

The positive effects of CO2 – there is no crisis

By Anthony Watts, WattsUpWithThat website, 23 June 2016

Dr. Patrick Moore sent me this last week, and after reading it, I agree with him in his initial note to me that

This is probably the most important paper I will ever write.

Moore looks at the historical record of CO₂ in our atmosphere and concludes that we came dangerously close to losing plant life on Earth about 18,000 years ago, when CO₂ levels approached 150 ppm, below which plant life can't sustain photosynthesis. He notes:

A 140 million year decline in CO₂ to levels that came close to threatening the survival of life on Earth can hardly be described as “the balance of nature”.

Now, with 400ppm in the atmosphere, the biosphere is once again booming (see figure 8 below). He also points out how environmental groups and politicians are using the “crisis” of CO₂ increase to feather their own nests:

A powerful convergence of interests among key elites supports and drives the climate catastrophe narrative. Environmentalists spread fear and raise donations; politicians appear to be saving the Earth from doom; the media has a field day with sensation and conflict; scientists and science institutions raise billions in public grants, create whole new institutions, and engage in a feeding frenzy of scary scenarios; businesses want to look green and receive huge public subsidies for projects that would otherwise be economic losers, such as large wind farms and solar arrays. Even the Pope of the Catholic Church has weighed in with a religious angle. Lost in all these machinations is the indisputable fact that the most important thing about CO₂ is that it is essential for all life on Earth and that before humans began to burn fossil fuels, the atmospheric concentration of CO₂ was heading in a very dangerous direction for a very long time. Surely, the most “dangerous” change in climate in the short term would be to one that would not support sufficient food production to feed our own population

A link to the full report follows. I highly recommend it as a sensible and practical take on the issue. – Anthony Watts

Executive Summary

This study looks at the positive environmental effects of carbon dioxide (CO₂) emissions, a topic which has been well established in the scientific literature but which is far too often ignored in the current discussions about climate change policy. All life is carbon based and the primary source of this carbon is the CO₂ in the global atmosphere. As recently as 18,000 years ago, at the height of the most recent major glaciation, CO₂ dipped to its lowest level in recorded history at 180 ppm, low enough to stunt plant growth.

This is only 30 ppm above a level that would result in the death of plants due to CO₂ starvation. It is calculated that if the decline in CO₂ levels were to continue at the same rate as it has over

the past 140 million years, life on Earth would begin to die as soon as two million years from now and would slowly perish almost entirely as carbon continued to be lost to the deep ocean sediments. The combustion of fossil fuels for energy to power human civilization has reversed the downward trend in CO₂ and promises to bring it back to levels that are likely to foster a considerable increase in the growth rate and biomass of plants, including food crops and trees. Human emissions of CO₂ have restored a balance to the global carbon cycle, thereby ensuring the long-term continuation of life on Earth.

Introduction

This extremely positive aspect of human CO₂ emissions must be weighed against the unproven hypothesis that human CO₂ emissions will cause a catastrophic warming of the climate in coming years. The one-sided political treatment of CO₂ as a pollutant that should be radically reduced must be corrected in light of the indisputable scientific evidence that it is essential to life on Earth.

There is a widespread belief that CO₂ emissions from the burning of fossil fuels for energy are a threat to the Earth's climate and that the majority of species, including the human species, will suffer greatly unless these emissions are drastically curtailed or even eliminated.

1. This paper offers a radically different perspective based on the geological history of CO₂. CO₂ is one of the most essential nutrients for life on Earth. It has been approaching dangerously low levels during recent periods of major glaciation in the Pleistocene Ice Age, and human emissions of CO₂ may stave off the eventual starvation and death of most life on the planet due to a lack of CO₂.

2. This is not primarily a discussion of the possible connection between CO₂ and global warming or climate change, although some mention must be made of it. There has been a great deal of discussion on the subject, and it is hotly contested in both scientific and political spheres.

There is no question that the climate has warmed during the past 300 years since the peak of the Little Ice Age. There is also no question that CO₂ is a greenhouse gas and all else being equal, the emissions would result in some warming if CO₂ rose to higher levels in the atmosphere. Yet, there is no definitive scientific proof that CO₂ is a major factor in influencing climate in the real world. The Earth's climate is a chaotic, non-linear, multi-variant system with many unpredictable feedbacks, both positive and negative. Primarily, this is a discussion about the role of atmospheric CO₂ in the maintenance of life on Earth and the positive role of human civilization in preventing CO₂ from trending downward to levels that threaten the very existence of life.

End Points

We should ask those who predict catastrophic climate change, including the UN's Intergovernmental Panel on Climate Change, some pressing questions regarding the outcome if humans had not intervened in the carbon cycle.

- What evidence or argument is there that the global climate would not revert to another glacial period in keeping with the Milankovitch cycles as it has done repeatedly during at least the past 800,000 years?
- What evidence is there that we are not already past the maximum global temperature during this Holocene interglacial period? • How can we be certain that in the absence of human emissions the next cooling period would not be more severe than the recent Little Ice Age?
- Given that the optimum CO₂ level for plant growth is above 1,000 ppm and that CO₂ has been above that level for most of the history of life, what sense does it make to call for a reduction in the level of CO₂ in the absence of evidence of catastrophic climate change?
- Is there any plausible scenario, in the absence of human emissions, that would end the gradual depletion of CO₂ in the atmosphere until it reaches the starvation level for plants, hence for life on earth?

These and many other questions about CO₂, climate and plant growth require our serious consideration if we are to avoid making some very costly mistakes.

LINK TO FULL REPORT: THE POSITIVE IMPACT OF HUMAN CO₂ EMISSIONS ON THE SURVIVAL OF LIFE ON EARTH (PDF)

[Moore – Positive Impact of Human CO₂ Emissions](#)