## **Growth vs. the Climate**

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The year 2013 was one of the ten hottest on record. So was 2010. So were 2009, 2007, 2006, 2005, 2003, 2002, and 1998. Last year, with its polar vortex and biting winter, seemed to bring relief to North America. Except it also brought temperatures of over 120°F to Australia, massive flooding to Malaysia, and the third harrowing year of drought to California. As it turns out, 2014 was the hottest single year since meteorologists started measuring in 1850.

By now, we've raised the average global temperature a little less than one degree Celsius since the beginning of the industrial revolution. The best predictions suggest that, if we go about our business as usual, we will raise it somewhere between four and six degrees by 2100. With the heat will also come side effects: fiercer and more frequent storms, droughts, acidifying oceans, melting glaciers, and the loss of species.

And the bad news is, that's not even the bad news. Although the altered climate is threatening in its own right—heat alone killed tens of thousands of Europeans in the lethal summer of 2003—the thing to really worry about is the infrastructure. Each drought, each megastorm, each scorching summer puts a strain on the complex systems that provide us with water, food, and power and that keep disease and disorder at bay. These systems can often endure a single crisis—one Sandy, one Katrina. The problem is what happens when the Sandys and Katrinas start coming back to back, piling up on each other. That's when the money runs out, the electricity goes off, and everyone starts wondering where to find water. If true catastrophe arrives, it will not come gradually—the frog in boiling water—but, as the historian Nils Gilman writes, "as a series of radical discontinuities—a series of bewildering 'oh shit' events."

Welcome to the future. Oh shit.

Those with long memories will know that this isn't the first time it felt like we were testing the earth's ability to support us. In 1968, the biologist Paul Ehrlich published *The Population Bomb*, which prophesied civilizational collapse for societies unable to rapidly bring down their birth rates. There were simply too many people, he argued, for the planet's dwindling supply of resources. Ehrlich got a vasectomy and preached birth control, though he also advocated for more extreme measures: compulsory sterilization, a ban on cars, and a tax on cribs. Internationally, he proposed "triage," aiding the countries that remained viable but writing off those, like India, that he saw as too far gone.

Remarkably, his message resounded. In 1969, a large oil spill off the coast of Santa Barbara yielded televised images of oil-drenched birds. Six months later, the massively polluted Cuyahoga River in Cleveland caught fire. The notion that humans were pressing on the limits of the natural world was becoming common sense. And as it did, Ehrlich became ubiquitous. He wrote for *Playboy* and *Penthouse*. He appeared, twenty times, as a guest on the *Tonight Show*. In 1970 alone, he delivered a hundred public lectures and appeared two hundred times on radio and television.

Looking back on the Age of Ehrlich, as it is wonderfully rendered in Paul Sabin's *The Bet*, two things stand out as surprises. The first is how seriously politicians across the spectrum took the matter. It was the Republican Richard Nixon who signed the National Environmental Policy Act on January 1, 1970—his first presidential act of the decade. The 1970s "absolutely must be the time when America pays its debt to the past by reclaiming the purity of its air, its water and our living environment," Nixon declared. "It is literally now or never."

The second surprise is how readily Ehrlich's message of self-denial was accepted. No one internalized it better than Jimmy Carter. "More' is not necessarily 'better," Carter observed in his inaugural address, and he was determined to lead by example. He put solar panels up on the White House and turned the heat down. "My offices were so cold that I couldn't concentrate, and my staff was typing with gloves on," remembered First Lady Rosalynn Carter. "I pleaded with Jimmy to set the thermostats at 68 degrees but it didn't do any good." At his first meeting with the National Security Council, Carter announced, "This is the last warm meeting we'll have."

The belt-tightening and thermostat-lowering wasn't just a matter of personal restraint, of course. Carter governed in the shadow of the oil crisis. By the 1970s, oil-producing countries had discovered that they held enough power to dictate terms to the global economy. In 1973, after the United States sided with Israel in the Yom Kippur War, those countries first dramatically raised their prices and then boycotted the United States entirely, quadrupling the cost of oil. The economy came to a jarring halt. Coca-Cola announced that it would turn off its outdoor illuminated signs in fifty cities, beginning with the one in Times Square. The governor of Florida locked his car in his garage and started walking to work. The cover of Newsweek

showed a shivering Uncle Sam, icicles dangling from his nose, staring forlornly into an empty horn of plenty. "Running Out of Everything," ran the headline.

But the country wasn't running out of everything, no matter how it seemed at the time. It was experiencing a temporary crunch. Ehrlich's prediction that growing populations would quickly outpace natural resources turned out to be wrong. He didn't count on declining birth rates (we now think that the global population will level off somewhere around nine billion). And he underestimated the abilities of markets to winnow out new resources—to encourage offshore drilling, for instance, when the stick-astraw-in-the-ground method of extracting oil no longer sufficed. The past decades have shown industrial civilization to be more resilient, more adaptable, than Ehrlich foresaw.

They have also seen a turn away from the idea of limits. The Age of Ehrlich ended with the 1980 election, when Ronald Reagan defeated Carter in a landslide. "They tell us we must learn to live with less, and teach our children that their lives will be less full and prosperous than ours have been," complained Reagan as he announced his candidacy. "I don't believe that. And I don't believe you do either." Upon taking office, he took the solar panels down and turned the heat back up. He also set about dismantling the environmental regulations of the Nixon, Ford, and Carter years, which he regarded as impediments to the economy.

That basic logic has characterized U.S. politics since. Not every politician today has inherited Reagan's deep hostility to environmentalism, but few would dare to dissent from the central post-1980 orthodoxy: growth is sacred.

This is not, it is important to note, a partisan issue. Growth is the national creed and has been, with some wavering in the 1970s, for at least a century. It is not hard to see why. Not only has it given us long lives and staggering wealth, it's also protected us from hard political choices. Are workers striking? Give them raises. Are developing countries being difficult? Send foreign aid. Since the late nineteenth century, the United States has boasted the world's largest economy, and its affluence has insulated it from many of the shocks that other nations have had to grimace their way through. Its dependence on growth seems to have gotten even stronger with time. Every president now inherits, upon election, two above-all-else directives: don't let terrorists attack U.S. soil, and don't interfere with growth. It's unclear which of the two ranks higher.

Growth is not just politically convenient; we're now learning its importance for the maintenance of a fair society. French economist Thomas Piketty's recent treatise *Capital in the Twenty-First Century* offers the most thorough account of the way in which growth has historically reduced



"The only way that a 2015 agreement can achieve a 2-degree goal is to shut down the whole global economy." —Yvo de Boer, former executive secretary of the UN Framework Convention on Climate Change. Photo courtesy of the World Economic Forum via Flickr.

inequality. For Piketty, the relationship can be boiled down to a simple formula: a society risks increasing inequality when, over the long term, its rate of return on capital exceeds its overall growth rate—or, in Piketty-speak, when r > g. In the past century, Piketty finds, there were two great motors of equality. The first was war, which tended to bring down the rate of return on capital. The second, and the more obvious, was growth. When an economy is growing, the power of inherited wealth is diluted. When it is not, the super-rich need only to avoid squandering their fortunes in order to remain super-rich. You lose growth, you get a plutocracy.

Not surprisingly, all of this growth-mania has influenced the terms in which global warming is addressed. In June 2013, in his most forthright speech on the topic since assuming the presidency, Barack Obama advised the country to brace itself for rising seas and "severe" storms. But when it came to the economy, the speech turned positively upbeat. "The old rules may say we can't protect our environment and promote economic growth at the same time," the president said, but "it's not an either/or; it's a both/and." There is, he underscored, "no contradiction between a sound environment and strong economic growth." For illustration, Obama pointed enthusiastically to a recent statement on climate change signed by more than 500 businesses, including General Motors, Apple, Starbucks, Microsoft, Nestlé, Nike, and Disney. "Tackling climate change is one of America's greatest economic opportunities of the 21st century," it reads. In doing so, it continues, "we will maintain our way of life and remain a true superpower in a competitive world."

These views have the whiff of the press release about them, but they are also the doctrines of serious economists. Joseph Stiglitz, a Nobel laureate and the author of one of the most-used textbooks in economics, has warned that, in ignoring global warming, the world is "writing the script for its own doomsday scenario." And yet his most recent book treats climate change as a side issue, something to be adjusted for with a few (vaguely specified) policy shifts. Nothing about the crisis seems to conflict with Stiglitz's "growth agenda," a program for "more opportunity, a higher total national income, a stronger democracy, and higher living standards for most individuals." The economist and *New York Times* writer Paul Krugman, also a Nobel laureate, sees it similarly. Global warming is the "road to catastrophe," he writes, but turning off that road won't be particularly difficult. "There's no reason we can't become richer while reducing our impact on the environment."

Said that way, of course it's true. It's perfectly possible to have an economy that greens as it grows, weaning itself off fossil fuels with time. The problem is that time is just what we don't have. The majority of the world's governments have set 2°C as an upper limit on warming by the end of the century. There's a vigorous debate about whether even that limit is too risky but, either way, staying below it will require a sudden, severe curtailment of carbon emissions in rich countries.

Reducing carbon emissions by 1 percent is difficult—it has rarely happened without a recession. A determined nation capable of swiftly and smoothly switching to renewable energy *might* be able to cut back by as much as 4 percent while still growing. But how much do we actually need to reduce emissions to meet the 2°C target? Kevin Anderson and Alice Bows-Larkin of the Tyndall Centre for Climate Change Research in Britain have crunched the numbers. To keep warming under two degrees, they argue, all rich countries would need to simultaneously cut their emissions around 8 to 10 percent *a year*, starting yesterday. Calculations such as these have led the former executive secretary of the UN Framework Convention on Climate Change to conclude that the only remaining way to stay under two degrees is to "shut down the whole global economy."

Such talk conjures up visions of government rationing. A more feasible way to cut back, however, would be to place a large tax on emissions and let the market handle the rest. William Nordhaus, the former president of the American Economics Association, regards the carbon tax as a test of conviction: any politician who does not propose raising the price of carbon, no matter how eloquently she speaks about the danger of global warming, is "not really serious." By that measure, few of our leaders are genuinely committed to the issue. They know that taxing carbon at the requisite rate is not the way to win votes.

Nor is it the way to build a movement. Protesters fare best when they promise a better world: less injustice or more abundance. But environmentalists, who tend to speak instead of limits, have had little to offer. In the 1970s, they advocated a "steady-state economy" and "zero growth." Today, it is worse. "Econocide" is a word that sometimes gets tossed around: a sharp, intentional economic depression in deference to ecological reality. "Degrowth" is also frequently heard. Neither sounds particularly attractive, though the logic behind them is clear enough. If your car is hurtling toward a brick wall, it's better to hit the brakes than to let the wall stop the car.

Enter Naomi Klein, stage left. Klein, a journalist and frequent contributor to the *Nation*, is not a lifelong environmentalist. Rather, she came to the issue sideways, as an anti-corporate activist and opponent of unfettered markets. She nonetheless has the zeal of a convert. She sits on the board of 350.org, the country's leading climate change organization. With her latest book, *This Changes Everything*, Klein has set out to write the bible for the movement.

What turned Klein's politics green was not just, as one might think, a sense of urgency concerning the fate of the planet. It was a sense of possibility. "The climate moment offers an overarching narrative in which everything from the fight for good jobs to justice for migrants to reparations for historical wrongs like slavery and colonialism can all become part of the grand project of building a nontoxic, shockproof economy." Climate action, she continues, is not only necessary to stop global warming, but promises "a future far more exciting than anything else currently on offer."

It is an extraordinary claim. Usually, we think of environmentalism as being unconnected to causes such as racial justice, fair wages, immigration reform, and global equality—or perhaps in conflict with them. But for Klein they are all linked struggles against a common enemy. At first she identifies the foe as "contemporary, hyper-globalized capitalism"—her familiar bête noire—but over the course of her book she reaches deeper. The problem, fundamentally, is "extractivism," the "nonreciprocal, dominance-based relationship with the earth, one of purely taking," that wrecks the planet and treats both humans and nature as commodities.

Klein hopes that the threat of global warming will be serious enough to, finally, rip extractivism out by its roots. She suggests that the only way to avert catastrophe is to transform our society wholesale—to win, essentially, everything that leftists have been demanding for decades, all at once. Our salvation, as she envisions it, will include some combination of a multi-trillion-dollar "Marshall Plan for the Earth," guaranteed incomes, reparations for slavery and empire, healthier food, open borders, indigenous land rights, reduced global inequality, new subways, shorter work weeks, and a social safety net extensive enough to cover the cost of in vitro fertilization for anyone wanting a child.

Klein, in other words, not only rejects the idea that combating global warming means we will have to make do with less—what she calls the "grinding logic of austerity"—but goes to the opposite extreme, describing the job ahead as some sort of progressive shopping spree. "We *can* afford to build a decent, inclusive society," she writes. Part of her logic is that a "decent" society is not necessarily an expensive one. As environmentalists have argued for decades, many of the things that make us happiest, like neighbors and nature, are cheap enough. Klein thus imagines an economy based less on goods and more on services.

Yet many of the things she calls for *do* clearly require material investments. To get them, Klein proposes a radical redistribution of resources; corporate profits, military spending, and the wealth of the 1 percent are her prime targets. In essence, it's a shoot-the-moon strategy. Tackling climate change on its own would entail harrowing cutbacks. But throw in tax hikes for corporations, huge cuts to the military, and an assault on the oligarchy and suddenly things don't look so bad. For the broad lower and middle swaths of the population, they start to look—well, they start to look a lot like growth.

This approach allows Klein to escape the bind that has trapped the movement in the past. The cartoonist Walt Kelly captured the dour spirit of 1970s environmentalism when he had his character Pogo survey a badly polluted landscape and conclude, "We have met the enemy and he is us." Not so for Klein. Her book contains little by way of self-flagellation. In it, she offhandedly describes doing all of the things that make environmentalists cringe: she moves out of the city, she drives and flies, she has a child, she eats meat.

In place of guilt, Klein offers rage—against the GOP, the military, neoliberals, imperialists, corporate-sponsored environmental groups, and extractivists of every stripe. Her true wrath, though, is reserved for the fossil-fuel industry. "Lots of companies do rotten things in the course of their business," she writes. But "with the fossil-fuel industry, wrecking the planet is their business model. It's what they do." Stopping climate change is, then, first and foremost a matter of battling energy companies. As Klein's comrade at 350.org, Bill McKibben, puts it: "We have met the enemy, and they is Shell."

Politically, this new outlook has begun to bear fruit. Last September, about a third of a million protestors converged on New York City for the People's Climate March, making it the largest climate protest there has ever been.



At the People's Climate March, New York City, September 21, 2014. Photo courtesy of Light Brigading via Flickr.

Climate activism is no longer just a scattered coalition of scientists and woodland cranks. As it has mastered the us-versus-them cadences of street protests, it's begun to transform itself into something more substantial: a social movement.

But, in switching from "the enemy is us" to "the enemy is Shell," has it also lost something crucial? Energy companies undoubtedly have much to answer for, but they are only profitable because we buy from them. It is hard to square Klein's sense of urgency about the climate crisis with her insistence that ordinary North Americans—including just about everyone reading this article—needn't give up anything in order to address it.

A global perspective is useful here. The average person in the United States earns about \$53,000 a year (it's only slightly less in Klein's home country of Canada: \$52,000). Given that \$34,000 is the cut-off line for the top percentile of world income, many North Americans fall easily into the global 1 percent. And, since economic activity translates roughly into greenhouse gas production, it's no surprise that the United States and Canada have among the highest per-capita carbon emissions of all the large countries, ranking just below Saudi Arabia.

Then consider the other side of things. Bangladesh contributes very little to global warming; the average carbon footprint there is about 2 percent the size of the average U.S. footprint. And yet low-lying, wet, hot, and

densely populated Bangladesh promises to be one of the worst-hit countries. If warming continues on schedule, tens of millions of Bangladeshis will simply have to flee the country—to where, we don't know—in the coming years. Shouldn't North Americans, many of whom are members of the global 1 percent, take some responsibility for that? And shouldn't we stop pretending that it's going to be easy and fun?

We've made painful cuts before—but only when it appeared that wrecking the planet was going to break the bank as well. In the 1970s, predictions of future disaster were undergirded by a very real economic threat: the skyrocketing cost of oil. It's not hard to learn restraint when your energy bill has just tripled. Today, we're nowhere near running out of fossil fuels. Gasoline pumps at an obliging price and energy companies are growing ever more deft at sucking carbon from the earth's crust. If there is another oil crisis, it'll have to be self-inflicted.

Cutting back without having any pressing economic need to do so is possible, but it will require resolve. And that's the problem with promising ordinary North Americans—as Klein, Krugman, and General Motors and Starbucks are doing—that they can fight climate change while getting *more* of the things they want.

For politicians to take the necessary steps to bring warming to a halt, they will have to be convinced of two things. First, that voters want action taken. Second, that those voters are willing to bear the consequences of that action. If our representatives only hear the first message but never the second, they will rightly conclude that the thing to do is to condemn global warming but do nothing about it. Which is precisely what they are currently doing.

It would be nice to hear it straight for once. Global warming is real, it's here, and it's mind-bogglingly dangerous. How bad it gets—literally, the degree—depends on how quickly the most profligate countries rein in their emissions. Averting catastrophe will thus require places like the United States and Canada to make drastic cutbacks, bringing their consumption more closely in line with the planetary average. Such cuts can be made more or less fairly, and the richest really ought to pay the most, but the crucial thing is that they are made. Because, above all, stopping climate change means giving up on growth.

That will be hard. Not only will our standards of living almost certainly drop, but it's likely that the very quality of our society—equality, safety, and trust—will decline, too. That's not something to be giddy about, but it's still a price that those of us living in affluent countries should prepare to pay. Because however difficult it is to slow down, flooding Bangladesh cannot be an option. In other words, we can and should act. It's just going to hurt.

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