

Climate forecast: All's well, despite what the IPCC says

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For thousands of years people have expected the climate to remain more-or-less the same while weather varies and seasons sometimes disappoint. Using forecasts no more sophisticated than these, the human race has prospered. Are things different now?

For the fifth time, the Intergovernmental Panel on Climate Change (IPCC) claims they are. The difference, the IPCC claims, is increased human emissions of carbon dioxide, a colourless, odourless, non-toxic gas; a gas that is a byproduct of growing prosperity. The IPCC assumes that a relatively small human contribution of the gas will trap the warmth of the Sun and cause dangerous warming in the future. Other scientists contest that assumption on the grounds that the effect of the gas is smaller than IPCC assumes, and that the climate is so complex and insufficiently understood that the net effect of human emissions on warming cannot be calculated with any confidence.

The computer models that the IPCC rely on are complex representations of the IPCC assumption that human carbon dioxide emissions will substantially overheat the Earth. The models include many assumptions that mainstream scientists question.

The modelers correctly state that they produce scenarios. Scenarios are stories constructed from a collection of assumptions. Well-constructed scenarios can be convincing, in the same way that a book or a film can be. The IPCC and its supporters promote these scenarios as if they were forecasts. Scenarios are not, however, the product of evidence-based forecasting procedures: Our audit of the procedures used to create the IPCC scenarios found that they violated 72 of 89 relevant scientific forecasting principles.

Astonishingly, given the expensive policies proposed and implemented in the name of "climate change," we are aware of only one published peer-reviewed scientific paper that claims to provide long-range climate forecasts. The paper is our own 2009 article in the *International Journal of Forecasting*. In it we examined the state of knowledge and the nature of the data available in order to select appropriate evidence-based procedures for long-range forecasting of global mean temperatures. We determined that the complexity and uncertainty of the situation meant that the no-change model would be the proper model to use.

We tested our no-change model using the same data that the IPCC uses. To do so, we produced annual forecasts with no trend from one-to-100 years ahead starting from 1851 and stepping forward year-by-year until 1975, the year before the current warming alarm was raised. We did the same for the IPCC scenario of temperatures increasing at a rate of 0.03°C per year in response to exponentially increasing human carbon dioxide emissions. This procedure yielded 7,550 forecasts for each method.

The results? Overall, the no-trend forecast error was one-seventh the error of the IPCC scenario temperatures. The no-trend forecasts were as accurate or more accurate than the IPCC scenario temperatures for all forecast horizons. Crucially, the relative accuracy of the

no-trend forecasts increased for longer horizons — for example, the no-trend forecast error was one-twelfth that of the IPCC scenario temperatures for 91-to-100-year ahead forecasts.

Our research in progress tests more forecasting methods, uses more and better data, and extends the validation tests to the present time. The findings strengthen our conclusions that there are no scientific forecasts of dangerous global warming.

Without scientific forecasts, the alarm is false. Government programs, subsidies, taxes, and regulations put up as responses to the global warming alarm can only result in wasteful misallocations of valuable resources.

Is it surprising that the government would respond to an alarm lacking scientific support? In our study of situations that are analogous to the current alarm over scenarios of global warming we identified 26 earlier movements based on scenarios of manmade disaster, including the global cooling alarm in the 1960s. None of them were based on scientific forecasts. Yet governments imposed costly policies in response to 23 of them. In no case did the forecast of major harm come true.

We predict that the global warming movement will eventually fade like all the others but that, also like the others, harmful policies will remain. We hope we are wrong.

Humanity can do better with the old and simple no-trend climate-forecasting model. This model is also consistent with the current need to reduce government expenditures. Eliminating government programs based on unscientific alarmist scenarios would be good for science, good for the budget, and good for people.

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