

Richard Smith: Capitalism and the Destruction of Life on Earth: Six Theses on Saving the Humans

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As global capitalist economic growth accelerates planetary ecological collapse, this article, originally published on November 10, 2013, argues that - impossible as it may seem at present - only the most radical solution - the overthrow of global capitalism, the construction of a mostly publicly-owned and mostly planned eco-socialist economy based on global "contraction and convergence," on substantial de-industrialization, on sharing, on much less work and much more play and on bottom-up democratic management - is, in fact, the only alternative to the collapse of civilization and ecological suicide.

When, on May 10, 2013, scientists at Mauna Loa Observatory on the big island of Hawaii announced that global CO₂ emissions had crossed a threshold at 400 parts per million for the first time in millions of years, a sense of dread spread around the world - not only among climate scientists.

CO₂ emissions have been relentlessly climbing since Charles David Keeling first set up his

tracking station near the summit of Mauna Loa Observatory in 1958 to monitor average daily global CO₂ levels. At that time, CO₂ concentrations registered 315ppm. CO₂ emissions and atmospheric concentrations have been climbing ever since and, as the records show, temperatures rises will follow. For all the climate summits, the promises of “voluntary restraint,” the carbon trading and carbon taxes, the growth of CO₂ emissions and atmospheric concentrations has not just been relentless, it has been accelerating in what scientists have dubbed the “Keeling Curve.”

In the early 1960s, CO₂ppm concentrations in the atmosphere grew by 0.7ppm per year. In recent decades, especially as China has industrialized, the growth rate has tripled to 2.1ppm per year. In just the first 17 weeks of 2013, CO₂ levels jumped by 2.74ppm compared to last year — “the biggest increase since benchmark monitoring stations high on the Hawaiian volcano of Mauna Loa began taking measurements in 1958.”[1] Carbon concentrations have not been this high since the Pliocene period, between 3 million and 5 million years ago, when global average temperatures were 3 degrees or 4 degrees Centigrade hotter than today, the Arctic was ice-free, sea levels were about 40 meters higher, jungles covered northern Canada and Florida was under water - along with coastal locations we now call New York City, London, Shanghai, Hong Kong, Sydney and many others.

Crossing this threshold has fueled fears that we are fast approaching “tipping points” - melting of the subarctic tundra or thawing and releasing the vast quantities of methane in the Arctic sea bottom - that will accelerate global warming beyond any human capacity to stop it: “I wish it weren’t true, but it looks like the world is going to blow through the 400-ppm level without losing a beat,” said Scripps Institute geochemist Ralph Keeling, whose father, Charles, set up the first monitoring stations in 1958: “At this pace, we’ll hit 450 ppm within a few decades.”

“It feels like the inevitable march toward disaster,” said Maureen E. Raymo, a scientist at the Lamont-Doherty Earth Observatory, a unit of Columbia University.[2]

Why are we marching to disaster, “sleepwalking to extinction” as *The Guardian’s* George Monbiot once put it? Why can’t we slam on the brakes before we ride off the cliff to collapse? I’m going to argue here that the problem is rooted in the requirements of capitalist reproduction, that large corporations are destroying life on Earth, that they can’t help themselves, they can’t change or change very much, that so long as we live under this system we have little choice but to go along in this destruction, to keep pouring on the gas instead of slamming on the brakes.

The only alternative - impossible as this may seem right now - is to overthrow this global economic system and all of the governments of the 1% that prop it up and replace them with a global economic democracy, a radical bottom-up political democracy, an ecosocialist

civilization. I argue that, although we are fast approaching the precipice of ecological collapse, the means to derail this train wreck are in the making as, around the world, we are witnessing a near-simultaneous global mass democratic “awakening,” as the Brazilians call it, almost a global uprising from Tahir Square to Zuccotti Park, from Athens to Istanbul to Beijing and beyond such as the world has never seen.

To be sure, like Occupy Wall Street, these movements are still inchoate, still mainly protesting what’s wrong rather than fighting for an alternative social order. Like Occupy, they have yet to clearly and robustly answer that crucial question, “Don’t like capitalism? What’s your alternative?” Yet they are working on it, and they are for the most part instinctively and radically democratic. And in this lies our hope. I’m going to make my case in the form of six theses:

1. CAPITALISM IS, OVERWHELMINGLY, THE MAIN DRIVER OF PLANETARY ECOLOGICAL COLLAPSE

From climate change to resource overconsumption to pollution, the engine that has powered three centuries of accelerating economic development revolutionizing technology, science, culture and human life itself is today a roaring, out-of-control locomotive mowing down continents of forests, sweeping oceans of life, clawing out mountains of minerals, drilling, pumping out lakes of fuels, devouring the planet’s last accessible resources to turn them all into “product” while destroying fragile global ecologies built up over eons.

Between 1950 and 2000 the global human population more than doubled from 2.5 billion to 6 billion. But in these same decades, consumption of major natural resources soared more than sixfold on average, some much more. Natural gas consumption grew nearly twelvefold, bauxite (aluminum ore) fifteenfold. And so on.[3]

At current rates, Harvard biologist E.O Wilson says, “half the world’s great forests have already been leveled, and half the world’s plant and animal species may be gone by the end of this century.” Corporations aren’t necessarily evil – although plenty are diabolically evil – but they can’t help themselves. They’re just doing what they’re supposed to do for the benefit of their shareholders. Shell Oil can’t help but loot Nigeria and the Arctic and cook the climate. That’s what shareholders demand.[4] BHP Billiton, Rio Tinto and other mining giants can’t resist mining Australia’s abundant coal and exporting it to China and India. Mining accounts for 19 percent of Australia’s gross domestic product and substantial employment even as coal combustion is the worst driver of global warming. IKEA can’t help but level the forests of Siberia and Malaysia to feed the Chinese mills building its flimsy, disposable furniture (IKEA is the third-largest consumer of lumber in the world). Apple can’t help it if the cost of extracting the “rare earths” it needs to make millions of new iThings each year is the destruction of the eastern Congo – violence, rape, slavery, forced induction

of child soldiers, along with poisoning local waterways. [5] Monsanto and DuPont and Syngenta and Bayer Crop Science have no choice but to wipe out bees, butterflies, birds and small farmers and extinguish crop diversity to secure their grip on the world's food supply while drenching the planet with their Roundups and Atrazines and neonicotinoids. [6] This is how giant corporations are wiping out life on Earth in the course of a routine business day. And the bigger the corporations grow, the worse the problems become.

In Adam Smith's day, when the first factories and mills produced hat pins and iron tools and rolls of cloth by the thousands, capitalist freedom to make whatever they wanted didn't matter because they didn't have much impact on the global environment. But now everything is produced in the millions and billions - then trashed today and reproduced all over again tomorrow. When the planet is looted and polluted to support all this frantic and senseless growth, it matters - a lot.

The world's climate scientists tell us we're facing a planetary emergency. They've been telling us since the 1990s that if we don't cut global fossil-fuel greenhouse-gas emissions by 80 percent to 90 percent below 1990 levels by 2050 we will cross critical tipping points and global warming will accelerate beyond any human power to contain it. Yet despite all the ringing alarm bells, no corporation and no government can oppose growth. Instead, every capitalist government in the world is putting pedal to the metal to accelerate growth, to drive us full throttle off the cliff to collapse. Marxists have never had a better argument against capitalism than this inescapable and apocalyptic "contradiction."

2. SOLUTIONS TO THE ECOLOGICAL CRISIS ARE BLINDINGLY OBVIOUS, BUT WE CAN'T TAKE THE NECESSARY STEPS TO PREVENT ECOLOGICAL COLLAPSE BECAUSE, SO LONG AS WE LIVE UNDER CAPITALISM, ECONOMIC GROWTH HAS TO TAKE PRIORITY OVER ECOLOGICAL CONCERNS OR THE ECONOMY WILL COLLAPSE AND MASS UNEMPLOYMENT WILL BE THE RESULT

We all know what we have to do: suppress greenhouse gas emissions. Stop overconsuming natural resources. Stop the senseless pollution of the Earth, its waters and its atmosphere with toxic chemicals. Stop producing waste that can't be recycled by nature. Stop the destruction of biological diversity and ensure the rights of other species to flourish. We don't need any new technological breakthroughs to solve these problems. Mostly, we just stop doing what we're doing. But we can't stop because we're all locked into an economic system in which companies have to grow to compete and reward their shareholders and because we all need the jobs.

Take Climate Change ...

James Hansen, the world's pre-eminent climate scientist, has argued that to save the

humans, “Coal emissions must be phased out as rapidly as possible, or global climate disasters will be a dead certainty. ... Yes, [coal, oil, gas] most of the fossil fuels must be left in the ground. That is the explicit message that the science provides.”

Humanity treads today on a slippery slope. As we continue to pump greenhouse gases in the air, we move onto a steeper, even more slippery incline. We seem oblivious to the danger – unaware of how close we may be to a situation in which a catastrophic slip becomes practically unavoidable, a slip where we suddenly lose all control and are pulled into a torrential stream that hurls us over a precipice to our demise. [7]

But how can we do this under capitalism? After his climate negotiators stonewalled calls for binding limits on CO₂ emissions at Copenhagen, Cancun, Cape Town and Doha, President Obama is now trying to salvage his environmental “legacy” by ordering his EPA to impose “tough” new emissions limits on existing power plants, especially coal-fired plants.[8] But this won’t salvage his legacy or, more importantly, his daughters’ future. How much difference would it make, really, if every coal-fired power plant in the United States were to shut down tomorrow when US coal producers are free to export their coal to China, which they are doing, and when China is building another coal-fired power plant every week? The atmosphere doesn’t care where the coal is burned. It only cares how much is burned. Yet how could Obama tell American mining companies to stop mining coal? This would be tantamount to socialism. But if we do not stop mining and burning coal, capitalist freedom and private property is the least we’ll have to worry about.

Same with Obama’s “tough” new fuel-economy standards. In August 2012, Obama boasted that his new corporate average fuel economy (CAFE) standards would “double fuel efficiency” in the next 13 years to 54.5 mpg by 2025, up from 28.6 mpg at present – cutting vehicle CO₂ emissions in half, so helping enormously to “save the planet.” But as the Center for Biological Diversity and other critics have noted, Obama was lying as usual. First, his so-called “tough” new CAFE standards were so full of loopholes, negotiated with Detroit, that they actually encourage more gas guzzling, not less.[9] That’s because the standards are

based on a sliding scale according to “vehicle footprints” - the bigger the car, the less mileage it has to get to meet its standard. So, in fact, Obama’s “tough” standards are (surprise) custom-designed to promote what Detroit does best - produce giant Sequoias, mountainous Denalis, Sierras, Yukons, Tundras and Ticonderogas, Ram Chargers and Ford F series luxury trucks, grossly obese Cadillac Escalades, soccer kid hauler Suburbans, even 8,000-pound Ford Excursions and let these gross gas hogs meet the “fleet standard.” Many of these ridiculously oversized and overaccessorized behemoths are more than twice the weight of cars and pickup trucks in the 1950s.[10] These cars and “light” trucks are among the biggest-selling vehicles in America today (GM’s Sierra is No. 1), and they get worse gas mileage than American cars and trucks half a century ago. Cadillac’s current Escalade gets worse mileage than its chrome-bedecked tailfin-festooned land yachts of the mid-1950s![11] Little wonder Detroit applauded Obama’s new CAFE standards instead of damning them. Secondly, what would it matter even if Obama’s new CAFE standards actually did double fleet mileage - when American and global vehicle fleets are growing exponentially? In 1950 Americans had one car for every three people. Today we have 1.2 cars for every American. In 1950 when there were about 2.6 billion humans on the planet, there were 53 million cars on the world’s roads - about one for every 50 persons. Today, there are 7 billion people but more than 1 billion cars. And industry forecasters expect there will be 2 billion to 2.5 billion cars on the world’s roads by midcentury. China is expected to have 1 billion.[12] So, at the end of the day, incremental half-measures like CAFE standards can’t stop rising GHG missions. Barring some technical miracle, the only way to cut vehicle emissions is to just stop making them - drastically suppress vehicle production, especially of the worst gas hogs. In theory, Obama could at least simply order GM to stop building its humongous gas guzzlers and switch to producing small economy cars. After all, the federal government owns the company! But of course, how could he do any such thing? Detroit lives by the mantra “big car big profit, small car small profit.” Since Detroit has never been able to compete against the Japanese and Germans in the small-car market, which already is glutted and nearly profitless everywhere, such an order would only doom GM to failure, if not bankruptcy (again), throw masses of workers onto the unemployment lines (and devalue the GM stock in the feds’ portfolio). So given capitalism, Obama is, in fact, powerless. He’s locked in to promoting the endless growth of vehicle production, even of the worst polluters - and lying about it all to the public to try to patch up his pathetic “legacy.” And yet, if we don’t suppress vehicle production, how can we stop rising CO2 emissions?

In the wake of the failure of climate negotiators from Kyoto to Doha to agree on binding limits on GHG emissions, exasperated British climate scientists Kevin Anderson and Alice Bows at the Tyndall Centre, Britain’s leading climate change research center, wrote in September 2012 that we need an entirely “new paradigm”: government policies must “radically change” if “dangerous” climate change is to be avoided:

We urgently need to acknowledge that the development needs of many countries leave the rich western nations with little choice but to immediately and severely curb their greenhouse gas emissions. ... [The] misguided belief that commitments to avoid warming of 2 degrees C can still be realized with incremental adjustments to economic incentives. A carbon tax here, a little emissions trading there and the odd voluntary agreement thrown in for good measure will not be sufficient. ... Long-term end-point targets (for example, 80% by 2050) have no scientific basis. What governs future global temperatures and other adverse climate impacts are the emissions from yesterday, today, and those released in the next few years.[13]

And not just scientists. In its latest world energy forecast released on November 12, 2012, the International Energy Agency (IEA) warns that despite the bonanza of fossil fuels now made possible by fracking, horizontal and deepwater drilling, we can't consume them if we want to save the humans: "The climate goal of limiting global warming to 2 degrees Centigrade is becoming more difficult and costly with each year that passes. ... No more than one-third of proven reserves of fossil fuels can be consumed prior to 2050 if the world is to achieve the 2 degree C goal. ... " [14] Of course the science could be wrong about this. But so far climate scientists have consistently underestimated the speed and ferocity of global warming, and even prominent climate change deniers have folded their cards.[15]

Emergency Contraction or Global Ecological Collapse

Still, it's one thing for James Hansen or Bill McKibben of 350.org to say we need to "leave the coal in the hole, the oil in the soil, the gas under the grass," to call for "severe curbs" in GHG emissions - in the abstract. But think about what this means in our capitalist economy. Most of us, even passionate environmental activists, don't really want to face up to the economic implications of the science we defend. That's why, if you listen to

environmentalists such as Bill McKibben or Al Gore, for example, you will get the impression that global warming is mainly driven by fossil-fuel-powered electric power plants, so if we just “switch to renewables” this will solve the main problem and we can carry on with life more or less as we do now. Indeed, “green capitalism” enthusiasts like Thomas Friedman and the union-backed “green jobs” lobby look to renewable energy, electric cars and such as “the next great engine of industrial growth” – the perfect win-win solution. This is a not a solution. This is a delusion, because greenhouse gasses are produced across the economy, not just by or even mainly by power plants. Globally, fossil-fuel-powered electricity generation accounts for 17 percent of GHG emissions, heating accounts for 5 percent, miscellaneous “other” fuel combustion 8.6 percent, industry 14.7 percent, industrial processes another 4.3 percent, transportation 14.3 percent, agriculture 13.6 percent, land-use changes (mainly deforestation) 12.2 percent.[16] This means, for a start, that even if we immediately replaced every fossil-fuel-powered electricity-generating plant on the planet with 100 percent renewable solar, wind and water power, this would reduce global GHG emissions only by around 17 percent. What this means is that, far from launching a new green-energy-powered “industrial growth” boom, barring some tech-fix miracle, the only way to impose “immediate and severe curbs” on fossil fuel production and consumption would be to impose an emergency contraction in the industrialized countries: drastically retrench and in some cases shut down industries, even entire sectors, across the economy and around the planet – not just fossil-fuel producers, but all the industries that consume them and produce GHG emissions – autos, trucking, aircraft, airlines, shipping and cruise lines, construction, chemicals, plastics, synthetic fabrics, cosmetics, synthetic fiber and fabrics, synthetic fertilizer and agribusiness CAFO operations, and many more. Of course, no one wants to hear this because, given capitalism, this would unavoidably mean mass bankruptcies, global economic collapse, depression and mass unemployment around the world. That’s why in April 2013, in laying the political groundwork for his approval of the XL pipeline in some form, President Obama said “The politics of this are tough.” The Earth’s temperature probably isn’t the “number one concern” for workers who haven’t seen a raise in a decade, have an underwater mortgage, are spending \$40 to fill their gas tank, can’t afford a hybrid car and face other challenges.”[17] Obama wants to save the planet. But given capitalism, his “number one concern” has to be growing the economy, growing jobs. Given capitalism, today, tomorrow, next year and every year, economic growth will always be the overriding priority – until we barrel right off the cliff to collapse.

The Necessity of Denial and Delusion

There’s no technical solution to this problem and no market solution either. In a very few cases – electricity generation is the main one – a broad shift to renewables could indeed sharply reduce fossil-fuel emissions in that sector. But if we just use “clean” “green” energy to power more growth, consume ever more natural resources to produce more and more junk we don’t need, then we would solve nothing and still would be headed to collapse.

Agriculture is another sector in which reliance on fossil fuels could be sharply reduced - by abandoning synthetic fertilizers and pesticides and switching to organic farming. And there's no downside there - just the resistance of the agribusiness industrial complex. But for the rest of the economy - mining, manufacturing, transportation, chemicals, most services (including construction, tourism, advertising, etc.), there are no such easy substitutes. Take transportation. There are no solar-powered ships or airplanes or trains on anyone's drawing boards. Producing millions of electric cars instead of millions of gasoline-powered cars, as I explained elsewhere, would be just as ecologically destructive and polluting, if in somewhat different ways, even if they were all run on solar power.[18] Substituting biofuels for fossil fuels in transportation just creates different but no less environmentally destructive problems: Converting farmland to raise biofuel feedstock pits food production against fuels. Converting rainforests, peatlands, savannas or grasslands to produce biofuels releases more CO2 into the atmosphere than the fossil fuels they replace and accelerates species extinction.[19] More industrial farming means more demand for water, synthetic fertilizers and pesticides. And so on. Cap-and-trade schemes can't cut fossil fuel emissions because, as I explained elsewhere,[20] business understands, even if some environmentalists do not, that "dematerialization" is a fantasy, that there's no win-win tech solution, that capping emissions means cutting growth. Since cutting growth is unacceptable to business, labor and governments, cap-and-trade has been abandoned everywhere.[21] Carbon taxes can't stop global warming either because they do not cap emissions. That's why fossil fuel execs like Rex Tillerson, CEO of ExxonMobil (the largest private oil company in the world) and Paul Anderson, CEO of Duke Energy (the largest electric utility in the United States), support carbon taxes. They understand that carbon taxes would add something to the cost of doing business, like other taxes, but they pose no limit, no "cap" on growth.[22] Exxon predicts that, carbon tax or no carbon tax, by 2040 global demand for energy is going to grow by 35 percent to 65 percent in the developing world and nearly all of this is going to be supplied by fossil fuels. ExxonMobil is not looking to "leave the oil in the soil" as a favor to Bill McKibben and the humans. ExxonMobil is looking to pump it and burn it all as fast as possible to enrich its shareholders. [23]

James Hansen, Bill McKibben, Barack Obama and most of us, really, don't want to face up to the economic implications of the need to put the brakes on growth and fossil-fuel-based overconsumption. We all "need" to live in denial and believe in delusions that carbon taxes or some tech fix will save us because we all know that capitalism has to grow or we'll all be out of work. And the thought of replacing capitalism seems so impossible, especially given the powers arrayed against change. But what's the alternative? In the not-so-distant future, this is all going to come to a screeching halt one way or another - either we seize hold of this out-of-control locomotive and wrench down this overproduction of fossil fuels, or we ride this train right off the cliff to collapse.

Same with Resource Depletion

We in the industrialized “consumer economies” are not just overconsuming fossil fuels. We’re overconsuming everything. From fish to forests, minerals to metals, oil to fresh water, we’re consuming the planet like there’s no tomorrow.[24] Ecological “footprint” scientists tell us that we in the industrialized nations are now consuming resources and sinks at the rate of 1.5 planets per year. That is, we’re using natural resources like fish, forests, water, farmland and so on at half-again the rate that nature can replenish them.[25] According to the World Bank, the wealthiest 10 percent of the world’s people accounts for almost 60 percent of consumption expenditures and the top 20 percent accounts for more than 76 percent of global consumption, whereas the bottom 40 percent of the world’s population account for just 5 percent. Even the bottom 70 percent of the world’s population accounts for barely 15.3 percent of global consumption expenditures.[26] Needless to say, the 70 percent wants and deserves a higher material standard of living. Yet if the whole world were to achieve this by consuming like Americans, we would need something like five more planets of natural resources and sinks for all of that.[27] Think what this means.

Take the case of China. Columbia University’s Earth Policy Institute predicts that if China keeps growing by around 8 percent per year, its current rate, Chinese average per capita consumption will reach current US level by around 2035. But to provide the natural resources for China’s 1.3 billion-plus to consume like America’s 330 million, the Chinese, roughly 20 percent of the world’s population, will consume as much oil as the entire world consumes today. They also will consume 69 percent of current world grain production, 62 percent of the current world meat production, 63 percent of current world coal consumption, 35 percent of current world steel consumption, 84 percent of current world paper consumption. (See Table 1.) Well, where on earth are the Chinese going to find the resources (not to mention sinks) to support all this consumption? China certainly doesn’t have the resources. That’s why the Chinese are buying up the planet. And that’s just China. What about the other four-fifths of humanity? What are they going to consume in 2035?



Already, as resource analyst Michael Klare reviews in his latest book, *The Race for What’s Left*, around the world existing reserves of oil, minerals and other resources “are being depleted at a terrifying pace and will be largely exhausted in the not-too-distant future.” This is driving miners and drillers to the ends of the earth, the bottom of oceans, to the arctic. We’re running out of planet to plunder so fast that serious people like Google’s Larry Page and Eric Schmidt have partnered with film director James Cameron to make life imitate art, to explore the possibility of mining asteroids and near planets. *Avatar* – the perfect capitalist solution to resource exhaustion (but the Marines will be Chinese). [28]

China’s Capitalist Environmental Nightmare

As Beijing has been choking on smog this year, Deutsche Bank analysts gloomily conclude

that, barring extreme reforms, Chinese coal consumption and increased car ownership will push **pollution** levels 70 percent higher by 2025. They say that even if China's economy slowed to 5 percent growth per year, its annual coal consumption still would rise to 6 billion tons by 2022, from the current 3.8 billion tons. Car ownership is expected to increase over the years to 400 million in 2030 from the current 90 million. For China to meet its goal of reducing PM2.5 particulate matter to 35 micrograms of per cubic meter by 2030, the government would have to take drastic steps - shut down large numbers of coal-fired power plants, sharply reduce the number of vehicles on the roads, and shut down many other polluting industries.



Even then, air pollution would still be above the level deemed safe by the World Health Organization (25 micrograms of PM2.5 particulates per cubic meter). The current national average is 75 micrograms per cubic meter. In January, PM2.5 levels in Beijing reached 900 micrograms per cubic meter.[29] But here again, the problem is that ever since China turned onto the "capitalist road" and made its economy and employment ever-more dependent upon market success like the Western capitalist economies Deng Xiaoping sought to emulate, it can no more subordinate growth to the environment than can Barack Obama or ExxonMobil. Instead, China's commie capitalists, like regular capitalists everywhere, have no choice but to put the pedal to the metal, do all they can to accelerate humanity's collective drive to suicide.[30]

"Wild facts" and Unquestioned Assumptions

In mainstream discourse it is taken as an absolutely unquestioned given by scientists like James Hansen, environmentalists like George Monbiot, not to mention CEOs and presidents, that demand for everything must grow infinitely, that economies must grow forever. That's why Hansen, Monbiot, James Lovelock and others tell us that, Fukushima notwithstanding, we "have to" go nuclear for energy production. In their view, the human population is headed for 9 billion to 10 billion. All these billions want to consume like Americans, so we will need more power for their washing machines, air conditioners, iPads, TVs and (electric) SUVs. We can't burn more fossil fuels to produce this power because it will cook the planet. Renewables are great but can't reliably meet relentlessly growing "base load" demand for electricity 24/7. Therefore, they tell us, we have no choice but to turn to nuclear power. (Besides, what could go wrong with the "newest," "safest," "fourth generation" reactors? What indeed?)[31]

But not one of these people stops to ask the obvious question: Where are all the resources going to come from to support insatiable consumption on a global scale? In the capitalist lexicon, there is no concept of "too much." The word *overconsumption* cannot be found in Econ. 101 text books except as a temporary market aberration, soon to be erased as

“perfect competition” matches supply to demand and shortages and surpluses vanish down the gullet of the consumer. The fact that we live on one small planet with finite resources and sinks is just beyond the capitalist imagination because, as Herman Daly used to say, the “wild facts” of environmental reality demolish their underlying premise of the viability of endless growth on a finite planet. So inconvenient facts must be denied, suppressed or ignored. And they are. When, on May 10, 2013, climate scientists announced the latest “wild fact” that the level of heat-trapping CO₂ concentrations in the atmosphere had passed the long-feared milestone of 400 ppm, an event fraught with ominous consequences for us all, this was met with total silence from the world’s economic and political elites. President Obama was busy preparing his own announcement – that he was clearing the way for accelerated natural-gas exports by approving a huge new \$10 billion Freeport LNG facility in Texas. Obama’s Department of Energy gave Freeport LNG the green light because it “found the prospective benefits from exporting energy outweighed concerns about possible downsides.” No surprise there. Freeport LNG chief Michael Smith wasn’t anticipating downsides or any change in Obama’s priorities. He said: “I hope this means that more facilities will get approval in due time, sooner than later. The country needs these exports for jobs, for trade and for geopolitical reasons. ... “[32] That’s why, even though, at some repressed level, most Americans understand that fracking the planet is disastrous, even suicidal for their own children in the long run, yet still for the present they have to make the mortgage payments and fill the gas tank. So they have little choice but to live in denial and support fracking.[33] And so we go, down the slippery slope.

No one stops to ask “what’s it all for?” Why do we “need” all this energy? Why do we “need” all the stuff we produce with all this energy? It’s high time we start asking this question. Economists tell us that two-thirds of America’s own economy is geared to producing “consumer” goods and services. To be sure, we need food, clothing, housing, transportation, and energy to run all this. But as Vance Packard astutely observed half a century ago, most of what corporations produce today is produced not for the needs of people but for the needs of corporations to sell to people. From the ever-more obscene and pointless vanities of ruling class consumption – the Bentleys and Maseratis, the Bergdorf Goodman designer collections, the penthouses and resorts and estates and yachts and jets, to the endless waste stream of designed-in obsolescence-driven mass market fashions, cosmetics, furniture, cars, “consumer electronics,” the obese 1000 calorie Big Macs with fries, the obese and overaccessorized SUVs and “light trucks,” the obese and ever-growing McMansions for ever-smaller middle class families, the whole-house central air conditioning, flat screen TVs in every room, iThings in every hand, H&M disposable “fast fashion” too cheap to bother to clean, [34] the frivolous and astonishingly polluting jet and cruise ship vacations everywhere (even Nation magazine cruises with Naomi Klein!), and all the retail malls, office complexes, the packaging, shipping industries, the junk mail/magazine/catalog sales companies, the advertising, banking and credit card “industries” that keep this perpetual consumption machine humming along, not to mention the appalling waste of the arms industry, which is

just total deliberate waste and destruction, the vast majority - I would guess at least three quarters of all the goods and services we produce today just do not need to be produced at all. It's all just a resource-hogging, polluting waste. My parents lived passably comfortable working class lives in the 1940s and 50s without half this stuff and they weren't living in caves. We could all live happier, better, more meaningful lives without all this junk — and we do not need ever-more energy, solar or otherwise, to produce it. We could shut down all the coal-powered electric generators around the world, most of which, especially in China, are currently dedicated to powering the production of superfluous and disposable junk we don't need and replace them with — nothing. How's that for a sustainable solution? Same with nuclear. Since the 1960s, Japan built 54 nuclear power plants. But these were built not so much to provide electricity for the Japanese (their population is falling) as to power Japan's mighty manufacturing export engine producing all those disposable TVs and Gameboys and Toyotas and Hondas the world does not need and can no longer afford to consume.

Endless growth or repair, rebuild, upgrade, recycle?

So, for example, at the risk of sounding ridiculous, we don't really need a global automobile industry. At least we don't need an industry cranking out hundreds of millions of new cars every year, because the industry is built on the principle of designed-in obsolescence, on insatiable repetitive consumption, on advertising and "cash for clunkers" programs to push you to crush your perfectly good present car for a "new," "improved," "bigger," "more luxurious" model that is, in reality, trivially different, sometimes even inferior to the one you just junked. What we need is a different approach to transportation. To build a sustainable transportation system, we would have to divert most resources from auto production to public transportation, trains, buses and bicycling. But, of course, bikes and public transport aren't feasible everywhere and for every task, particularly for those who live in the suburbs or the country or in the mostly rural developing world. So we would still need some cars and trucks - but many fewer if we "degrow" the economy to produce just what we need instead of for profit. As the VW ads below point out, properly designed and engineered cars can be sturdy but simple, economical to drive, easily serviceable and repairable (even DIY), perpetually rebuildable and upgradable as needed. I'm not suggesting an ecosocialist society should produce this particular "peoples' car." We need something with modern safety features. But to the extent that we would need cars in a sustainable society, we could save immense resources and GHG emissions by producing massively fewer cars and keep them running for decades, if not practically forever. Reducing global car production to something like, say 10 percent of current production - and sharing those - would not only save vast resources and eliminate massive pollution but also free up labor and resources for other uses. Let us shorten the working day - and take longer vacations.

The same goes for all kinds of industries.

Apple easily could build you iPhones and iMacs, in classic timeless designs that could last for decades, that could be upgraded easily. This would save mountains of resources, not to mention the lives of Congolese kids and Foxconn assembly workers. But how much profit is there in that? Apple could never justify such a humane and environmentally rational approach to its shareholders because shareholders (who are several stages removed from the “sourcing” process and don’t really care to know about it) are capitalists rationally looking to maximize returns on their portfolios, not to maximize the lifespan of the company’s products, let alone the lifespan of Congolese or Chinese. So to this end, you have to be convinced that your G4 phone is not good enough, that you “need” an iPhone5 because you need a phone that streams movies, that talks to you and more, and next year you will need an iPhone6. And even if you own an iPad3 you will soon “need” an iPad4, plus an iPad Mini, and how will you live without iTV? This incessant, exponentially growing demand for the latest model of disposable electronic gadgets is destroying societies and the environment from Congo to China and beyond.

Miners near village of Kobu in northeastern Congo. Picture credit: Finbarr O’Reilly/Reuters, in The New York Times, March 20, 2012.

IKEA easily could manufacture beautifully designed, high-quality, sturdy and durable furniture that could last a lifetime, that could be handed down to your children or passed on friends or antique shops for others. That would save a Siberia’s worth of trees, lakes of toxic dyes and finishes, and vast quantities of other resources. But why would it do that? IKEA is not in business to make furniture or save the planet. IKEA is in the business to make money. As Ingvar Kamprad, founder and CEO of IKEA (and Nazi symp), long ago discovered, the way to maximize profits (besides employing semi-slave forced prison labor in Stalinist regimes and moving his “Swedish” company from high-tax Sweden to low-tax Holland and Switzerland)[35] is to relentlessly cheapen production by, among other tactics, building flat-pack disposable particle-board furniture in accordance with the Iron Law of Marketing to sell “the cheapest construction for the briefest interval the buying public will tolerate” so IKEA can chop down more Siberian birch trees and sell you the same shoddy \$59 bookcase all over again that will last you as long as the first one did - perhaps a bit longer this time if you don’t actually load many books of those flimsy shelves. As an IKEA commercial, directed by Spike Jonze, tells us: “an old lamp (or bookcase or table) doesn’t have any feelings; any piece of furniture can and should be replaced at any time.” The ad, and the whole IKEA approach, suggests that objects have no lasting meaning or value. They’re disposable; when we tire of them, we should just throw them out.[36] This is how IKEA got to be the third-largest consumer of wood in the world, most of it from East Europe and the Russian Siberia, where, according to the World Bank, half of all logging is illegal even by the Russian kleptocracy’s standards of legality. IKEA’s wholly owned Swedish subsidiary Swedwood has even been condemned by Russian nature conservancy organizations and the Global Forest Coalition for clear-cutting 1,400 acres a year of 200- to 600-year-old forest near the Finnish

border, a process that “is having deep ramifications on invaluable forest ecosystems.”[37] This is how IKEA’s business plan based on endless “repetitive consumption” is wiping out life on Earth. Here again, the capitalist freedom to make such junk wouldn’t matter - if it weren’t costing the Earth.[38]

Given capitalism, there’s no way to “incentivize” GM to stop producing new cars every year, IKEA to stop making its disposable furniture, Apple to stop pushing you to lose your iPhone 4 and buy a 5. That’s what they’re invested in. Companies can’t change, or change much, because it’s too costly, too risky, shareholders won’t allow it. And given capitalism, most workers, most of the time, have no choice but to support all this suicidal overconsumption because if we all stop shopping to save the planet today, we’d all be out of work tomorrow. Ask your nearest 6-year-old what’s wrong with this picture.

Capitalism and Délastage in the Richest Country of Poor People in the World

Yet even as corporations are plundering the planet to overproduce stuff we don’t need, huge social, economic and ecological needs - housing, schools, infrastructure, health care, environmental remediation - go unmet, even in the industrialized world, while most of Third World lacks even basic sanitation, clean water, schools, health care, ecological restoration, not to mention jobs.[39] After 300 years of capitalist “development” the gap between rich and poor has never been wider: Today, almost half the world, more than 3 billion people, live on less than \$2.50 a day, 80 percent of humanity lives on less than \$10 a day. This while the world’s richest 1% own 40 percent of the world’s wealth. The richest 10 percent own 85 percent of total global assets, and half the world barely owns 1 percent of global wealth. And these gaps have only widened over time.[40] Tell me again where Karl Marx was wrong? In Congo is one of the lushest, most fertile countries on the planet, with untold natural wealth in minerals, lumber, tropical crops and more. Yet its resources are plundered every day to support gross overconsumption in the north while poverty, hunger and malnutrition are so widespread that Congo is now listed dead last on the 2011 Global Hunger Index, a measure of malnutrition and child nutrition compiled by the International Food Policy Research Institute. While European and American corporations loot its copper and cobalt and coltran for iPhones and such, half the population eats only once a day and a quarter less than that. Things have reached such a state that in places like the capital Kinshasha parents can afford to feed their children only every other day. Congolese call it “délastage” - an ironic takeoff on the rolling electrical blackouts that routinely hit first one neighborhood then the next. In this context it means “Today we eat! Tomorrow we don’t.”

“On some days,” one citizen told a *New York Times* reporter, “some children eat, others do not. On other days, all the children eat, and the adults do not. Or vice versa.” [41] This, in the 21st century, in one of the resource-richest countries on Earth, and brought to them by an economic system that capitalist economists never tire of telling us is “the best system

humanity can come up with.”

Contraction or Collapse

If there's no market mechanism to stop plundering the planet, then, again, what alternative is there but to impose an emergency contraction on resource consumption? This doesn't mean we would have to de-industrialize and go back to riding horses and living in log cabins. But it does mean that we would have to abandon the “consumer economy” - shut down all kinds of unnecessary, wasteful and polluting industries from junk food to cruise ships, disposable Pampers to disposable H&M clothes, disposable IKEA furniture, endless new model cars, phones, electronic games, the lot. Plus all the banking, advertising, junk mail, most retail, etc. We would have completely redesign production to replace “fast junk food” with healthy, nutritious, fresh “slow food,” replace “fast fashion” with “slow fashion,” bring back mending, alterations and local tailors and shoe repairmen. We would have to completely redesign production of appliances, electronics, housewares, furniture and so on to be as durable and long-lived as possible. Bring back appliance repairmen and such. We would have to abolish the throwaway disposables industries, the packaging and plastic bag industrial complex, bring back refillable bottles and the like. We would have to design and build housing to last for centuries, to be as energy-efficient as possible, to be reconfigurable and shareable. We would have to vastly expand public transportation to curb vehicle use but also build those we do need to last and be shareable like Zipcar or Paris' municipally owned “Autolib” shared electric cars. These are the sorts of things we would have to do to if we really want to stop overconsumption and save the world. All these changes are simple, self-evident, no great technical challenge. They just require a completely different kind of economy, an economy geared to producing what we need while conserving resources for future generations of humans and for other species with which we share this planet.

3. IF CAPITALISM CAN'T HELP BUT DESTROY THE WORLD, THEN WHAT ALTERNATIVE IS THERE BUT TO NATIONALIZE AND SOCIALIZE MOST OF THE ECONOMY AND PLAN IT DIRECTLY, EVEN PLAN MOST OF THE GLOBAL INDUSTRIAL ECONOMY?

With 7 billion humans crowded on one small planet running out of resources, with cities disappearing under vast clouds of pollution, with the glaciers and ice caps melting and species going extinct by the hour, we desperately need a PLAN to avert ecological collapse. We need a comprehensive global plan, a number of national or regional plans, and a multitude of local plans - and we need to coordinate them all. When climate scientists call on governments to cut CO2 emissions to stay within a global “carbon budget” if we want to keep a livable planet, isn't that, in effect, calling for “planning,” indeed, planning on a global scale? When governments pump money into research projects like nuclear power or biotech or the Internet or clean energy projects, isn't that planning? When scientists say that we need to massively reduce and limit consumption of oil, coal, trees, fish, all kinds of scarce

resources or stop dumping chemicals in the world's oceans - isn't that, in effect, physical planning and rationing? And don't we want that? Indeed, because we all breathe the same air, live in the same biosphere, don't we really want and need something like a "one-world government" at least on environmental issues? How else can we regulate humanity's collective impact on the global biosphere? How else can we reorganize and reprioritize the economy in the common interest and environmental rationality except in a mostly planned and mostly publicly owned economy?

What Would We Have To Do To Save the Humans?

If we want a sustainable economy, one that "meets the needs of present generations without compromising the ability of future generations to meet their needs," then we would have to do at least some or all of the following:

1. Put the brakes on out-of-control growth in the global North
- retrench or shut down unnecessary, resource-hogging, wasteful, polluting industries like fossil fuels, autos, aircraft and airlines, shipping, chemicals, bottled water, processed foods, unnecessary pharmaceuticals and so on. Abolish luxury-goods production, the fashions, jewelry, handbags, mansions, Bentleys, yachts, private jets etc. Abolish the manufacture of disposable, throw-away and "repetitive consumption" products. All these consume resources we're running out of, resources that other people on the planet desperately need and that our children and theirs will need.

2. Discontinue harmful industrial processes like industrial agriculture, industrial fishing, logging, mining and so on.

3. Close many services - the banking industry, Wall Street, the credit card, retail, PR and advertising "industries" built to underwrite and promote all this overconsumption. I'm sure most of the people working in these so-called industries would rather be doing something else, something useful, creative and interesting and personally rewarding with their lives. They deserve that chance.

4. Abolish the military-surveillance-police state industrial complex, and all its manufactures because this is just a total waste whose only purpose is global domination, terrorism and destruction abroad and repression at home. We can't build decent societies anywhere when so much of social surplus is squandered on such waste.

5. Reorganize, restructure, reprioritize production and build the products we do need to be as durable and shareable as possible.

6. Steer investments into things society does need, like renewable energy, organic farming, public transportation, public water systems, ecological remediation, public health, quality schools and other currently unmet needs.

7. Deglobalize trade to produce what can be produced locally; trade what can't be produced locally, to reduce transportation pollution and revive local producers.

8. Equalize development the world over by shifting resources out of useless and harmful production in the North and into developing the South, building basic infrastructure,

sanitation systems, public schools, health care, and so on.

9. Devise a rational approach to eliminate or control waste and toxins as much as possible.

10. Provide equivalent jobs for workers displaced by the retrenchment or closure of unnecessary or harmful industries, not just the unemployment line, not just because workers cannot support the industry we and they need to save ourselves.

“Necessary,” “Unnecessary” and Who’s the “Decider”?

Now we might all agree that we have to cut “overconsumption” to save the humans. But who’s to say what’s “necessary” and “unnecessary?” How do we decide what to cut? And who’s to decide? Under capitalism goods and services are rationed by the market. But that’s not sustainable because the market can’t restrain consumption, the market can only accelerate consumption. So we need a non-market approach. I don’t claim to have all the answers. This is a big question and I’m sure there are others better qualified than me to figure out solutions. But I would think the short answer has to be a combination of planning, rationing and democracy. I don’t see why that’s so hard. The US government planned significant parts of the US economy during World War II and rationed many goods and services. And we managed just fine. Actually, far from suffering unduly, Americans took pride in conservation and sharing. Besides, what’s the alternative? What other choice do we

have? There are only so many ways to organize a modern industrial economy.

The challenges of physically planning the world economy in the interests of the 99% instead of for the 1% - reorganizing and reprioritizing the world economy to provide every person sufficient, nutritious, safe and delicious food, providing every human with high-quality, pleasurable, and aesthetically appealing housing, consolidating our cities to maximize the feasibility of public transportation, building great schools to enable every student to reach her or his fullest potential, providing top-notch health care for everyone on the planet, reorganizing and reprioritizing work so that everyone can find constructive, enjoyable, interesting, challenging and rewarding work, work that's rewarding in many ways beyond simple remuneration, providing fun, enlightening and inspiring entertainment, reducing the workday so people can actually have time to enjoy themselves and pursue other pleasures, while, not least, how to limit our collective human impact on the planet so as to leave space and resources to all the other wonderful life forms with which we have the pleasure of sharing this unique and amazing planet - all these are no doubt big challenges. They're very big political challenges. But they're not an economic challenge. This is not Soviet Russia in 1917. I'm not proposing Maoist austerity. Today, there's more than enough wealth and productive capacity to provide every person on earth a very satisfactory material standard of living. Even more than half a century ago, Gandhi was right to say then that "there's more than enough wealth for man's need but never enough for some men's greed." I doubt that it would even be much of a technical challenge. Google's Larry Page predicts that the virtually everyone in the world will have access to the Internet by 2020. Quantifying human needs, global resources and global agricultural and industrial capacities is, I would think, a fairly pedestrian task for today's computers, with all their algorithms.

Planning Can't Work?

Right-wing economists like Milton Friedman denied the very possibility of planning any economy, equating all planning with Stalinism. I don't buy that. The question is this: Planning by whom, for whom? Stalinist central planning was planning from the top down, by and for a totalitarian bureaucracy. It completely shut out workers and the rest of society from the planning process. So it's hardly surprising that planning didn't work so well in the Soviet Union. But I don't see what that tells us about the potentials of planning from the bottom up, of democratic planning. Besides, capitalists indirectly plan the national and global economies all the time. They meet every year at Davos to shape the world market for their benefit. They conspire to privatize medicine, schools, public transportation, force us to buy "their" water or eat GMO foods. They use the IMF and World Bank to shackle countries with debt then open them up to U.S. corporate takeover. They've been using their states for centuries to expropriate peasants and tribes, even to exterminate them when necessary as in the Americas, to steal and privatize common lands, break up pre-capitalist societies, reorganize, replan whole continents to set up the right "business climate" for capital

accumulation. Late developers like Japan and South Korea used their state-backed MITIs and Chaebols to hothouse their own industries, protect them and strategically plan their integration into the world market. Capitalists are very good at planning - for their own interests. So why can't we plan the economy for our own interests?

Government "Can't Pick Winners"?

Disengenuous capitalist apologists like the *Wall Street Journal* are quick to condemn any perceived government funded "failures" like the recent bankruptcy of solar startup Solyndra Corporation bankrolled by the Obama administration as proof that "government can't pick winners." But Solyndra didn't fail because solar is a losing technology. It failed because, ironically, capitalist Solyndra could not compete against lower-cost, state-owned, state-directed and state-subsidized competitors in China. Besides, since when do capitalists have a crystal ball? CEOs and corporate boards bet on "loser" technologies and products all the time. Look at the recent collapse of electric car startup Fisker Automotive, or Better Place, the Israeli electric vehicle charging/battery swapping stations venture.^[42] These join a long list of misplaced private bets from Sony's Betamax to Polaroid, Ford's Edsel, Tucker Automobile, DeLorean Motor Company and all the way back to White Star Lines Titanic and the Tulip Mania. CEOs and boards not only pick losing technology and products, they also lose money for their shareholders and even drive perfectly successful companies into bankruptcy every day: Jamie Dimon at JPMorgan, Lehman Brothers, Washington Mutual, Enron, WorldCom, Pan Am, SwissAir and on and on. Who knows if Facebook or Zipcar or Tesla Motors will ever make money? Government-backed Solyndra lost \$500 million. But when Jamie Dimon lost \$12 billion for JPMorgan, I don't recall the *Journal* howling that capitalists "can't pick winners." When Enron collapsed I don't recall hearing any blanket condemnation of the "inevitable incompetence" of the private sector. Hypocrisy is stock and trade of capitalists, lazy media and fact-averse capitalist economists who want to make the facts fit their simple-minded model no matter the truth. That's why it's entirely in character that the *Wall Street Journal* has never bothered to applaud government when it picked indisputable winners: when government-funded, government-directed applied research produced nuclear weapons, nuclear energy, radar, rockets, the jet engine, the transistor, the microchip, the Internet, GPS, crucial breakthroughs in biotechnology, when government scientists and government industries launched the Apollo spacecrafts that put men on the moon, when government-developed and produced ballistic missiles terrorized the Soviets and government-designed and operated bombers bombed the Reds in Korea and Vietnam to "contain Communism" and secure American dominance of the Free World for corporate subscribers of the *Wall Street Journal* to exploit - where then was the *cri de coeur* that "government can't pick winners"? And what about those government-run drones? Anti-government bigmouth Rand Paul filibustered for a whole day against the threat of swarms of government drones over American cities but I didn't hear him complain that government drones don't work. That wasn't his problem. And when, after an eight-year, mind-bogglingly

difficult, complex and risky 150 million-mile journey, NASA's government-built Curiosity spaceship landed a (government-built) state-of-the art science lab the size of a Mini Cooper within a mile and a half of its target on the surface of Mars - then it immediately set off to explore its new neighborhood - even the Ayn Rand-loving government-hating Republicans in Congress were awed into silence. As David Sirota's headline in Salon.com read on August 13, 2012, just after Curiosity set down on the red planet: "Lesson from Mars: Government works!" And right now, as I'm writing this in April 2013, most of a year later, that government-run Mars explorer is happily roving around drilling core samples to find out if there is now, or used to be, water and possibly even life on Mars. All this while, back home, Shell Oil's private capitalist-run arctic drilling platform ran aground in an arctic storm and is now being towed away to Asia for repairs while Shell Oil's shareholders are having second thoughts about their CEO's wisdom in "picking winners" by squandering \$5 billion on this fools errand of drilling for oil under Arctic ice.[43]

One Planet, One People, One Economy for the Common Good

For better or worse we are well into what scientists call the "Anthropocene." Nature doesn't run Earth anymore. We do. So if we are, after all, just "one people on one planet," it's time we begin to make conscious and collective decisions about how our economic activity affects the natural world - and I don't mean "geoengineering" the planet by wrapping glaciers in tinfoil to slow their melting while capitalism goes right on cooking and pillaging the planet. Since the rise of capitalism 300 years ago, more and more of the world has come to be run on the principle of market anarchy, on Adam Smith's maxim that every individual should just maximize his own interest - "look out for No. 1" - and the "public interest," the "common good" would take care of itself. Well, that hasn't worked out so well. It was always a dumb theory, but it's worked OK for the 1% who could mostly manage without the commons. For the rest of us, the more capitalism, the more the common good gets trashed. And now globalized market anarchy is destroying not just humanity and society but even life on Earth.[44] The problem with Smith's theory is that the aggregate of private interests don't add up to the public interest. The problems we face with respect to the planetary environment and ecology can't be solved by individual choice in the marketplace. They require collective democratic control over the economy to prioritize the needs of society, the environment, other species and future generations. This requires local, national and global economic planning to reorganize the world economy and redeploy labor and resources to these ends. And it requires an economy of guaranteed full employment because if we would have to shut down ExxonMobil and GM and Monsanto[45] and Walmart and so on to save the world, then we have to provide equal or better jobs for all those laid-off workers because otherwise they won't support what we all need to do to save ourselves.

Ecosocialism and the Salvation of Small Businesses

This does not at all mean that we would have to nationalize local restaurants, family farms, farmers markets, artisans, groceries, bakeries, repair shops, workers co-ops and the like. Small-scale self-managed producers based on simple reproduction are not destroying the world. Large-scale capitalist investor-owned corporations based on insatiable accumulation are destroying the world. So they would have to be nationalized, many closed down, others scaled back, others repurposed. But an ecosocialist society would rescue and promote small-scale, local, self-managed businesses because we would need them. Indeed, we would want many more of them whereas, today, capitalism is driving them out of business everywhere.

4. RATIONAL PLANNING REQUIRES DEMOCRACY: VOTING THE BIG QUESTIONS

Solar or coal? Frack the planet, or work our way off fossil fuels? Drench the world's farms in toxic pesticides or return to organic agriculture. Public transportation or private cars as the mainstay? Let's put the big questions up for a vote. Shouldn't everyone have a say in decisions that affect them all? Isn't that the essential idea of democracy? The problem with capitalism is that the economy isn't up for a vote. But it needs to be. Again, in Adam Smith's day it mattered less, at least for the environment, because private decisions had so little impact on the planet. But today, huge decisions that affect all of us, other species, and even the fate of life on Earth are all still private decisions, made by corporate boards on behalf of self-interested investors. Polls show that 57 percent of Chinese feel that protecting the environment should be given priority, even at the expense of economic growth, and only 21 percent prioritize the economy over the environment.^[46] But, obviously, the Chinese don't get to vote on that or anything else. Polls show Americans opposed to GMO foods outnumber supporters nearly two to one and 82 percent of Americans favor labeling of GMO foods.^[47] But Americans don't get to vote on whether we get GMOs in our food or get told about it. Well, why not? Corporate boards vote to put GMOs and all kinds of toxic chemicals in our food. We're the ones who consume this stuff. We can't avoid GMOs simply by refusing to purchase them - the "market solution" - because they're everywhere. They're in 80 percent of the foods we consume, and Monsanto and the rest of the GMO-industrial complex bribe politicians and regulators with campaign contributions and lucrative revolving-door jobs to make sure you don't know what foods to avoid.^[48] Well, why should we accept this? Why shouldn't we have a say in these decisions? We don't have to be experts; corporate boards aren't composed of experts. They're mainly made up of major investors. They discuss and vote on what they want to do, then hire experts to figure out how to implement their decisions. Why can't we do that - for humanity's interests?

Every Cook Can Govern

From Tunisa to Tahir Square; Zuccotti Park to Gezi Park; Madison, Wisconsin, to Kunming Yunnan, Songjian Shanghai, Shifang Sichuan, Guangzhou and thousands of sites and cities and towns all over China, ordinary citizens demonstrate remarkably rational environmental

sense against the profit-driven environmental irrationality and irresponsibility of their rulers.[49] In Turkey, “Sultan” Erdogan’s decree to tear up Istanbul’s last major park to replace it with an Ottoman-style shopping mall provoked mass outrage. Protesters complained, as one put it: “When were we asked what we wanted? We have three times as many mosques as we do schools. Yet they are building new mosques. There are eight shopping malls in the vicinity of Taksim, yet they want to build another. ... Where are the opera houses? The theaters? The culture and youth centers? What about those? They only choose what will bring them the most profit without considering what we need.”[50] When, in a bid to mollify the protesters, a spokesman for the ruling Justice and Development Party (AKP) floated the excellent idea of a public referendum on the issue saying, “We might put it to a referendum. ... In democracies only the will of the people counts,” Erdogan considered this option for a moment. But when protesters doubted his sincerity, he proved them right by calling in his riot squads to crush the protests instead.[51] In Brazil, on the heels of the Turkish protests, mass protests erupted over announced bus fare hikes but soon morphed into more sweeping social protest as hundreds of thousands of Brazilians turned out in cities across the country to denounce the irresponsible waste of public funds on extravagant soccer stadiums in the run-up to the World Cup in 2014, when schools, public transportation, hospitals, health care and other public services are neglected: “People are going hungry, and the government builds stadiums,” said Eleuntina Scuilaro, a pensioner. “I love soccer, but we need schools,” said Evaldir Cardoso, a fireman at a protest with his 7-month-old son. “These protests are in favor of common sense, argued protester Roberta da Matta. “We pay an absurd amount of taxes in Brazil, and now more people are questioning what they are getting in return.”[52]

If corporations and capitalist governments can’t align production with the common good and ecological rationality, what other choice is there but for society to collectively and democratically organize, plan and manage most production themselves? To do this we would have to establish democratic institutions to plan and manage our social economy. We would have to set up planning boards at local, regional, national/continental and international levels. Those would have to include not just workers, the direct producers, but entire communities, consumers, farmers, peasants, everyone. We have models: the Paris Commune, Russian soviets, Brazil’s participatory planning, La Via Campesina and others. Direct democracy at the base, delegated authority with right of recall for higher-level planning boards. What’s so difficult about that? [53]

As Greg Palast, Jarrold Oppenheim and Theo MacGregor described in *Democracy and Regulation: How the Public Can Govern Essential Services* (2003), it is a curious and ironic fact that the United States, foremost protagonist of the free market, possesses a large and indispensable sector of the economy that is not governed by the free market but instead, democratically, by public oversight - and that is utilities: the provision of electricity, heating fuel, water and sewerage, and local telephone service. Not only that but these are the most

efficient and cheapest utility systems in the world. The authors note that British residents pay 44 percent more for electricity than do American consumers, 85 percent more for local telephone service and 26 percent more for natural gas. Europeans pay even more, Latin Americans more than Europeans. They write that “Americans pay astonishingly little for high-quality public services, yet low charges do not suppress wages: American utility workers are the nation’s industrial elite, with a higher concentration of union membership than in any other private industry.” Palast, Oppenheim and MacGregor attribute this to the fact that, unlike Britain and most of the rest of the world, utilities are not unregulated free-market corporations like ExxonMobil or Monsanto or Rio Light or British Water. Instead, they are tightly regulated industries, mostly privately owned, but many publicly owned by local municipalities. Yet even when utilities are privately owned like Con Edison in New York or Green Mountain Power in Vermont or Florida Power and Light (to take some East Coast examples), it’s really hard to call this “capitalism.” It’s more like state capitalism, even quasi-socialism. Either way, public- or investor-owned, they are highly regulated, subject to public oversight, involvement and control:

Unique in the world (with the exception of Canada), every aspect of US regulation is wide open to the public. There are no secret meetings, no secret documents. Any and all citizens and groups are invited to take part: individuals, industrial customers, government agencies, consumer groups, trade unions, the utility itself, even its competitors. Everyone affected by the outcome has a right to make their case openly, to ask questions of government and utilities, to read all financial and operating records in detail. In public forums, with all information open to all citizens, the principles of social dialogue and transparency come to life. It is an extra-ordinary exercise in democracy – and it works. ... Another little-known fact is that, despite the recent experiments with markets in electricity [the authors published this book in 2003, just three years after the Enron privatization debacle], the US holds to the strictest, most elaborate and detailed system of regulation anywhere: Private utilities’ profits are capped, investments directed or vetoed by public agencies. Privately owned utilities are directed to reduce prices for the poor, fund environmentally friendly physical and financial inspection. ... Americans, while strongly attached to private property and ownership, demand stern and exacting government control over vital utility services.[54]

The authors are careful to note that this is “no regulatory Garden of Eden.” It has many failings: regulation is constantly under attack by promoters of market pricing, the public interest and the profit motive of investor-owned utilities often conflict with negative consequences for the public, and so on. [55] But even so, this long-established and indisputably successful example of democratic public regulation of large-scale industries offers us a real-world practical example of something like a “proto-socialism.” I see no obvious reason something like this model of democracy and transparency could not be extended, expanded, fully socialized and replicated to encompass the entire large-scale industrial economy. Of course, as I argued above, to save the humans, we would have to do

much more than just “regulate” industries. We would have to completely reorganize and reprioritize the whole economy, indeed the whole global industrial economy. This means not just regulating but retrenching and closing down resource-consuming and polluting industries, shifting resources out of them, starting up new industries and so on. Those are huge tasks, beyond the scope of even the biggest corporations, even many governments. So who else could do this but self-organized masses of citizens, the whole society acting in concert, democratically? Obviously, many issues can be decided at local levels. Others like closing down the coal industry or repurposing the auto industry, require large-scale planning at national if not international levels. Some, like global warming, ocean acidification, deforestation, would require extensive international coordination, virtually global planning. I don’t see why that’s not doable. We have the UN Climate Convention, which meets annually and is charged with regulating GHG emissions. It fails to do so only because it lacks enforcement powers. We need to give it enforcement powers.

5. DEMOCRACY CAN WORK ONLY IN CONTEXT OF ROUGH SOCIO-ECONOMIC EQUALITY AND SOCIAL GUARANTEES.

When in the midst of the Great Depression, the great “people’s jurist” Supreme Court Justice Louis Brandeis said, “We can either have democracy in this country or we can have great wealth concentrated in the hands of a few. But we can’t have both.” He was more right than he knew. Today we have by far the greatest concentration of wealth in history. So it’s hardly surprising that we have the weakest and most corrupt democracies since the Gilded Age. If we want democracy, we would have to abolish “the great wealth concentrated in the hands of the few.” That means abolishing not just private property in the means of production, but also extremes of income, exorbitant salaries, great property, and inheritance. Because the only way to prevent corruption of democracy is to make it impossible to materially gain by doing so - by creating a society with neither rich nor poor, a society of basic economic equality.

Does that mean we would all have to dress in blue Mao suits and dine in communal mess halls? Hardly. Lots of studies (Wilkinson and Pickett’s Spirit Level, the UK’s New Economics Foundation studies, and others) have shown that people are happier, there’s less crime and violence and fewer mental health problems in societies where income differences are small and where concentrated wealth is limited. We don’t have five planets to provide the resources for the whole world to live the “American Dream” of endless consumerism. But we have more than enough wealth to provide every human being on the planet with a basic income, with a good job at pay sufficient to lead a dignified life, with safe water and sanitation, quality food, housing, education and health care, with public transportation - all the authentic necessities we really need. These should all be guaranteed as a matter of right, as indeed most of these already were declared as such in the Universal Declaration of Human Rights of 1948.

Freeing ourselves from the toil of producing unnecessary or harmful commodities - the three-quarters of current US production that's a waste - would free us to shorten the work day, to enjoy the leisure promised but never delivered by capitalism, to redefine the meaning of the standard of living to connote a way of life that is actually richer, while consuming less, to realize our fullest human potential instead of wasting our lives in mindless drudgery and shopping. This is the emancipatory promise of ecosocialism.[56]

6. THIS IS CRAZY, UTOPIAN, IMPOSSIBLE, NEVER HAPPEN

Perhaps. But what's the alternative? The specter of planetwide ecological collapse and the collapse of civilization into some kind of *Blade Runner* dystopia is not as hypothetical as it once seemed. Ask the Chinese. China's "capitalist miracle" already has driven that country off the cliff into headlong ecological collapse that threatens to take the whole planet down with it. With virtually all its rivers and lakes polluted and many depleted, with 70 percent of its croplands contaminated with heavy metals and other toxins, with undrinkable water, inedible food, unbreathable air that kills more than a million Chinese a year, with "cancer villages" metastasizing over the rural landscape and cancer the leading cause of death in Beijing,[57] China's rulers face hundreds of mass protests, often violent, around the country every day, more than 100,000 protest a year. And even with all their police-state instruments of repression, they know they can't keep the lid on forever (indeed, hundreds of thousands of Communist Party kleptocrats can see the writing on the wall through the smog and are moving their families, their money and themselves out of the country before it's too late). Today the Chinese and we need a socialist revolution not just to abolish exploitation and alienation but to derail the capitalist train wreck of ecological collapse before it takes us all over the edge. As China itself demonstrates, revolutions come and go. Economic systems come and go. Capitalism has had a 300-year run. The question is, will humanity stand by let the world be destroyed to save the profit system?

The Specter of Eco-Democratic Revolution

That outcome depends to a great extent on whether we, on the left, can answer that question - "What's your alternative?" - with a compelling and plausible vision of an eco-socialist civilization - and figure out how to get there. We have our work cut out for us. But what gives the growing global eco-socialist movement an edge in this ideological struggle is that capitalism has no solution to the ecological crisis, no way to put the brakes on collapse, because its only answer to every problem is more of the same growth that's killing us. "History" was supposed to have "ended" with the fall of communism and the triumph of capitalism two decades ago. Yet today, history is very much alive. And it is, ironically, capitalism itself that is being challenged more broadly than ever and found wanting for solutions. Today, we are very much living in one of those pivotal world-changing moments in history, indeed it is no exaggeration to say that this is the most critical moment in human

history. We may be fast approaching the precipice of ecological collapse, but the means to derail this train wreck are in the making as, around the world, struggles against the destruction of nature, against dams, against pollution, against overdevelopment, against the siting of chemical plants and power plants, against predatory resource extraction, against the imposition of GMOs, against privatization of remaining common lands, water and public services, against capitalist unemployment and *precarité* are growing and building momentum. Today we're riding a swelling wave of near-simultaneous global mass democratic "awakening," almost global mass uprising. This global insurrection is still in its infancy, still unsure of its future, but its radical democratic instincts are, I believe, humanity's last best hope. Let's make history!

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[1] Tom Bawden, "[Carbon dioxide in atmosphere at highest level for 5 million years](#)," *The Independent*, May 10, 2013 .

[2] Justin Gillis, "Heat-trapping gas passes milestone, raising fears," *The New York Times*, May 10, 2013. Scripps Institution of Oceanography, [Scripps News](#), April 23, 2013 .

[3] Michael T. Klare, *The Race for What's Left* (New York: Picador 2012), p. 24 Table 1.1. Jeffrey Sachs calculates that in value terms, between 1950 and 2008 the global human population rose from 2.5 billion to 7 billion, so less than tripled, while global GDP multiplied eight times. *Common Wealth: Economics for a Crowded Planet* (New York: Penguin Books, 2008), p. 19.

[4] On Shell's impact on Africa, see Nimo Bassegy, *To Cook a Continent: Destructive Extraction and the Climate Crisis in Africa* (Cape Town: Pambazuka Press 2012).

[5] Delly Mawazo Sesete of Change.org, writing in *The Guardian* newspaper says, "I am originally from the North Kivu province in the eastern region of the [Democratic Republic of the Congo](#), where a deadly conflict has been raging for over 15 years. While that conflict began as a war over ethnic tension, land rights and politics, it has increasingly turned to being a war of profit, with various armed groups fighting one another for control of strategic mineral reserves. Near the area where I grew up, there are mines with vast amounts of tungsten, tantalum, tin, and gold - minerals that make most consumer electronics in the world function. These minerals are part of your daily life. They keep your computer running so you can surf the Internet. They save your high score on your Playstation. They make your

cellphone vibrate when someone calls you. While minerals from the Congo have enriched your life, they have often brought violence, rape and instability to my home country. That's because those armed groups fighting for control of these mineral resources use murder, extortion and mass rape as a deliberate strategy to intimidate and control local populations, which helps them secure control of mines, trading routes and other strategic areas. Living in the Congo, I saw many of these atrocities firsthand. I documented the child slaves who are forced to work in the mines in dangerous conditions. I witnessed the deadly chemicals dumped into the local environment. I saw the use of rape as a weapon. And despite receiving multiple death threats for my work, I've continued to call for peace, development and dignity in Congo's minerals trade." "[Apple: time to make a conflict-free iPhone](#)," *The Guardian*, December 30, 2011. For more detail see conflictminerals.org. See also: Peter Eichstaedt, *Consuming the Congo: War and Conflict Minerals in the World's Deadliest Place* (Chicago: Lawrence Hill, 2011).

[6] Lauren McCauley, "[Herbicides for GMOs driving monarch butterfly populations to 'ominous' brink](#)," Common Dreams, March 14, 2013.

[7] James Hansen, *Storms of My Grandchildren* (New York: Bloomsbury 2009), pp. 70, 172-173,

[8] John M. Broder, "Obama readying emissions limits on power plants," *The New York Times*, June 20, 2013.

[9] Center for Biological Diversity, "[New mileage standards out of step with worsening climate crisis](#)," press release, August 28, 2012. Also, Common Dreams staff, "[New mileage standards encourage more gas-guzzling, not less: report](#)," Common Dreams, August 28, 2012.

[10] A full-size 1955 Chevrolet Bel Air weighed 3,100 pounds. A '55 Ford F-100 pickup truck also weighed 3,100 (3,300 with the optional V-8 motor). Even a 1955 Cadillac El Dorado, icon of 1950s conspicuous consumption, weighed only 5,050 pounds - chrome bullets, tailfins and all. By comparison, today even a compact Toyota Prius weighs 3,274 pounds (could it be the batteries?) while your typical full-size Ford Taurus weighs more than 4,300 pounds, pickup trucks and big SUVs start at around 6,000 pounds and go up from there to 7,000 to 8,000 pounds. Even though the occasional honest driver will concede he or she doesn't really "need" all this bulk and horsepower to load up at the mall, as a cheerful Texas Ford salesman noted, "We haven't found a ceiling to this luxury truck market." Joseph B. White, "Luxury pickups stray off the ranch," *Wall Street Journal*, March 21, 2012.

[11] Your typical 4,428-pound 1955 Cadillac Coupe DeVille got 12.9 mpg in city driving, according to *Motor Trend* magazine, whereas your typical 5,963-pound 2013 Cadillac

Escalade gets 10 mpg in the city (12 mpg “combined” city and highway). Your typical 2013 Chevrolet Silverado K15 truck gets just 9 mpg hauling those heavy bags of groceries home from the mall. This is after six decades of Detroit fuel economy “improvements” - and Obama says Detroit is going to “double its fleet mileage in 20 years.” Good luck on that. Mileage figures for the Cadillac are from [Cadillac History 1955](#). For the Silverado at www.fuel economy.gov.

[12] For forecasts of China’s vehicle fleet and its implications see Craig Simons, *The Devouring Dragon* (New York: St. Martins Press, 2013), p. 200.

[13] “A new paradigm for climate change,” *Nature Climate Change*, Vol. 2 September 2012, pp. 639-640 (my italics).

[14] IEA, [World Energy Outlook 2012 Executive Summary](#) (November 12, 2012), p. 3 .

[15] For a recent summary of the peer-reviewed literature see Glenn Scherer and DailyClimate.org, [“Climate science predictions prove too conservative,”](#) Scientific American December 6, 2012 . Prominent ex-denier Richard A. Muller published his mea culpa on the op-ed page of *The New York Times*: “The conversion of a climate-change skeptic,” July 28, 2012.

[16] World Resources Institute, [WRI Navigating the Numbers](#), Table 1. pp. 4-5 .

[17] [The Hill](#) blog .

[18] See my “Green capitalism,” op cit. pp. 131-133.

[19] Eg. David Biello, “The false promise of biofuels,” *Scientific American*, August 2011, pp. 59-65.

[20] Smith, “Green capitalism,” op cit. pp. 117-122.

[21] Ibid.

[22] Ibid.

[23] ExxonMobil, [The Outlook for Energy: A View to 2040](#) (December 2012) . See also, Jon Queally, [“BP’s Big Plan: Burn it. Burn it all,”](#) Common Dreams, January 17, 2013.

[24] Eg. John Parnell, “World on course to run out of water, warns Ban Ki-moon,” *The Guardian*, May 22, 2013. Gaia Vince, [“How the world’s oceans could be running out of](#)

fish," BBC News Online, September 12, 2012 . And as tropical forests, biodiversity is being sacrificed even in nominally protected areas at an alarming rate. See William F. Laurance et al. "Averting biodiversity collapse in tropical forest protected areas," *Nature*, no. 489 September 12, 2012 pp. 290-294. "[Widespread local 'extinctions' in tropical forest 'remnants'](#) " Also, ScienceDaily, August 14, 2012 . On minerals and oil, see Michael T. Klare, *The Race for What's Left* (New York: Picador 2012).

[25] Ecological "footprint" studies show that today humanity uses the equivalent of 1.5 planets to provide the resources we use and absorb our waste. This means it now takes the Earth one year and six months to regenerate what we use in a year. Moderate UN scenarios suggest that if current population and consumption trends continue, by the 2030s, we will need the equivalent of two Earths to support us. And of course, we have only one. Turning resources into waste faster than waste can be turned back into resources puts us in global ecological "overshoot" depleting the very resources on which human life and biodiversity depend. See the [Global Footprint Network](#).

[26] World Bank, 2008 [World Development Indicators](#), p. 4 Table 1J .

[27] Worldwatch Institute, 2010 *State of the World: Transforming Cultures From Consumerism to Sustainability* (New York: Norton, 2010) pp. 3-7ff. Also Alan Durning, *How Much is Enough?* (New York: Norton 1992). Avatar.

[28] Michael T. Klare, *The Race for What's Left*, p. 12. AP, "Tech tycoons in asteroid mining venture," *The Guardian*, April 20, 2012.

[29] "[China's environmental nightmare](#)," China Digital Times, March 12, 2012 . Lily Kuo, "[China's nightmare scenario: by 2025 air quality could be much much worse](#)," posted March 12, 2013 on Quartz.

[30] See eg. Sam Wade, " ['Growth first' mentality undermines war on pollution](#)," China Digital Times, June 5, 2013 .

[31] Hansen, *Storms*, chapter 9. Independent Voices: "[James Lovelock: Nuclear power is the only green solution](#)," Independent, May 24, 2004 . George Monbiot, *The Guardian* columnist, has argued this in many venues but see, in particular, his blog piece: "[The moral case for nuclear power](#)," August 8, 2011 . Also, Ted Nordhaus and Michael Shellenberger, "Going green? Then go nuclear," *Wall Street Journal* op-ed, May 23, 2013.

[32] Keith Johnson and Ben Lefebvre, "U.S. approves expanded gas exports," *Wall Street Journal*, May 18, 2013.

[33] John Vogel, "Methane gas 'fracking:' 3 polls show public leaning to toward yes," *American Agriculturalist*, April 9, 2013 . Karen DeWitt, "Poll shows increased support for fracking," North Country Public Radio, September 13, 2012 .

[34] Clothing designer Eliza Starbuck says of ultra -cheap producers like H&M "It's throwaway fashion or 'trashion.' If their prices are that cheap that people are throwing their disposable income at them - only to find that the clothes fall apart on the hangers after a wash or two - they're just creating garbage. ... It takes such a huge amount of human energy and textile fibers, dyes and chemicals to create even poor-quality clothes. They may be offering fashions at a price anyone can afford in an economic crunch, but they're being irresponsible about what happens to the goods after the consumers purchase them." Jasmin Malik Chua, "Is H&M's new lower-priced clothing encouraging disposable fashion?" *ecouterre*, September 28, 2010 . And H&M takes "disposable" literally. As *The New York Times* reported in 2012, H&M's employees systematically slash and rip perfectly good unsold clothes before tossing them in dumpsters at the back of the chain's 34th Street store in Manhattan - to make sure they can't be sold but thus adding pointlessly to landfills rather than donating them to charity. It is little remarked that capitalism is the first economic system in which perfectly serviceable, even brand new goods from clothes to automobiles (recall the "cash for clunkers" rebates) are deliberately destroyed so as to promote production of their replacements. I'll explore this interesting theme further elsewhere. See Jim Dwyer, "A clothing clearance where more than just the prices are slashed," *The New York Times*, January 5, 2010. Also, Ann Zimmerman and Neil Shah, "Taste for cheap clothes fed Bangladesh boom," *Wall Street Journal*, May 13, 2013.

[35] Juan O. Tamayo, "STASI records show Cuba deal included IKEA furniture, antiques, rum and guns," McClatchy Newspapers, May 9, 2012. James Angelos, "IKEA regrets use of East German prisoners," *Wall Street Journal*, November 16, 2012. Kamprad's soft spot for prison slave labor fits very well with his deep past as a Swedish Nazi recruiter and long-time sympathizer as detailed in a recent book by Elisabeth Asbrink. See "Ikea founder Ingvar Kamprad's Nazi ties 'went deeper,'" BBC News online August 25, 2011 .

[36] I am quoting here from Stephanie Zacharek's excellent "IKEA is as bad as Wal-Mart," Salon.com, July 12, 2009: 12:11 PM. Reviewing Ellen Ruppel Shell, *Cheap: The High cost of Discount Culture* (New York: Penguin, 2009), chapter 6.

[37] Ida Karisson, "IKEA products made from 600-year old trees," Inter Press Service, May 29, 2012 Common Dreams.org.

[38] Eg. Fred Pearce, "Ikea - you can't build a green reputation with a flatpack DIY manual," *Guardian*, April 2, 2009. Also: Greenpeace, *Slaughtering the Amazon*, July 2009 . Alfonso Daniels, "Battling Siberia's devastating illegal logging trade," BBC news online, November

27, 2009.

[39] Michael Davis, *Planet of Slums* (London: Verso 2006).

[40] World Bank Development Indicators 2008, cited in Anup Shah, Poverty and stats, *Global Issues*, January 7, 2013 . World Institute for Development Economics Research of the UN cited in James Randerson, "World's richest 1% own 40% of all wealth, UN report discovers," *The Guardian*, December 6, 2006. As for trends, in 1979 the richest 1% in the U.S. earned 33.1 percent more than the bottom 20 percent. In 2000 the wealthiest 1% made 88.5 percent more than the poorest 20 percent. In the Third World, polarization has grown even worse, especially in China which in 1978 had the world's most equal incomes while today, it has the most unequal incomes of any large society. Who says capitalism doesn't work?!

[41] Adam Nossiter, "For Congo children, food today means none tomorrow," *The New York Times*, January 3, 2012.

[42] Isabel Kershner, "Israeli venture meant to serve electric cars ending its run," *The New York Times*, May 27, 2013. Ronald D. White, "One owner, low miles, will finance: sellers try to unload Fiskers," *Los Angeles Times*, April 26, 2013. Rachel Feintzeig, "Electric-car maker Coda files for bankruptcy," *Wall Street Journal*, May 1, 2013.

[43] Kenneth Chang, "Mars could have supported life long ago, NASA says," *The New York Times*, March 12, 2013. And Shell Oil isn't the only company having second thoughts about what its brilliant CEO thought was a sure thing: Clifford Krauss, "ConocoPhillips suspends its Arctic drilling plans," *The New York Times*, April 11, 2013.

[44] Citing a recent study by an international team of researchers in *Nature Climate Change* in May 2013, the BBC reports that if "rapid action" is not taken to curb greenhouse gases, some 34 percent of animals and 57 percent of plants will lose more than half of their current habitat ranges. Dr. Rachel Warren, the lead scientist of the study said that "our research predicts that climate change will greatly reduce the diversity of even very common species found in most parts of the world. This loss of global-scale biodiversity would significantly impoverish the biosphere and the ecosystem services it provides. There will also be a knock-on effect for humans because these species are important for things like water and air purification, flood control, nutrient cycling and eco-tourism." Matt McGrath, " **'Dramatic decline' warning for plants and animals**," BBC News Online, May 12, 2013 .

[45] On the existential threat Monsanto Corporation poses to humanity and the planet, see the Green Shadow Cabinet: "**What must be done about Monsanto corporation, and why**," May 23, 2013 .

[46] Gallup, June 8, 2012 .

[47] Huffington Post, “GMO poll finds huge majority say foods should be labeled,” March 4, 2013 .

[48] See again, Green Shadow Cabinet, “What must be done about Monsanto, and why?” op cit.

[49] Eg. Jennifer Duggan, “Kunming pollution is the tip of rising Chinese environmental activism,” *The Guardian* blog post May 16, 2013.

[50] Tim Arango and Ceylan Yeginsu, “Peaceful protest over Istanbul park turns violent as police crack down,” *The New York Times*, May 31, 2013.

[51] “Turkish government moots referendum on Gezi Park,” Deutsche Welle, June 12, 2013 .

[52] Simon Romero, “Protests grow as Brazilians blame leaders,” *The New York Times*, June 19, 2013.

[53] For further exploration of these themes see the superb piece by Michael Lowy: “Eco-socialism and democratic planning,” *Socialist Register* 2007 (New York: Monthly Review 2007), p. 294-309.

[54] Greg Palast, Jerrold Oppenheim, and Theo MacGregor, *Democracy and Regulation: How the Public can Govern Essential Services* (London: Pluto, 2003) pp. 2-4. The authors point out yet another irony of this system of public regulation, namely that it was created by private companies as the lesser evil to fend off the threat of nationalization: “Modern US utility regulation is pretty much the invention of American Telephone & Telegraph Company (AT&T) and the National Electric Light Association (NELA) - the investor-owned telephone and electric industries at the turn of the twentieth century. They saw regulation as protection against Populist and Progressive movements that, since the economic panic of 1873 and later disruptions, had galvanized anti-corporate farmer and labor organizations. By the turn of the twentieth century, these movements had galvanized considerable public support for governmental ownership of utilities. ... ” p. 98.

[55] In the case of nuclear power plants, local public regulation often has been subverted and overridden by the federal government in its zealous drive to push nuclear power even against the wishes of the local public. Thus in the aftermath of the Three Mile Island nuclear accident in 1979, social scientists Raymond Goldsteen and John Schorr interviewed residents around Three Mile Island about the history of the power plant, why it was built, what voice they had in the decision to build it and the decision to restart the plant after the

accident. It turns out that, as one resident, a Mrs. Kelsey, put it, they had no choice. They were virtually forced to accept it: "They [Met Ed the utility, and the Nuclear Regulatory Commission] keep saying we need this nuclear. They keep pounding that into our heads with the news and everything. We need it. We need it. We can't do without it." Residents told Goldstein and Schorr that the surrounding communities petitioned against restarting the plant after the accident but lost again. Another resident, Mrs. Boswell, said, "We don't want to be guinea pigs. ... I still think that we should have a say, too, in what goes on. I really do, because we're the victims." Mrs. Brown: "The company just wants [to reopen the plant for] the money. ... " Mrs. Carmen: "No, they're going to do what they want. ... I don't think [community feelings] would bother them at all." Mrs. Hemmingway: "I feel very angry about it really, because I just feel that there is so much incompetence on the part of the utility, on the part of the NRC, on the part of the local governments. ... " Residents said that if they had been informed honestly about the risks and if they had had a choice, they would have investigated other technologies and chosen differently. Mrs. Hemmingway again: "It just seems to me there are so many alternatives we could explore. ... We obviously need alternate energy sources, but solar could provide heating for houses and water [and so on]." Residents said they would have preferred other choices even if it meant giving up certain conveniences: Mrs. Caspar: "I don't really mind conserving all that much. If people can conserve gas [for cars], why can't they conserve energy? Now I don't mean I want to go back to the scrubboard ... but I don't dry my clothes in the dryer. I hang them ... on the line ... and I do try to conserve as far as that goes." (pp. 181-183,212). One of the most interesting results of this study, which is well worth reading in full, is that it illustrates how ordinary citizens, given the chance, would make more rational decisions about technology, safety and the environment than the "experts" at the utility, Met Ed, and the Nuclear Regulatory Commission. It's not that they were more knowledgeable about the technology than the experts but that the experts were not impartial. They were representing the industry and profits and the NRC, not the public, so they could not help but systematically make wrong decisions, decisions that in this case not only violated the public trust and but put huge numbers of lives in danger. Raymond L. Goldstein and John K. Schorr, *Demanding Democracy After Three Mile Island* (Gainesville: University of Florida Press 1991).

[56] See again, Michael Lowy op. cit.

[57] Edward Wong, "Air pollution linked to 1.2 million premature deaths in China," *The New York Times*. April 1, 2013. Johnathan Kaiman, "Inside China's 'cancer villages,'" *The Guardian*, June 4, 2012.

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Ecological Economics, Real-World Economics Review, Adbusters magazine and other publications. He is presently completing a book on China's communist-capitalism and ecological collapse.