

Nov. 22, 2019

Dear Colleagues,

Our staff has done a fairly good job of articulating the *Carbon-Dioxide-is-bad* narrative championed by the UN International Panel on Climate Change (IPCC) and based on the projections of their computer models.

If you were to visit the website projectpetition.org you would find an opposing view and a list of over 31,000 US scientists (including over 9,000 PhDs) who have signed a petition, the bulk of which said:

There is no convincing scientific evidence that human release of carbon dioxide, methane, or other greenhouse gasses is causing or will, in the foreseeable future, cause catastrophic heating of the Earth's atmosphere and disruption of the Earth's climate. Moreover, there is substantial scientific evidence that increases in atmospheric carbon dioxide produce many beneficial effects upon the natural plant and animal environments of the Earth.

If this (demonized and shouted down) *Carbon-dioxide-is-good* narrative is true, then we will be wasting a great deal of time and money on actions that will produce nothing of value and set us back greatly in our goal to tackle the more tangible problems with which we are plagued.

Allow me to present some points that refute the first narrative and support the second so that we can decide if our staff should be taking a second look at the science.

CO2 Concentrations have been much higher

Present concentrations are very low and near the minimum of 200 parts per million (ppm) under which most plant life will die. Great prehistoric forests thrived when concentrations were 4500 ppm in the Devonian Era, 2500 ppm in the Jurassic and over 1000 ppm in the Cretaceous period. The optimal level for many plants is 1200 ppm. In this broader context, the CO2 increases of the present should not be a concern.

Plants benefit from higher concentrations of CO2

Cannabis is being grown under CO2 rich conditions to produce a larger faster yield. Experiments with vegetables grown with Carbon Dioxide fertilization (double the CO2) show they thrive and provide yields that average 40% greater. Such an increase would greatly help feed humanity.

CO2 Makes the Earth Greener

Research using satellite images of earth from the last 35 years show a very large net greening of the planet. Seventy percent of this is attributed to increased levels of CO2 because carbon dioxide is the main source of all plant biomass. Enriching the atmosphere with plant food may be the best thing we can do for our earth and its people.

Deserts are Greening

Areas that were previously desert and uninhabitable, such as those in Niger, have greened and are now becoming inhabited again. This is great news and makes sense when you realize that our fossil fuels were once great forests that got covered over by earth changes and turned into hydrocarbons by anaerobic digestion. By burning the fuels and returning the carbon to the atmosphere, the forests are able to return to the earth's surface.

Droughts are being prevented.

Higher levels of CO2 make plants more drought resistant. When they don't need to keep their pores open so long to collect low levels of CO2 levels they lose less of

their water through evaporation. This also means they can draw less moisture from the soil so it also stays moist and fertile. Data shows that the incidence and intensity of droughts is reducing despite the theory that CO₂ caused global warming will make them worse.

The climate is and has always been changing

The climate does of course change as it cycles between 70,000-90,000 years of an ice age, 10,000 to 15,000 years of a warm age and back to an ice age. We are 11,000 years into the latest major warm period. There are variations within that as well such as the little ice age of the 1700s and the medieval warm period of the twelve and thirteen hundreds that was even warmer than today. We don't need to fear warmer temperatures if we have already lived through them without incident.

We are not experiencing anything unexpected or extraordinary

Comparing our present state to the climate fluctuations for the last millennia, we are seen to be experiencing middling temperatures changing at a rate that is unremarkable.

There has never been a CO₂ climate catastrophe

Scientists have generated hundreds of millions of years of climate records from geological sources and there is no evidence that rising CO₂ concentrations have ever caused any kind of catastrophe.

We were warming before fossil fuels were burned

The present warming period began at the end of the little ice age in the mid 18th century and prior to industrialization. Fossil fuels were not responsible for this or any previous warming. Therefore, singling out CO₂ as the only global warming culprit doesn't make sense.

There is only so much heat to be trapped

The amount of infra-red energy bouncing off the earth is limited. Once that has all been trapped, higher CO₂ concentrations won't make a significant difference to temperatures.

In 1998 temperatures stopped increasing

The warming period Al Gore blamed on increasing CO₂ leveled off in 1998. Since the CO₂ levels kept increasing we can conclude that the temperature isn't always affected by CO₂ concentrations and may not be significantly affected by additional CO₂ at all.

CO₂ concentrations rise whenever the oceans get warmer

Everyone knows that if you warm up a carbonated beverage it gets fizzier and releases its dissolved carbon dioxide. The exact same thing happens with the oceans and explains why, geo-historically, the atmospheric CO₂ concentration increased whenever the earth (and oceans) got warmer. Al Gore turned this on its head and frightened us into believing that CO₂ heated up the planet and that the extra CO₂ we were adding would cause a heating catastrophe.

The hockey stick model lost in court

The visual source of our climate catastrophe fears first appeared in 1998 when Michael Mann published his hockey stick climate model that showed global temperatures would skyrocket because of CO₂ increases. Canadian scientist Tim Ball accused him of scientific fraud so Mann sued him for defamation. This August, after 10 years in court, the case against Ball was dismissed and he was awarded full legal costs. This is a big win for climate catastrophe skeptics because legal and legislative threats have been used to try and silence many of them.

Water vapour is the most significant greenhouse gas.

If you have ever been almost burned when water was poured on to the hot rocks of a wet sauna you can appreciate how much heat that water vapour can hold. Not

only does water absorb a much wider bandwidth of infra-red radiation than CO₂, its concentration in humid air can reach 40,000 ppm while CO₂ is only at 400 ppm. There may be too much emphasis being put on CO₂ as a greenhouse gas.

IPCC computer climate models aren't very scientific

A model is scientific when it can be used to accurately reproduce data sets observed in the past and predict data sets observed in the future. The IPCC models have not been able to do either. The terms of reference for their computer models began with an end in mind; to show that CO₂ concentration was driving climate. This is very likely a false assumption and the reason for their lack of success. And if it is a false assumption we have little or nothing to worry about.

There is no consensus

Consensus doesn't really matter in science because it only takes one experiment to prove everyone wrong. However, two separate claims of a 97% consensus were made when samples of 1,117 and 11,944 scientific abstracts on climate were viewed to see if they agreed that climate change was man made (anthropogenic). When facts were checked, only 13 (1%) of the original set explicitly stated that global warming was caused by mankind and only 41 (0.3%) from the larger set. Most abstracts expressed no opinion.

Climate change is helping but climate policy is hurting

Three million people lose their lives every year in developing countries because their lungs are overcome by cooking indoors with wood and dung fires. A ten billion dollar investment in natural gas generated electricity would help 90 million people receive life-sustaining amenities such as refrigeration. Demanding that these destitute people use higher cost solar and green technologies means that more than two-thirds of them could afford nothing. It would be tragic if millions of people die in the third world because developed nations are pushing climate mitigation policies in the false belief that they will save their grandchildren from some speculative and imaginary disaster that will never manifest.

Hundreds of millions of dollars have been poured into promoting the Carbon-Dioxide-is-bad narrative but, when one looks beyond the surface into the underlying science, many inconsistencies appear. As a scientist, this is of concern to me and it should be a great concern to all of us given the extreme measures we are being asked to take in order to solve a problem that may not be a problem at all.

I will ask that this entire matter be referred back to staff to investigate what parts of the climate change narrative stand up to scrutiny. I think it is time that the skeptics are listened to and not ridiculed.

Sincerely,

Michael van Holst