Can Economics Value Human Survival? ~ An Interview With Graciela Chichilnisky

Climate change threatens human survival and the existing economic arrangements and values are directly responsible for this sad state of affairs, argues Graciela Chichilnisky, author of the Kyoto Protocol Carbon Market and a world authority on climate change, in the interview that follows. Moreover, Professor Chichilnisky thinks that a new global economy based on "green capitalism" is not only possible but absolutely essential for the future of the planet. Graciela Chichilnisky is Professor of Economics and of Statistics at Columbia University, Visiting Professor of Economics at Stanford, and co-founder and CEO of Global Thermostat.

Marcus Rolle: Professor Chichilnisky, can you discuss what might be some of the long-term effects of climate change on global economic activity?

Graciela Chichilnisky: The effects of climate change on global economic activity are profound and widespread and can be counted in the trillions of dollars, including losses of property from flooding, droughts and fires and other catastrophic events such as typhoons and tornadoes that have become more intense, more frequent and more volatile due to a warmer atmosphere and hydrosphere, which contain more energy. Think of New York City with three Sandy Superstorms per year. Firms and schools will be closed for most of the year, the police will be out of action, there will be no electricity, cars will be floating in the streets, etc. In sum, New York will not be a working city. The effects are incalculable. But the problem is larger than the dollar value of storms and floods and weather events because of the hundreds of millions or billions of lives that are either ruined or lost and the incalculable damage done to our political and social institutions and structures that make up the fabric of human civilization.

MR: There are several studies indicating that global warming impacts adversely on productivity and impacts negatively on global GNP per capita. Aren't we throwing money around by not addressing global warming?

GC: Climate change will have indeed serious adverse effects on the economy and, in a recent OECD study, the value of losses of property in the world's leading cities alone are in the trillions of dollars, including those in Miami Florida and Shanghai China. So, in this sense, we are definitely throwing money around. In reality, however, the whole concept of GDP and of economic value that we use today is suspect and many expect it to change sometime soon. I do.

MR: Developing countries are most likely to absorb much of the losses caused by climate change. If so, how will this development impact on migration flows to developed countries?

GC: I believe that among the first and worst effects of climate change that we will witness will be massive migration movements of tens or even up to hundreds of millions of people from poor nations badly affected by climate change into rich nations and, subsequently, the manifestation of extremist political processes in the latter nations as a result of these migration waves. Indeed, the process has already started, and, the war in Syria, which caused the massive migration of over 1million people into Europe, came in the aftermath of an unprecedented in terms of severity four-year drought that left millions desperate, with no jobs, food, or hope, forcing them in turn to flee for their lives. These unprecedented migration waves of refugees have already led, as I predicted in an earlier article, to political extremism both in Europe and the United States. Brexit is perhaps the most direct and explicit consequence of these developments, but there are others as well. We are witnessing the direct political consequences of radical extremism on the political stage in Europe and the United States right now. Climate change means that this pattern will continue and amplify and it can easily lead to the destruction of Western democratic values and of our most important governance institutions. This, in my view, is one of the most immediate, direct, dangerous and destructive effect of climate change as our entire social fabric and institutions, the very foundations of human societies as we know them, are at risk. All this can happen — and is in fact already happening very quickly –, and it can be, and probably will be, devastating to human societies. Humans will not disappear and become extinct without violence and conflicts and wars can be expected. Of course, most people have trouble imagining how this will develop as

the physical survival of some human groups is still likely, but not when it comes to human civilization itself if the trend continues and prevails. Think of the follow-up effect of the massive asteroid that is believed to have hit Mexico about 60 million years ago and to have led to the disappearance of the dinosaurs, which were a globally dominant species at the time as we are now. Massive dust clouds stopped sun rays and the earths' main source of energy. Millions perished. It is generally thought that the dinosaurs who could fly and overcame the lethal dust created by the impact of the asteroid are now still around and can be seen as birds, for example chickens. Will humans become the chickens of the future? Possibly.

MR: There are concerns among many analysts that rising temperatures will also likely contribute to increased human conflicts. Do you share this view?

GC: Indeed, climate and natural resources like water and oil are believed to have been in the past and are in the present the main source of human conflicts and wars.

MR: You have been arguing that the Bretton Woods institutions created after World War II have been major contributors to climate change. Can you elaborate a bit on this?

GC: The Bretton Woods institutions were created after War World II in order to replace war with international trade, and they have surely succeeded in this mission beyond anyone's dreams and expectations. In fact, I don't know if their lead proponent and creator, John Maynard Keynes, imagined that they would lead to over three times more growth of international trade than the increase in world's GDP since then. This is what is often called 'globalization' in the period of human history since 1945. However, the enormous success of the Breton Woods institutions – the IMF, the World Bank, the WTO and others – while preventing another World War, have led to the global environmental crisis of our times. The current threats to the earth's atmosphere, to its bodies of water or hydrosphere, and to its biosphere, are almost a direct cause of the overwhelming increase in globalization and international trade that the Breton Woods institutions facilitated and encouraged, and often enforced. My daughter Natasha Chichilnisky-Heal created the concept of 'permeable government' to explain the Breton Woods institutions' direct effects in poor or developing nations and as a result the massive overexploitation of natural resources in those countries, overwhelmingly over-extracted for exports. She reported directly on the World Bank seating at the

table of the negotiations between Mongolia's government and the largest multinational resource company to force the signing of contracts with the largest copper mine in the world that is in Mongolia, a contract that resulted in putting the copper mine and its resources in the hands of the multinational company now led by the same World Bank official that immediately became the lead business executive. This should never have happened but, in reality, it occurs every day, every week and every month of every year, and is directly causing the great environmental crisis of our times. Low resource prices in international markets for petroleum, minerals and metals lead to more over-consumption in the rich nations, which house 20% of the world's population, and more poverty in the exporting nations, which house 80% of the world's population. Extreme inequality in the world economy is accepted now as one of the worse failures of capitalism – which is in many other ways a very successful system -, the source of most of the ongoing political instability and probably the cause of its ultimate change. The environmental crisis of our times and the extreme widespread poverty that has 1.3 billion people without access to electricity and indeed below the consumption level of basic needs and at the brink of survival, i.e., the extreme global inequality, are intimately connected and one cannot be resolved without resolving the other.

MR: One of your visions is the creation of a Green Global Economy. How can we create such economic arrangements and institutions, and what will it take to accomplish this task.

GC: We need to create global markets to protect the earth's water, the atmosphere and its biodiversity. This means putting limits on the use of water, of biodiversity and of the atmosphere to emit CO2; the latter is required for what is called the *carbon market* which I designed and wrote into the United Nations Kyoto Protocol, which became international law in 2005. These three markets will limit the overuse of fundamental resources – which is mostly within rich nations or by consumers in rich nations – of three key resources on which human survival depends: (1) food, without which we cannot survive for more than a few weeks, (2) drinkable water, without which we cannot survive for more than a few days, and (3) breathable air, without which we cannot survive for more than a few minutes. Our economic systems are sufficiently out of date that they generally give zero value to all three necessities. Therefore, economic success today means optimizing GDP with zero value for the very resources on which human survival

depends. In other words, our economic success may lead directly to human extinction — and possibly will. The three markets I propose (one of which, the carbon market, is already international law) can change our outdated economic values since new market prices and a new GDP arise from those three markets for clean air, water, and biodiversity. Economic success can be then be redefined and aligned with human survival. It seems a natural idea and, in my view, it is necessary and is urgent to implement it now. It is possible, as some of these markets already exist, even though they need expansion and more organization.

MR: Does this mean that the new global economy will be a post-capitalist economy since new economic values will surface?

GC: Yes. Green capitalism is the word I tend to use. The key is the market prices and the new values that come from new markets where we trade 'privately produced global public goods' – the use of water bodies, atmospheric use and the use of biodiversity. These markets limit consumption (which comes mostly from the rich nations) and prominently and explicitly require appropriate distribution of property rights or use rights in favor of the poor, for efficient performance. I have written many articles and even published a book titled "Environmental Markets Equity and Efficiency" with G. Heal on this topic.

MR: Will the creation of an alternative global economy imply an end to growth?

GC: The measurement of GDP, and therefore the concept of GDP growth, will change with the introduction of the three new markets mentioned above. Subsequently, growth will have a different meaning, a different form, and will no longer mean the wanton and relentless destruction of environmental resources. So the creation of an alternative global economy does not mean the end of growth, since growth will continue redefined, although it does mean the end of growth as we know it today.

MR: Are you optimistic that the current political environment prevailing in the United States and much of Europe is conducive to combating effectively climate change and charting a new course of global economic activities that would be congruent with the needs of the environment and the urgent task of reducing and removing greenhouse gas emissions from the air?

GC: I am optimistic that it will happen, yes. But I am not optimistic about the timing and nobody knows whether we have already crossed the point of no return.

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Graciela Chichilnisky is Professor of Economics and of Statistics at Columbia University, Visiting Professor of Economics at Stanford University, Founder and CEO of Global Thermostat, and the architect of the Kyoto Protocol Carbon Market.

See: www.chichilnisky.com