

Cutting the Gordian Knot: Two Addictions at the Root of Our Climate Change Problem

Written by Morten Tonnessen

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MORTEN TONNESSEN, JAN 27 2013

Interest internationally in environmental issues including climate change has tended to evolve in waves and slumps. These developments are reflected in membership totals for environmental NGOs, the extent and intensity of media coverage, and, noticeably, political will to commit to ambitious plans and significant societal change. The last wave crest arguably coincided with the Copenhagen climate summit in 2009, the so-called COP15 or 15th Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC). A majority of concerned scientists, activists and politicians all employed a real hope that the international community would finally get around to commit to make the necessary changes in policy. As we all know, no such turning point was accomplished. The sentiment at the time of the Doha summit (COP18) in December 2012 was very different (for a recent *International Relations* article on the Doha summit, see The “Doha Miracle”? Where are the Women in Climate Change Negotiations? by Katharina Höne). The Kyoto protocol, which first commitment period (2008-2012) was about to run out, was nominally renewed for a second commitment period (2013-2020), but it included no new national commitments beyond what EU countries and the other implied countries had already committed to, and the Kyoto I countries Japan, Russia, Canada and New Zealand chose not to take part. It is symptomatic that a major news TV channel such as the CNN did not even report the agreement that had been reached. The new protocol covers only 14% of global carbon dioxide emissions, and is of marginal importance compared to Kyoto I, which was itself criticized by environmentalists and scientists for not being ambitious enough.

The UNFCCC was adopted at the Earth Summit in Rio de Janeiro, Brazil, in 1992 (for a recent *International Relations* article on the UNFCCC process and its prospects, see 2015 the New Copenhagen? The UNFCCC Process Risks Falling into Faulty Patterns by J. Jackson Ewing). 2012 was thus the year of Rio+20, a follow-up to the first Earth Summit and officially a United Nations Conference on Sustainable Development, yet again hosted by Brazil. However, no major breakthroughs were made there either. Environmentalists at large appear to hope that the lackluster performance of recent international conferences on environmental issues is indicative of a slump in the interest in these issues internationally, and that the public's interest in such matters will soon grow again.

Given the described stalemate, one would perhaps think that the state of the Earth has improved in the last few years, and thus that the current prospects of future generations of humans and non-humans have improved. That could indeed have been a valid reason for not taking action – if, that is, a business as usual scenario actually had good results to show to. At least as far as climate change is concerned, however, that is not at all the case. Emissions of greenhouse gases in general and carbon dioxide emissions in particular keep on increasing year after year [1], as does the atmospheric level of carbon dioxide [2]. In consequence, average global temperature still shows a clear long-term warming trend [3]. This is all well-documented, and there is considerable consensus in the scientific community about the basics of these correlations. Nevertheless there is heated debate about them, largely due to Big Oil lobbying, advertising campaigns etc., and a worryingly widespread and not unrelated anti-scientific sentiment. The facts, however, support two interrelated observations that are fundamental in deep ecology: That our present interference with the non-human world is excessive and the situation rapidly worsening, and that policies affecting basic economic, technological and ideological structures must therefore be changed [4].

The Economic Problem

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In order to understand the driving forces behind anthropogenic (in other words human-made) climate change, we have to start by grasping the driving forces – or at least the fundamental development – in the economy. The connection between economic growth and environmental problems has been discussed ever since the publication of *The Limits to Growth* in 1972 [5]. The most reliable historical data on Gross Domestic Product (GDP) figures were gathered and processed by Angus Maddison (1926-2010) [6], whose work is presented by the Groningen Growth and Development Centre. Revised estimates based on his groundbreaking work have recently been published by Bolt and van Zanden [7]. Measured in Purchasing Power Parity (PPP), a technique which displays the real GDP understood as the value of an economy's production at fixed prices, their data shows that average GDP per capita globally has declined only in four years since 1950. In other words, humanity as a whole has on average experienced economic growth all years since 1950 except these four years – namely in 1975, 1982, 1991 and 2009. By this measure average global wealth per capita has doubled since 1970 and tripled since 1955. Meanwhile world population has increased from 2.8 billion in 1955 via 3.7 billion in 1970 to some 7 billion today [8], which in sum means that the size of the world economy as a whole has grown seven- or eightfold since 1955 and almost fourfold since 1970.

In the essay 'Economic possibilities for our grandchildren', written during the depression, John Maynard Keynes envisioned that "the economic problem", the struggle for subsistence – which had always up till then been the primary, most pressing problem of the human race – "may be solved, or be at least within sight of solution, within a hundred years" [9]. 83 years have now passed. "If the economic problem is solved," reasoned Keynes, "mankind will be deprived of its traditional purpose" – "for the first time since his creation man will be faced with his real, his permanent problem – how to use his freedom from pressing economic cares, how to occupy the leisure, which science and compound interest will have won for him, to live wisely and agreeably and well." It is arguably the case that more than half of all the economic activity that has ever taken place – since the birth of humankind – has taken place since the publication of Keynes' essay [10]. We have reached our "destination of economic bliss". And yet, there is no end in sight. The aim of pursuing (endless) economic growth has been universally acclaimed across the globe, as a primary attachment of our time.

As we have seen, there is a correlation between post-war economic growth and the steady increase in emissions of greenhouse gases we witness, and there is further a correlation between the increase in emissions of carbon dioxide, for one thing, and the somewhat similarly increasing atmospheric level of carbon dioxide. These correlations are not static or simple, but they exist – and this is a scientific fact. Why, then, have we seen so little progress in our collective handling of climate change? Keynes' wise words point to a partial answer: Overall, in 2013, there is no lack of wealth anymore; the socioeconomic problems that occur are a result of poor distribution of wealth internationally. But since we have in this sense solved the economic problem, we have been deprived of our traditional purpose – the struggle for subsistence. While this *should* be good news to any thinking politico, it is arguably the case that we as humanity, in other words as one international community, have so far not dared to face our permanent problem – in Keynes' words, how to use our new-won freedom to live wisely and agreeably and well. Had that been the case, why would even the richest countries on Earth keep pursuing seemingly endless economic growth, despite the well-documented detrimental effects on the environment [11] and so-called happiness studies indicating that people in rich countries are not getting much happier once a certain level of wealth has been attained? The fact is that our societies and our political systems are addicted to economic growth. And this may in turn be viewed as the deepest of all the roots of the climate change problem that we are currently facing.

Our Two Addictions

The pursuing of economic growth in an already more-than-wealthy country – say, Norway – is both wasteful and unjust. It is wasteful because the additional use and movement of material resources does generally not result in a happier population, and it is unjust in so far as one nation's exploitation of resources limits another nation's exploitation of resources. For instance, when Norway's government aims to extract practically as much of its petroleum resources as is technically feasible, this implies that other, poorer nations will not be able to do the same if an international agreement is at some point made that prohibits such maximized petroleum extraction. Given that even the International Energy Agency (IEA) now says that 2/3 of all fossil fuels will have to stay in the ground if we are to avoid a 2^o+ increase in global average temperature [12], this is not an altogether unlikely future policy.

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Besides being addicted to economic growth, present societies are also generally addicted to fossil fuels. Two addictions thus combined constitute a Gordian knot in the root system of the climate change problematic. Can we cut the Gordian knot, and decouple these two addictions? That would amount to becoming able to think clearly about climate change. In essence the challenge we are facing given anthropogenic global warming is simple: We have to phase out our use of fossil fuels, at least to a very substantial degree. But the discourse about solutions has been muddled by the power of fossil fuels lobbyists and our addiction to fossil fuels. As an example, the concept of Carbon Capture and Storage (CCS) has become a focal point in the debate (as well as in research), giving false hope that the climate change problem can be overcome *without* phasing out our use of fossil fuels. Naturally, the commercial interests that some companies and some countries have in saving the fossil fuels industry, or prolonging it for as long as possible, explain why we are discussing CCS at all. And while we are waiting for mature CCS technology or the perfect techno-fix which saves our fossil fuels-based civilization, business as usual is the default policy – and the climate change problem grows. The CCS discourse is a distraction, and one that may cost us dearly.

Cutting or untying the Gordian knot would not solve all our problems with regard to environmental issues. But if we succeed in decoupling our addiction to economic growth and our addiction to fossil fuels, we would at least be able to envision the low-carbon economy that has now almost become official orthodoxy on realistic terms. No matter how we approach climate change, it is crucial that other central environmental concerns, including nature conservation, are not sacrificed in the process of phasing out fossil fuels. After cutting the Gordian knot that is our current dual addiction, however, we would be faced with another challenge: Namely, how we are to reinvent our economic system. The current growth model served us well for a long time, but it does not do so anymore. At the very least this is the case for all already more-than wealthy countries. And besides, the quicker we make a transition to a truly sustainable economic system – one that does not depend on endless growth – the easier it will be to phase out our use of fossil fuels in time to avoid catastrophic climate change.

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