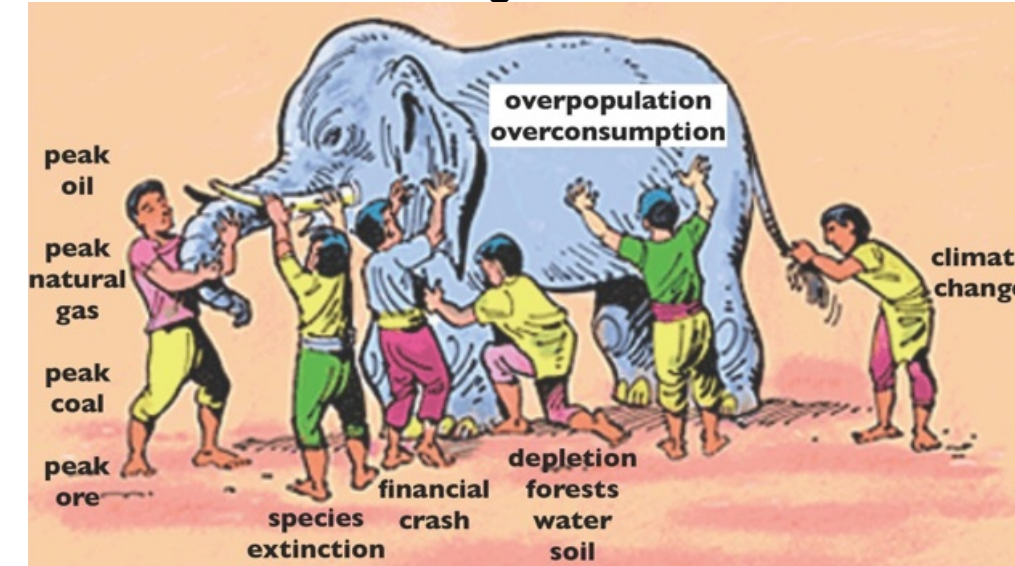


PEAKED ENERGY and CLIMATE CHAOS

The most important question facing humanity is how we respond to the interconnected crises of **Peaked Energy, Climate Chaos, overpopulation, overconsumption and resource conflicts as we pass the limits to growth on a round, finite planet.**

These crises resemble the parable of the blind men touching an elephant. Each observer correctly describes a part of the elephant, but none have a holistic understanding. **Peaked Energy and Climate Change are two facets of ecological overshoot, and neither can be mitigated without the other.**



The global crises of the end of cheap fossil fuels and the start of climate change require global levels of solutions — we need to relocalize everywhere. We are not merely at peak energy, we are at peak technology, peak money, peak communication, and peak everything else. Real solutions would require us to redirect the energy, talents and resources of global capitalism, the military industrial complex, media, universities, and other societal institutions.

We have enough resources and talent to shift civilization to create a peaceful world that might be able to gracefully cope with the end of concentrated fossil fuels, or to create a global police state to control populations as the resources decline. The “War on Terror” is actually a long planned World War to control finite fossil fuels as we pass their peaks.

Understanding why civilization did not respond to the warnings of resource depletion decades ago is needed if a shift toward sanity is still possible at this late date. This is a simple question that has a complex answer — and these decisions were not made democratically. Mitigating Peaked and Climate would require world peace instead of peak oil wars.

We are not “addicted” to oil — the modern world is completely dependent upon fossil fuels for industrial agriculture, transportation networks, and the growth based monetary system. Addictions are things you can give up — but oil runs our civilization.

Peaked and Climate are interconnected

Focusing on energy shortage while ignoring ecology led to the false solutions of offshore drilling, fracking, tar sands, liquid natural gas, biomass electricity, mountaintop removal, and nuclear power.

Focusing only on “carbon” while ignoring energy limits is one of the reasons for the political backlash against climate change awareness. Environmental groups frame these concerns as we *should* reduce energy consumption instead of we *will* reduce use because we cannot burn fuel that does not exist.

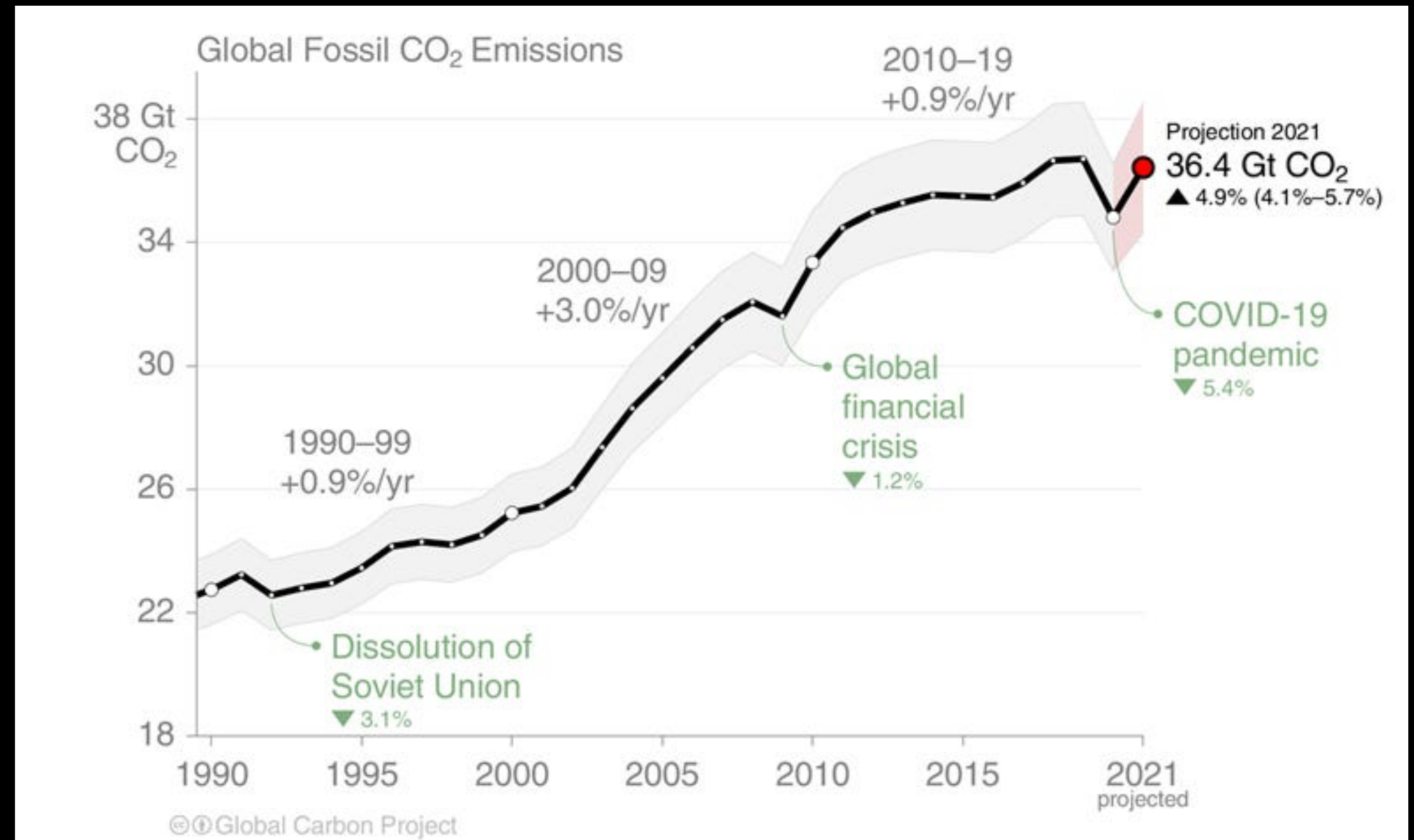
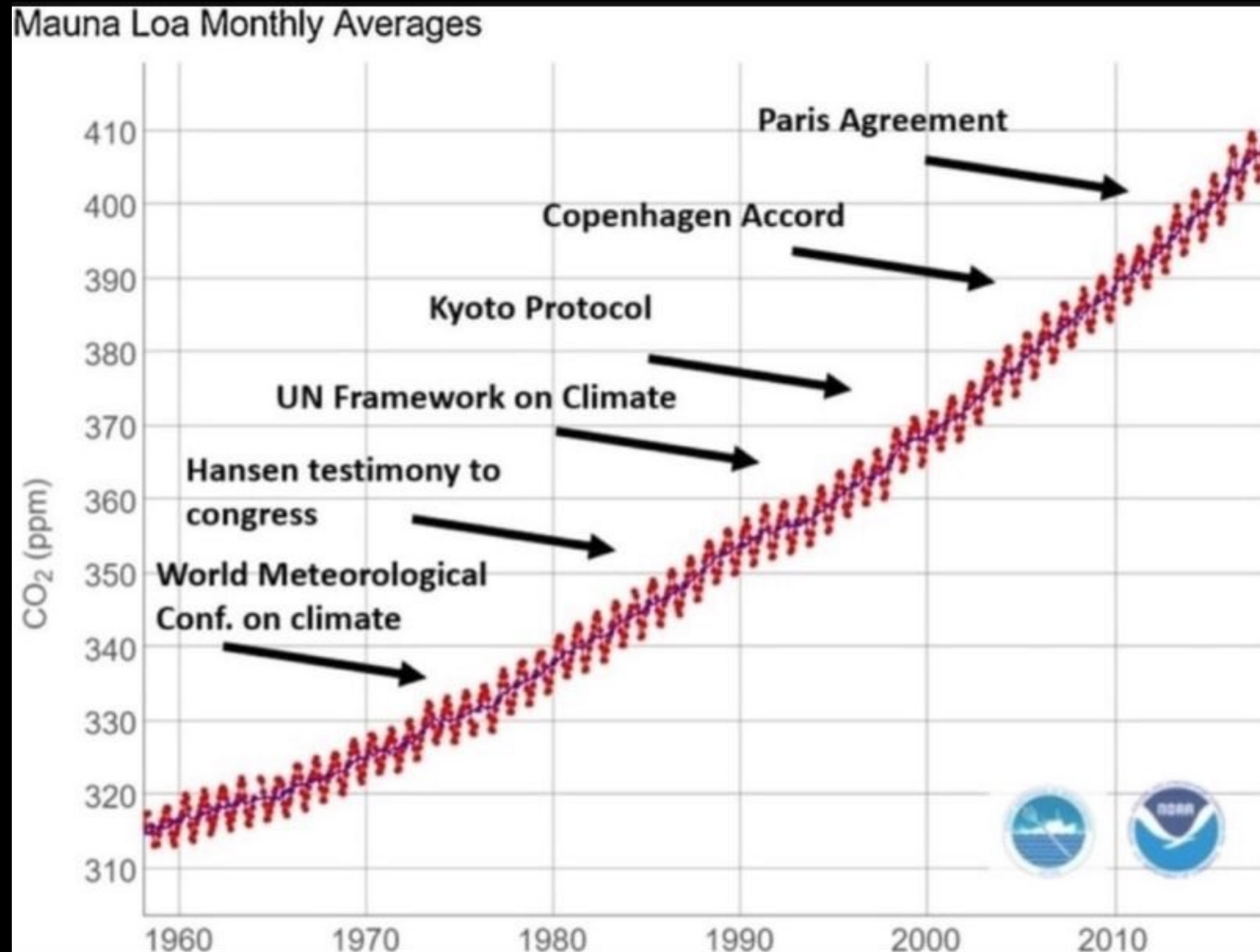
Framing the question as how we will use the remaining fossil fuels could bypass climate denial. We will reduce our “carbon footprint” whether we want to or not, since the oil, coal and unnatural gas will be mostly depleted before 2050, when our footprints are supposed to be much smaller. Reducing use by 2050 is code for depletion by 2050.

Our exponential growth economy has hit the end of growth of resource consumption, imposed by nature. Building lots of wind turbines, railroads and relocalizing agriculture would require reallocating resources used for endless warfare and wasteful consumerism. After Peak Everything there will be fewer resources available for “transition.” We need triage on a planetary scale for the remaining fossil fuels and minerals.

David Holmgren, co-originator of permaculture, is author of *“Future Scenarios: How Communities can adapt to Peak Oil and Climate Change.”* www.futurescenarios.org

“Economic recession is the only proven mechanism for a rapid reduction of greenhouse gas emissions ... most of the proposals for mitigation from Kyoto to the feverish efforts to construct post Kyoto solutions have been framed in ignorance of Peak Oil. As Richard Heinberg has argued recently, proposals to cap carbon emissions annually, and allowing them to be traded, rely on the rights to pollute being scarce relative to the availability of the fuel. Actual scarcity of fuel may make such schemes irrelevant.”

Living on our current solar budget would power a smaller, steady state economy. We will live on our solar budget as the oil, unnatural gas and coal deplete. Future generations need us to choose wisely and use remaining fossil fuels for relocalization and power down.



Covid closures cut carbon more than climate activism

Fake debate of whether we are causing climate change or not reduced public discussion to partisan divisiveness. The binary approach — climate is or is not being changed by industrial activities — is a dangerous distraction. Admitting that climate change is real is not the goal; it is barely a first step. Scaling back everything, toward a gentler impact on the planet, is a minimal step for mitigation. The categories presented here oversimplify but are a step toward seeing complexities. This map is not the territory. — Mark Robinowitz, September 20, 2019

two types of climate change denial

1. climate and peak denial: blaming environmentalists for fossil energy decline

the five stages of Peak Acceptance:

Peak Denial and Plausible Deniability

Peak Blame: Pique and Scapegoating

Peak Bargaining: techno-fixes and the promised land after oil

Peak Trauma Social Disaster (PTSD)

Peak Acceptance: Nature is abundant and finite

The Republican Party is the epicenter of denial that human caused climate change is happening. A potential antidote could be energy literacy — awareness that fossil fuels are finite and depleting.

Climate denial is partly rooted in the fact that most people like the benefits of fossil fuels, including unprecedented transport of ourselves, moving stuff all over the world (including foods out of season), indoor heating in cold climates, high tech communication, advanced medicine, and other concentrated energy dependent activities. These are easier done with fossil fuels than with “renewables” that can be local (dams), intermittent (solar and wind), or hard to scale up (biomass). The difficulty of replacing fossil fuels doesn’t mean they aren’t changing the climate.

We are approaching the cliff of energy descent, temporarily postponed by fracking, tar sands, offshore drilling and other extreme extraction. As conventional oil and gas continue their decline and the fracking bubble subsides we will enter the era of permanent shortages, which could trigger energy rationing. These consequences may be intensely unpopular. Mitigating the likely backlash will probably require practical responses more than protest of energy companies. Societies unable to meet basic needs seek scapegoats to blame — Germany after the Great Depression is a sobering example.

2. governments quietly consider climate & peak a permanent state of emergency

in public they disbelieve or downplay climate concerns

in private they plan for collapse



Homeland Insecurity: covert preparation for climate chaos resource depletion societal collapse

Climate movements are calling for governments to declare “climate emergency.” These demands fail to recognize that elites have been preparing for disaster but not in compassionate ways.

In private, governments, corporate leaders, militaries consider climate chaos, peak everything and other aspects of ecological overshoot to be a permanent state of emergency. The US military and CIA have studied the implications for decades: resource wars and refugee migrations.

One example: the civil war in Syria had many causes, including extreme drought that disrupted food production and Syria’s domestic peak oil which reduced governmental budgets that paid for social programs. These stresses worsened existing problems.

Climate, peak, overconsumption and overpopulation threaten every aspect of industrialized societies, including growth based fiat money and food supplies. The billionaire class and governments encourage distractions and division while building leaky lifeboats for themselves. We could have converted militarism to global cooperation decades ago but ignored the warnings. Brace for impact and help your neighbors.

recommended reads:

Peak Fascism: Peak Energy, Climate Chaos, Civil Liberties www.oilempire.us/peak-fascism.html

Pentagon bracing for public dissent over climate and energy shocks: NSA Prism is motivated in part by fears that environmentally-linked disasters could spur anti-government activism by Nafeez Ahmed, Friday 14 June 2013 www.guardian.co.uk/environment/earth-insight/2013/jun/14/climate-change-energy-shocks-nsa-prism

climate change is real three views

1. techno-fixes: electric cars, carbon credits, nuclear powered green growth

The Democratic Party admits climate change is real and wants a techno-fix approach to power more “green growth.” Voluntarily scaling back the American Way of Life (AWOL) is not considered.

Rep. Ocasio-Cortez says the “Green New Deal” should consider new nuclear power reactors. Gov. Inslee, briefly the “climate” candidate for President, also wants more nukes. Data For Progress (working with 350.org and Sunrise Movement) says nuclear is “clean” even though there is no way to detoxify nuclear waste. Radioactive decay can take a very long time to subside.

Democrats promote electric cars while pushing plans for a trillion dollars worth of expanded highways. Making electric cars and building roads requires fossil fuels and mineral ores. Redirecting road efforts to public transit and trains gets only token mention. Relocalizing production and living locally would prevent pollution.

Most official “climate plans” include carbon offsets and credits to supposedly achieve carbon neutrality. Here are three resources that refute this greenwashing:

“Cheat Neutral” (hilarious parody) www.youtube.com/watch?v=f3_CyYDDpk “The Story of Cap and Trade” www.youtube.com/watch?v=pA6FSy6EKrM “FutureScenarios: “How Communities Can Adapt to Peak Oil & Climate Change” by David Holmgren, permaculture co-ordinator: “proposals to cap carbon emissions annually, and allowing them to be traded, rely on the rights to pollute being scarce relative to the availability of the fuel. Actual scarcity of fuel may make such schemes irrelevant.” FutureScenarios.org

2. “100% solar & wind instead of fossil fuels” great goal, ignores limits to growth

Grassroots Democrats and most environmental groups want “100% solar and wind” instead of fossil fuels. They claim this is a political choice that could be achieved with protests, elections, lawsuits, investments. The reason we use fossil fuels is not corporate greed. Fossil fuels are more concentrated than living on our solar budget, with a much greater Energy Return on Energy Invested (EROEI) than the alternatives.

The goal of “decarbonization by 2050” is a sly way to hint that fossil fuels will be mostly depleted by then. We will use much less whether we want to or not.

The International Panel on Climate Change (IPCC) recently warned we have 12 years to fix the climate, which ignored the 1990 UN Environmental Program warning that the 1990s were the decade of decision and Al Gore’s 2006 warning we had a decade.

Just because someone says they are concerned about climate does not mean they are telling the truth.

Climate movement leaders urge a “World War II” mobilization to address the countless challenges. I appreciate the intention but also like Albert Einstein’s caution that a problem cannot be solved by the mindset that created it. World War II gave birth to the USA Military Industrial Intelligence Congressional Financial Media University Entertainment Complex, including “three letter agencies” that are extrajudicial additions to government. The Manhattan Project during World War II invented atomic bombs. Its legacy includes nuclear waste and our nuked democracy — not a good role model for living without toxic, depleting fossil fuels. Mitigating climate chaos would require unprecedented cooperation and radical honesty.

3. climate chaos and peaked everything are part of interconnected crises beyond limits to growth: fossil fuels, minerals, fresh water, forests, fish, food

Climate and peak are interconnected crises that cannot be addressed isolated from the others. Each makes the other harder to solve.

Focus on climate while ignoring peak enabled official greenwashing and the backlash of climate denial.

Focus on peak while ignoring climate led to unconventional extraction (fracking, tar sands), nuclear power, GMO corn ethanol and other toxic practices.

If we combined climate concerns with the math of fossil fuel depletion and density, we might better understand the crises. Seeking to sustain the unsustainable makes it less likely we will avert the worst case scenarios. A solar powered society could be ecological and fairer, powering a smaller, steady state economy — not endless growth on an abundant, round, finite planet.

I have used solar panels since 1990 — they are great but can’t replace our “current” consumption.

Our challenge is not whether to phase out fossil fuels, but how we can adapt to inevitable energy depletion with minimal social chaos.

details: www.peakchoice.org/peak-climate.html www.peakchoice.org/peak-money.html Peak Money: a permanent change



PEAK MONEY: a permanent change

we are past limits to growth, not a cyclical recession

Some of the media, government elites, and the financial world knew the 2008 financial crash was imminent but feigned surprise while wargaming how to manage and manipulate the crisis to protect their power (not just more profits). This was not a cyclical recession, it is a permanent economic shift. The End of Growth transcends ideologies and partisan politics.

Even if we convert transnational corporations into democratic, locally owned cooperatives, we are in overshoot, beyond Earth's carrying capacity.

The absurd hoax that Earth is flat gets deserved ridicule, but the equally ridiculous claim that endless growth is possible on a finite planet escapes scrutiny. **Can we move beyond Peak Denial and Blame to equitably share the shrinking economic pie?**

energy and money

- “the recession that will not end in our lifetime”
www.PeakChoice.org/peak-money.html
peakchoice.org/audio/interview-mark-robinowitz.mp3
- Richard Heinberg, Post Carbon Institute
“The End of Growth” www.postcarbon.org
- Center for the Advancement of the Steady State Economy www.steadystate.org

“Communism forgets that life is individual. Capitalism forgets that life is social, and the kingdom of brotherhood is found neither in the thesis of communism nor the antithesis of capitalism but in a higher synthesis that combines the truths of both. Now, when I say question the whole society, it means ultimately coming to see that the problems of racism, the problem of economic exploitation, and the problem of war are all tied together.”

— Martin Luther King, “Where do we go from here?”
August 16, 1967 www.jfkmlkrfk.com

“Growth for the sake of growth is the ideology of the cancer cell.” — Edward Abbey

“This is not so much financial bad weather as financial climate change” — James Howard Kunstler

steady state economics for an ecological society

The dominant paradigm teaches money is the most important value, energy conservation and ecological sanity are nice if we can afford them.

Most of the environmental movement has embraced the concept of the Triple Bottom Line, which suggests that the economy needs to consider ecology and social justice issues. While it is good to factor these into economic decisions, the deeper truth is **the environment makes the economy possible. Energy creates money, not the other way around. There are no jobs on a dead planet.**

It is not a coincidence that most voices calling attention to the problems of fiat currency, the Federal Reserve and other structural problems rarely mention underlying ecological limits. Worse, some are fixated on Jewish bankers who allegedly run the world.

We need to weave together social justice advocacy with understanding of how fiat money is created now that we have reached the limits to growth on a round, abundant, finite planet.

“Awareness of Climate Change by the media and general public is obviously running well ahead of awareness about Peak Oil, but there are interesting differences in this general pattern when we look more closely at those involved in the money and energy industries. Many of those involved in money and markets have begun to rally around Climate Change as an urgent problem that can be turned into another opportunity for economic growth (of a green economy). These same people have tended to resist even using the term Peak Oil, let alone acknowledging its imminent occurrence. Perhaps this denial comes from an intuitive understanding that **once markets understand that future growth is not possible, then it's game over for our fiat system of debt-based money.**”

— David Holmgren, co-originator of permaculture
“Money vs. Fossil energy: the battle to control the world” www.holmgren.com.au

“It's a cold political reality that today no candidate can win election on a platform that respects the laws of physics on a finite planet.”

— Dave Gardner, Growth Busters

PROTEST ON THE TITANIC

As climate chaos intensifies, some environmentalists are focused on direct action protests to stop fracking, shut off tar sands pipelines and leave fossil fuels in the ground. These are worthy goals, but they come with an inconvenient price: fracking and tar sands delayed the arrival of energy rationing, which is likely to be an intensely unpopular permanent economic shock.

Conventional oil extraction in the US peaked in 1970. Fracking gave a second, short term oil peak that is ebbing now due to debt and depletion. The global peak of conventional oil was a decade ago.

Conventional natural gas in the US peaked in 1973. Now it is half of that flow — most of that decline happened since 2000. Fracked gas is now half of the “natural” gas in the US. Fracked gas may have peaked. Fracking is scraping the bottom of the barrel.

Using solar energy since 1990 (and wind power since 2000) taught me that renewable energy could only run a smaller, steady state economy. Our exponential growth economy requires ever increasing consumption of concentrated resources (fossil fuels are more energy dense than sunlight). A solar powered society would require moving beyond growth-and-debt based money.

After fossil fuel is gone we will only have solar power, but that won't replace our current use. We need to abandon the myth of endless growth on a round, and therefore, finite planet to have a planet on which to live. How will we use the remaining fossil fuels: to make solar panels and relocalize food production or to wage Peak Oil Wars? Living on our solar budget will not substitute for digging up a hundred million years of sunlight.

Trump is an enormous threat, but fascism is not a new problem. The United States had a military coup d'etat on November 22, 1963, which led to the war on Vietnam, coups in Brazil, Chile, Indonesia; the Iran-Contra scandal, allowing 9/11 to happen, the invasions of Afghanistan and Iraq. These and other atrocities suggest that Trump is a logical consequence, not an aberration. Obama and Biden expanded the surveillance state, now bequeathed to Trump's cabinet. And nuclear missiles remain on alert, waiting for the command to commit omnicide. (Obama brought nuclear attack codes to the Nobel Peace Prize ceremony, even Kissinger did not do that.)

We probably passed the ecological tipping point when we collectively ignored Jimmy Carter's call to

make the energy crisis the moral equivalent of war, or perhaps when the military and intelligence agencies removed President Kennedy from office without significant objections. What would the world be today if the Cold War and nuclear arms race had ended in JFK's second term (as was planned) and the resources for endless war had been redirected to peaceful purposes?

Environmental groups unwittingly helped Trump with their silence about coal depletion. He claimed we have a thousand years of coal supplies and it was the Democrats who supposedly stopped coal jobs. That lie helped him win coal mining states (along with rigged voting machines).

Coal extraction peaked in the US in 1999, before the shale gas fracking boom. Coal peaked in Pennsylvania in 1920. We might have decades of coal left, not centuries. Climatology is a science. Geology is also a science.

When energy rationing finally starts, “stop drilling” groups may be popular scapegoats. Most people do not understand physical limits and may believe efforts to blame shortages on environmentalism. Protests do not substitute for the logistics of food distribution.

Corporate and governmental climate denial is not rooted in failure to understand science, but recognition that our endless growth economy requires endless increase of resource use. As fossil fuels deplete, solar panels might keep society together but at a much lower consumption level. Solar panels and wind farms don't power airplanes and long distance trucking networks. Relocalizing food production is more important than hoping for a techno-fix.

In the 1990s, Trump's advisor Steve Bannon was director of the *Biosphere 2* project, an oil money funded effort to see if domed cities could shelter the super-rich while the rest of us succumb to eco-collapse. This is like the Titanic's first class passengers getting in the lifeboats first, except **we are all in the same boat of “Spaceship Earth” and there's no escape for anyone.**

Instead of gimmicks for billionaires or wars to grab remaining resources, we could implement large scale permaculture projects to create as many “lifeboats” as possible with the goal of rescuing everyone. **Protesting systems that keep us fed and warm without practical efforts to create sufficient substitutes is counter-productive.** Relocalizing through local and global cooperation might work better than protesting the navigators of our sinking ship of state.

David Holmgren, co-originator of permaculture, is author of *Future Scenarios: How Communities can adapt to Peak Oil and Climate Change*. www.FutureScenarios.org

“The simultaneous onset of climate change and the peaking of global oil supply represent unprecedented challenges for human civilisation.

“Global oil peak has the potential to shake if not destroy the foundations of global industrial economy and culture. Climate change has the potential to rearrange the biosphere more radically than the last ice age. Each limits the effective options for responses to the other.

“The strategies for mitigating the adverse effects and/or adapting to the consequences of Climate Change have mostly been considered and discussed in isolation from those relevant to Peak Oil. While awareness of Peak Oil, or at least energy crisis, is increasing, understanding of how these two problems might interact to generate quite different futures, is still at an early state.

“FutureScenarios.org presents an integrated approach to understanding the potential interaction between Climate Change and Peak Oil using a scenario planning model. In the process I introduce permaculture as a design system specifically evolved over the last 30 years to creatively respond to futures that involve progressively less and less available energy.”

“Economic recession is the only proven mechanism for a rapid reduction of greenhouse gas emissions

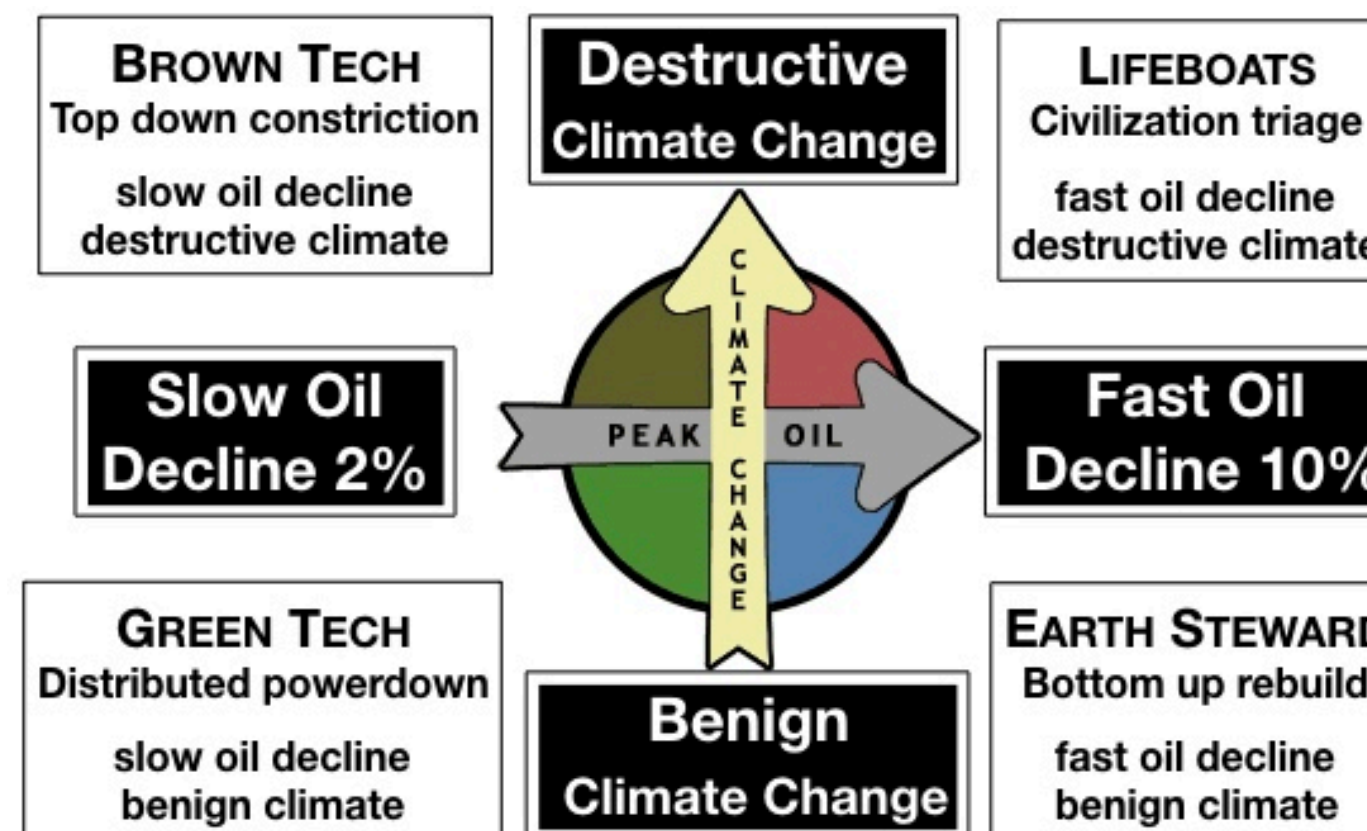
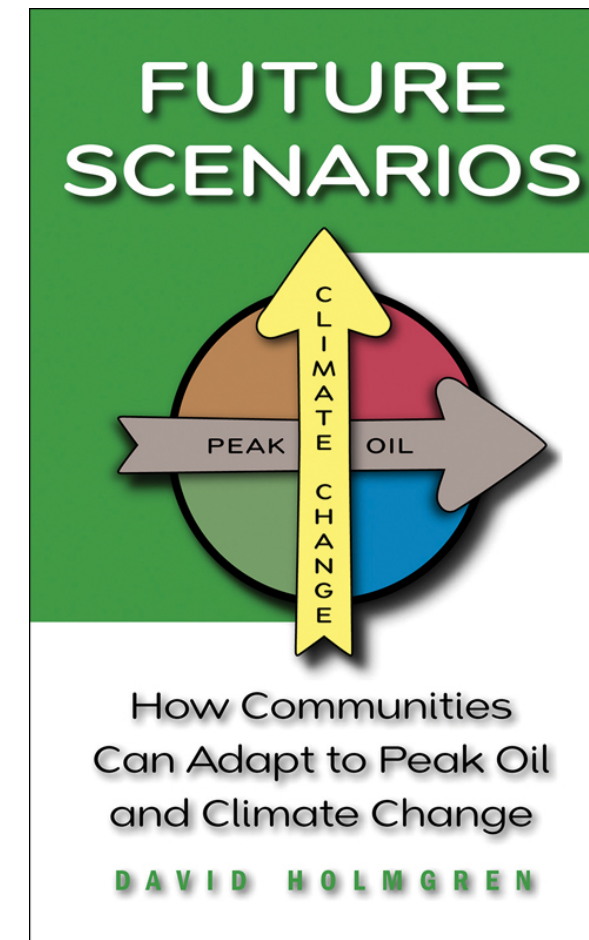
... most of the proposals for mitigation from Kyoto to the feverish efforts to construct post Kyoto solutions have been framed in ignorance of Peak Oil. As Richard Heinberg has argued recently, **proposals to cap carbon emissions annually, and allowing them to be traded, rely on the rights to pollute being scarce relative to the availability of the fuel. Actual scarcity of fuel may make such schemes irrelevant.**”
— Future Scenarios, May 2008

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http://holmgren.com.au/wp-content/uploads/2013/02/Money_vs_Fossil_Energy.pdf



scenario modeling from David Holmgren, *Future Scenarios: How Communities Can Adapt to Peak Oil and Climate Change*