

Escaping The Road To Extinction

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25 October, 2005 -- Bill Henderson (first published in Countercurrents.org)

"The Gaia hypothesis is a biological idea, but it's not human-centered. Those who want Gaia to be an Earth goddess for a cuddly, furry human environment find no solace in it. They tend to be critical or to misunderstand. They can buy into the theory only by misinterpreting it. Some critics are worried that the Gaia hypothesis says the environment will respond to any insults done to it and the natural systems will take care of the problems. This, they maintain, gives industries a license to pollute. Yes, Gaia will take care of itself; yes, environmental excesses will be ameliorated, but it's likely that such restoration of the environment will occur in a world devoid of people." - Lynn Margulis "Gaia is a Tough Bitch," in *The Third Culture*, John Brockman, ed.

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Terrorism annually kills and injures minor hundreds or thousands although there is a potential death toll in the hundred thousands or low millions possible from some variety of dirty bomb in crowded cities. The next global flu epidemic could kill millions, probably tens of millions. But there is a tsunami building which threatens billions - maybe, in the darkest scenarios possible, all of us, humanity and most of our fellow flora and fauna on this planet too. Fighting terrorism is the new growth industry; avian flu has precipitated global public health planning and preparedness. But escaping the path to extinction isn't possible because our lifestyle is not negotiable. Man's exponential increase over the past several centuries will outgrow the planet's carrying capacity, probably in our time. Animal populations that bloom exponentially usually crash. Increasing population armed with powerful technologies will cause severe resource depletion and large scale changes to the biosphere engendering die-off. Famine, disease and most probably war - a final, nuclear, world war? - will be the immediate cause of death for billions of innocents.

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America's foremost scientist E.O. Wilson describes navigating this passage of expanding humanity constrained in a finite world in his Bottleneck metaphor for the 21st century. William Catton Jr's brilliant OVERSHOOT is now available in chapters all over the net because of its usefulness and clarity in applying ecological understanding of our present global predicament.

Unfortunately, this bigger picture, which should be the context for all our day to day decision making, is heresy in our predominant religion of expanding economies. We can't even really be allowed to think these thoughts.

For example, both global warming and imminent severe oil depletion require a rapid transition away from fossil fuels to more sustainable sources and use of energy, yet subsidies for the oil industry continue to dwarf investment in alternative energy development, and global oil demand relentlessly increases.

In the terminology of the system science concept path dependence *, so much has been invested in oil development and especially in oil dependent infrastructure in our developed world economies that because of these 'sunk costs' we are 'locked-in' to a fossil fuel economy. It is not just the trillions already sunk in the oil production and distribution networks, but, much more importantly, it is the incalculable investment over a century in a car dominated society, suburbia and sprawl, in "the greatest misallocation of resources in the history of the world" .

Service sector path dependence compounds the problem. Democratically elected governments of service sector economies are severely restricted to inherited policy paths because change that would negatively effect local economies by even minor percentage points will lead to politically dangerous business closures with depressed government revenues and societal pain requiring increasing governmental expenditure.

Service sector economies are so complex, interdependent and vulnerable that we are evolving governance as a protective inertial system within which the economy is the primary concern and is nurtured to grow in its own mysterious ways. Insidiously, business and government adopt versions of Fedspeak where the primary goal is not to say anything that could possibly be harmful to the economy.

Our economies are incredible human achievements producing the cornucopia of individual and societal wealth we are so very fortunate to enjoy. The market mechanism is central to the development of our rich economies and the needed transition away from a fossil fuel economy cannot be made without the utility of markets.

But only ideologues believe that unregulated markets will always lead to the optimal possible sustainable economy. Clearly with the powerful greenhouse gas methane now being released from melting tundra threatening potential runaway global warming it must be acknowledged that market mechanisms never quantified the negative greenhouse gas potential of fossil fuel use. If no regulatory action is taken and we continue down the fossil fuel path, there is a now well understood and predictable runaway global warming possibility where humanity and most forms of life on Earth are doomed, are toast in the not too distant future.

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Path dependence is the largely unrecognized but primary impediment to needed change. It is crucial to understand the limitations of trying to make needed change incrementally, of muddling through. We can't, aren't getting to a post-fossil fuel economy in time by staying on the fossil fuel policy path.

Those concerned with both global warming and peak oil must be innovative to free up governance so that necessary change is possible, so that more futures are possible. Lester Brown's Plan B -

a wartime-equivalent rational-comprehensive governmental framework - is one example of a governmental reconfiguration where there is a possibility of rapid change to a post-fossil fuel economy.

Freeing up our ability to make needed change is the first challenge and then - How do we rapidly evolve the governance framework to manage man and create a sustainable economy so that we don't destroy the natural systems humanity is ultimately completely dependent upon?

"EM (ecosystem management) technology will probably emerge as more important to people than either the technology of the communications revolution or biotechnology because of its potential usefulness in guaranteeing a livable environment."

Yale forestry professor John Gordon DEFINING SUSTAINABLE FORESTRY 1993

"The evolutionary paradigm is different from the conventional optimization paradigm popular in economics in at least four important respects (Arthur 1988): 1) evolution is path dependent, meaning that the detailed history and dynamics of the system are important; 2) evolution can achieve multiple equilibria; 3) there is no guarantee that optimal efficiency or any other optimal performance will be achieved due in part to path dependence and sensitivity to perturbations; and 4) ?lock-in? (survival of the first rather than survival of the fittest) is possible under conditions of increasing returns. While, as Arthur (1988) notes "conventional economic theory is built largely on the assumption of diminishing returns on the margin (local negative feedbacks)" life itself can be characterized as a positive feedback, self-reinforcing, autocatalytic process (Kay 1991, G?nther and Folke 1993) and we should expect increasing returns, lock-in, path dependence, multiple equilibria and sub-optimal efficiency to be the rule rather than the exception in economic and ecological systems."

Costanza et al. Modeling Complex Ecological Economic Systems.

BioScience 1993

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