

Bill Walton ([00:01](#)):

Welcome to the Bill Walton Show, I'm Bill Walton. We're inundated with reports from media, governments, think tanks, experts saying our climate is changing for the worst and that it's our fault because of CO2 emissions. But despite the apocalyptic predictions about climate, our earth, our planet is improving. Why? And why aren't we hearing about it? Is it possible that CO2 is not a pollutant, rather that it's a miracle molecule? I think that may be the case, but I'm not sure, so I wanted to bring in two men who do know a lot about it. With the CO2 Coalition founder is Dr. William Happer and chair of the CO2 Coalition, professor emeritus at the Department of Physics at Princeton University with over 200 published papers and a resume and list of awards that goes on for many hours. But we're going to talk about CO2 instead.

([01:06](#)):

Also joining us, Gregory Wrightstone, who's the executive director who comes at this from a different perspective as an MS in geology. He's been involved with the fracking world and knows a lot about how this works out in practice in the real world. And not that Princeton's not the real world, but you two have worked together on this thing. So, Will could you tell me a little bit about the CO2 Coalition? How you pulled it together, and what's our agenda here?

Will Happer ([01:36](#)):

Well thanks Bill. First of all, thanks for inviting Greg and me to join you. The CO2 Coalition is something we put together I think in 2015. And I collected a few friends who, like myself, were worried about the drift in American society toward demonization of CO2. We kept reading about the pollution of the atmosphere by CO2. That worried me because I knew that I exhale two pounds of CO2 a day and every other human being does. So, you wonder how is it possible that something that we produce ourselves is a pollutant. And so, of course we knew it wasn't a pollutant at all, but getting that message out was very difficult.

([02:29](#)):

Most of the mainstream media, most of the scientific societies had swung over to reinforce the idea that CO2 was a dangerous pollutant and something had to be done immediately. There was a climate emergency, and so we founded this group and it was very good scientists, economists, engineers, you probably know Patrick Moore, who was one of the founders of Greenpeace, Canada. He was in there with us. Dick Lindzen, a very distinguished meteorologist, atmospheric physics from MIT was with us.

([03:13](#)):

There were a number of very, very good people, Pat Michaels who was here in Washington, a climate scientist. And so, we really didn't know exactly what we were doing, but we put together this group, we raised a little money.

Bill Walton ([03:30](#)):

So, it sounds like the 97% consensus is not exactly 97%. It sounds like there's a little more than 3% who would disagree with-

Will Happer ([03:39](#)):

I think the number is much higher because people are afraid to speak their mind, there's so much social pressure.

Bill Walton ([03:48](#)):

Well, there's also financial pressure.

Will Happer ([03:50](#)):

Yes.

Bill Walton ([03:50](#)):

As I understand it, if you're a research scientist, if you're on the other side of the climate debate, i.e., the side that says climate is terrible and CO2 is the problem, you can't get funding.

Will Happer ([04:02](#)):

That's certainly true. And it's a particular problem for young people because they have to have a career. And to make a career in academia, you have to bring in funding. And so, if you're in a field that's anywhere related to climate, you almost have to tow the party line that we're dealing with a climate emergency and I'm helping to make the emergency less threatening. That's the tone of your proposals. For example, I remember a friend of mine who was a very good ornithologist and he wanted to study the migration of birds all the way from the Arctic down to South America.

([04:47](#)):

And it was an interesting question, just physically, how can you store up that much energy as a little bird to make that flight? No one would fund him, it was a good proposal. And then someone said, why don't you add effects of climate change on bird migration from the Arctic to Patagonia? And it immediately got funded at twice the amount he asked. So, that's the-

Bill Walton ([05:17](#)):

It's the reality.

Will Happer ([05:17](#)):

That's the reality of it.

Bill Walton ([05:19](#)):

So, Greg, how did you get involved? How did you go? You made your-

Greg Wrightstone ([05:22](#)):

I was in the energy business early, like you say, doing some of the first groundbreaking research on the shale gas revolution, that was in the early 2000s. But then I really transformed beginning in about 2014. It was my own personal search for the truth about climate change. I knew as a geologist that some of what we were being told about climate change was wrong. I suspected some other things were wrong, and it was my personal search for this truth.

([05:54](#)):

Going into this I said, "I'm not going to trust anybody." I want to go back and look at the base data and look at it myself. And frankly, what I found angered me. I found that much of what we're being told about climate change is contradicted by the facts, the science and the data and that drove me to write my first book.

Bill Walton ([06:13](#)):

Did you have an epiphany? There was an aha moment where you said the scales dropped or were you already wondering?

Greg Wrightstone ([06:22](#)):

It was systematic going through each one of these claims of increased droughts, increased flooding, deserts expanding, and perhaps it was really the greening of the Southern Sahara, the Sahel. 200,000 square kilometers of the Sahel, the southernmost Sahara is turning into a lush grassland. Deserts we see are shrinking and it's because of, believe it or not, warming and more CO2. The CO2 is fueling plant growth and we see that. The big thing we see is this greening of the earth and extreme growth of vegetations from the near polar regions to the equator.

Bill Walton ([07:04](#)):

They're more forest in North America, they're more forests in Europe. What have we gone from like 10% forest in Europe to almost 40% now, the landmass?

Greg Wrightstone ([07:13](#)):

It is forest. We're experiencing reforestation, not deforestation. But we're experiencing the warming means that the tree line's growing. For example, the Northern Hemisphere is moving northward from tundra into, it's according to Dr. Timothy Vol, in the last 100 years, it's moved 100 kilometers north in Canada.

Bill Walton ([07:35](#)):

So, you've written your own book and you have a new one coming out. Your first book was Inconvenient Facts, which I don't know where you got that title.

Greg Wrightstone ([07:44](#)):

It's actually a very-

Bill Walton ([07:45](#)):

So, fact is not truth?

Greg Wrightstone ([07:46](#)):

It's been very, very, it was just recently, again, number one bestseller on Amazon just last week. After seven years-

Bill Walton ([07:53](#)):

You have almost 5,000 five star likes.

Greg Wrightstone ([07:55](#)):

Yeah. It's been very popular, been embraced by people diverse as Candace Owens has taken me under her wing and promoted my book and what I'm saying. So, I have a lot of people that have been supportive. This new book, it's exploring the huge benefits of modest warming and more CO2. The title is a very convenient warming and what we see, I call it the greatest untold story of the 21st century. And the story is that, again, modest warming and more CO2 were leading to huge increases in benefits to the Earth's ecosystems and to humanity.

[\(08:38\)](#):

The human condition is improving because of more warming and more CO2 and is completely opposite of what you and your listeners are being told.

Bill Walton [\(08:47\)](#):

So, CO2 is the villain? CO2 has been declared a pollutant by the Environmental Protection Agency, the EPA. And when did they declare that a pollutant? Was that 10 years ago?

Will Happer [\(09:02\)](#):

Well, there was a famous court case in Massachusetts versus EPA. You would know this may be better than I do, Greg, but yes, it was of the order 10 years ago. I'm sorry, I don't have the exact date.

Bill Walton [\(09:14\)](#):

Well, roughly.

Will Happer [\(09:15\)](#):

Yeah. But they developed this perception that it was a political divide too. So, the typical Democrat would say, "Well, CO2 is a unnecessary evil. We can get rid of it. We can all run electric cars and have windmills and solar to replace all sources of energy." And Republicans said, "Yes, CO2 is an evil, but it's a necessary evil. We can't do all these things that the Democrats want to do." And so, neither one of those is correct. It's neither a unnecessary evil nor a necessary evil. It is actually beneficial to the world that we live in, it's beneficial to life on earth.

Bill Walton [\(10:06\)](#):

The CO2 Coalition is a great website and it's got charts galore on it. Then the charts, we can use words, but the pictures really tell the story. And if we could put up the chart on how current levels of CO2 are at near or record lows. You want to talk about this? This is not just in the last few hundred years, this is over millions of years.

Will Happer [\(10:32\)](#):

This is a geological record that you produced by looking at sediments and by analyzing carbonates and isotopes and the sediments, you can infer what the CO2 levels were hundreds of millions of years ago. So, this spans 400, 500 million years and geologists are pretty good at this. And what you see on this chart is that only once in the past, during the Permian period, 250 million years ago was CO2 as low as it is now. And so, we are in a CO2 famine today compared to what the world would really like, what plants would like.

[\(11:15\)](#):

And that's why this greening that Greg mentioned is taking place. Plants are finally beginning to get enough CO2 to grow the way they're designed to grow. They've been struggling with low levels now for the last 20, 30 million years.

Bill Walton [\(11:32\)](#):

There's another chart here, which is even more dramatic, which is the 140-million-year trend of dangerously decreasing CO2.

Will Happer ([11:40](#)):

Yes.

Bill Walton ([11:41](#)):

And that-

Will Happer ([11:44](#)):

The thing that's dramatic about that is you can put plants in a greenhouse and feed them different amounts of CO₂. And if you get CO₂ levels too low, and typically it's around 150 parts per million, the plants stop growing, they die. So, if you look at the CO₂ levels in the pre-industrial time, and especially during the last glacial maximum, they were very close to this level of death where they would all have died. So, if you want to talk about an existential threat, the threat was really having too little CO₂, not having too much. We're far, far away from the optimum level, which is much higher.

Bill Walton ([12:26](#)):

So, how did the scientific community, we need to talk about the United Nations, although YouTube will probably tell us that we're disagreeing with the United Nations and we will. But their models, what is the IPCC, the international, what is it? What's the-

Will Happer ([12:44](#)):

Inter-governmental Panel on Climate Change?

Bill Walton ([12:47](#)):

And they put out model after model after model, and a lot of the scientist to collaborate with what they're doing. They've locked onto CO₂ as the problem and yet these charts show just the opposite. If they were here, what would they say?

Will Happer ([13:05](#)):

Well, it's hard to know what someone else would say, but this was really pushed early on by people like the Club of Rome. And if you read the early writings of the Club of Rome, I think one of them said, "We met the enemy. It is us, it's humanity. And we have to somehow find a common enemy for all of mankind."

Bill Walton ([13:28](#)):

That was 1960s.

Will Happer ([13:29](#)):

Yes, that's right.

Bill Walton ([13:31](#)):

And your colleague, Patrick Moore, I think said that he left Greenpeace when I think it declared that the real problem the world faced were human beings.

Will Happer ([13:42](#)):

Well, that's right.

Bill Walton ([13:43](#)):

And that's really the Club of Rome anti-human-

Will Happer ([13:46](#)):

Yeah, that's right. And so, it's not all bad if you think about it. The argument was that if we can just get humans to fight CO2, they won't fight each other. Then you wouldn't have war in Palestine or Ukraine because we're all busy fighting CO2. But it has some plausibility to it, but you can see it hasn't worked. We've been fighting CO2 as hard as we can, and wars are still happening. So, we might as well be honest about it and try and fix the wars in some other way.

Greg Wrightstone ([14:21](#)):

Yeah, if we look at it too, I get asked this on many interviews is why are they doing this? And basically, the question is, why are they lying to us? Is the abrupt question to ask and I can't answer that and I don't think Will can. We can speculate, but that's not our job as scientists to tell you why they're doing it. Will and I can't look inside men's and women's souls to see what their motivation is. But we can, as our role as scientists, we can say, "Okay, here's what they're telling you and here's what the science and the facts tell us."

([14:58](#)):

And we can dispute that and that's really, as I see it, that's our role at the CO2 Coalition is to provide the science, the facts, to dispute what we're being told. And there's a lot to be disputed.

Bill Walton ([15:13](#)):

This is the Bill Walton show. I'm Bill Walton, I'm here with Will Happer and Greg Wrightstone and who are with the CO2 Coalition who are doing amazing work to prevent overwhelming evidence that CO2 is good for us. And I think before we wander into the agenda of the other side, let's establish exactly why it's good for us. We've got another chart here I wanted to put up with some photos in it with a plant that's been grown, I think by one of your colleagues or four different plants with different levels of CO2 injection.

Will Happer ([15:46](#)):

Yeah. That's Sherwood Idso who was an outstanding agricultural scientist in Arizona. And he is showing the growth of a variety of pine at different levels of CO2. And if you look at the picture, you can see the more CO2, the faster the pine trees grow. And that happens for every plant that you try. All plants do much better with more CO2.

Bill Walton ([16:13](#)):

And the one with the shorter plant is about where we are now, about 385 parts per million.

Will Happer ([16:21](#)):

Yeah. He probably started that early on.

Greg Wrightstone ([16:24](#)):

That was measured at that time, that was the CO2 load

Bill Walton ([16:27](#)):

And now and then they ramped it up to 835.

Will Happer ([16:31](#)):

That's about double what we have today. We're around 425 today.

Greg Wrightstone ([16:36](#)):

And the thing, I'll jump in here, it's not that pine trees, although that's important that forestation's occurring. The huge takeaway here, what's it doing to agriculture, what's warming and more CO2 doing to agriculture? And we see it every metric, every single crop we look at and I capture that in my new book. I look at the top eight crops in the world and they're just continuing to break records year after year after year. And that's a combination of the warming, so bear in mind, if it's warming, we're going to have longer growing seasons.

([17:09](#)):

So, killing frost arrive, stop earlier in the spring and arrive later in the fall, you're going to get more plantings. Crops grow better with warm temperatures. And then that's turbocharged by increasing CO2, it's called the CO2 fertilization effect. So, we've got warming turbocharged by more CO2, and we're able to feed the growing population. Agricultural production is outstripping population growth by a significant amount.

Will Happer ([17:40](#)):

Yeah. I would just add that part of the rap against CO2 is that the warming will be dangerous. I noticed that the head of the United Nations has talked about the era of global boiling. Good grief, I go out and I look at the ocean, I don't see any sign of it boiling. It looks about the same as it did when I was a little kid. But they have tremendously exaggerated the potential of CO2 to cause warming. It will we think, cause a small amount of warming, but it's very hard to predict more than one degree of centigrade of warming if you double CO2.

([18:26](#)):

And nevertheless, the official story from the United Nations is that if you double CO2, it will be much larger, three degrees, four degrees even more. And that's because they've assumed enormous positive feedbacks on the direct effect of CO2. Almost everyone agrees that the direct effect will not be much more than one degree centigrade. And let me say that, so we're talking about huge positive feedbacks on the direct effect of CO2. Almost nothing in nature has positive feedbacks, almost everything is negative feedbacks in nature.

([19:04](#)):

There's even a fancy name for it, it's called Le Chatelier's principle. And so, if you look at most natural phenomena, something changes and then something else changes to try to resist the change and make it smaller. So, that's well known in all other natural phenomena, but for some reason it doesn't happen in CO2.

Bill Walton ([19:25](#)):

Which is why the models don't work, which is-

Will Happer ([19:28](#)):

The models clearly are not working.

Bill Walton ([19:30](#)):

Because you've got so many variables in the models, you change one, it changes everything else.

Will Happer ([19:35](#)):

That's right. The earth, it's just incredibly complicated. You've got the fluid system of the atmosphere, you've got the oceans which cover 70% of the earth. And in my field of physics, fluids are just notorious for being the hardest system to understand. It's extremely difficult to predict anything with fluid, it's a problem. For example, when you design nuclear weapons, the fluid flow in a weapon is quite difficult to understand. And it's certainly true for the atmosphere which is much more complicated than a weapon.

Greg Wrightstone ([20:16](#)):

This is fascinating, when we talk about what they're telling you, they're telling us we can't allow it to get above 1.5 degrees Celsius. And that's 1.5 degrees or it'll be baked in, it's all over. They're talking about 1.5 Celsius since 1850, 1800. We've already warmed 1.2 degrees of that 1.5. So, what they're warning us about is not 1.5 degrees of increased warming, it's three tenths of a degree centigrade of warming from today, that's half a degree Fahrenheit. If we're sitting in your studio here and it warmed up or cooled down half a degree Fahrenheit, you couldn't tell it. Your thermostat would not trigger on or off.

Bill Walton ([20:57](#)):

My wife could tell.

Greg Wrightstone ([20:59](#)):

She might well be able to do that. I'll tell you what, if you're worried about one half a degree Fahrenheit of being dangerous, all you have to do is move 13 miles further north and your average temperature will fall by that amount. And it's actually ridiculous to think that half a degree Fahrenheit change of temperature, we see that between 10:00 AM and noon every day.

Bill Walton ([21:22](#)):

Well, let's back up and go a little even deeper into some of the wonky realities of this. There's another chart you have in your site that really talks about how the CO2 and its impact even on warming as the numbers go up CO2 in the atmosphere, its warming effect goes down or it flattens out and it would be this chart here. And I had a little difficulty figuring out what was happening here, what is happening with this chart?

Will Happer ([21:50](#)):

Well, it is a little bit of a wonky chart.

Bill Walton ([21:53](#)):

I like wonk. Let's go full wonk.

Will Happer ([21:57](#)):

CO2 in the atmosphere is a little bit like a layer of paint around the earth. And if you paint a barn in red, get a nice red coat of paint. If you put a second coat of paint on the same paint, it won't look any redder. You say that the paint has already saturated the coloring that it gives to the barn, and that's exactly what CO2 is doing now. So, at the current levels of CO2, if you double the amount, it almost doesn't matter. It only changes the cooling radiation to space by 1%, very tiny amount. And that's the only radiation temperature will change by a quarter of a percent to first order. So, it is a nothing effect.

Bill Walton ([22:46](#)):

So, let's run down the list of those things that do matter with climate. CO2 is on the list somewhere, but you mentioned oceans, you mentioned I think we've got volcanic activity, clouds, earth's orbit.

Will Happer ([23:02](#)):

The sun.

Bill Walton ([23:04](#)):

The sun. Oh yeah.

Greg Wrightstone ([23:09](#)):

Up there. How do we forget about that?

Bill Walton ([23:11](#)):

And then just, here's one I want you to explain. Glacial, interglacial changes is that, what is that? Anyway, it doesn't matter, but there's a list here of things.

Greg Wrightstone ([23:23](#)):

The big glacial advances and retreats are driven by these big celestial forces in the earth's orbit, the eccentricity of the earth's orbit, the wobble. And these things are driven on right now on a hundred-thousand-year cycles. The effects that we've seen over the last say 10,000 years since the end of the last glacial advance are being driven by things that are probably related to solar fluctuations. Although it's not entirely clear that's entirely driving these temperature changes.

([23:56](#)):

But we've seen a number, we've seen over the last 10,000 years, again since the last glacial advance, we've seen nine other warming periods very similar to what we see today.

Bill Walton ([24:06](#)):

Well, let's talk about the glaciers. We've got another chart here. I'm going to make our producer work hard today to get this thing edited, but it's worth it because these tell us stories. I'm talking about the decline and the glaciers are melting, the ice caps are melting, the polar bears are going to go away. And yet the trend on the glaciers started long before-

Greg Wrightstone ([24:28](#)):

It started actually around 1800 is when glaciers started retreating. We started warming more than 300 years ago, really in the late 1600s, early late 17th century. And so, we started warming, but in order to make glaciers retreat, the amount of melt in the summertime needs to exceed the accumulation of ice

during the wintertime. And that point, that tipping point occurred around 1800. And since about 1850 to today, glacier retreat and sea level rise that go hand in hand are about the same rate as what we were 150 years ago.

[\(25:10\)](#):

And so yes, we are in a warming trend. In a warming trend, we should see glacier retreat and rising sea level. And actually, if you go to Glacier Bay in Alaska, my wife and I traveled there, people point to that. That started retreating in the year 1798 and of the 60 miles of retreat of the glacier, the first 50 miles. So, that came before we started adding much CO₂ in the middle of the 20th century.

Bill Walton [\(25:36\)](#):

So, the point I think you're making, and I guess I'm enjoying my own romp through your slides. I hope we don't overwhelm people with them, but I think this slide tells a lot is that there has been an increase in CO₂ emissions, it's happened after World War II, but not much before then. Kenny, do you have this? What do we attribute this increase to? Is this manmade? I think we're not saying-

Greg Wrightstone [\(26:10\)](#):

The answer is yes. The answer is primarily its manmade, man driven CO₂ emissions mainly from the burning of fossil fuels. Some small part, maybe 6% or 8% from cement manufacturer, a very small amount from gas flaring. But the main contributor we believe is for man sources and we're okay with that. Dr. Happer here will tell you that we're okay with having a big carbon footprint because CO₂ is a beneficial molecule. We call it the miracle molecule.

[\(26:43\)](#):

So, more CO₂ is better. And so, we're drawing the benefits not only from the use of fossil fuels, but also from the emissions. When you burn fossil fuels, for example, methane, you get what's the product? Heat, water vapor, and CO₂.

Bill Walton [\(26:58\)](#):

Well, let's define the demon or the supposed demon. CO₂, they throw out the word carbon, carbon, carbon, carbon. Carbon's black, its coal, it's evil and we ought to not have carbon. Can you help me out understanding why carbon is not the villain? CO₂ is not the-

Will Happer [\(27:17\)](#):

You and I are made of carbon. When I was a kid, they talked about organic chemistry, which meant the chemistry of carbon compounds, organic carbon compounds. So, carbon is central to life, you can't have life without carbon. And when they talk about carbon pollution, are they talking about you and me? We're walking storehouses of carbon. So, it's propaganda, I just have been rereading Orville's 1984, the last week or two, and I'm just struck by how similar much of what we're seeing today is to what was in that book.

Bill Walton [\(27:55\)](#):

Amplify, help with that.

Will Happer [\(27:59\)](#):

Well, for example, there was the Ministry of Truth and they had these slogans, the party slogans, war is peace, ignorance is strength. Just absolutely absurd slogans, but now we have carbon as a pollutant. It

goes up there on the building of the ministry of truth, that's the same absurd thing, but everybody believed it.

Bill Walton ([28:27](#)):

Well, the only really bad carbon of those people who voted for Trump.

Will Happer ([28:32](#)):

I don't know, maybe so.

Bill Walton ([28:34](#)):

Because they're carbon.

Will Happer ([28:34](#)):

Yeah.

Bill Walton ([28:35](#)):

Greg, you jump in here.

Greg Wrightstone ([28:36](#)):

Oh no, I was reminded of whenever he said he was reading George Orwell. It was I think a year ago, I told him, I said, "I'm rereading Atlas Shrugged." And Will says, "Well, what a coincidence, so am I. I'm reading it in Russian." Now who else other than Dr. Happer will be reading Atlas Shrugged. It's difficult enough in English, who else will be reading it in Russian?

Will Happer ([28:59](#)):

Well, I'm actually reading 1984 in Russian too. Somehow it sounds more appropriate.

Greg Wrightstone ([29:03](#)):

Okay.

Bill Walton ([29:11](#)):

So, I jumped in to talk about what has happened since World War II. But I also wanted to point out that not only the glaciers, their changes are not a new phenomenon based on human activities, but the sea level.

Greg Wrightstone ([29:26](#)):

Fascinating.

Bill Walton ([29:27](#)):

And we have another chart here which talks about the global sea level since 1800.

Greg Wrightstone ([29:33](#)):

Well, let's unpack this. So, we're being told, aren't we that the Pacific Islands, the Indian Ocean Islands are at risk for being underwater in the next several decades? All right, well the sea level is rising at about

seven inches per century. All right, so let's just say they'll be underwater by 1950. We're expecting two inches of sea level rise at the current rate by 2050.

Bill Walton ([29:56](#)):

2050, yeah.

Greg Wrightstone ([29:57](#)):

2050, excuse me. 15,000 years ago, let's just look at the most at-risk island is the Maldives according to the UN. 15,000 years ago, that island was still just above sea level. In the last 15,000 years, sea level has risen 400 feet. Why are these islands not underwater now? They should be if it's risen 400 feet. The reason is it's a geologic process known as accretion. These islands actually grow as sea level rise. As the storms come in, they wash the shore face, there's gravels and sands that get washed up on the islands.

([30:36](#)):

So, all of these islands, if you look at them and go, well, why aren't they underwater now after 400 feet of sea level rise? And they say, "Oh, don't worry, but that next two inches by 2050 will put them under." No, it won't, no it won't. The same processes are in action today as has been in action for thousands of millions of years.

Bill Walton ([30:55](#)):

So, that means that they're being pushed up as part of the geological process or what's happening?

Will Happer ([31:02](#)):

They're growing because they're sucking CO₂ out of the air and turning it into calcium carbonate because of the coral reefs, they're coral islands. And so, the coral always grows a foot or so beneath the mean sea level. I don't know the exact number, but if the sea level rises, it moves up.

Greg Wrightstone ([31:23](#)):

But for the accretion part of this, it's these islands like the Maldives and the others are above sea level. And so, the corals that are ringing the islands or with the waves pound them into sand and gravel. And then a storm, the next hurricane or cyclone come through and it washes this gravel and sand up onto the actual island. So, we have a combination of what Will was just talking about with the corals growing, and that's why coral reefs have not been inundated either. They grow easily and quickly to accommodate sea level rise.

Will Happer ([31:57](#)):

But they would not have grown at all if there had been no CO₂ because the coral would've died. All life needs CO₂. So, islands depend on living things, coral islands at least. And thank goodness for CO₂, they would not have been able to do it without that.

Bill Walton ([32:18](#)):

Will, you also point out that, you mentioned this at the outset, but I think it bears repeating. CO₂ levels actually reached dangerously low levels.

Will Happer ([32:28](#)):

That's correct, yes.

Bill Walton ([32:30](#)):

And we've got a chart here that talks about how it's fallen during the ice ages in the past, what, 400,000 years. And that we were reaching a point of no return.

Will Happer ([32:42](#)):

Well, there's pretty good evidence. For example, at the last glacial maximum when CO2 levels got down close to 150 that there was deforestation at high altitudes. It's one thing to have 150 parts per million at sea level, but if you go up 5,000, 10,000 feet, you've got even less CO2. And at that level, at that altitude, many plants just die. And so, one of the things you notice in ice cores records of the past temperature is at the last glacial maximum, the ice is extremely dirty, it's full of dust. So, it was a time that was constant dust storms, ice was dirty. And that's because the plants that would normally have held the soil in place died from starvation, from not having enough CO2.

Greg Wrightstone ([33:43](#)):

Well, and again, that just repeats the story. You're going to hear this a lot from the two of us today are these benefits of CO2 driving plant growth and repeat again, more is better, it just is.

Bill Walton ([33:57](#)):

Let's look at this.

Greg Wrightstone ([33:59](#)):

Wonderful chart and that's a-

Bill Walton ([34:02](#)):

We're going to talk about grain production breaks records while temperatures and CO2 increase.

Greg Wrightstone ([34:07](#)):

That's a chart for my first book. And what it does is look at the main grain crops in the world. We compare wheat, rice, coarse grain production. This is agricultural production, millions of metric tons and we compare that there to CO2, going back to the 1960 and temperature. And the increase in agricultural production is marching the lockstep with CO2 and temperature and we should celebrate that. Again, it may be one of the biggest unreported stories of our century.

Will Happer ([34:45](#)):

Yeah, let me just add a word or two to that. It is really dramatic how much wheat yields have gone up. For example, India, they went up by more than a factor of 10 since Indian independence, just spectacular. Not all of that is due to CO2, some of it is due to better use of fertilizer, especially in nitrogen fertilizer, which by the way, is made from fossil fuels. Some of it is better plant varieties and some of it is irrigation. So, a number of factors have contributed, but most careful studies indicate that something of the order of 30% or 40% of the increased in yield has been due to more CO2. So, it's a very non-trivial positive effect of CO2.

Bill Walton ([35:33](#)):

You mentioned fertilizer nitrogen.

Will Happer ([35:36](#)):

Right.

Bill Walton ([35:36](#)):

And nitrogen's now been banned in Sri Lanka and-

Will Happer ([35:41](#)):

Not anymore.

Bill Walton ([35:43](#)):

You want to tell that story because this in there now trying to do this in what Holland?

Will Happer ([35:49](#)):

They're trying to do it in Holland.

Greg Wrightstone ([35:52](#)):

Canada.

Will Happer ([35:53](#)):

Ireland for example. Yeah, it's a combination of ignorant politicians and-

Greg Wrightstone ([36:00](#)):

That's an oxymoron.

Will Happer ([36:03](#)):

Okay. There are a few smart ones, but they're rare.

Greg Wrightstone ([36:06](#)):

Not too many. Not too many.

Will Happer ([36:10](#)):

Yeah. Sri Lanka-

Bill Walton ([36:10](#)):

It's what you have to do to get elected that weeds out people. A certain type when it makes its way through the process, and that's not the curious type. Anyway, that's a different shift.

Will Happer ([36:26](#)):

Yeah, no let's be kind. There are some decent public servants who are politicians and we need to encourage more like that. So, badmouthing them here is not good that we want to get better ones then.

Bill Walton ([36:45](#)):

Well, I get the badmouth.

Will Happer ([36:46](#)):

Yeah. Oh, okay fair enough. Yeah.

Bill Walton ([36:49](#)):

But anyway, I interrupted you and I do that occasionally. The nitrogen, the fertilizer, what's happening there? What are the set of beliefs that are causing people to say, "We shouldn't be using these chemicals, the molecules?"

Will Happer ([37:01](#)):

Well, there are several, so-called reasons. One of them is that if you use nitrogen fertilizer, you release a lot of nitrous oxide from the soil. Because the nitrate that you put into the fertilizer eventually gets reconverted into two nitrogen stuck together as the way it normally is. But every now and then the soil organisms add an oxygen to that to make an N₂O, and that's the potent greenhouse gas. So, supposedly the amount of nitrous oxide that comes from nitrogen fertilizer is adding to the demon CO₂ greenhouse effect and boiling the oceans as the-

Bill Walton ([37:53](#)):

So, it's not only CO₂, but N₂O.

Will Happer ([37:56](#)):

N₂O, nitrous oxide, it's laughing gas.

Greg Wrightstone ([38:00](#)):

But bear in mind though, we're talking about greenhouse gases. Well, the big elephant in the room here, what is the largest greenhouse gas? And that's water vapor by far is the largest most potent or the largest contributor to greenhouse gas warming. We don't hear anybody advocating for reducing water vapor in the atmosphere.

Will Happer ([38:26](#)):

Well, don't tempt them.

Bill Walton ([38:28](#)):

I'm going to take a sip before it's bad. Well, I think we need now to shift towards what we're up against here. You formed the CO₂ Coalition, seven or eight years ago. And it's been growing and its influence and growing in its membership. Tell me about what's happening.

Will Happer ([38:54](#)):

Yeah, let me just say a word or two. It started with more enthusiasm than competence. And bringing Greg aboard has been an enormous benefit to the CO₂ Coalition. So, thank you very much for Greg for all you're doing, but we're continuing to move ahead. Greg, for example, has started a direct mailing

campaign and I hope he'll tell you about some of the letters that he gets from people who are so glad there is fondly an organization that's speaking for him.

Bill Walton ([39:30](#)):

I get a lot of direct mail, a lot from all the different groups, and in fact, this is one of them complaining about direct mail. Anyway, so it always happens. So, Greg, your direct mail is terrific because it brings out facts about the things we're talking about that I don't read any place else. There are people saying the green movement's terrible, blah, blah, blah, but they don't explain why.

Greg Wrightstone ([40:00](#)):

We've seen a tremendous outpouring from people across America. It's been incredible, everyone told me that if you were going to do a direct mail campaign look, you better plan on losing money for the first year or two. We're not, we're seeing such a tremendous outpouring from people that it's just incredible. A year ago, I'll share, I don't think this is confidential information. We had 334 donors, today we've got nearly 8,000. And these are all virtually all individual donors that have responded to what we're doing.

([40:38](#)):

They're looking at what we're doing. I consider as the tip of the spear when it comes to promoting science and providing the scientific basis to fight back against man-made catastrophic climate change. So, they're responding to that. Not only are they responding to that, they're responding to our educational efforts. We'll talk a little bit about that, maybe not now, but a little bit. We've launched an educational effort. We were scared of what was happening to science education in America.

([41:09](#)):

Our children are being indoctrinated, they're being taught groupthink. They're being told to silence any opposition to this manmade catastrophic warming. And we've actually done something about it with our education campaign. So, these people in this direct mail, we're telling them about that. We're not just talking and complaining about what's wrong with education in America. We're doing something about it with books, with videos, and importantly lesson plans.

([41:39](#)):

My grandchildren are all homeschooled and my daughter just raves about the lesson plans that have been developed by Dr. Sharon Camp, PhD in analytic chemistry, AP science teacher retired, she's still an AP reader. We have scientists that are developing the books, the videos, and importantly lesson plans. We're hoping to get this in front, we're getting in front of charter schools, the public schools aren't quite receptive, but we're providing science facts and data about what children need to know in an entertaining way with using manga and anime style.

Bill Walton ([42:18](#)):

Well, people are hungry for the facts and the truth, and we're not being given that by any of the mainstream media. I'm sure when we finish the show, YouTube will put a content label on it saying that it doesn't purport with what the United Nations is saying about everything being caused by manmade global warming and that CO2 is the central villain. People have intuitive sense that that's not case, but nobody's given us the arguments until you guys came along to prove it.

Greg Wrightstone ([42:49](#)):

I'm so proud of what we've done. We have a membership base, this is the volunteer base we have. We've increased from 45 to a little over 150 members. These are scientists, mostly PhDs. We just brought Dr. John Clauser onto our board. Who is that? He's the current Nobel laureate in physics onto our board. This is the kind of people that we're bringing on with this kind of clout and scientific background. So again, I look at us as being the tip of the spear and providing that scientific-

Bill Walton ([43:26](#)):

Well, I'm with you in this cause as you can tell. But we're up against a lot of forces that want to perpetuate really the lie that CO2 is a villain. You gave a great talk at Heartland Institute a bit ago, and you talked about the noble lie in Plato. I think it's time for some philosophy. Talk about the noble lie?

Will Happer ([43:50](#)):

Well, we touched on that briefly when we talked about the Club of Rome and the need for a common enemy. And so, that's essentially a noble lie because CO2 really is not an enemy at all. But if you read Plato's Republic, there is a chapter which talks about, so-called noble lie. You develop this lie, basically a myth which supports something that you want to do. For example, to maintain control for some oligarchy or some dictator or to promote some religious cause. And you can see that part of the Republic, it is a very awkward sort of narrative that you read.

([44:43](#)):

I've wondered whether Plato really believed in it or not, but it's worth looking at. Most people have never seen it, but then there are lots of other motives. That's one thing that's so hard about pushing back against this because people are driven by many different motives. There's the noble lie, maybe it's noble. I don't think any lie is noble, but that's what they call it. Then there's the political lies just to get control. An emergency has always been good. This famous Mencken quote that, the whole rationale-

Bill Walton ([45:29](#)):

I wrote this one down.

Will Happer ([45:31](#)):

Yeah.

Bill Walton ([45:32](#)):

The whole purpose of practical politics is to keep the populace alarmed and eager to be led to safety.

Will Happer ([45:39](#)):

Right. Yeah, where is Mencken when we need him?

Greg Wrightstone ([45:43](#)):

We have you.

Will Happer ([45:44](#)):

Yeah.

Greg Wrightstone ([45:45](#)):

Fear is a great motivator and they're using it effectively.

Bill Walton ([45:49](#)):

Well yeah, that seems to be the agenda. And of course, greed is another big motivator. You look at the, was it Inflation Reduction Act that was basically \$1 or \$2 trillion Green New Deal.

Greg Wrightstone ([46:01](#)):

Why would we-

Bill Walton ([46:02](#)):

It fed all the Democrat and other on both sides of the aisle coffers with lots of subsidies.

Greg Wrightstone ([46:09](#)):

Why would we, as a people voluntarily agree to have our freedoms restricted like they're talking about? What are they trying to do? They're trying to tell us what car to drive, what washing machine to buy. Ban use of natural gas in our homes for heating, everything from the faucets and your showers they're trying to control everything. Why would we voluntarily do that? The only reason would be if there's actually this existential threat that's going to be leading to horrific consequences, we just don't see it.

([46:42](#)):

There's no evidence of that happening and so they use this what Michael Chrichton called a climate of fear is what they're promoting.

Bill Walton ([46:50](#)):

Which is a terrific book.

Greg Wrightstone ([46:51](#)):

It is and it's a great title. He beat me to it, but it was-

Bill Walton ([46:56](#)):

Yours are pretty good.

Greg Wrightstone ([46:57](#)):

They are. No, but it was a climate of fear that they're promoting for us for the population to grasp onto these. Let me just give you a personal example. We bought a home in Florida three years ago. We had an average monthly electricity cost of \$149 a month. This summer, it's \$500 a month. That's what's it's gone, it's incredible.

Bill Walton ([47:20](#)):

More than three times.

Greg Wrightstone ([47:21](#)):

Our electricity use has only gone up. It has increased a little bit, but not that much. I've got a house full of family living in my home, but that's another story for a different day. But that's \$149 to over \$500. You can afford that, very few people can, and that's coming to everybody in America, that's what's

coming. Punishingly high electricity costs, punishingly high gasoline prices that we're seeing, and it's all by design. They told us what they were going to do and they're doing it.

Bill Walton ([47:56](#)):

Well, I believe things now that I didn't believe 10 years ago before I started wandering into this policy and this political and these macroeconomic issues. And you come to believe that there are people who stand to benefit from this control, from this fear. And it seems to start in places like Davos, the World Economic Forum. They're pushing this climate agenda full speed ahead, and it looks like a mechanism for control.

Will Happer ([48:30](#)):

Of course, it's a mechanism for control and it's so far working, but we hope we can stop that before too much damage. It will eventually stop, you mentioned Sri Lanka where they banned nitrogen fertilizer. That corrected itself after two or three years because the rice crop failed, the tea crop failed. There were riots in Colombo, the presidential palace was stormed and the president was evacuated by helicopter before they were able to hang him. And so, the same thing will happen in our country eventually, but why should we let it go so far? We should stop it before it gets out of control.

Bill Walton ([49:11](#)):

But just to drive home the point of the elites in Sri Lanka were acting under the instructions of consultants and other people from World Economic Forums. They bought into the United Nations and World Economic-

Will Happer ([49:26](#)):

From the World Bank.

Bill Walton ([49:27](#)):

Recommendation and the World Bank.

Will Happer ([49:29](#)):

Yeah.

Greg Wrightstone ([49:29](#)):

Well, they believed that they bought into this lie that modern agriculture on a grand scale could be fertilized using bone meal and dung and manure.

Bill Walton ([49:41](#)):

Didn't we try that a couple thousand years ago and it didn't really-

Greg Wrightstone ([49:44](#)):

It works okay on a backyard basis. I like organic farming, I have a small organic plots in my backyard. You can do it on that scale, but not on a scale to feed the globe and the planet.

Will Happer ([50:02](#)):

Well, I have a backyard garden and I have a compost tub, but I still buy a sack of 10-10-10 fertilizer every spring and put it off.

Bill Walton ([50:12](#)):

And it works.

Will Happer ([50:12](#)):

It works.

Bill Walton ([50:12](#)):

It works.

Will Happer ([50:13](#)):

It works, yeah.

Bill Walton ([50:15](#)):

So, let's talk about where we go from here. We've got just a couple of minutes left. You've got this started, we've got to keep the ball rolling. How do you bring the word to a lot more people about this truth? You've mentioned the education, what else do we need to do politically?

Greg Wrightstone ([50:31](#)):

Well, we're trying to educate, part of our role is educating those on Capitol Hill. We stay out of the politics, but we believe part of this is to bring the science, the facts, and the data to them. I gave you a publication here, Virginia and Climate Change. We're doing this on a state and regional basis. We did that to support Governor Youngkin's proposal to get out of the harmful Regional Greenhouse Gas Initiative. We wanted to give him the ammunition to pull out of that and pull out of the ECS here in Virginia.

([51:10](#)):

We did the same in Pennsylvania, and we've got other of these state and regional reports. We just completed one on climate change in the Midwest. The subtitle is, Life in America's Breadbasket is Good and Getting Better and we see that repeated time and time again. So that's what our role here is the science, but our outreach has increased tremendously. I did nearly 300 interviews in the last 12 months, and so we're reaching millions and millions of people.

Bill Walton ([51:43](#)):

I think you need to start with the Republicans primarily because they're all light green. They tend to buy the moral goodness and they've claimed the higher moral ground. You need to claim the higher moral ground and what you're doing is good for people, and what the anti CO2 people are doing is bad for humanity. We need to get that out as a clarion call.

Greg Wrightstone ([52:10](#)):

We do.

Will Happer ([52:11](#)):

That's a big problem because you see what happened in the United Kingdom when the conservative party, the Tories picked up climate as one of their issues, and so they've really made a mess of Britain and they don't really know how to get out of it politically.

Bill Walton ([52:27](#)):

I'm sorry, they picked it up that they were, which side were they on?

Will Happer ([52:32](#)):

They're 100% green, save the planet.

Bill Walton ([52:35](#)):

The Tories are going green.

Will Happer ([52:38](#)):

Yeah, yeah.

Bill Walton ([52:38](#)):

Good luck with that.

Will Happer ([52:39](#)):

And so the worry, and I think you alluded to it, is that the Republican Party in the United States may go the same direction. And it's-

Bill Walton ([52:49](#)):

That's my concern.

Will Happer ([52:51](#)):

A bad mistake, it will not increase the number of votes. And the Tories are seeing that in Britain, they're probably going to lose the next election and to large extent because of their net zero, Not that that will help for British because the Labor Party will be just as bad.

Bill Walton ([53:09](#)):

Well, the point that I think we need to hit over and over again, we need to make the moral case. And I think you've done that and you're doing it with your website, and rearming people with facts. But the fact that CO2 has been good, warming has been good, it makes people live longer, happier, increases food production. Siberia, which was sort of a joke, not a bad joke really, but you get sent to Siberia. Siberia may be green and filled with forest if this continues and how bad would that be?

Will Happer ([53:42](#)):

Yeah.

Greg Wrightstone ([53:44](#)):

The true horror will be when the next cold period comes. Because we look back over the last 5,000 years of human history, the warm periods have been hugely beneficial to humanity and the cold periods have

been horrific. We are going to start cooling at some point, and when that happens, it won't be pleasant. We've seen what happened over the last several thousand years when it did get cold. We had crop failure, pestilence, mass depopulation. It won't be as bad the next time because we're not moving food around with oxcart and we've got refrigeration. But crop failure will probably be part of this when it starts cooling down again.

Will Happer ([54:27](#)):

Yeah, Bill, I think you're right about the moral high ground that what's being done now with the war on CO2 is fundamentally immoral. And it's also a war on fossil fuels that they're a little bit different CO2 and fossil fuels, but they're closely related. And Alec Epstein is a young philosopher who has written some books about the moral case for fossil fuels. And so, from a philosophical point of view, he makes a very good case that the moral high ground is our side of this argument, because you really can't find any harm that's been done from fossil fuels. We're not focusing on fossil fuels as much as we are on CO2, but of course they're joined at the hip.

Bill Walton ([55:25](#)):

Well, we will continue in this fight. I hope we're going to launch a movement maybe, it sounds like you're already doing, but I hope this show helps bring some people to your cause. Where do we find you?

Greg Wrightstone ([55:39](#)):

co2coalition.org, co2coalition.org for the CO2 Coalition website. The new book that I have launching shortly is convenientwarming.com, and it's looking forward to having the launch of that hopefully in the next week to 10 days.

Bill Walton ([56:00](#)):

Oh, that's great. Well, so it sounds like we need to have you back to talk about what's in the book, are we?

Greg Wrightstone ([56:05](#)):

If you insist.

Bill Walton ([56:06](#)):

Okay, I may insist. Dr. Happer, it's an honor to have you here.

Will Happer ([56:10](#)):

Thank you, Bill, for letting us hear these issues.

Bill Walton ([56:13](#)):

[inaudible 00:56:11] incredible resume. Yeah, so I hope you all have enjoyed this. Maybe not enjoyed all the things we're saying, but at least you know the truth now about CO2 and you know the truth about warming and its beneficial effects. And if you like this content, if you like the point of view we're sharing here, please subscribe if you have not already done so, like the show. And if you have friends who are like-minded, ask them to subscribe and also like the show. As always, we'll be back with similar content

where we get into complicated things and try to make clear what's at stake for all of us. So anyway, thanks for joining.