

# Carbon Dioxide (CO<sub>2</sub>): “The Gas of Life”

By [Dr. Joseph Mercola](#)

Theme: [Environment](#)

Global Research, January 28, 2024

All Global Research articles can be read in 51 languages by activating the Translate Website button below the author’s name (only available in desktop version).

To receive Global Research’s Daily Newsletter (selected articles), [click here](#).

Click the share button above to email/forward this article to your friends and colleagues. Follow us on [Instagram](#) and [Twitter](#) and subscribe to our [Telegram Channel](#). Feel free to repost and share widely Global Research articles.

## [\*\*New Year Donation Drive: Global Research Is Committed to the “Unspoken Truth”\*\*](#)

\*\*\*

*Carbon dioxide (CO<sub>2</sub>) is commonly mischaracterized as a harmful waste product of respiration and is falsely blamed for disrupting the planetary climate*

*CO<sub>2</sub> is an essential gas necessary for life. Moreover, its impact on Earth’s temperatures is negligible, and will remain negligible even if the current concentration in the atmosphere were to double. A 100% increase of CO<sub>2</sub>, from 400 ppm to 800 ppm, would decrease radiation into space by just 1.1%, resulting in a 0.7 degree C increase of the average earth temperature*

*A 0.7 degree C difference means there’s no climate emergency, and no matter what we do to reduce CO<sub>2</sub> emissions, it’s not going to impact global temperatures. To fabricate an emergency where there is none, it is assumed that massive positive feedbacks are involved. However, most natural feedbacks are negative, not positive, so isn’t it likely the 0.7 degree C increase is an overestimation to begin with*

*There’s no single temperature of the Earth. It varies by location and altitude. For every kilometer of altitude, you have an average cooling of 6.6 degrees C*

*Higher CO<sub>2</sub> levels will green the planet, making it more hospitable to plant life. The more CO<sub>2</sub> there is, the better plants and trees grow. CO<sub>2</sub> also reduces the water needs of plants, reducing the risks associated with droughts*

\*

The video above, “CO<sub>2</sub>, The Gas of Life,” features a lecture given at the Summit Old Guard Meeting in New Jersey, October 3, 2023, by William Happer, Ph.D., Professor Emeritus of physics at Princeton University and former scientific adviser to the Bush and Trump

administrations.

The topic: carbon dioxide (CO<sub>2</sub>), commonly mischaracterized as a harmful waste product of respiration and a pollutant that is disrupting the planetary climate. As explained by Happer in this lecture, CO<sub>2</sub> is actually an essential gas necessary for life. Moreover, its impact on Earth's temperatures is negligible, and will remain negligible even if the current concentration in the atmosphere were to double.

## **CO<sub>2</sub> Is Not a Pollutant**

At present, the CO<sub>2</sub> concentration in the atmosphere at a few thousand feet of elevation is around 430 parts per million (ppm). Closer to the ground, concentrations vary widely, both by location and time of day. This is because ground-level readings are impacted by photosynthesis and the respiration of insects and the like.

In the room where Happer was giving his lecture, the CO<sub>2</sub> reading was 1,800 ppm — the result of having a large group of people breathing in a closed space. Air conditioning systems have CO<sub>2</sub> meters that turn on fans to bring outdoor air inside when levels get too high.

The question of what is too high is an important one, considering The Great Resettlers are pushing a green agenda that demands the dismantling of energy infrastructure and farming in the name of stopping climate change, which quite obviously threatens our quality of life and food supply. Ultimately, it may threaten human existence altogether.

The fact of the matter is that CO<sub>2</sub> is not the “bad guy” it's made out to be, and the “net zero” agenda is wholly inappropriate if maintaining life on Earth is part of the equation.

“CO<sub>2</sub> is a very essential and natural part of life,” Happer says. “It is the gas of life. We're made of carbon after all, mostly carbon, and we breathe out a lot of CO<sub>2</sub> a day just by living. Each of us breathes out about 2 pounds of CO<sub>2</sub> a day. Multiply that by 8 billion people and 365 days a year, and just [by] living, people are a non-negligible part of the CO<sub>2</sub> budget of the Earth.

Nevertheless, we are living through a crusade against so-called pollutant CO<sub>2</sub>. People talk about carbon pollution. [But] every one of us is polluting Earth by breathing, [so] if you want to stop polluting ... apparently God wants us to commit suicide ...

We're doing all sorts of crazy things because of this alleged pollutant ... more and more beautiful meadows are being covered with black solar panels. It doesn't work very well; it doesn't work at all at night. It doesn't work on cloudy days. It doesn't work terribly well in the middle of the winter because of the angle of the sun.

But nevertheless we're doing it. We're being misled into climate hysteria, and if you haven't read this book, I highly recommend it. It was published first in 1841, called 'Extraordinary Popular Delusions and the Madness of Crowds.' It's as relevant today as it was then ...

I'm a physicist. I'm proud to say that no one could call me a climate scientist, but I know a lot about climate and I was a coauthor of one of the first books on the effects of

carbon dioxide 41 years ago. This was a study done by the Jason Group which I was a member of. I was chairman for a while and it had really good people there.”

## **Long-Term Impact of Increasing Atmospheric CO<sub>2</sub>**

The key question when it comes to global warming is, how much do you warm the Earth if you double the atmospheric CO<sub>2</sub> concentration? This is called the climate sensitivity question. The GUESS is that doubling CO<sub>2</sub> would result in a 3-degree centigrade rise in the global temperature.

“It was not based on any hard calculations,” Happer says. “It was because of group-think. That’s what everybody else thought, and so that’s what we thought. Now, in my defense, one of the reasons I didn’t pay much attention to this [is because] I was working on something at this time that I thought was much more important. So, let me tell you about that, so you get a feeling for why I think I’m qualified to pontificate about this subject.

It was the beginning of the Strategic Defense Initiative, of Star Wars ... President Reagan ... wanted some way to defend the United States so that we didn’t have to have this mass suicide pact, and among other things we considered using high-powered lasers to burn up incoming missiles ...

But here’s the problem. If you take the 1 megawatt laser on the ground and you send it toward the missile, by the time it gets to the missile, the beam — instead of focusing all the power on the missile — breaks up into hundreds of sub beams — speckles — and this was something that was well-known to astronomers. You have the same problem when you’re looking at distant stars and galaxies.

Astronomers knew how to fix this ... If you can measure how much this wave is bent, then you can bounce it off a mirror bent in the opposite direction, and when the wave bounces up it’s absolutely flat. That’s called adaptive optics and it works beautifully. Then, when you focus the corrected beam, you get a single spot instead of hundreds of [beams].

The trouble with that is that if you look at the night sky, there are only four or five stars that are bright enough to have enough photons to do the measurement of the distortion of the wave. So, we had a classified meeting in the summer of 1982. There were a number of Air Force officers there who explained the problem. By chance, I knew how to solve it.

You can make an artificial star anywhere in the sky by shining a laser tuned to the sodium frequency onto the layer of sodium above our heads, at 90 to 100 kilometers.”

While the Air Force was initially dubious about there being a sodium layer in the atmosphere, they did eventually build the sodium laser proposed by Happer, and if you go to any ground-based telescope today, you’ll usually see one or two of them. Anyway, that story was simply to impress you with the fact that Happer knows what he’s talking about when it comes to atmospheric constituents and their related phenomena.

## CO<sub>2</sub> Has No Discernible Impact on Earth Temperatures

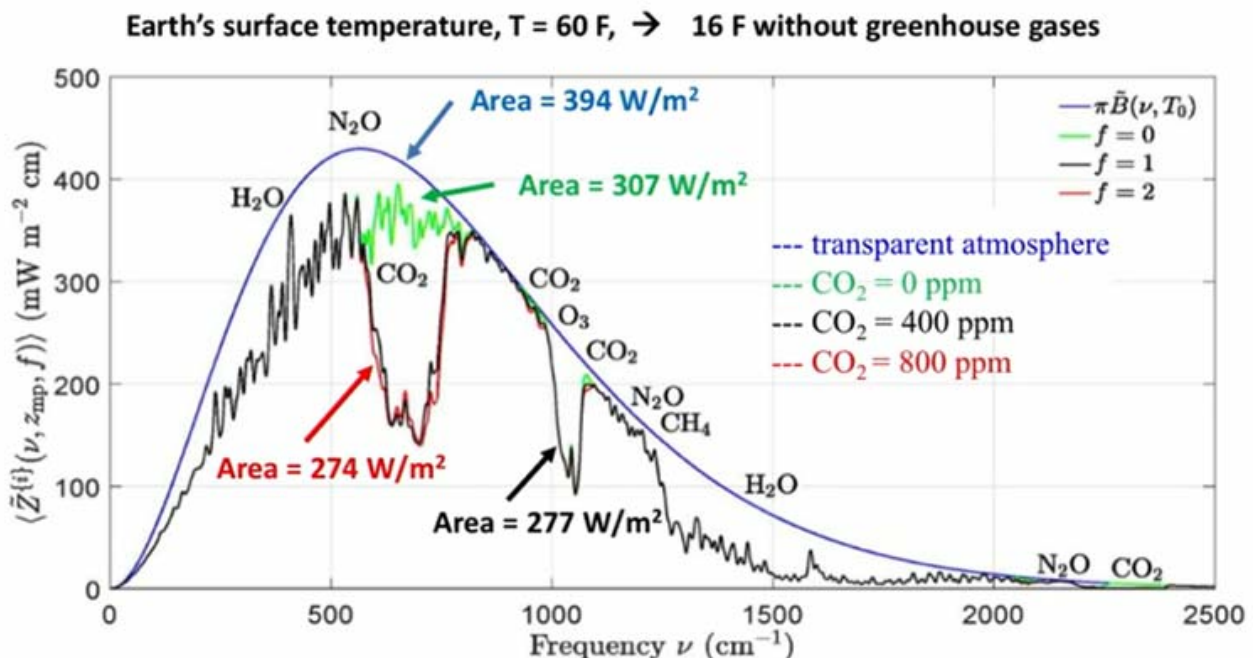
According to the climate alarmists, rising CO<sub>2</sub> will result in global warming that will threaten all life on earth. In actuality, however, CO<sub>2</sub> “is a very puny tool to do anything to the climate,” Happer says.

Keep in mind that there’s no single temperature on the Earth. It varies by location and altitude. For every kilometer of altitude, you have an average cooling of 6.6 degrees C. This is known as the lapse rate. That cooling continues up to the troposphere, where it stops.

The cooling is due to the fact that warm air rises and cool air descends. “It’s the convection that sets that rapid drop of temperatures — 6-and-a-half degrees per kilometer,” Happer says. He then explains the following graph, which details the thermal radiation to space from the Earth, assuming a surface temperature of 15.5 degrees C. The greenhouse gases is the area beneath the jagged black curve.

According to Happer, this is only 70% of what it would be without greenhouse gases, which is shown as the smooth blue curve, because as the sun heats the earth, greenhouse gases — mostly water vapor — impede cooling.

The most important part of this graph is the red jagged line, shown here with a red arrow pointing to it. That red line shows the effect that a doubling (a 100% increase) of CO<sub>2</sub> would have on the surface temperature of Earth. As you can see, it’s negligible. It decreases radiation into space by just 1.1%.



As noted by Happer:

“Let that sink in. We’re far from doubling [CO<sub>2</sub>] today. It’ll take a long time, [and] it only causes a 1% change. So, CO<sub>2</sub> is a very poor greenhouse gas. It’s not an efficient

greenhouse gas.”

If you remove ALL CO<sub>2</sub>, you end up with the green jagged curve. As you can see, the green and black jagged lines run parallel with the exception of one spot. There’s a huge effect if you go from zero CO<sub>2</sub> to 400 ppm (green arrow). But it’s again negligible when you go from 400 ppm to 800 ppm (black arrow). As explained by Happer:

“You get all of the effect in the first little bit of added CO<sub>2</sub> ... So, it’s really true that doubling CO<sub>2</sub> only causes a 1% decrease of radiation. The IPCC [Intergovernmental Panel on Climate Change] gets the same answer so this is not really controversial, although they will never show you the curve or tell you that it’s 1%. That would interfere with the narrative ...

So, this is radiation to space. How do you change that into a temperature? They’re worried that we’ll get intolerable warming of the surface of the Earth where we live, or other parts of the atmosphere.

Here again it’s important to do the first order calculation ... and it says that the warming from doubling CO<sub>2</sub> is ... less than one degree ... 0.7 [degree] C. Very small. You really can’t feel that.”

## **Why, Then, the Alarm Over Rising CO<sub>2</sub>?**

Needless to say, this is a huge problem for the climate science community, because a 0.7 degree C difference means there’s no climate emergency, and no matter what we do to reduce CO<sub>2</sub> emissions, it’s not going to impact the climate.

So, to fabricate an emergency where there really is none, the IPCC “assumes enormous positive feedbacks,” Happer says. Because CO<sub>2</sub> is not a potent greenhouse gas, the tiny direct warming caused by it is amplified by factors of anywhere from four to six to make it seem like it has a discernible impact.

“I like to say it’s affirmative action for CO<sub>2</sub>,” Happer says. “It’s not very good at warming but if you assume lots of feedback, you can keep the money coming in.” The problem with that is that most who have a background in physical chemistry and physics know that most natural feedbacks are negative, not positive.

This is known as the Chatelier Principle, named after the French chemist who first discovered that “when a simple system in thermodynamic equilibrium is subjected to a change in concentration, temperature, volume or pressure ... the system changes to a new equilibrium and ... the change partly counteracts the applied change.”

So, the 0.7 degree C of warming you get when you double the CO<sub>2</sub> is “probably an overestimate,” Happer says, “because there are probably negative feedbacks operating in this very complicated climate system that we live in. The atmosphere, the oceans, everything is nonlinear.”

The key take-home from all this is that whether we’re at 400 ppm of CO<sub>2</sub> or 800 ppm doesn’t matter when it comes to impacting the temperature of the earth. In short, the climate hysteria is just that. It’s not based on any real threat. Only if we were able to get to absolute

zero CO<sub>2</sub> would there be a change, but doing so also means we'd exterminate all living things on the planet. It's nothing short of a suicide agenda.

## **More CO<sub>2</sub> Will Green the Planet**

As explained by Happer, more CO<sub>2</sub> will green the planet, making it more hospitable to plant life. The more CO<sub>2</sub> there is, the better plants and trees grow, so if we want lush forests and bountiful harvests, cutting CO<sub>2</sub> is the last thing we'd want to do.

"All plants grow better with more CO<sub>2</sub> [in the air]," he says. "Plants are really starved [of] CO<sub>2</sub> today. We know plants need many essential nutrients. They need nitrogen, phosphorus, potassium; most important of all they need water. But they also need CO<sub>2</sub>, and like many of the other nutrients, CO<sub>2</sub> today is in short supply."

CO<sub>2</sub> benefits plants by reducing their water needs, hence less risk from drought. Higher CO<sub>2</sub> levels also reduce harmful photorespiration. According to Happer, C3-type plants lose about 25% of their photosynthesis potential due to increased photorespiration. For more in-depth information about the role of CO<sub>2</sub> in plant growth and photosynthesis, please view the video. This discussion begins around the 40-minute mark.

## **Lies, Ignorance, Stupidity or Something Else?**

In closing, Happer makes an effort to explain what's driving the climate hysteria:

"In spite of incontrovertible arguments that there is no climate emergency — CO<sub>2</sub> is good for the Earth — the campaign to banish CO<sub>2</sub>, 'net zero,' has been very successful. So, how can that be? I'm really out of my depth here because now I'm talking about human nature. I'm really good with instruments and with solving differential equations but I'm not very good at understanding human beings.

But here are some of the drivers: noble lies, political lies, ignorance, stupidity, greed. Noble lies goes back to Plato who discusses it in 'The Republic.' 'In politics, a noble lie is a myth or untruth, often, but not invariably of a religious nature, knowingly propagated by an elite to maintain social harmony or to advance an agenda.'

And here there's a clear agenda. If you could somehow unite mankind to fight some external threat, for example CO<sub>2</sub> pollution, then we won't fight each other. There won't be wars. So, I think many sincere people have latched on to the CO<sub>2</sub> narrative partly for that reason. You can actually read about it in the early writings of the Club of Rome.

Then there are political lies. This is one my favorite H.L. Menken quotes: 'The whole aim of practical politics is to keep the populace alarmed (and hence clamorous to be led to safety) by menacing it with an endless series of hobgoblins, all of them imaginary.'"

Ignorance, of course, is widespread, and largely based on incomplete knowledge or a flawed understanding of the facts. And what of stupidity? Dietrich Bonhoeffer, one of the few German clergymen who opposed Hitler and eventually paid for his public dissent with his life, once wrote about human stupidity:

"Against stupidity we have no defense. Neither protest nor force can touch it.



Reasoning is of no use. Facts that contradict personal prejudices can simply be disbelieved — indeed, the fool can counter by criticizing them, and if they are undeniable, they can just be pushed aside as trivial exceptions.

So the fool, as distinct from the scoundrel, is completely self-satisfied. In fact, they can easily become dangerous, as it does not take much to make them aggressive. For that reason, greater caution is called for than with a malicious one.”

Happer himself has experienced the danger of opposing stupidity. “I regularly get phone calls threatening me, my wife and children with death,” he says. “So, what kind of movement is this?” Lastly, greed. A.S. Pushkin once said, “If there should happen to be a trough, there will be pigs.” And climate science is currently where the big bucks are — provided your work furthers the global warming narrative and the need for net zero emissions.

Whatever the drivers are, responsible people everywhere need to push back against the false climate change narrative and the net zero agenda, as it will accomplish nothing in terms of normalizing temperatures, but will rapidly erode quality of life and the sustainability of food production, and shift wealth into the hands of the few.

\*

Note to readers: Please click the share button above. Follow us on Instagram and Twitter and subscribe to our Telegram Channel. Feel free to repost and share widely Global Research articles.

*Featured image: An animation shows how carbon dioxide moves around the planet. (Photo: NASA/YouTube)*

The original source of this article is Global Research  
Copyright © [Dr. Joseph Mercola](#), Global Research, 2024

---

[Comment on Global Research Articles on our Facebook page](#)

[Become a Member of Global Research](#)

Articles by: [Dr. Joseph Mercola](#)

**Disclaimer:** The contents of this article are of sole responsibility of the author(s). The Centre for Research on Globalization will not be responsible for any inaccurate or incorrect statement in this article. The Centre of Research on Globalization grants permission to cross-post Global Research articles on community internet sites as long as the source and copyright are acknowledged together with a hyperlink to the original Global Research article. For publication of Global Research articles in print or other forms including commercial internet sites, contact: [publications@globalresearch.ca](mailto:publications@globalresearch.ca)

[www.globalresearch.ca](http://www.globalresearch.ca) contains copyrighted material the use of which has not always been specifically authorized by the copyright owner. We are making such material available to our readers under the provisions of "fair use" in an effort to advance a better understanding of political, economic and social issues. The material on this site is distributed without profit to those who have expressed a prior interest in receiving it for research and educational purposes. If you wish to use copyrighted material for purposes other than "fair use" you must request permission from the copyright owner.

For media inquiries: [publications@globalresearch.ca](mailto:publications@globalresearch.ca)