POLITICAL ECONOMY

The Eco-suicidal Economics of Adam Smith

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In the midst of the record-breaking heat wave in the summer of 2003, George Monbiot, the renowned columnist for the London *Guardian*, penned a short but eloquent essay entitled "Sleepwalking to Extinction." Monbiot wrote:

We live in a dreamworld. With a small, rational part of our brain, we recognize that our existence is . . . destroying the conditions for human life on earth. Were we governed by reason, we would be on the barricades today, dragging the drivers of Range Rovers and Nissan Patrols out of their seats, occupying and shutting down the coal-burning power stations, bursting in upon the Blairs' retreat from reality in Barbados and demanding a reversal of economic life as dramatic as the one we bore when we went to war with Hitler.

But despite the frightening trends and increasingly desperate pleas from the world's scientists, the world's corporate and political leadership show no sign of abandoning denial and adopting "reason" nor scrapping business-as-usual to mobilize against catastrophe. The ritual has now become depressingly familiar and predictable: After each new "shocking" report on melting icecaps, the slowing Gulf Stream in the North Atlantic, eco-devastation in Africa or China, "concerned" politicians call for "immediate action" and "drastic steps" to curb emissions but then do nothing of substance. Successive post-Kyoto talks begin with urgent pleas from devastated Third World peasants and expert scientists, then collapse in disagreement. At every turn, the priority of growth and profits overrides every ringing alarm, and society carries on in its "sleepwalk to extinction." In the latest rehearsal of this charade, the United Nations talks on climate change in Nairobi in November 2006 collapsed with no firm targets adopted and every issue of any seriousness postponed yet again. Then-UN Secretary-General, Kofi Annan, decried the assembled ministers as "frighteningly timid," "lacking in leadership" and said they displayed "a failure of political will." One Greenpeace observer remarked that "the glaciers in Greenland are moving faster than the negotiators."

The Nairobi session came just after Britain's Treasury Secretary and former World Bank chief economist, Sir Nicholas Stern, sounded the latest alarm with his own blistering report laying down a challenge to Britain, the U.S., and developing nations like China and India that the planet faces imminent catastrophe unless urgent measures are taken to reduce greenhouse gas emissions immediately. Stern's warning went beyond restating an apocalyptic vision of hundreds of millions fleeing floods and drought; it struck at the heart of the corporate resistance to environmental measures by demonstrating that the cost of inaction could result in the permanent loss of perhaps 20 percent of global output, while the cost of preventive action right now is as little as 1 to 2 percent of global gross national product (GNP). By illustrating the huge *economic* cost that inaction will impose on the industrialized economies, Stern's report should have

knocked the last leg out from under the "environment versus economy" argument. Reiterating the conclusions of the UN Intergovernmental Panel on Climate Change (IPCC) scientists, Stern warned that just to stabilize CO₂ and other greenhouse gases in the atmosphere at between 450 and 500 parts per million, we will have to cut global emissions by 25 percent and wealthy country emissions by 60 percent by 2050. Presenting the findings in London, Prime Minister Tony Blair said the consequences of inaction were "literally disastrous" and warned:

This disaster is not set to happen in some science fiction future many years ahead in our lifetime. We can't wait the five years it took to negotiate Kyoto—we simply don't have the time....Without radical measures to reduce carbon dioxide emissions in the next ten to fifteen years, there is compelling evidence to suggest that we might lose the chance to control temperature rises."

The Stern report came just as the International Energy Agency announced that China, which is commissioning a new coal-fired power plant every five days, will surpass the United States in 2009—nearly a decade ahead of previous predictions—as the world's biggest emitter of carbon dioxide. Largely because of China's growth, the Global Carbon Project reported in the November 13, 2006 issue of *Nature* that "Global carbon emissions are now growing by 3.2 percent a year . . . That's four times higher than the average annual growth of 0.8 percent from 1990-1999. . . We are not on any of the stabilization paths." Professor Bill McGuire, director of the Benfield Hazard Research Center in London, said: "This is more very bad news. We need a 60 to 70 percent cut in emissions, but instead, emission levels are spiraling out of control. The sum total of our meager efforts to cut emissions amounts to less than zero."

The Necessity of Hypocrisy

So what sort of "radical measures to reduce carbon dioxide emissions in the next ten to fifteen years" do Blair and Stern propose to stop this onrushing catastrophe? None. After all their rhetoric about impending catastrophe, the best they could do was call for more "carbon pricing," "more research into new technologies," and "robust international agreements." They specifically rejected mandatory limits on emissions as "too inflexible" and—most crucially—have nothing whatsoever to say about the implications of inexorable growth.

On the face of it, this was a completely inadequate response to the crisis, and Blair was immediately chastised by his own party for resisting binding targets. After all, carbon pricing schemes, notably in the EU, have already proved to be a colossal failure since economic growth has just barreled through the Kyoto carbon "limits." And what possible technical breakthroughs could cut global CO₂ emissions by 60 percent, particularly in the ten-to-fifteen-year timeframe Blair says we must act in order to save ourselves, when China is adding a new coal-fired power plant every week and the United States is building new coal-fired power plants as fast as possible? Nearly everywhere, we see that despite the increased energy efficiency and installation of pollution controls in cars or power plants, without limits to growth these gains are outstripped by ever-

increasing production. So instead of CO₂ emissions falling, globally emissions are actually accelerating. And CO₂ emissions are only one—and perhaps not the even the worst—of the oncoming ecological catastrophes we face. Around the world, forests are also vanishing, clean water is disappearing, coral reefs are dying off, species after species is being driven to extinction, resource after resource is being exhausted, while everywhere the natural world is being systematically plundered and sacrificed to the god of relentless growth, profits and consumption.

The Inconvenient Truth Al Gore Does Not Want to Face

Blair's contradictions are entirely predictable, rational, and necessary from the standpoint of his capitalist perspective, because the problems he faces are systemic, built into the logic of capitalist economics, and thus unsolvable within the framework of capitalism. The solution to the threat of global warming is obvious: The only way to cut emissions by 60 to 70 percent in the next ten to fifteen years—barring some as yet unknown technical miracle—is by drastically cutting production, output and consumption, particularly in the advanced industrial economies. Al Gore says we face an "inconvenient truth": consume less, conserve more—or die. The problem is the admonition to consume less has to translate into the reality of consuming less—less oil, electricity, steel, aluminum, wood, paper, plastic, fabric, beef, fish, and so on. That, in turn, can only mean producing fewer cars, airplanes, kitchen remodels, fashions, resort vacations, TVs and TV shows, hamburgers and Starbucks Frappuccinos—i.e., converting less of nature into consumable commodities to give the fish, forests, oceans, atmosphere, and all the other natural resources exploited to support the capitalist consumer lifestyle. This is the *really inconvenient* truth that no investor, labor union, government, mainstream environmental organization, nor anyone of us—including Al Gore—wants to face. But this is the truth we have to face if we want to survive.

Despite the difficulty such a massive challenge poses, it does not mean that people have to starve. On the contrary, if we do *not* make these cuts and restructure the global economy, not only will millions soon die from starvation, floods, drought and other catastrophes, but the capitalist engine of eco-destruction will drive humanity to the brink of collapse, if not extinction.

But given the requirements of capitalist reproduction, particularly the need to meet shareholder demands for growing profits, no corporation can cut production and stay in business. Furthermore, any broad effort to slow production and consumption would only bring on market collapse and economic depression. So, as long as Blair, Stern, Al Gore, and the rest of the corporate and political elite are committed to maintaining and perpetuating global capitalism as their first and foremost priority, they have no choice but to subordinate the environment to growth and consumption, override their own environmental targets, turn themselves into hypocrites, and doom the future of humanity. To imagine, as they do, that technical innovations, carbon taxes, "green shopping" and the like will allow production and consumption to spiral endlessly upward and consume ever more resources while pollution and emissions spiral

downward is to live in a delusional dreamworld of faith-based economics that has no empirical basis.

Through most of human history up to around the 17th century, humanity suffered from class structures that put brakes on productivity growth, institutionalized *underproduction* as a regular feature of economic life, and so brought on periodic famines and demographic collapse. But since the advent of the capitalist mode of production, humanity has both benefited—but also increasingly suffered—from the opposite problem: crises and consequences of *overproduction*, which have typically taken the form of economic crashes and depression. Today, this engine of relentless technological revolution and productivity growth has built an economy of such power, capacity and scale that it is systematically destroying the very ecological basis of human life.

The Smithian Operating System

To understand why the free market can't solve our global environmental crisis, the place to start is with an examination of the logic and contradictions of capitalist economics—the economics of Adam Smith. Needless to say, Smith can't be held responsible for the problems and consequences of capitalist development. But Smith's economic theory is a metonym—the language of capitalism, its intellectual "operating system." For it was Smith, the original and foremost theorist of capitalism, who first discovered and elaborated the organizing principle of capitalist economic life, which he famously termed the "invisible hand." Smith found it remarkable that in what he called "commercial society" (what we today call capitalism), no one looks out for the "general welfare" of society as such. Yet somehow, the provision of the necessities of life—e.g., enough food, clothes, housing, and transportation—so that society can carry on from day-to-day and year-to-year seems to more or less *unconsciously* get taken care of. In some of the most famous phrases in all of economic literature Smith asserted:

In almost every other race of animals each individual, when it grows up to maturity, is entirely independent, and in its natural state has occasion for the assistance of no other living creature. But man has almost constant occasion for the help of his brethren, and it is in vain for him to expect it from their benevolence only. He will be more likely to prevail if he can interest their self-love in his favour, and shew them that it is for their own advantage to do for him what he requires of them. Whoever offers to another a bargain of any kind, proposes to do this. Give me that which I want, and you shall have this which you want . . . and it is in this manner that we obtain from one another the far greater part of those good offices which we stand in need of. It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but of their advantages . . . (Smith, *Wealth of Nations*, Book 1, Chapter 1, p. 14.)

And again that:

Every individual . . . neither intends to promote the public interest, nor knows how much he is promoting it. . . He intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention. Nor is it always the worse for the society that it was no part of it. By pursuing his own interest he frequently promotes that of the society more effectually than when he really intends to promote it. (Smith, *Wealth of Nations*, Book IV, Chapter II, p. 423.)

Smith's insight, one of the most powerful and elegant concepts in the history of capitalist economics, grasps the essence of the market system—namely, production for exchange, specialized division of labor, and mutual dependence of all producers/commodity sellers/consumers upon one another through the market. This is what distinguishes the market system from all previous economic systems, such as communal tribal society, slavery, and feudalism—all of which were, in one way or another, systems based overwhelmingly on direct production for use rather than for exchange.

For example, in pre-capitalist economic systems like medieval agrarian Europe, farm production was planned and largely for direct use. The basic unit of rural production was the peasant family with its farm, rudimentary tools and livestock. Peasant farmers not only grew their own food but often made their own clothes, fabricated most of their own tools, and built their own houses. Peasants produced mostly for subsistence and, where they were enserfed, to pay rents to feudal landlords, tithes to the church, and sometimes additional obligations to the state. Beyond this, those who could produce and retain some surplus over subsistence, rent, and tithe obligations sold it in local town markets to procure the few necessities they could not produce for themselves on the farm or in the lord's demesne shops, such as metal for plows or tools. In the villages, patriarchal family households organized the day-to-day operations of farm life, determining which crops to grow and when, and assigning a division of labor within the family. They planned this production based on their foreknowledge of what their family unit needed to carry on from year-to-year—how much and what kinds of crops and animals to raise, and how much labor to devote to farming, husbandry, and building upkeep. More often than not, because village agricultural regimes required village-wide cooperation to regulate seasonal plantings, field rotations, harvest, and commons management, peasant farmers collectively planned and regulated their seasonal work rhythms in cooperation with their neighbors according to the custom and village bylaws in tightknit village communities. Throughout Europe, most rural agrarian output was directly consumed on the farm, in the hamlets and villages. The feudal aristocracy consumed the surpluses directly and marketed some of their surpluses in urban markets to purchase luxury goods and military equipment. In short, rural Europe, at least up to the 15th century, was in a sense a "planned" economy—or more precisely, consisted of masses of miniature planned village economies.

By Adam Smith's day in the late 18th century, rural peasant village self-sufficiency with its limited division of labor had largely given way to generalized production for market throughout England and much of Western Europe. In this new "commercial" economy, Smith observed that there is no general economic "plan." No one plans production for the self-sufficient family anymore. Production is now specialized and geared for the whole society—and it is to society that one must turn to satisfy one's own needs. No one knows how much wheat or wool, how many shoes, coats, ships, or wagons society needs, or when they are needed. No one consciously divides up and assigns society's labor to the various tasks of producing all that society requires over any given period of time. And yet out of the unconscious "mindlessness" of this system, a spontaneous order emerges. Society seems to be "guided by an invisible

hand" to produce more or less of these goods so that we can carry on from day-to-day to ensure social reproduction.

By the developing 18th-century capitalist economy of Adam Smith's era, most producers no longer possessed their own means of subsistence, or at least full subsistence. Masses of peasant farmers had been cleared off the land and proletarianized by centuries of enclosure movements. Peasant subsistence farms, with all their variety of produce, had been replaced with monocrop regimes of wheat farms or sheep folds. The hand loom weaver, village blacksmith and most small-scale hand manufacturers were giving way to large-scale factory production with a specialized division of labor and, increasingly in the late 18th century, mechanization. Without full access to the means of subsistence, everyone in capitalist society must specialize to produce a commodity for market or sell their labor power to work for an employer who does possess the means of production. So to win one's own bread in the capitalist organization of production, virtually everyone, including the capitalists, must continuously sell their specialized commodity on the market in order to continuously purchase their own means of subsistence and the means of production to re-enter production. In this way, all commodity producers/sellers are *dependent* upon the labor of others.

How do these specialist commodity producers/sellers know in advance how much of their particular commodity—wheat, cloth, bricks, horseshoes, board feet of lumber, barrels, etc.—society "needs" in any given year nor, therefore, how much they will sell. They don't. Typically they estimate from what they sold the previous year, and hope to sell their product for at least as high a price as others offering the same commodity. Thus, society's "need" for any particular commodity is determined after the fact by the price at which it sells, what Smith called "effectual demand." If demand and prices are high for some particular commodity, Smith says producers will "employ more labor and stock in preparing and bringing it to market." If demand falls, producers will "withdraw a part of their labor or stock from this employment" and redeploy those resources in some other line of production. So if the market is glutted with wheat, but wool is in short supply and prices are high, some farmers will turn to raising sheep. If demand is low for ships but high for houses, some carpenters will switch from building ships to building houses. And so on, until the supply and demand come roughly into balance, what economists today call "equilibrium." That's the beauty and efficiency of the market system, as mainstream economists never tire of telling us.

Engine of Development: Production for Exchange and its Imperatives

This mutual dependence of each and every person through the market entrains a number of powerful implications. Foremost among these are the implications that flow from *competition* in the marketplace. Commodity sellers don't have the freedom to charge what they wish, because they must be able to sell at prices close to the competition if they are to compete. The specific strategies and methods producers must adopt to survive against the competition shape the overall pattern of economic development of capitalism as a system and also distinguish it from every other economic system:

Producers must strive to *cut the cost of inputs*, which means seeking out ever-cheaper sources of raw materials and labor. Producers must continuously *increase the efficiency* of their units of production by innovating, bringing in more advanced labor-saving machinery to boost productivity, and substituting newer and cheaper raw materials inputs. So unlike the ruling classes of pre-capitalist economies, capitalists are not free to consume their surpluses in conspicuous consumption but must *reinvest much of their profits* back into productivity-enhancing technologies and skills to *develop the forces of production*. Competition compels producers to strive to grow by maximizing sales, expanding existing markets, seeking out and creating new markets and commodities—or see them developed by the competition, and thus see their stock value fall as the penalty for complacency. As eloquent as Adam Smith was, no one captured the broader developmental implications of capitalist economics better than Karl Marx. In some of the most prescient phrases in all of economic literature, Marx wrote in his *Communist Manifesto*:

The bourgeoisie cannot exist without constantly revolutionizing the instruments of production, and thereby the relations of production, and with them the whole relations of society. . . Constant revolutionizing of production, uninterrupted disturbance of all social conditions, everlasting uncertainty and agitation distinguish the bourgeois epoch from all earlier ones. All fixed, fast-frozen relations, with their train of ancient and venerable prejudices and opinions, are swept away, all newformed ones become antiquated before they can ossify. All that is solid melts into air, all that is holy is profaned . . . The bourgeoisie, during its rule of scarce one hundred years, has created more massive and more colossal productive forces than have all preceding generations together. Subjection of Nature's forces to man, machinery, application of chemistry to industry and agriculture, steam-navigation, railways, electric telegraphs, clearing of whole continents for cultivation, canalization or rivers, whole populations conjured out of the ground—what earlier century had even a presentiment that such productive forces slumbered in the lap of social labor?

By comparison, pre-capitalist modes of production contained no such engine of development or drive to "constantly revolutionize" the instruments and relations of production. Technological advance under slavery and feudalism was agonizingly slow, and economic stagnation was the norm. When productivity growth could not keep pace with population growth, economic collapse and famine followed. Even the Stalinist bureaucratic mode of production in Russia and China contained no such built-in drive to development. Post-revolutionary Russia and China rapidly developed and industrialized to a considerable extent, but the bureaucratic system was not powered by any self-active motor. Development depended entirely on the conscious actions and direction of central planners, but for the same reason, it was also severely limited and handicapped by the bureaucracy's inability to push development beyond certain limits. In particular, these bureaucrats lacked the weapons of unemployment and bankruptcy to discipline producers, force productivity increases, or generate innovation and development. Without competition to force producers to innovate and become more efficient, topdown bureaucratically driven development was no match for the dynamic growth of global capitalism.

This engine of development has brought the most prodigious development of the forces of production of any mode of production in history, lifting the living standards of billions of people the world over. So it was no surprise that since the spectacular collapse of communism and the global triumph of capitalism in the 1990s, Smithian economics has been crowned with a sacred halo, unquestioned and self-evident to the churched. Today, Smith's theory, rebranded for today's market under the neoclassical and neoliberal labels, is entrenched in every economics department from Berkeley to Beijing.

Engine of Planetary Eco-collapse: the Collective Irrationality of Individualist Economics

In his 1996 book *The Future of Capitalism*, Lester Thurow lucidly captured the socially suicidal aggregate impact of individualistic economic decision-making:

Nowhere is capitalism's time horizon problem more acute than in the area of global environmentalism . . . What should a capitalistic society do about long-run environmental problems such as global warming or ozone depletion? . . . Using capitalist decision rules, the answer to what should be done today to prevent such problems is very clear—do nothing. However large the negative effects fifty to one hundred years from now might be, their current discounted net present value is zero. If the current value of the future negative consequences are zero, then nothing should be spent today to prevent those distant problems from emerging. But if the negative effects are very large fifty to one hundred years from now, by then it will be too late to do anything to make the situation any better, since anything done at that time could only improve the situation another fifty to one hundred years into the future. So being good capitalists, those who live in the future, no matter how bad their problems are, will also decide to do nothing. Eventually a generation will arrive which cannot survive in the earth's altered environment, but by then it will be too late for them to do anything to prevent their own extinction. Each generation makes good capitalist decisions, yet the net effect is collective social suicide.

Lester Thurow, virtually alone among mainstream economists as near as I can tell, has recognized this potentially fatal contradiction of capitalism—even though he is no anti-capitalist and wrote the book from which this excerpt is drawn in the hopes of finding a future *for* capitalism. Until very recently, the standard economics textbooks ignored the problem of the environment altogether. Even today, the standard Economics 101 textbooks of Baro, Mankiv and other mainstream economists, contain almost no mention of environment or ecology. This reflects the increasingly rightward drift of the discipline since the 1970s.

The American economics profession has long since abandoned the practice of critical scientific thought and seriously considering dissenting views. Today, an almost totalitarian "neoliberal" religious dogma rules the discipline. Keynesianism, social democracy, and Marxism are dismissed as hopelessly antiquated. Ecological economics is considered suspect. And the prudent graduate student is well advised to steer clear of all such interests if he or she wants to find a job. As Francis Fukuyama put it some years back, history has reached its penultimate apogee in free market capitalism and liberal democracy. The science of economics, Fukuyama pronounced, was "settled" with Adam Smith's accomplishment. The future would bring no more than "endless technical adjustments;" thus no further theoretical thought is required.

Consuming Ourselves to Death

Smithian economists maintain that growth is the solution to the environmental crisis. But how can there be infinite growth? Today, the leading industrialized countries (25 percent of world's population) already consume 80 percent of the earth's natural resources. The average American uses three times the water, 10 times the energy, 13 times the iron and steel, 14 times the paper, 18 times the chemicals, and 19 times the aluminum as someone in China. So, if 1.3 billion Chinese "get rich" and consume like 300 million Americans, where will the resources come from? And what about the Indians, and everyone else? Don't they also have a "right" to gourmet kitchens, home theaters, SUVs, and three-car garages?

There are now roughly 700 million cars on the planet. They produce half the CO₂ emissions. The U.S. has one car for every two people. China has one for every 70. Today, seeking to emulate the Americans, the Chinese are striving to have as many cars per capita as Americans do even as they are running out of oil. By mid century, the world may have 9 billion people. If even half these people drive cars—even "cleaner" cars—what will we breathe? The average American uses 227 times as much gasoline as the average Indian or Chinese. If global per capita petroleum use were to reach current U.S. levels, the world would consume five-and-a-half times as much oil—360 million barrels per day versus 67 million today. Where is this going to come from? Today, biofuels are being hyped as a means to keep the autoindustrial machine charging forward even if we run out of oil. But aside from the fact that growing many of these crops—corn, for example—consumes more fossil fuels than they yield in energy, industrial agriculture is already depleting farmland and water supplies throughout the planet. Conversion of the last remaining extensive ecosystems, such as in Borneo or the Amazon or Congo basins, to grow sugarcane and palm oil for automobile fuel would wipe out the last great reservoirs of biodiversity, drastically accelerate climate change, and still not produce enough fuel to power an exponentially growing global auto fleet.

In conventional economics, "development" also means moving up to an American-style meat- and fat-rich diet. If 9 billion people adopt the standard American diet, it would require 9 billion tons of grain—the harvest of more than four planets—to feed them. Where is this going to come from?

Scale Matters

Long before Adam Smith's time, our ancestors had hunted hundreds of species to extinction and deforested much of Europe. But even as late as the early 20th century, industrial development still had a limited impact on the natural world. Though Smith's world of atomistic producer profit-seekers paid little heed to the natural world, the common good, or the future of humanity and other species with whom they shared the planet, they lacked the technical power and scale of production to do much harm to the natural world. Modern industry is constrained by no such limitations. Today, a global engine of development of staggering power has the capacity to melt the icecaps, transform the climate, stripmine the oceans to extinction, denude entire continents of forests, wipe out tens of thousands, if not millions, of species in a few decades, and poison the global atmosphere, all our fresh water sources, and even entire oceans.

In the 19th century, the output of even the largest industrial factories, mines and mills was trivial, measured in the thousands or tens of thousands of units. But today, new products are produced in the millions and billions. The world economy now produces in less than two weeks the equivalent of the entire physical output of the year 1900, and global economic output now doubles every 25 to 30 years.

Religion and Denial: Free Market Economists vs. the Fact of Limits

For Smithian economists, the notion that there are—or should be—limits to economic growth is just beyond the pale of thinkable thought. For to admit that growth is a problem, let alone *the* problem, is to concede a fatal flaw in the whole system. So across the entire spectrum of mainstream economics, Smithian economists, for all their important differences, still all belong to the same church of Can't Stop Shopping and worship the same idols of growth and consumption. At the extreme right, market absolutists like Milton Friedman, Gary Becker and the Chicago School simply deny that there *is* any environmental problem—or at least no problem that the market can't solve. Thus in a 1991 interview, the late Milton Friedman ridiculed environmentalists with his usual condescending vitriol:

The environmental movement consists of two very different parts. One is the traditional conservation groups, who want to save resources, etc. The other is a group of people who fundamentally aren't interested in conservation at all, and who aren't primarily interested in pollution. They're just long-term anti-capitalists who will take every opportunity to trash the capitalist system and the market economy. They used to be communists or socialists, but history has been unkind to them, and now all they can do is complain about pollution. But without modern technology, pollution would be far worse. The pollution from horses was much worse than what you get from automobiles. If you read descriptions of the streets of New York in the nineteenth century. . .

And in Free to Choose, Friedman complained that

... whatever the announced objectives, all of the movements of the past two decades—the consumer movement, the ecology movement, the back-to-the-land movement, the hippie movement, the organic food movement, the protect-the-wilderness movement, the zero-population-growth movement, the "small is beautiful" movement, the antinuclear movement—have always had one thing in common. All have been antigrowth. They have been opposed to new developments, to industrial innovation, to the increased use of natural resources. Agencies established in response to these movements have imposed heavy costs on industry after industry . . .

Milton Friedman's eco-knownothingism has long defined the far right-wing of American economic theology, but his confident assumption that endless growth is sustainable is shared by the entire profession of mainstream capitalist economists. So if we look at the far left extreme of "acceptable" economic thought in America, say Paul Krugman, we hear the same "can't stop progress" mantra. Writing in *The New York Times*, Krugman wonders "if there isn't something a bit manic about the pace of getting and—especially—spending in *fin-de-siecle* America":

But there is one very powerful argument that can be made on behalf of recent American consumerism: not that it is good for consumers, but that it has been good for producers. You see, spending may not produce happiness, but it does create jobs, and unemployment is very effective at creating misery. Better to have manic consumers American style, than the depressive consumers of Japan. . . There is a strong element of rat race in America's consumer-led boom, but those rats racing in their cages are what keeps the wheels of commerce turning. And while it will be a shame if Americans continue to compete over who can own the most toys, the worst thing of all would be if the competition comes to a sudden halt.

Paul Krugman is a brilliant economist, but the Smithian premises of his theoretical framework just cannot imagine that we could actually run out of resources to make all those toys. And even Lester Thurow, who clearly understands that the logic of endless capitalist expansion is suicidal for humanity, nevertheless cannot bring himself to break with the Smithian theology of limitless growth:

Slowing the entire economy to stop pollution is roughly equivalent to using an atomic bomb to swat a fly. Pollution would go down, but at enormous costs, since nonpolluting activities would be slowed along with polluting ones. Advocates of ZEG [zero economic growth] often try to squirm out of this problem but say that they really aren't for ZEG everywhere—just in polluting activities. But what are polluting activities? It is not at all clear. Educational institutions do not look dirty, but they are large consumers of construction materials. Hospitals are prodigious users of polluting goods of all kinds. Direct pollution may be easy to identify, but indirect pollution is not. Each one of us is responsible for our part of the pollution caused by electrical power generation.

So there you have it: insatiable growth and consumption is destroying the planet and dooming humanity—but without ceaselessly growing production and insatiably rising consumption, we would be even worse off. Such is the lunatic suicidal logic of capitalist economics.

Adam Smith's fatal error was his assumption that the "most effectual" means of promoting the public interest of society is to just ignore it and concentrate instead on the pursuit of economic self-interest. In the 18th century, this narcissistic economic philosophy had little impact on the natural world. Today it has a huge impact and is, moreover, totally at odds with the world's scientific bodies who are crying out for a *PLAN* to stop global warming and save nature.

Capitalist Limits to Corporate Environmentalism

Corporations aren't necessarily evil, but corporate managers are legally responsible to their owners, the shareholders, and not to society. This means that the critical decisions about production and resource consumption—decisions that affect our health and survival—are mainly the private prerogative of large corporations and are often only marginally under the control of governments. The blunt reality of this situation was well summed up by Joel Bakan in his recent book (and film), *The Corporation*:

Corporations are created by law and imbued with purpose by law. Law dictates what their directors and managers can do, what they cannot do, and what they must do. And, at least in the United States and other industrialized countries, the corporation, as created

by law, most closely resembles Milton Friedman's ideal model of the institution: it compels executives to prioritize the interests of their companies and shareholders above all others and forbids them from being socially responsible—at least genuinely so.

So when corporate and societal interests conflict, even the "greenest" of corporate CEOs often have no choice but to make decisions contrary to the interests of society.

British Petroleum's CEO, Lord John Browne, is good example. In the late 1990s, Browne had an environmental epiphany, broke ranks with oil industry denial, and became the first oil company executive to warn that fossil fuels are accelerating global warming. BP adopted the motto "Beyond Petroleum" in its advertisements, painted its service stations green and yellow, and bought a boutique solar power outfit. But under Browne, BP has spent far more on advertising its green credentials than it invests in actual green power production. Fully 99 percent of its investments still go into fossil fuel exploration and development, while solar power is less than 1 percent and seems to be declining. In 1999, BP spent \$45 million to buy the solar power outfit Solarex. By comparison, BP paid \$26.8 billion to buy Amoco in order to enlarge its oil portfolio. BP's 2004 revenues topped \$285 billion, while its solar power sales were just over \$400 million. In February 2006, Browne told his board that the company had more than replenished its marketed output in 2005 with new proven reserves of oil and gas, and that "with more than 20 new projects due on stream in the next three years, and assuming the same level of oil price, the annual rate of increase should continue at some 4 percent through 2010." So, far from shifting to renewable sources of energy, BP is not only expanding its output of fossil fuels but increasing its overall reliance on fossil fuel sources of profit. BP now possesses proven reserves of 19 billion barrels produced in 23 countries, and the company currently explores for oil in 26 countries. Given the proven and stupendous profits of oil production versus the unproven profitability of alternative energy, how can Brown go "green" in any serious way and remain responsible to his owner-investors? Were he to do so, he would soon be out of a job.

Ecosocialism or Collapse

If we're going to stop the capitalist economic locomotive from driving us off the cliff, we are going to have to fundamentally rethink our entire economic life, reassert the visible hand of conscious scientific, rational economic planning, and implement democratic control over our economies and resources. We're going to have to construct an entirely different kind of economy, one that can live within its ecological means. Such an economy would have to be based around at least the following principles:

An Ecosocialist Economy of Stasis

First, in a world of fast-diminishing resources, a sustainable global economy can only be based on near-zero economic growth on average. That means that to survive, humanity will have to impose drastic *fixed limits* on development, resource consumption, the freedom to consume, and the freedom to pollute. Given existing global inequities and the fact that the crisis we face is overwhelmingly caused by overconsumption in the

industrialized North, equity can only be achieved by imposing massive cutbacks in the advanced countries combined with a program of rational planned growth to develop the Third World, with the aim of stabilizing at zero growth on average. This will require drastically cutting back many lines of production, closing down others entirely, and creating socially and environmentally useful jobs for workers made redundant by this transition. This will also require *physical rationing* of many critical resources on a per capita basis for every person on the planet.

Human survival will thus require a profound rethinking of our most fundamental ideas—bourgeois ideas—of economic freedom. For too long, many Americans, in particular, have come to identify their notion of "freedom," if not their very being and essence, with insatiable consumption—unlimited freedom of "choice" in what to buy. But 50 styles of blue jeans, 16 models of SUVs and endless choices in "consumer electronics" will all have dramatically less value when Bloomingdales is under water, Florida disappears beneath the waves, malarial mosquitos blanket Long Island beaches, and the U.S. is overrun with desperate environmental refugees from the South. Once we as a society finally admit the "inconvenient truth" that we have no choice but to drastically cut production and severely reduce consumer choice, it will also become apparent that we have to put in place a planned economy that will meet our needs and those of future generations as well as the other species with whom we share the planet.

A Restructured Economy of Production for Social Need and for Use

Second, we need to massively restructure the global economy. Enormous sectors in the global capitalist economy—plastics, packaging, much of the manufactured consumer electronics, petrochemical-based and other synthetic products, many pharmaceuticals, all genetically modified foods, and the vast and ever-growing production of arms—are either completely unnecessary or waste increasingly scarce resources and produce needless pollution. Our parents did without nearly all of this before WWII, and they were not living in caves.

Many lines of production, and most retail industries, are built around unnecessary replacement and designed-in obsolescence. How much of the American economy from cars and appliances to clothes is purposefully designed to be "consumed, burned up, worn out, replaced, and discarded at an ever-increasing rate" so the cycle of waste production can begin all over again? How much of the planet's natural resources are consumed every year in completely unnecessary annual model changes, fashion updates, and "new and improved" products whose only purpose is simply to sell and sell again? If a global population of 6 to 9 billion people is going to survive this century, what choice do we have but to reorganize the global economy to conserve what shrinking natural resources we have left, reorient production for need rather than profit, design products to last as long as possible, enforce as close to total recycling as possible, and aim for as close to zero pollution as is possible?

A Socialist Economic Democracy

Third: an ecosocialist democracy. Endless growth or stasis? Resource exhaustion or conservation? Automobilization of the planet or enhanced public transport?

Deforestation or protection of the wild forests? Agro poisons or organic farming? Hunt the fish to extinction or protect the fisheries? Raze the Amazon forest to grow MacBurgers or promote a more vegetarian diet? Manufacture products designed be "used up, burned up, consumed as rapidly as possible" or design them to last, be repaired, recycled and also shared? Enforce private interests at the expense of the commons or subordinate private greed to the common good? In today's globalized world, decisions about such questions will determine the fate of humanity.

Who can make these critical economic and moral decisions in society's interest and in the interest of preserving a habitable planet? In Adam Smith's view, which is still the operable maxim of modern capitalists and neoliberal economists, we should all just "Look out for Number 1," and the common good will take care of itself. If Smith were right, the common good would have taken care of itself long ago, and we wouldn't be facing catastrophe. After centuries of Smithian economics, the common good needs our immediate and concentrated attention. Corporations can't make such decisions in the best interests of society or the future, because their legal responsibility is to their private owners. The only way such decisions can be scientifically rational and socially responsible is when everyone who is affected participates in decision-making. And time is running out. We don't have 20 or 30 years to wait while Ford and GM to figure out how they can make a buck on electric cars. We don't have 60 or 70 years to wait while investors in coal-powered power plants milk the last profits out of those sunk investments before they consider an alternative.

Humanity is at a crossroads. Either we find a way to move toward a global economic democracy in which decisions about production and consumption are directly and democratically decided by all those affected, or the alternative will be the continuing descent into a capitalist war of all-against-all over ever-diminishing resources that can only end in the collapse of what's left of civilization and the global ecology. To be sure, in an economic democracy, society would sometimes make mistakes in planning. We can't have perfect foresight, and democracies make mistakes. But at least these would be honest mistakes. The conclusion seems inescapable: Either we democratize the economy, construct the institutions of a practical working socialist democracy, or we face ecological and social collapse.