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IPCC models getting mushy

By Ross McKitrick, Special to Financial Post

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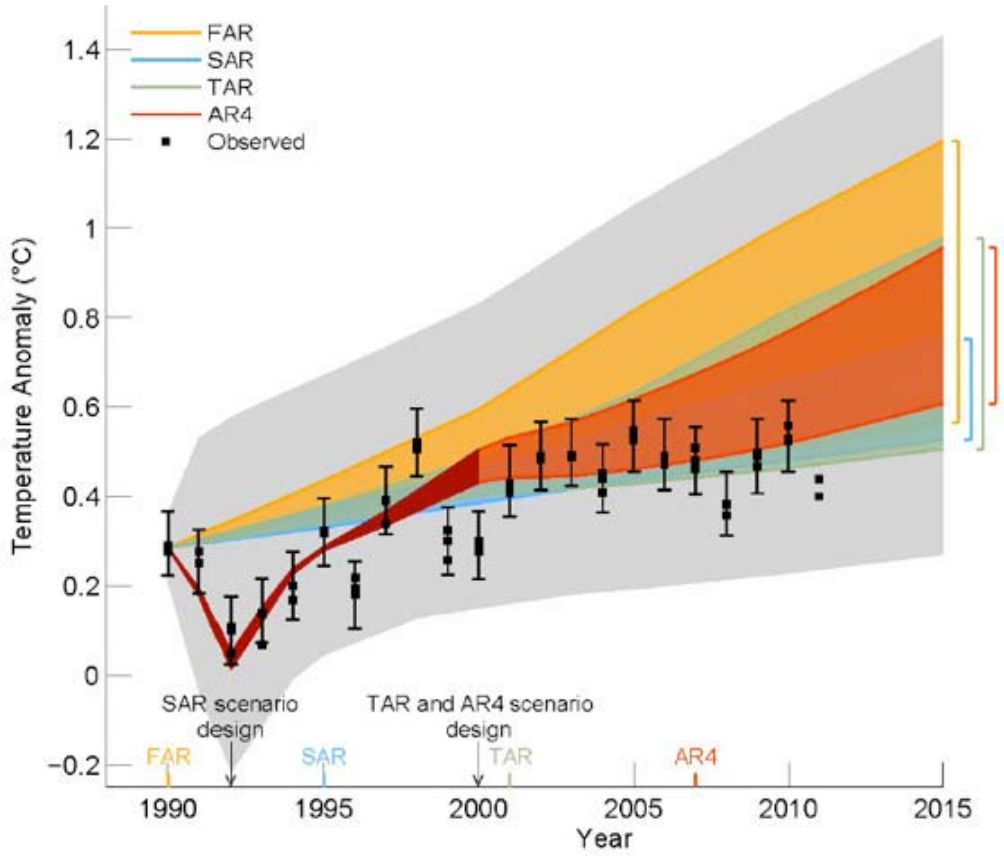
There has been a lot of talk lately about the upcoming Intergovernmental Panel on Climate Change (IPCC) report, and whether it will take into account the lack of warming since the 1990s. Everything you need to know about the dilemma the IPCC faces is summed up in one remarkable graph.

The figure nearby is from the draft version that underwent expert review last winter. It compares climate model simulations of the global average temperature to observations over the post-1990 interval. During this time atmospheric carbon dioxide rose by 12%, from 355 parts per million (ppm) to 396 ppm. The IPCC graph shows that climate models predicted temperatures should have responded by rising somewhere between about 0.2 and 0.9 degrees C over the same period. But the actual temperature change was only about 0.1 degrees, and was within the margin of error around zero. In other words, models significantly over-predicted the warming effect of CO2 emissions for the past 22 years.



Chapter 9 of the IPCC draft also shows that overestimation of warming was observed on even longer time scales in data collected by weather satellites and weather balloons over the tropics. Because of its dominant role in planetary energy and precipitation patterns, models have to get the tropical region right if they are credibly to simulate the global climate system. Based on all climate models used by the IPCC, this region of the atmosphere (specifically the tropical mid-troposphere) should exhibit the most rapid greenhouse warming anywhere. Yet most data sets show virtually no temperature change for over 30 years.

The IPCC's view of the science, consistently held since the 1990s, is that CO2 is the key driver of modern climate change, and that natural variability is too small to count in comparison. This is the "mainstream" view of climate science, and it is what is programmed into all modern climate models. Outputs from the models, in turn, have driven the extraordinarily costly global climate agenda of recent decades. But it is now becoming clear that the models have sharply over predicted warming, and therein lies a problem.

As the gap between models and reality has grown wider, so has the number of mainstream scientists gingerly raising the possibility that climate models may soon need a bit of a re-think. A recent study by some well-known German climate modelers put the probability that models can currently be reconciled with observations at less than 2%, and they said that if we see another five years without a large warming, the probability will drop to zero.

The IPCC must take everybody for fools

What's more, the U.K.'s main climate modeling lab just this summer revised its long-term weather forecasts to show it now expects there to be no warming for at least another five years. Ironically, if its model is right, it will have proven itself and all others like it to be fundamentally wrong.

To those of us who have been following the climate debate for decades, the next few years will be electrifying. There is a high probability we will witness the crackup of one of the most influential scientific paradigms of the 20th century, and the implications for policy and global politics could be staggering.

It is the job of the giant UN IPCC panel to inform world leaders of up-to-the-minute developments in the field. With its report due out within days, you would think it would be jumping at the chance to report on these amazing developments, wouldn't you? Well, guess again.

Judging by the drafts circulated this year, it is in full denial mode. Its own figure reveals a discrepancy between models and observations, yet its discussion says something entirely different. On page 9 of Chapter 1 it explains where the numbers come from, it talks about the various challenges faced by models, and then it sums up the graph as follows: "In summary, the globally-averaged surface temperatures are well within the uncertainty range of all previous IPCC projections, and generally are in the middle of the scenario ranges." Later, in Chapter 9, it states with "very high confidence" that models can correctly simulate global surface temperature trends.

The IPCC must take everybody for fools. Its own graph shows that observed temperatures are not within the uncertainty range of projections; they have fallen below the bottom of the entire span. Nor do models simulate surface warming trends accurately; instead they grossly exaggerate them. (Nor do they match them on regional scales, where the fit is typically no better than random numbers.)

This is no time for costly and permanent climate policy commitments

In the section of the report where it discusses the model-observation mismatch in the tropics, it admits (with "high confidence") that models overestimate warming in the tropics. Then it says with a shrug that the cause of this bias is "elusive" and promptly drops the subject. What about the implications of this bias? The IPCC not only falls conspicuously silent on that point, it goes on to conclude, despite all evidence to the contrary, that it has "very high confidence" that climate models correctly represent the atmospheric effects of changing CO2 levels.

There are five key points to take away from this situation.

First, something big is about to happen. Models predict one thing and the data show another. The various attempts in recent years to patch over the difference are disintegrating. Over the next few years, either there is going to be a sudden, rapid warming that shoots temperatures up to where the models say they should be, or the mainstream climate modeling paradigm is going to fall apart.

Second, since we are on the verge of seeing the emergence of data that could rock the foundations of mainstream climatology, this is obviously no time for entering into costly and permanent climate policy commitments based on failed model forecasts. The real message of the science is: Hold on a bit longer, information is coming soon that could radically change our understanding of this issue.

Third, what is commonly called the "mainstream" view of climate science is contained in the spread of results from computer models. What is commonly dismissed as the "skeptical" or "denier" view coincides with the real-world observations. Now you know how to interpret those terms when you hear them.

Fourth, we often hear (from no less an authority than Obama himself, among many others) slogans to the effect that 97% of

climate experts, 97% of published climate science papers, and all the world's leading scientific societies agree with the mainstream science as encoded in climate models. But the models don't match reality. The climate science community has picked a terrible time to brag about the uniformity of groupthink in its ranks.

Finally, the IPCC has proven, yet again, that it is incapable of being objective. Canadian journalist Donna LaFramboise has meticulously documented the extent to which the IPCC has been colonized by environmental activists over the years, and we now see the result. As the model-versus-reality discrepancy plays out, the last place you will learn about it will be in IPCC reports.

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