Carbon: Life Styles of the Rich

by Barry Saxifrage

Imost all the energy we use to build the "good life" comes from fossil fuels, gas, oil and coal. But now that same fossil fuel use is tearing our good life apart. We can't have both anymore. Time's up: we have to choose now. We can promptly and purposefully create a new version of the good life without fossil fuels...or we can continue aimlessly into collective misery.

Fossil fuel emissions drive climate change and ocean acidification. Together they are inflicting thousands of cuts on our web of life. All 6.5 billion of us rely on this web for food, water, shelter, resources, health, jobs, security and plain old fun. Parts of the web are collapsing. According to top climate scientists, we've already emitted too much carbon dioxide (CO2) from burning fossil fuels. Unless North Americans seriously cut our emissions now, it may be too late.

At the same time, our oil demands now outpace supply. The rocketing increase in oil prices is eroding capital, jobs, lifestyles, and even access to food, heat, and shelter, in BC and worldwide. Top economists say that without massive preparation, peak oil will cause economic disaster.

Now the good news

Global demand could be cut quickly, by a small group of people who will not experience any real suffering. That is because the globally wealthiest 8% are responsible for most fossil fuel use, and most of that is for non-essentials.

By limiting their fossil fuel luxury, they could make the necessary cuts to global emissions. The wealthy are also the only people with the financial resources to develop much-needed alternatives. Math, Not Morality, Requires Wealthy to Make Biggest Reductions

Global demand for oil and gas could be cut quickly, by a small group of people, without any real suffering. That is because the globally wealthiest 8% are responsible for most fossil fuel use, and most of that is for non-essentials.

Thankfully, the poorest three quarters of humanity, who rely on fossil fuel for basic needs, don't need to make any painful cuts to solve this crisis. Professor Stephen Pacala of Princeton University calculated the emissions per person for all six and a half billion of us.

His surprising results reveal that the three billion poorest people in the world emit essentially nothing. Meanwhile, the wealthiest 500 million people (8% of humanity) are responsible for half of greenhouse gas emissions.

Furthermore, the wealthiest 15% are responsible for three quarters of global emissions. The remaining 85% of humanity emit one fourth of the total.

Who are the global wealthy?

When discussing how to meet the current European Union (EU) goal of limiting atmospheric CO_2 to 450 parts per million (ppm), Pacala says: "Let's suppose there's a limit placed on individual emissions. Anybody under the limit is free to emit what they want, anybody over the limit is supposed to reduce down to the limit. ...The earnings of a person at the threshold throughout that entire period (the period in this case is 2007–2030) are between \$30,000 and \$40,000. So these people are all wealthy by international standards. The poor never run afoul of the green line."

The latest science shows that 450 ppm is likely too high and that 350 ppm may be required to prevent dangerous climate change. If so, the income limit would drop some. But the basic reality is unchanged: the crisis could be solved by a reduction in fossil fuel use by the wealthiest segment of global society.

Math, not morality

The data shows the globally wealthy could solve the crisis, but more importantly it also shows there is no other way. Humanity must cut fossil fuel emissions one third in

the next decade, and 80% to 90% overall, to preserve any chance for anyone to enjoy the good life. The only people who can cut global fossil fuel use enough are the wealthiest 15%. And most of the cuts will need to be made by the wealthiest 8%. That's because they are using almost all of it. The globally wealthy must make the major reductions.

It's not about morality or doing the right thing for others. The wealthy could try to heartlessly deprive 85% of humanity of all fossil fuels - and all food, water, products and services that come from them – and not get even a third of the cuts needed to save their own "good life." Of course long before most of humanity got shoved into abject poverty, there would be carbon riots, massive starvation, social collapse and global war and chaos.

Math, not morality, requires the wealthiest slice of humanity to do almost all of the big fossil fuel reductions. The threats of run-away climate change and oil hyperinflation mean we need to start now.

The problem is that we don't yet have a limit on individual fossil fuel use and emissions – other than price. If we did, most folks could avoid the economic and lifestyle pain coming their way.

Instead almost all our plans and laws to reduce fossil fuel use - from carbon taxes, to cap and trade, to peak oil - result in increasing the price and then letting

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A Really Inconvenient Truth

"The 3 billion poorest people...emit essentially nothing. The take-home message here is that you could increase the emissions of all of those people by putting diesel generators or anything you wanted into their lives and it would not materially affect anything I'm going to say... In other words, the development of the desperately poor is not in conflict with solving the climate problem, which is a problem of the very rich. This is very, very important to understand....

"In contrast, the rich are really spectacular emitters. ...the top 500 million people [7.5% of humanity] emit half the greenhouse emissions. These people are really rich by global standards. Every single one of them earns more than the average American and they also occur in all the countries of the world. There are Chinese and Americans and Europeans and Japanese and Indians all in this group."

-Stephen Pacala, Presentation to International Institute for Applied Systems Analysis, 2007, http://www.iiasa.ac.at/docs/IIASA Info.html

All the world's people lined up in order of their annual climate changing CO2 emissions, then divided evenly into groups of 500 million people = 7.5%of global population. Based on data by Professor Pacala of Princeton as found at http://www.iiasa. ac.at/iiasa35/docs/speakers/speech/ppts/pacala. pdf. Bottom part of chart shows relative per-capita household wealth. Wealthiest 15% have 300 times the available wealth as poorest half of humanity. .

Chart and image by Barry Saxifrage of www.stonebreakerdesigns.com

50% of emissions

Climate Changing CO2 Emissions

Per-capita Wealth

of humanity

⇐*The Rich continued*

people bid against each other to buy all they can afford. Predictably, the poor get out-bid first, and lose access to food and mobility. The wealthy, will be the very last to be forced, by price alone, to cut their use.

Even worse, economic disaster can unfold rapidly. Demand regulated only by price can quickly send prices sky high. Trying to reduce the wealthy's demand for fossil fuels solely via cost will destroy the poor and middle class first. Nobody will want to live in the future this will usher in.

One example: transportation

More than a third of BC's fossil fuel emissions come from transportation. That means huge cuts in transportation fossil fuel use are required soon. Who's using that fuel? Who can afford to cut versus who is actually being forced to? A recent Canadian Centre for Policy Alternatives study showed the richest 10% of Canadians use nine times more fossil fuel for transportation than the poorest 10%. A study in USA showed that citizens in wealthy counties spend less than 2% of their income on gasoline. In the poorer counties people average over 15%. For these folks it is becoming a choice between transportation or food or shelter. You could increase the price of gasoline 500% and the wealthy in North America would still spend a smaller percent of

Hyperinflation

Most oil industry experts recently surveyed by New Scientist think global oil supplies will peak by 2010. Many, like legendary Texas oilman T. Boone Pickens, think we already have peaked and that demand is now more than possible supply. A US Department of Energy study said that if demand reaches 4% more than supply, then oil prices will nearly triple. Imagine the global chaos when gasoline is triple today's price. The US Department of Energy also says that unless the world starts a huge push to create alternative energy sources 10 to 20 years before the peak, there will be a crisis "unlike any yet faced by modern industrial society."

The food riots and hunger crisis now occurring around the world are the first signs of social collapse and misery that these high prices are unleashing. We traded soil for oil years ago, and now the vast majority of agricultural output relies on fossil fuels. As the oil price rises, more people starve. In the last 12 months alone, according to the FAO, 100 million have joined the world's hungry. Inexpensive oil is essential to the lives of billions. We can't allow demand-led hyperinflation to take off. To preserve the stable, functional economy needed for the good life, we must cut global demand for non-essential oil now.

Acidic Oceans

Carbon dioxide is destroying humanity's most ancient and reliable sources of sustenance. Ocean acidification is already tearing apart the edges of the marine ecosystem. Unchecked it will kill most of the planet's coral reefs, fisheries, oysters, clams, sea urchins, starfish, snails and many plankton species...just about anything with calcium shells, along with the food webs they support.

Up to half the CO_2 we've emitted from burning fossil fuels has been absorbed by the seas, turning them 30% more acidic. Recent tests off Vancouver Island show some surface waters are already dangerously acidic – 50 years sooner than predicted. Marine scientists warn, "Frankly, ocean acidification is apocalyptic in its impact." We've changed the basic ocean chemistry at a rate that is unprecedented in geologic history. Once we stop burning fossil fuels it will take the oceans a hundred thousand years to restore the acid balance.

their income on gas than fellow citizens in the poorest areas do already.

On a global scale it is much worse. Three billion people have less than \$2/day to try to survive as oil hyperinflation kicks in. They will never be able to out-bid us for access to any of the limited supply.

At the other extreme, the most fuel-demanding means of travel is also the fastest growing source of emissions: jet travel. And the fastest part of that is the boom in private jet travel. A UK report says, "The growth in flying over the past few years has been due to rich people flying more, whilst those on the lowest incomes are actually flying less." And the wealthiest are flocking to private jets.

The poor are already being priced out of basic mobility. The wealthy can easily buy more than before, and are using the most wasteful transportation modes possible.

Needed: new laws

New laws are needed to ensure the wealthy quickly reduce their fossil fuel consumption. Here are a few that have been proposed.

Cap-and-dividend: Dr. James Hansen, NASA's top climate scientist, advocates a "cap and dividend." Like "cap and trade," a limit is placed on emissions. Then polluters must pay a fee for the right to emit. Uniquely, 100% of this fee is returned in equal payments to every citizen.

The BC government's initial \$100 climate dividend was a similar approach but it was a one-time event. From now on in BC, collected fees go to income tax cuts. That removes some incentive from the wealthy and removes some price-support for the poorest. Also carbon taxes don't guarantee demand will fall, as caps do.

Personal Limits: A UK Parliament committee recommends a cap-and-trade system for all citizens. People would get a "carbon emissions allowance" they could use or trade. They say this would cut emissions more effectively than either carbon tax or industry cap-and-trade. The UK has done a pilot study that shows such a system is possible, but concludes the public isn't ready for personal limits yet. Perhaps as more and more people get outbid for access to fuel they will see the wisdom of regulating demand to keep fuel affordable. As Pacala shows, the personal limit could be high enough that most people are barely affected. The overall reduced demand could also lower prices for everyone as well.

While each of our actions is not sufficient to solve the problem, they are all necessary.

Major Public Investments: Many people have called on wealthy nations to invest massively in alternatives to fossil fuels. They point to past game-changing initiatives like the Marshall Plan, the Manhattan Project and the Race to the Moon. Al Gore recently called for the USA to switch 100% of its electricity to non-fossil-fuel sources within 10 years. How much would such a project cost? A report from Oil Change International says the total US spending on the Iraq war could cover all of the global investments in renewable power generation that are needed between now and 2030 in order to halt current warming trends.

Jail Time: Monetary laws might not be enough. As people get more angry and frustrated, calls for criminal laws to punish the worst of the climate destroyers are growing. Dr. Hansen recently told the US Congress, "CEOs of fossil energy companies know what they are doing and are aware of long-term consequences of continued business as usual. In my opinion, these CEOs should be tried for high crimes against humanity and nature."

Needed: new taboos

Secondly, we need new social taboos against high fossil-fuel luxury. Big, powerful lives made possible by slavery once commanded social respect. The power of all men over disenfranchised women (legally chattel), was once socially admired. Society moves on, thankfully.

Now people are starting to draw the connection between big fossil fuel lifestyles and its inevitable misery for others (and ultimately themselves). As Paul Krugman recently opined in the *NY Times*, the only way we will get

Climate Chaos

Climate change is tearing apart large ecosystems all over the planet. Already the world's poorest people, who did nothing to cause it, are suffering. Anger is growing.

UN Secretary General says the Darfur conflict, which has already claimed 200,000 lives, "began as an ecological crisis, arising at least in part from climate change."

A recent UN report said climate change is a primary driver forcing an "unprecedented" rise of millions of new refugees. The President of Uganda has stated: "Africa used to suffer outside aggression in the past, the latest form of aggression is climate change...we will suffer more, yet the people emitting these greenhouse gases are not ourselves, it is others."

The Namibia UN representative said climate change is like "low-intensity biological or chemical warfare" by the wealthy emitters. "This is no academic exercise. It is a matter of life or death for my country."

Climate change has hit our area too, and it's brutal. Carbon emissions have changed our BC climate so much that our forests are now dying faster than they are growing. Our oceans have warmed so fast the marine food chain and diseases are in chaos, causing everything from collapsing salmon runs to wiped-out oyster larvae. Rivers, streams, soil moisture, flowering times, insect life cycles, and migrations are all changing helter-skelter. It will get worse for decades, even after we stop burning fossil fuels.

serious action to stop climate change "is if those who stand in the way of action come to be perceived as not just wrong but immoral." High consumption lifestyles will become a source of shame rather than status. The foundations for such social taboos already exist. Nearly all religious and civic belief systems have social prohibitions against knowingly causing suffering or destroying life.

Conversation about hyper-fossil-fuelled luxury forms of travel, automobiles, boats, imported goods, homes and lifestyles need to be replaced by bragging rights for an equally "good life" that is high in meaning, beauty, community and fun.

Needed: personal effort

Finally, we need to restore basic personal responsibility for our lives. People often say to me that "What I do won't make a difference." But that is looking at it backwards. While each of our actions is not *sufficient* to solve the prob-

CLIMATE ACTION

The Rich continued

lem, they are all *necessary*. There is no future "good life" for you, for me, for your kids, for anyone, in which people carry on big fossil fuelled lifestyles.

We all need to do our own math. Excellent carbon calculators exist at several places on the web. Until you know where you stand by ascertaining your own fossil fuel use and emissions, it is very difficult to gain motivation or knowledge to begin making a difference. The various lists of "what to do to save the planet" are no substitute for understanding which of your own activities cause the most damage and making informed choices.

Our family has been doing this for several years now. It is not hard. In fact we have found it a liberating and enjoyable challenge. We've cut our transportation and home power emissions dramatically...many decades worth of needed cuts in a few years. Along the way we've rediscovered many of the slower, richer joys of life and our life is just as great as it was before.

Last chance to save your good life

If, like myself, you are privileged to be in the wealthiest tier of humanity it is time to choose: either reduce your fossil-fuel use to a low level...or add your name to the "destroyers of the good life" list.

The Europeans use half the fossil fuels we do yet have an equal or higher standard of living. Surely the majority of us in Canada and USA can start by quickly cutting our emissions in half without sacrificing the good life.

But time is short. The effects of our excesses are upon us. Suffering grows. Resentment bubbles up. Ecosystems fray. Economic hardship spirals outwards.

Eventually the majority of humanity are going to realize they have a choice between being priced out of life essentials – while their environment crumbles around them – or creating a system where the global wealthy can't just buy it all and leave them with nothing but misery and climate chaos.

Dr. Hansen states: "Today's generations will be accountable...There is still time, but just barely. We cannot avert our eyes and pretend that we do not understand the consequences of continued business as usual."

Are you ready? Write your legislators, get involved, do your own math, cut the big luxury sources now, talk to friends and family, change the social rules. Start today to save our good life, while we still can.

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Barry Saxifrages creates websites and tracks new climate change information.



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