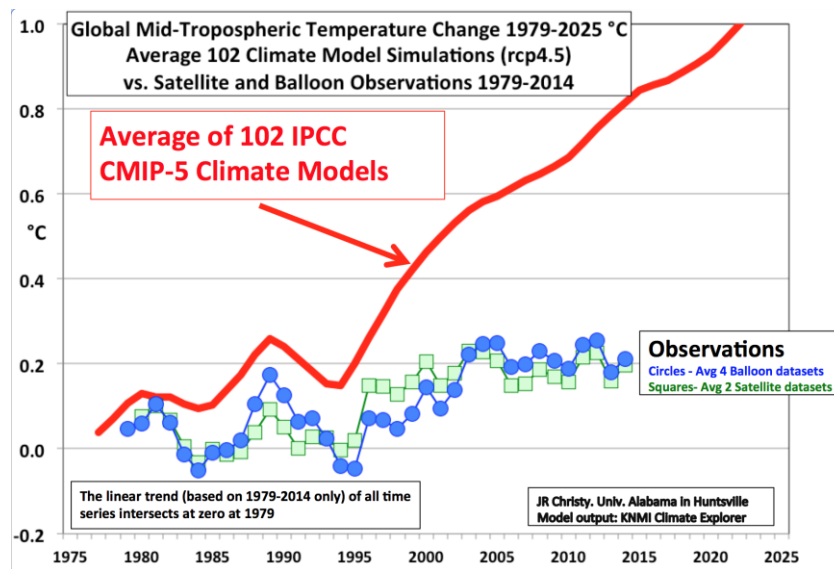
Thinking that catastrophes like major hurricane landfalls, massive forest fires etc. will be 'cured' by eliminating fossil fuel emissions is laughable. Well its not really funny. Thinking that eliminating fossil fuel emissions will 'solve' the problem of extreme weather events is very sad, sort of on the level of doing rain dances. Everything that goes wrong, they blame on fossil fuel driven climate change.

Imagine how surprised they would be if we were ever to be successful at eliminating fossil fuel emissions, and then we still had bad weather!

<https://judithcurry.com/2019/02/07/climate-hypochondria-and-tribalism-vs-winning/>

three of these influences are expected to trend “cool” over the next three decades. She noted a recent study by Bethke et al (2017)¹ that examined scenarios of natural variability and volcanic activity. The study found it possible (i.e. with a probability of 4 to 10 per cent) that temperatures will decline (i.e. cool) over that period. Too little is known about the future trends in solar variability to be more precise. However, an actual drop in average global temperature is not needed to call present forecasts seriously into question. Over the next century, even if temperatures rise slightly but remain below one degree C, the results of that would be largely beneficial, especially in northern countries like Canada. This view is supported by economist and IPCC lead author Richard Tol and his "[FUND](#)" economic/climate model.

When will we know if global warming is the big risk or not? The trends in global temperature changes since 1997 are at the extreme lower part of the range projected by the IPCC models. If that continues for another five years, or if the average global temperatures fall completely outside the range of the IPCC models, it will be difficult for the IPCC and objective scientists to ignore. At least among some sections of the scientific community, and perhaps the media, many will realize that the IPCC models are not providing a reliable foundation for policy analysis. If this continues for ten more years, politicians will find it nearly impossible to ignore.



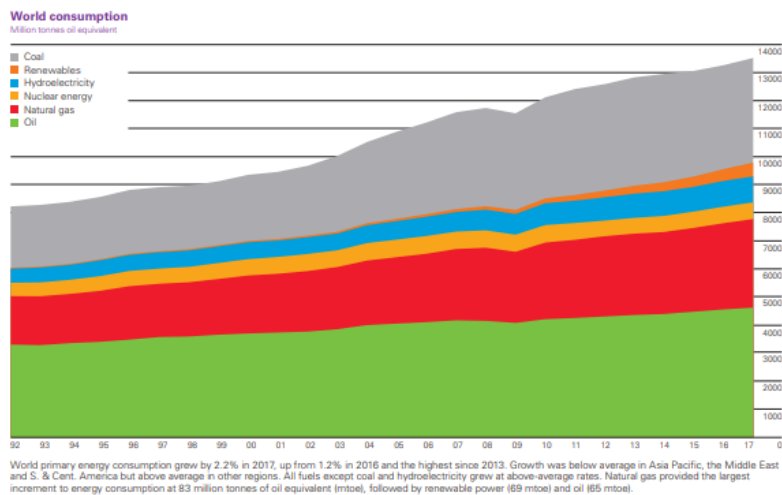
Fossil Fuel Consumption

In economic policy terms, it is not the trends in GHG emissions that affect humans. What really affects people’s incomes and standards of living is the availability and cost of the

¹ Bethke, Ingo et al. *Potential volcanic impacts on future climate variability*. Nature Climate Change, Vol. 7, November 2017, 799-804

energy services upon which standards of living depend – heat, light, air-conditioning, mobility, and the thousands of uses of electricity dependent on oil, natural gas and coal.

The trends in fossil fuel consumption over the period 2008 to 2018 were reported in the British Petroleum Statistical Review of World Energy 2019. Fossil fuels in 2018 supplied 84% of global primary energy, with most of the rest provided by hydroelectricity and nuclear energy. Modern renewables (i.e. almost all wind and solar energy) supplied 4%. In other words, after almost thirty years of international governmental commitments to transform the global energy system, the lion's share of our energy needs is still provided by fossil fuels.



The trends over the last decade are striking. Global consumption of oil increased by 15%. In fact, from 2012 to the present, oil consumption rose at an annual average rate of over one million barrels per day, the fastest rate in history; total consumption now exceeds 100 million barrels per day, the highest in history. Amazingly, natural gas demand is rising even faster, at 28% over the decade. Coal demand has remained largely stable, with coal losing market share to natural gas in some countries, but growing rapidly in Asia. Renewable energy demand, heavily subsidized or mandated by governments, has risen fast in percentage terms from a very low base. In essence, therefore, the trends in global energy use diverge sharply from those the Climate activists wants. There is no global transition to renewables in sight.

Projections of global energy use by major authorities like the International Energy Agency (IEA) or the United States Energy Information Administration (EIA), while very optimistic about the growth in renewable energy production and consumption, still show fossil fuels continuing to dominate global energy use for the foreseeable future.² The EIA projects fossil fuels to account for 70% of global energy use in 2050. This is far from the future the Climate activists wants.

² *International Energy Outlook 2019, with projections to 2050*. U.S. Energy Information Administration, September 24, 2019.

So, it is virtually certain that world fossil fuel use will continue to grow for at least the period to 2030 and probably well beyond. When members of the Climate activists seek to oppose and blockade oil and natural gas production, transportation and use in North America, when will the fact that global use is endlessly growing undermine their public support?

GHG Emissions Trends

There are only a few sources of data concerning global GHG emissions, and fewer still that offer free and detailed information to the public. The BP Statistical Review of World Energy provides data on carbon dioxide equivalent emissions from fuel consumption, the largest single source of GHG emissions, and the one most often the focus of policy efforts. Over the 2008 to 2018 period, global GHG emissions grew by 12%, from 30,337 megatonnes (Mt) to 33,891 Mt. In fact, in 2018, they grew by 2%, twice the annual average of the previous decade. Preliminary indications from the IEA are that GHG emissions stabilized in 2019, due to the continuing large shift to natural gas from coal in the United States and major policy intervention by western European countries, which offset the rising emissions in developing countries.

The future of emissions growth will depend largely on the race between technology for reducing emissions intensity and the effects of rising incomes in Asia, especially in China, India and Southeast Asia.

The U.S. EIA projects energy-related carbon dioxide emissions to very slowly decline in the OECD countries but to rise at an annual average rate of one per cent in the non-OECD countries. Globally, the EIA projects carbon dioxide emissions from energy consumption to rise to about 43 gigatonnes (Gt) annually by 2050.

Even if emissions were to remain relatively stable for a decade or more, this is a far cry from the rapid “decarbonization” called for by the Climate activists, who seek virtually to eliminate emissions by 2050. The IPCC and some other international organizations like the IEA have set out “emissions pathways” that must be adhered to if the decarbonization goals are to be attained. With every passing year, it seems virtually certain that the gap between actual emissions and these pathways will widen. At what point will the widespread belief in rapid decarbonization become untenable?

International Commitments

Under the agreements reached at the COP21 conference in Paris in 2015, the Parties committed to submit five-year plans indicating how they planned to reduce GHG emissions so as to meet the aspirational goal of keeping the rise in global average temperatures to

less than two degrees Celsius over the temperatures that prevailed in the pre-industrial period. The Agreement called for more stringent emissions reductions by the developed countries, and it explicitly recognized that the commitments made by the developing countries, if any, would depend on certain actions by the developed countries. The developed countries were expected to incur disproportionate emissions reductions and to contribute to the cost of reducing the developing countries' emissions, notably by paying at least \$100 billion per year collectively into the Green Climate Fund.

One of the striking facts about the national plans submitted pursuant to this agreement was that neither China, the largest emitter of GHGs in the world, nor India, the country with the fastest growing emissions, committed to reduce emissions. China committed to “peak” its emissions by 2030 (by which time Chinese emissions may be two to three times those of the United States). India committed to reduce its emissions intensity, not its actual emissions.

The voluntary emissions reduction plans submitted by the countries in 2015 generally defined their goals to 2030. In an article that I wrote in August, 2019, entitled, [“Promises Vs. Performance”](#), I reviewed the emission reduction efforts being made by the ten largest country emitters and the prospects for their emissions growth to 2030.

The ten largest emitters in the world, in order, are: China, the United States, the European Union, India, Russia, Japan, South Korea, Iran, Saudi Arabia, and Canada. The following table indicates the projected emissions of these countries by 2030, based on the analysis of Climate Action Tracker and my own assessment.



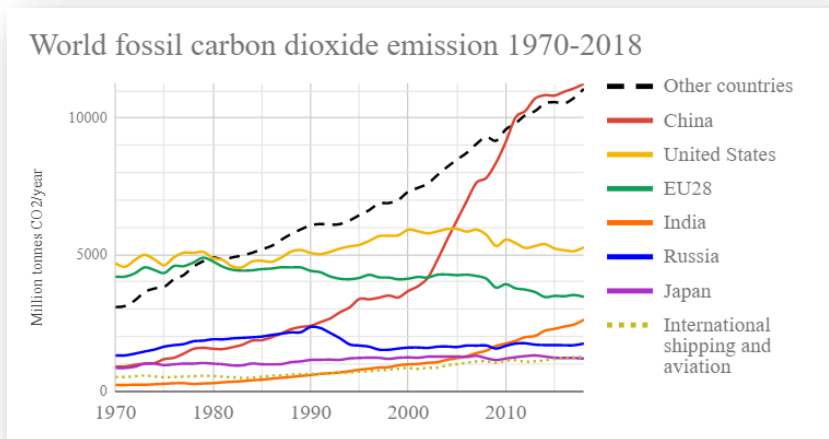
Table 2 shows the projected GHG emissions of the largest emitters, using the European Union as one of the units measured.

Table 2

Projected Emissions of Largest Emitters by 2030 (Mt)

Country/Group	Emissions
China	14400 – 16600
United States	4900
India	4500
European Union	2770
Russian Federation	1590 - 1740
Japan	1040
Saudi Arabia	810 – 1040
Iran	700 - 750
South Korea	700
Canada	468
Total	27468 – 30098

In summary, none of the largest emitters, except the European Union, is likely to meet the emissions targets they set for themselves in 2015. This makes it highly likely that global emissions in 2030 will be well above, not below, those today. In other words, based on current trends, the IPCC's goals will not be met. Indeed, it is highly likely that emissions from China, India and the United States combined will exceed 24 Gt by 2030. That means that all the other countries of the world could completely eliminate their emissions, and indeed cease to exist, within twelve years and the two-degree C. goal would not be met.



Source: Wikipedia By Tomastvivilaren - Own work, CC BY-SA 4.0, <https://commons.wikimedia.org/w/index.php?curid=80085343>

The Parties to the COP21 Agreement will all submit reports to the United Nations over the coming months in preparation for the COP26 conference in Glasgow in November 2020. Those reports will describe their progress in meeting the previously set voluntary targets. The Parties also will submit their proposed updated emissions reduction plans for the 2021-2025 period. It will be very difficult for the largest emitters to obscure the fact they are not on track to meet their 2030 commitments, let alone the more stringent goals that the UN will call for in future. Environmental groups and the media will declare that this indicates the need for more drastic action, but a far more realistic assessment should be that the process of major emissions reduction is proving far costlier and more difficult than political leaders acknowledge.

As of July 31, 2018, the total contributions to the Green Climate Fund over its first six years of existence totaled U.S. \$10.2 billion, far lower than the \$100 billion per year anticipated in the COP21 agreement.

At which point will the developing countries, whose primary interest in the COP agreements lies in obtaining more funding, declare that the conditions for their own emissions reduction efforts (such as they are) do not exist? At which point will the public in the more developed countries grasp that the entire UN artifice of supposed commitments to decarbonization is flawed? It may occur as early as the end of 2020. It certainly will become obvious to all countries long before 2030.

Conclusion

Climate policy, like other public policies, is a product of both politics and the official evaluation of the many considerations that together constitute the national public interest. One can debate about which is more important in determining policies at any one point in time - the political competition between different interest groups and elites, appeals to emotion and subjective values, or objective evidence-based analysis.

When reality fails to match the predictions of the IPCC, Canadians who closely follow the issues surrounding climate policy will understand that the rationale underlying calls for rapid transition away from fossil fuels is deeply flawed. What about the others, the average person who lives his or her life blissfully unaware of the policy controversies? Most Canadians today know little of the immense losses of investment, income and employment due to climate policy because these effects have been felt mainly in Alberta. One unfortunately may have to wait until climate taxes and other measures impose intolerable costs on the average person in central Canada before the general public will react and demand policy change. We do not have a crystal ball for that.



About the Author

Robert Lyman is an Ottawa energy policy consultant and former public servant of 27 years, a diplomat for 10 years prior to that. His complete biography can be read [here](#).

About

Friends of Science Society is an independent group of earth, atmospheric and solar scientists, engineers, and citizens who are celebrating its 16th year of offering climate science insights. After a thorough review of a broad spectrum of literature on climate change, Friends of Science Society has concluded that the sun is the main driver of climate change, not carbon dioxide (CO₂).

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