



DEC 14 **EcoGeek Q&A: Graciela Chichilnisky**

Written by *Megan Treacy* on 14/12/09

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Graciela Chichilnisky was extensively involved in the creation of the Kyoto Protocol, designing the global carbon market that became international law in 2005. She has been a lead author of the IPCC and is a professor of economics and mathematical statistics at Columbia University.

She's written a book called *Saving Kyoto: An Insider's Guide to the Kyoto Protocol* released just a few months ago. She took the time out from her busy schedule in Copenhagen to talk to me about the importance of the Kyoto Protocol, the likely outcome of COP15 and the strong need for effective carbon sequestration technologies and emissions reductions NOW.

What do you see as the greatest successes of the Kyoto Protocol?

The greatest success of the Kyoto Protocol was to introduce for the first time in history, hard emission limits - nation by nation - for the wealthy nations who are the main emitters - and a carbon market to regulate them. Through the carbon market, over-emitters compensate under-emitters - this makes clean energy profitable and dirty energy undesirable for the first time in history. It changes the prices of all goods and services in the world economy.

The developing nations are not part of the carbon market because they have no emission limits - but they have strong incentives and participate in the carbon market structure through the Clean Development Mechanism that rewards with carbon credits those projects that are carried out in developing nations' soil and are funded by industrial nations - to the extent that they can be certified as providing carbon emissions reductions.

The carbon market is now trading \$120 billion per year, and the CDM has transferred \$25 billion in clean projects in developing nations - representing a 20% reduction of EU's emissions.

A few weeks ago the reports were saying it was unlikely that anything meaningful would come out of Copenhagen, but now reports are starting to say the opposite. What do you think the COP15 talks will realistically accomplish and what would be your dream scenario?

The situation is confusing since the various groups know what they oppose but not how to achieve what they want. I am counting on the introduction of a \$200 billion/year fund underwritten by OECD nations but funded from private sources, to develop power plants in poor, developing nations that suck carbon from air. To achieve this we need to accredit "carbon negative technologies" - [carbon sequestration], a process that was recently endorsed by Dr. Pachauri, lead of the IPCC - and this is what I am working on here in Copenhagen.

The Indian government recently said it doesn't expect any financial help from developed nations in reducing its emissions. What obligation do wealthier, developed nations have to poorer, developing ones in the fight against climate change?

The first thing developed nations must do is to move forward the Kyoto Protocol

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emissions reductions post 2012 - since Kyoto's obligations terminate in 2012. Wealthy nations emit over 60% of the global emissions even though they house less than 20% of humankind. The critical issue is to cut their emissions, seriously.

How important is cap and trade legislation when it comes to the U.S.'s ability to reduce emissions?

It is crucial because "cap and trade" - as its name indicates - requires "caps" before it can work - and this is exactly what is needed: Caps on emissions by wealthy nations who are the main emitters. Carbon taxes do not achieve caps. In addition, the carbon market provides flexibility that is important as well.

By the way, "cap and trade" legislation is simply a local version in the U.S. of the Kyoto Protocol. The U.S. is therefore adopting a domestic version of the Kyoto Protocol.

Last week, the EPA announced that it has finalized its endangerment ruling on greenhouse gases and that "it will act" to curb climate pollution. Do you think this will help push Congress along to a better climate bill? Do you think it will help us negotiate better commitments at COP15?

Yes. This means that the executive branch of government (President Obama) can impose carbon emissions limits on its own without the Congress, according to the 2007 decision by the U.S. Supreme Court, and confirming to the provisions of the U.S. Clean Air Act. This will allow President Obama to offer meaningful U.S. emission cuts in Copenhagen, which President Clinton could not deliver in Kyoto.

Other than a thriving carbon market, what do you see as an essential element to global climate action? Is there a renewable energy technology that you see as most promising?

I see as very promising - indeed necessary - all safe technologies that are carbon negative - namely decreasing in net terms the carbon concentration in the planet's atmosphere. The UK Royal Society and Dr. Pachauri of the IPCC have both endorsed carbon sequestration for this purpose. I have published scientific articles showing that only carbon negative technologies can avert the worst forms of climate change; we have procrastinated too long.

Is there anything else you think our readers should know about what's at stake at the COP15 talks?

The climate is very emotional because most participants are lost - do not know what to do. However, once a reasonable solution emerges, the negotiations will become much more productive.

I believe my one-two punch - carbon negative technologies that allow the building of power plants in poor nations using funding from the Kyoto Protocol - and the \$200 billion/year fund that I have proposed are a possible solution for the current impasse in Copenhagen and the beginning of a win-win solution that involves a safer atmosphere and also accelerated development in poor nations - providing the energy needed for adaptation and mitigation of existing climate change damages in poor nations

Is there anything our readers can do to help?

Yes, talk with your friends as widely as possible - organize parties - and spread the word virally of the importance of doing something about climate change ASAP.

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Green Party Coming Soon
written by [Eco Size Briana](#), December 14, 2009
I think I'll organize a green party to coincide with St. Patrick's Day for climate change awareness and other green initiatives. The facts are there; people just have to read them. Very insightful! 😊

+ - +1 !

This lady has it backwards.
written by Fred, December 14, 2009
Maybe she hasn't seen the charts, so she doesn't know that atmospheric CO2 is at a 500-million-year LOW point.

Maybe she doesn't understand that if CO2 were much lower, most of the plants and trees would begin to starve.

Maybe she is ignorant of the fact that we have been decarbonizing our energy sources pretty steadily now for the past 200 years, and we will continue to do so, without any government intervention at all, as fast as it is economically feasible to do so?



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Maybe she is unaware that water vapor in the atmosphere has a vastly greater effect than the relatively microscopic amount of CO₂, of which we add only a very very tiny bit?

Maybe she hasn't given any thought to the probability that global cooling is actually occurring, and that it would be far more damaging to us than warming would be.

There's so many things wrong-headed about the CO₂ fearmongers, It's mind-boggling. But the worst thing is, they are trying to amass power and control us all through their nonsensical laws.

A free market - regulated only to the extent required to ensure fairness and honesty - is proven to be the most economical, the healthiest, the most efficient way to improve our lives.

When some genius entrepreneur offers me a solar powerplant I can bolt onto the side of my house which will save me money, I will buy it.

Until then, I'm going to continue freely choosing what is most economical for me. And so should you.



The West has nearly stable emissions and self limited its native population growth.



written by Dekmar Jackson, December 15, 2009

Wealthy nations may contribute 60 percent of carbon emissions, but they also contribute the lions share of the worlds goods.

USA carbon emissions have been relatively stable or even diminishing in recent decades while China and India, while still lower than usa , continue to grow at record levels.

The West is not given credit for its production of goods and technology that created the modern world, for its reductions in emissions or for its reduction in its native born population.

Immigration to the west via the non west has created more carbon emissions than anyone is willing to talk about. The USA population grew nearly 100 million in the last 40 years nearly all via immigration.

The West needs to continue to work on reducing pollution of air and water and invest in clean energy but the non West needs to seriously slow its population growth and stop exporting their excess population and then blaming the west for carbon emissions.



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written by Fan, December 15, 2009



She sure does know how to draw attention to the topic: cleavage!

PS: Fred, sources that back your claims please? Absolute CO₂ low in 500 million years? I'd really like to read that investigation. Thanks.



EcoGeek Q&A: Graciela Chichilnisky

written by [Jacquie for](#), December 15, 2009



☹ People will never take climate change seriously until it affects them and their families directly. They will always make excuses and procrastinations. However I am pleasantly surprised by all the developments at Copenhagen. Here's hoping for yet more action but without personal responsibility and input, this is a losing battle for the world.



@ Fan - re: CO₂ historical levels

written by Fred, December 15, 2009



Hi Fan - scroll down to the 'Historical Variations' section on the page linked below, the second chart is labeled Phanerozoic Carbon Dioxide - you can click on it to enlarge.

http://en.wikipedia.org/wiki/Carbon_dioxide_in_Earth's_atmosphere

Here's a chart with a similar timeline showing CO₂ and global temperatures together:

http://www.americanthinker.com/2009/01/co2_fairytales_in_global_warmi.html



FUN FACTS about CARBON DIOXIDE

written by Fred, December 15, 2009



FUN FACTS about CARBON DIOXIDE

Of the 186 billion tons of CO₂ that enter earth's atmosphere each year from all sources, only 6 billion tons are from human activity. Approximately 90 billion tons come from biologic activity in earth's oceans and another 90 billion tons from such sources as volcanoes and decaying land plants.

At 380 parts per million CO2 is a minor constituent of earth's atmosphere— less than 4/100ths of 1% of all gases present. Compared to former geologic times, earth's current atmosphere is CO2- impoverished.

CO2 is odorless, colorless, and tasteless. Plants absorb CO2 and emit oxygen as a waste product. Humans and animals breathe oxygen and emit CO2 as a waste product. Carbon dioxide is a nutrient, not a pollutant, and all life— plants and animals alike— benefit from more of it. All life on earth is carbon-based and CO2 is an essential ingredient. When plant-growers want to stimulate plant growth, they introduce more carbon dioxide.

CO2 that goes into the atmosphere does not stay there but is continually recycled by terrestrial plant life and earth's oceans— the great retirement home for most terrestrial carbon dioxide.

If we are in a global warming crisis today, even the most aggressive and costly proposals for limiting industrial carbon dioxide emissions would have a negligible effect on global climate!

Source: http://www.geocraft.com/WVFossils/ice_ages.html

So - I agree with all of you, and all concerned citizens of the planet, that we should not waste precious energy or any other natural resources; that we should try hard not to pollute the waters with our chemicals; that we should tread lightly on the earth and be good stewards for all the unborn generations to come. And yes, let's all love this beautiful planet and each other, as much as we can.

But the idea that our CO2 production is affecting global weather doesn't even begin to add up. Not even close. Here's why:

I always liked Michael Crichton's great analogy:

Suppose, he wrote, that our atmosphere is a football field, 100 yards long. You catch a kickoff on your own goal line and start running. Until you reach the 78-yard line you are running through nitrogen. Then through oxygen to the 99-yard line. Before you enter the end zone, you finally run through the last yard. But almost all of that is the inert gas argon. That will get you to three inches from the goal line. How much of the last three inches does the CO2 take up? One inch. How much has that one inch of CO2 supposedly increased in the last 50 years? The width of a pencil.

That's it. Out of 100 yards of atmosphere - all the CO2 in it only equals about 1.25 inches. And the part we humans add every year would barely equal the thickness of a human hair on that field. And yet you are asked to believe that this tiny change has driven the planet into a dangerous warming pattern.

So you want to sit there and worry yourself to death over atmospheric CO2, and our contribution to it? Not me.

At the very top levels of this CO2 scam, where they are trying to pass all these international laws to control your life, and lay on all these heavy taxes to take away your economic power and freedom, it's all about their sick dreams of control and domination. These kinds of people are obsessed with power, they are addicted to it, and in their lust and ignorance they think they know how to run your life better than you do. But they don't!

These parasites have been conniving for control of others ever since mankind started the first societies. And this global-warming-CO2 scam is just their latest scare to get you to give up and go along and do as you are told. And they want to FORCE you to do it.

Don't let them. Think for yourself. Check the numbers for yourself. Don't let them scare you into mindless socialist slavery.



Government rebates for diesels

written by [Helen](#), December 16, 2009



The US government is giving rebates on the purchase fuel-efficient cars, including hybrids and diesels. The VW Jetta TDI (Diesel) is rated at 47 mpg on the highway. You might think that such great gas mileage would help with global warming, but you have to factor in the fact that diesel produces more CO2 per gallon than gasoline.

<http://www.scienceandmoney.com/2009/12/15/fahrvergnugen/>



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written by [Richard](#), December 16, 2009



I agree that people lack the motivation to go green and save the planet. While it's true that progress in Copenhagen is being achieved, it's still all talk. We need to see the "walk" that these states' peoples' would take.



Great work EcoGeek!



written by [VeruTEK Green Technologies](#), December 16, 2009
I strongly agree with her answer on Cap and Trade. It is so vital that the U.S gets that right. Each year the support behind Kyoto Protocol grows. I just hope it isn't to late by the time every nation follows the Protocol.



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written by EV, December 16, 2009
If they want a successor to Kyoto, fix the flaw where CO2 is billed against the country it is released in and not the country where the goods are used in. In this way, the countries that produce goods most efficiently in terms of CO2 are not penalized for being able to manufacture more compared to less efficient countries who would otherwise be below their carbon cap despite being less efficient.

For example, Europe and the US import a lot of good from China. They're only measured on the CO2 emitted in they're countries, not on their actual carbon footprint. If you want a protocol that works, require a Kyoto style protocol based on the countries CO2 footprint and not the amount of CO2 released in that country.

This also has the effect of treating goods manufactured locally and goods imported the same way. In this way, you do not have a defacto encouragement to export manufacturing to China and India where many forms of manufacturing are much less efficient than in the first world.



@Fran: CO2 is currently lowest for 500 mega years
written by Gelrod, December 17, 2009
Fred is correct. Most of the coal deposits that we are currently mining were created during the Carboniferous and Permian periods of geological time. At that time, the heavy CO2 load allowed massive growth of vegetation - hence the coal we have now.

There is no proof that CO2 is the causative forcing agent for the current warming we are experiencing. In fact, the ice core analyses from Antarctica show that warming precedes CO2 increases, as if the CO2 increased in response to the increased temperatures.



Carbon trading = business as usual, Graciela.
written by Lakin, December 25, 2009
"The principal economic incentives offset trading provides are not for technological or social innovators to seek transitions to low-carbon futures, but rather for carbon consultants and policymakers to find or invent new "emissions reduction equivalents" that can be used to manufacture substantial blocks of cheap carbon credits for sale to conventional industries or financial speculators."

Anyone interested in a straightforward assessment of how the Carbon Market (soon to be the largest market on earth) developed in Kyoto and beyond does not work to reduce emissions, and could lead to the same financial instability as we have just experienced or worse due to problems with carbon accounting, should read "Carbon Markets: the policy reality" an article by Larry Lohmann (google it). Lohmann is a leading voice on world carbon trading.



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