



AN IMPERILED NATURAL WORLD

IN A CARING COMMUNITY, people think about the future. What kind of society, they wonder and worry, will we leave our children and their children? Greed, by contrast, knows no tomorrow. Accumulate. Consume. Toss. Disregard the consequences.

But consequences, we know now, decades after Rachel Carson first rang the alarm against “the contamination of air, Earth, rivers, and sea,” cannot be disregarded.¹ We are spinning through space on a distinctly fragile planet. This planet, our home, can only take so much abuse. Most of us, in our day-to-day lives, ignore this reality. Some of us fear it.

“Our house is burning down and we’re blind to it,” French President Jacques Chirac told world leaders gathered in Johannesburg for the 2002 Earth Summit. “Nature, mutilated and over-exploited, can no longer regenerate, and we refuse to admit it.”²

This sense of despair, the more optimistic among us believe, may not be entirely warranted. On every continent, the optimists note, people at the grass-roots level are working to avert environmental catastrophe — and making an impact. Their sheer numbers have compelled the world’s political leaders to conduct Earth summits. Their consumer dollars are changing how companies go about their business. No major corporation today dares to be seen as hostile, or even indifferent, to our planet’s well-being. Almost every top business currently spends a small fortune performing — and promoting — environmental good deeds.

These good deeds, to be sure, will not save our Earth, as eco-entrepreneurs like Paul Hawken are quick to point out.

“If every company on the planet were to adopt the best environmental practices of the ‘leading’ companies,” Hawken notes, “the world would still be moving toward sure degradation and collapse.”³

But business, Hawken and other eco-entrepreneurs argued in the 1990s, can be reconfigured to go beyond mere good deeds. Markets, they acknowledged, have traditionally ignored the environmental impact of what business takes, makes, and wastes.⁴ But markets can be fixed, they argued, to factor into account the environmental costs of business activity. “Green taxes” can be levied on business operations that do damage to the natural world. To avoid

these green taxes, businesses would need only pollute less and waste less. And they would, because such ecologically appropriate behavior, in a world of green taxes, would make eminent bottom-line sense.⁵

Hawken and like-minded thinkers had good reason, in the 1990s, to believe that their ideas might help inspire an environmental turnaround of unprecedented proportions. All the pieces for a breakthrough appeared to be in place, especially in the United States. Over two decades of environmental activism had changed how Americans think about their natural world. On top of that, times were “prosperous,” the economy was “booming.” What better time for an upsurge in selfless environmental behavior? A prosperous people could afford to be magnanimous to Mother Earth.

But no magnificent environmental turnaround would ever take place in the United States, or the world for that matter, in the 1990s. Freshwater aquifers continued emptying, rainforests vanishing, species dwindling.⁶ In 1992, only 10 percent of the Earth’s coastal reefs were “severely damaged.” By late 2000, that percentage had soared to 27 percent. Fewer healthy reefs, in turn, meant less protection from the storms “associated with climate change.”⁷ Our global environment, as a cranky French President Chirac would conclude at the 2002 Earth Summit, still stands “in danger.”⁸

How could the Earth have come to this sorry pass? Why had progress against environmental degradation been so halting, despite decades of growing environmental awareness? Chirac had no answer. Some environmental activists did. Progress against environmental degradation has been so halting, they suggested, because gaps in wealth and income have become so wide.

OUT IN THE WILD, IN THE NATURAL WORLD, most creatures within a species lead remarkably similar daily existences. Some squirrels may stash away an extra acorn or two, but few squirrels live significantly better than any others. The same could once be said of us. The vast majority of the world’s people, for most of human history, led lives that were roughly comparable. Relatively few families consumed terribly more than any others, wherever we lived, whatever the continent. That situation, of course, did begin to change as human civilizations began to emerge and evolve. Even so, until just a few centuries ago, the daily differences in living standards around the world remained, for the most part, modest. In the 1750s, notes demographer Paul Bairoch, most people in those nations we now consider “poor” lived just as well as most people in those nations we now call “rich.”⁹

The Industrial Age would begin to alter this reality. By 1820, a few decades after industrialization began reshaping the global economy, the world’s richest countries would claim, on a per person average, three times more wealth than the world’s poorest countries.¹⁰ By 1900, the world’s richest nations would be averaging nine times more per person income than the world’s poorest.¹¹ By 1960, the richest fifth of the world’s people would claim thirty times more

income than the poorest fifth. Over the next three decades, that margin would more than double, to sixty-one times.¹²

This colossal gap would widen even more rapidly in the twentieth century's final years. In 1991, the world's wealthiest 101 families would make more money than the entire populations of India, Bangladesh, Nigeria, and Indonesia combined.¹³ In 1999, U.N. researchers would report that the world's two hundred richest individuals had amassed a combined \$1 trillion.¹⁴ If this fortune returned a mere 5 percent a year, the world's two hundred richest people would have averaged \$684,932 in *daily* income — at the same time the world's poorest 1.3 billion people were subsisting on less than \$1 a day.

The world's two hundred wealthiest lived in both rich and poor nations. Mexico, for instance, would boast the world's fourth highest billionaire contingent, with twenty-four in all, midway through the 1990s. Half the rest of Mexico, 45 million people, lived in poverty.¹⁵

"The Latin American brand of inequality is not for the timid," analysts from the Carnegie Endowment for International Peace and the World Bank would note in 1999. "The richest 10 percent of families are richer than their counterparts in the United States, while the poorest 10 percent are 10 times as poor."¹⁶

Do gaps so gaping matter to the global environment?

Mainstream economists, even those who think of themselves as environmentally aware, have generally sidestepped this question. Most environmentally minded economists do care about equity, but the equity they care about involves generations, not classes. To be fair to generations yet to come, they rightfully insist, we must consider the eventual environmental cost of what we do today, even if the bill for that cost won't come due until after we've gone.

These conventional environmental economists do not inquire whether the producer of a particular environmental cost "is rich and its victims are poor, or vice versa."¹⁷ Instead, they spend their time adding up overall "costs" and "benefits." If the total "cost" of an environmentally degrading economic activity tops the "benefit," they sound warning bells. If the benefit tops the cost, they conclude that all's well with the natural world.

But all may not be well. Activities that degrade the environment, economist James Boyce reminds us, "do not merely benefit those alive today at the expense of future generations. They also typically benefit some living people at the expense of others."¹⁸

Standard cost-benefit analyses, by discounting income and wealth distinctions, essentially ignore the pressures that drive environmental degradation in the first place. Central American cattle ranchers, to offer one example, level rain forests because they stand to benefit personally from the destruction. These cattle ranchers, if wealthy and powerful enough, will continue to level rain forests, whatever the "costs" of that leveling to society. Even worse, on an unequal globe, the desperation of those without wealth and power, and not just the greed of those with it, will also come to despoil the natural world.

We see this desperation — and despoilation — wherever wealth concentrates. In Guatemala and El Salvador, environmental author Tom Athanasiou observes, the wealthiest 2 percent of the population owns over 60 percent of available arable land.¹⁹ Should we be surprised, he asks, when landless peasants in outrageously unequal nations like these “migrate into rain forests or onto fragile uplands” to find land to farm?²⁰

In our increasingly unequal world, such migrations are degrading our globe. “Dispossessed peasants,” notes author and activist Alan Durning, “slash-and-burn their way into the rain forests of Latin America, hungry nomads turn their herds out onto fragile African rangeland, reducing it to desert, and small farmers in India and the Philippines cultivate steep slopes, exposing them to the erosive powers of rain.”²¹

In an unequal world, the Earth fears the poor.

OUR EARTH, OF COURSE, also has ample reason to fear the rich. In the Philippines, for instance, President Ferdinand Marcos and his business associates virtually wiped out what may have been the world’s most glorious tropical hardwood forest.²² The Marcos gang sawed down, stacked up, and shipped out enough hardwood to keep First Lady Imelda Marcos in world-class luxury for decades.

We remember Imelda for her fantastic footwear, her 1,200 pairs of shoes that became, in the 1980s, the world’s most visible symbol of contemptuous consumption. We have largely forgotten the excess that defined the rest of the Ferdinand Marcos fortune, his dozens of country houses throughout the Philippines, the second presidential palace he had constructed in his home province, his waterfront Long Island estate half the world away.²³ How many kilowatts were wasted cooling and cleaning, lighting and guarding the enormous personal empire of Ferdinand Marcos? We don’t know. But we don’t need exact numbers to understand that our Earth winces whenever wealthy people begin to consume — and waste. Excess always exacts an environmental price.

Still, no one wealthy family by itself can ever waste enough, no matter how excessive its consumption, to seriously threaten our environmental well-being. We could multiply the Marcos excess by four hundred or so — the number of billionaires in the world at the start of the twenty-first century — and still not come up with enough wasteful consumption to give the Earth more than a moment’s pause. The enormously wealthy may be wasteful, but they are not plentiful. In 2001, of the world’s 6.2 billion people, only 7 million owned more than \$1 million in financial assets.²⁴ If every one of those 7 million lived in a mansion that wasted several thousand square feet of space, if every one bopped about town in a luxury auto that burned ten miles to a gallon, if every one filled closets with clothes that were only worn once, the globe would likely muddle through quite nicely. In a world of 6.2 billion people, the personal habits of 7 million people, as environmentally degrading as these habits might be, will never make much of a dent.

This may be why so much environmental advocacy literature focuses on rich nations and not rich people. Those of us who live in rich nations are, relatively speaking, plentiful. We make up a large enough group to make a significant impact on the Earth. Our 20 percent of the world's population, U.N. researchers have reported, accounts for 86 percent of the world's consumption. The world's poorest 20 percent accounts for 1.3 percent. Those of us in the richest 20 percent use seventeen times more energy than the bottom 20 percent and seventy-seven times more paper. We eat eleven times more meat, seven times more fish. We own 145 times more cars.²⁵

Within the rich nations, we Americans stand out. We produce nearly a quarter of the world's greenhouse gases and ten times more hazardous waste than the world's next largest producer. We generate over 330 pounds of municipal waste per person, 36 percent more than the world's rich-nation average.²⁶ We have become, many expert observers believe, an enormous drain on the world's life-blood.

"The environmental impact of 2.6 million newborn Americans each year," notes Thordjorn Bernsen, a former Norwegian environment minister, "far exceeds that of the 34 million new Indians and Chinese."²⁷

Bernsen may be exaggerating, but not by much, suggests the work of two scholars at the University of British Columbia, Mathis Wackernagel and William Rees. Midway through the 1990s, the two calculated how many acres were needed, per person, to support America's "consumption of food, housing, transportation, consumer goods, and services." They tallied all the "garden, crop, pasture, and forest space" necessary to produce everything that Americans buy. They factored in fossil energy and land use. Individual Americans, they concluded, leave an "ecological footprint" that totals about twelve and a half acres per person. Individuals in India require, by contrast, just two acres each.²⁸

These sorts of dramatic contrasts tend to frame the ecological challenge facing our globe as a simple conflict between a rich north and a poor south. The nations of the north, in this framework, become one undifferentiated mass of affluence, the nations of the south one monstrous sinkhole of poverty. In the north, households spend \$17 billion a year on pet food. Meanwhile, in South Asia, half of all kids under five go malnourished. In Africa, south of the Sahara, a third of the continent's people die before they hit forty.²⁹

These contrasts shock. But they do not tell the whole story. Indeed, the gaps between north and south may not be the biggest obstacle to environmental sanity. That biggest obstacle may well be the gaps *within* "rich" nations, between the rich and everyone else. These gaps accelerate the consumption that takes place within rich nations. Where these gaps grow, as wealth concentrates, so does our consuming. And so does our waste. The wider these gaps, the deeper we stamp our footprints into the Earth.

But that's not the worst of it. In an unequal world, everyone else in the world wants to follow in our rich nation footsteps. Or, at the least, ride in our SUVs.

BACK IN THE MID 1970S, Americans suffered through a gasoline crisis. The memories, for many of us, remain vivid. Long lines of idling cars snaking their way into gas stations. Drivers sitting — and fuming — in their cars, sometimes for hours. If, back then, you had walked down one of those gas station lines, clipboard in hand, and asked the frustrated drivers what sort of automotive future they envisioned, the answers would have no doubt come quickly. Tomorrow's vehicles, most motorists would have confidently predicted, will definitely be much more fuel-efficient than the dumb gas-guzzlers we have now.

Those motorists could not have been more wrong. America's vehicles have not become considerably more fuel-efficient. In 2000, a generation after the gas crisis, America's cars would only average 23.6 miles per gallon. And that average would actually overstate how many miles America's drivers were getting to the gallon, since millions of Americans were doing their everyday driving in vehicles officially classified as "light trucks," not cars. The biggest of these, SUVs like the king-size Ford Expedition and Dodge Durango, averaged 12 miles per gallon, and less, in city driving.³⁰

Vehicle fuel efficiency in America, in other words, had gone backward, not forward — and at quite an environmental price.

"If you switched today from the average American car to a big SUV, and drive it for just one year," environmental author Bill McKibben noted in 2001, "the difference in carbon monoxide that you produced would be the equivalent of opening your refrigerator door and then forgetting to close it for six years."³¹

What had happened to America's more fuel-efficient future? Technology certainly didn't fail us. By 2000, America's automakers certainly knew *how* to make fuel-efficient cars. But they didn't. In an unequal America, they felt they couldn't. In an unequal America, fuel efficiency didn't pay.

Automakers had once been able, back in the middle of the twentieth century, to make decent dollars by selling modestly priced cars. Automakers may not have made a ton of money on every car sold, but they sold a ton of cars — to the middle class households that dominated America's mid-century marketplace. But that mass middle class market, as we have seen, had disappeared by the 1990s. Wealth in America had concentrated. Far fewer average families now made enough to be able to buy their autos new. Automakers, in response, devoted their attention to the affluent — and reconfigured their product lines. Out went the modest-margin, high-volume marketing strategy that had worked so well in a more equal America. In a more unequal America, automakers couldn't count on ever higher volume. They would have to start making more money on each vehicle sold. And that meant building bigger vehicles. Automakers could make, on each SUV sold, as much as ten times the profit from the sale of a standard sedan.³²

These bigger vehicles carried, naturally enough, bigger appetites. They burned fuel at astonishing rates. But this higher fuel consumption gave no pause to the affluent 20 percent of American households now buying the bulk

of new vehicles. In the 1980s and 1990s, their incomes were rising 44 percent faster than prices at the pump.³³

The affluent could afford not to worry about fuel economy. The atmosphere couldn't. America's growing fleet of king-sized vehicles, environmentalists warned, was fouling the air and warming the globe. Environmental groups, throughout the 1990s, pressed Congress to take action. They asked lawmakers to eliminate the gas-guzzler tax exemption for "light trucks," a move that would "provide tremendous financial incentives for automakers to improve the fuel efficiency of their light trucks and SUVs." They backed tax breaks for carmakers that seriously set about hiking fuel efficiency. They promoted tax credits for consumers who purchase fuel-efficient vehicles.³⁴

All these reforms made environmental sense. But they promised, at best, only to slow, not reverse, environmental degradation. To truly shrink America's ecological footprint, many analysts noted, we Americans would need to do more than shun SUVs. We would need to fundamentally rethink our society's bedrock economic assumptions – about growth, about accumulation, about personal satisfaction.

Pleasure, we modern Americans assume, increases as we accumulate. Our economy, we believe, will keep improving our lives so long as we take care to keep the economy "growing." And this economic "growth" has always meant "more," as in more goods. More goods will bring more pleasure. More makes better. Make more. Consume more.

Herman Daly imbibed this faith in growth as a bright young economist in the 1950s. He had come out of Texas eager to do good for people of limited means. Economic growth, as conventionally defined, seemed just the ticket. In an economy that grows, Daly's professors taught him, more becomes available for the poor. In a growing economy, the poor grow richer. Daly would not start second-guessing this growth-equals-progress equation until, in the late 1960s, he spent two years living among intensely poor people in Brazil. Amid this poverty, and amid Brazil's natural splendor, Daly suddenly started grasping the immensity of the gap between north and south, the fragility of the Earth, and the inadequacy of standard "more-is-good" economics. He would later emerge, after subsequent stints at Yale and the World Bank, as one of the world's most astute champions of a truly sustainable Earth. And he would argue, in a widely acclaimed body of scholarship, that the fight for a sustainable Earth must become, at the same time, a fight against inequality.³⁵

HERMAN DALY BEGINS HIS CASE FOR AN EQUITABLE EARTH with the basics. Every economy, he notes, faces certain common problems. The first revolves around the allocation of productive resources. How should these resources be allocated? What should be produced? Bicycles or jellybeans? In market economies, prices guide these decisions. Prices help product makers and service providers understand what people want.³⁶ Manufacturers take signals from

these prices. If the price on an item spikes, they'll produce more of it, to meet the obvious demand.

Distribution poses the second problem all economies — and societies — face. How should the benefits from production be apportioned? Goods, most people would agree, ought to be distributed fairly. A few people shouldn't get everything. But markets can't help us here. They cannot price fairness. Responsible societies, as a result, don't leave fairness to the market.³⁷ They establish rules, on everything from minimum wages to child labor, to guide how markets operate. The more democratic the society, the more fairness these rules are likely to generate.

Economists, Daly points out, have wrestled for ages with questions about both production and distribution. But they have given the third challenge all economies face — scale — virtually no attention at all. Scale raises questions about size, about how large an economy can grow within any given ecosystem, about how much economic activity an ecosystem can sustain. Conventional policy makers consider these questions irrelevant. They take the abundance of the Earth for granted. We humans, as U.S. Treasury Secretary Henry Morgenthau once asserted, live “on an Earth infinitely blessed with natural riches.” On such an Earth, “prosperity has no fixed limits.”³⁸ Today, notes Herman Daly, we know better — or at least should. Years of ecological research have made plain that no nations can assume they will always remain “infinitely blessed with natural riches.”

We encounter “natural riches,” Daly reminds us, in one of two forms. Some — oil, copper, coal, and the like — exist as fixed quantities. We use them up, they're gone. Other natural riches flow continuously, as renewable resources. The sun shines, rain falls, green plants manufacture carbohydrates. These resources do not exist as fixed quantities. But if these resources are depleted faster than nature can renew them, they can be used up and extinguished just as surely as copper and coal. We can cut down trees, for instance, faster than nature can grow them.³⁹

Those resources we use up don't actually disappear, of course. They remain with us, as wastes. Our Earth, fortunately, has natural systems to handle these wastes, systems that go largely unseen. Termites break down wood. Earthworms recycle termite wastes into soil. The soil nourishes new trees. The world is renewed.⁴⁰ But natural waste-removal systems can be overwhelmed. Our economic activity can, at some point, produce more waste than the Earth can absorb. Where does that point sit? Just how much waste can the Earth absorb? We Americans appear intent on testing the limits. Directly and indirectly, we currently generate twenty-three tons of waste — each — per year.⁴¹

Scientists used to believe, observes author David Korten, that our first catastrophic environmental crisis would come when we as a world depleted our stocks of oil or some other nonrenewable resource. But we now seem more likely, he notes, to hit other limits first, among them our Earth's capacity “to absorb our wastes.”⁴²

These wastes, in contemporary America, no longer spew predominantly from factory smokestacks. We're "slowly fixing," notes commentator Bill McKibben, these traditional sources of pollution. Our new waves of wastes, unfortunately, are coming from sources that cannot be so readily "fixed." Our new wastes are coming from the unfolding of our normal daily lives, "from things going as they're supposed to go — but at such a high volume that they overwhelm the planet."⁴³

Take for example the five-plus pounds of carbon that shoot out of car exhausts, as carbon dioxide, whenever an engine burns a gallon of gasoline. No filter of any sort, Bill McKibben points out, "can reduce that flow — it's an inevitable by-product of fossil-fuel combustion." This carbon dioxide, in turn, is trapping enormous amounts of heat on the Earth's surface. The greenhouse effect. We are "turning the Earth we were born on into a new planet."⁴⁴

We as a species weren't built for a new planet. We were built for the one we have. And that planet, Herman Daly stresses, cannot sustain our insults forever. We can only shove so much economic activity through our Earth's ecosystems before they break down. If we keep increasing our "throughput" — the sum total of energy and materials we drive through the human economy — we make that breakdown, at some point, inevitable. At that point, the "natural systems that support all life," everything from the recycling of wastes to the atmosphere's capacity to filter out excessive ultraviolet radiation, would no longer be able to support all life.⁴⁵ We would be toast.

When would the toaster ding? No one can give an exact date. But we do know that we cannot produce more forever. Simple math tells the story. Between 1970 and 1990, notes the University of Oregon's John Bellamy Foster, world industrial production grew at a rate of 3 percent a year. If that rate were to continue, world production would double in twenty-five years, multiply sixteen-fold within one hundred years, and soar 250 times in two centuries.⁴⁶

"Anyone who believes exponential growth can go on forever in a finite world," as the distinguished British-born scholar, Kenneth Boulding, once put it, "is either a madman or an economist."⁴⁷

And that raises, for Herman Daly, what may be the most fundamental question of all.

"If the economy cannot grow forever," Daly has asked, "then by how much can it grow? Can it grow by enough to give everyone in the world today a standard of per capita resource use equal to that of the average American?"⁴⁸

In 1987, an international commission chaired by the prime minister of Norway, Gro Harlem Brundtland, offered up a calculation that helps us answer this most basic of questions. The Brundtland Commission concluded that the world economy would need to grow by a factor of five to ten to give everyone in the world a shot at living an average American life. But the world's current level of human economic activity, Daly notes, is already showing "clear signs of unsustainability." To multiply this level of economic activity by five to ten — to double what we make and what we consume, then double and double again

this production and consumption — “would move us from unsustainability to imminent collapse.”⁴⁹

WE CANNOT, CONCLUDES HERMAN DALY, “grow” forever. Current human economic activity is already preempting one-fourth of what scientists call “the global net primary product of photosynthesis.”⁵⁰ This economic activity cannot possibly be multiplied five- to ten-fold without forcing a fundamental environmental breakdown. The economics of “more” simply cannot deliver an American standard of living to everyone on Earth. For everyone’s sake, Daly and other ecological economists contend, we need to reject “growth” as our be-all and end-all.

But if we were to say no to “more,” wouldn’t we be consigning the world’s poor to perpetual second-class status? And if we tried to narrow global lifestyle differentials, in a world that wasn’t producing great amounts of more, wouldn’t average people in rich nations have to be content with less? To improve the lives of the poor, in a no-growth world, wouldn’t we, in effect, have to degrade the lives of everybody else? Are we faced, in the final analysis, with a choice we don’t want to make? Must we either brutalize people to protect the Earth or brutalize the Earth to protect people?

In fact, argues Herman Daly, we do not face this choice. We do not face a choice between more and less. We face the choice, as a world, between more and better, between economic *growth* and economic *development*.

These two notions, growth and development, often get confused, a confusion that may stem from how we think about growth in our everyday lives. We speak, for instance, about children growing. Children who grow, we all understand, are becoming larger in size. But we also talk about adults growing. We might say, for instance, that a newly elected office-holder has “grown” in office. We don’t mean, of course, that this elected official has become larger in size. We mean simply that this official has matured — developed — as a person. Herman Daly draws this same contrast between economies. An economy that “grows” gets larger. An economy that “develops” gets better.

Conventional economists do not distinguish between more and better, between growth and development. They simply assume that more always makes for better. They don’t evaluate the outputs of economic activity, to separate the potentially harmful from the possibly helpful. They just count them. The more things we make, the higher they say our standard of living rises. Our current single most important conventional measure of economic vitality, gross domestic product, simply tallies the sum total of economic activity that takes place within a geographic area over a given period of time. Economies “grow,” in standard economist-speak, when gross domestic product increases.

But “growing” economies are not always producing better lives for the people who live within them. The economic “outputs” that increase our gross domestic product do not necessarily increase our individual well-being. Our gross domestic product, to give one example, includes the value of all the prod-

ucts our chemical factories manufacture for sale. That's fine. Better living through chemistry. Chemical factories, on the other hand, also generate toxic wastes. That's not so fine. Toxic wastes do not improve our lives. They fill dumps that need to be cleaned up. They give us cancer. No matter. In the calculation of gross domestic product, a dollar spent on cleaning up a toxic waste dump — or burying a cancer victim — counts as economic growth.⁵¹

Or consider food. The food industry, notes analyst Jonathan Rowe, spends \$21 billion a year “to entice people to eat food they don't need.”⁵² The commercials, coupons, and supermarket aisle displays that this \$21 billion buys all raise our gross domestic product. And so does the \$32 billion of goods and services the weight loss industry offers to help people dump the excess pounds they gain consuming food they don't need to consume. And so do the liposuctions that people have performed when weight-loss products don't work exactly as advertised. Every spin of this “grueling cycle of indulgence and repentance, binge and purge,” economically speaking, “grows” our economy.⁵³

Our “growth” economy has, in effect, spun out of control. In countless instances, we don't need the “more” we're getting. Indeed, adds psychotherapist Marc Burch, our homes are becoming “warehouses” for possessions we never use — or even remember.⁵⁴

“We accumulate for the sake of accumulation to the point where we no longer really know what we own,” he notes. “We trip over this junk, insure it, maintain larger-than-needed houses to shelter it, pay for security services to keep it from being stolen, fret over its safety, curse its oppressive effects on our emotions and activities, search through it to find what we really need to get on with our lives, trip over it in the dark, and then, at last, relegate it to a landfill.”⁵⁵

Up to a point, of course, adding more to what we possess can most certainly improve how good we feel. If we have no place to sleep, any bed will help us survive another night. If our bed has lumps, a new mattress will bring us comfort. But at some point down the consumption road, Marc Burch observes, “spending more and more for additional luxuries” eventually starts detracting from whatever fulfillment we might feel.⁵⁶ To make the money to buy the “more” we do not need, we work ourselves too hard and too long. We don't feel fulfilled. We feel stressed.

What we really need, to feel fulfilled, are the “goods” that standard growth economics doesn't count. We need to be surrounded by people we care about and who care about us.⁵⁷ We need more time for the personal pursuits that bring us pleasure. We need safe streets, clean parks, easy commutes. We don't need our already “rich” economy to grow and give us “more.” We need our economy to develop and give us better.

In an economy that focused on better, not more, goods providers would make their mark and their money “by adding ingenuity, tasteful design, and efficiency improvements to products,” not by pushing people to buy more and bigger products. The emphasis, notes Marc Burch, would be on making products “more durable, repairable, and aesthetically pleasing.” Large numbers of

people would be employed “in maintaining, repairing, rebuilding, and recycling.”⁵⁸ A no-growth economy, adds environmentalist Alan Durning, would place a premium on “permanence” and make the all-important distinction “between physical commodities and the services people use those commodities to get.” Few people, for instance, buy cars because driving gives them immense pleasure. Most people buy cars to gain easy access to the places they want to go. In an economy devoted more to better than to more, thoughtfully designed housing and public transportation systems could give people easy access to where they want to go as conveniently as cars.⁵⁹

Societies absorbed in development, not growth, would aim to *reduce* the amount of energy and materials we drive through the human economy, our “throughput.” They would seek, as economist E.F. Schumacher once noted, to “meet real human needs ever more efficiently with less and less investment of labor, time, and resources.”⁶⁰

But how would we know, how would we measure, if we were making progress toward this noble goal of truly meeting human needs? Conventional economic yardsticks wouldn’t be able to help us. These measures only see value in more. They make no allowance for better. Other measuring options, fortunately, do exist. Over recent years, scholars have fashioned several alternative yardsticks that treat life as something more than the sum total of all goods and services exchanged in the marketplace. One measure developed at Fordham University, the Index of Social Health, combines sixteen different quality-of-life indicators, everything from high school completion and teenage birth rates to average weekly wages. Another ambitious quality-of-life measure, the Genuine Progress Index, calculates both the positive and negative impacts of economic growth. This index subtracts from the standard gross domestic product various costs of growth, be they social, like family breakdown and the loss of leisure time, or environmental, like loss of wetlands or the cost of air pollution.⁶¹

The Fordham researchers have crunched annual numbers for their Index back to 1959. The researchers behind the Genuine Progress Index have run numbers back to 1950. Their calculations, interestingly, reveal the same basic trends. They both show the *quality* of American life increasing up until the mid 1970s and then dropping off. What happened in the mid 1970s? We have already noted, in earlier pages, one significant phenomenon that took place in these years: In the mid 1970s, the march toward a more equal America sputtered and stalled. We have had rising inequality ever since.

Rising inequality, we have argued, inexorably undermines the quality of our lives. If that be the case, might rising inequality also undermine efforts to shift our economic focus from quantity to quality, from more to better? Many ecologists believe that inequality has exactly this effect. Inequality, they contend, makes “growth,” as conventionally defined, appealing. Inequality makes the economics of “more” seem our only hope.

IN ANY UNEQUAL SOCIETY, THE DOMINANT, to maintain their dominance, always find themselves striving to keep the minds of the dominated off the underlying unfairness of their situation. In our modern age, a fixation on “growth” helps enormously in this effort.

Growth neatly diverts attention from troublesome questions about equity. Do some people have more, much more, than others? Not to worry. If an economy is “growing,” the dominant proclaim, then everyone will eventually have more. In a growth economy, the argument goes, all will get theirs, in due time, so long as the economy keeps growing. The need to keep that economy growing, in turn, becomes a rationale that justifies economic policies that help wealthy people become wealthier: The richer the rich become, the more they will invest, the more the economy will grow. To prosper, the gospel of growth assures us, we must merely keep faith — in the all-consuming importance of more.

But if we conclude that the Earth can no longer survive on an endless “growth” diet, then everything changes. Questions about the concentration of wealth, once easily shunted aside, now thrust themselves onto center stage. If we must, for the sake of our future on Earth, place limits on growth, then how the benefits from limited growth are distributed immediately becomes a matter of no small public interest. In a society that limited how much more can be produced, we would look askance at any individuals who gathered in extravagantly more than anyone else. In a world of limited growth, what Herman Daly calls a “steady state” world, a world developing but not growing, sharing would inevitably become second-nature. A sustainable world would be a more equitable world.⁶²

An inequitable world, by contrast, cannot be sustainable. In an unequal world, the wealthy chase their own private solutions to whatever problems, a degraded environment included, life may bring. Local waters too polluted? They jet off to pristine beaches elsewhere. Those without wealth, meanwhile, come to see the accumulation of wealth as their only route to personal security. “In response,” environmentalist Rich Hayes has noted, “governments push economic growth even more forcefully.” The politics of more.

“Can environmental values survive such a future?” Hayes asks. “I can’t see how.”⁶³

Environmental values, our recent history suggests, thrive only in times of greater equality. America’s entire basic body of environmental protection legislation — the Clean Air Act, the Endangered Species Act, the National Environmental Policy Act — moved through Congress into law in the late 1960s and early 1970s, a time of unprecedented economic equality in the United States.⁶⁴ Our years of increasing inequality, since the mid 1970s, have brought not one single grand new breakthrough for environmental protection. Environmentalists in the United States have essentially spent the last thirty years playing defense. Despite that defense, our Earth continues to erode.

We ought to be able to do better, but we won't, not within an economy, not within a society, growing more unequal with every passing year.

WHICH RAISES A FRIGHTENING THOUGHT. Are we too late? Haven't the values of "more" already triumphed, not only in the United States but all over the globe? In our media-saturated world, hasn't just about everyone been exposed to the glories of modern consumer culture? Given that exposure, how can we expect the world's poor to be content with anything less than the same consumer comforts the comfortable currently enjoy in the United States? How can we expect poor peoples to reject the growth economics that promise to deliver these comforts? How can we expect poor nations to explore more equitable, more sustainable economic alternatives, to choose development over growth?

Poor nations, clearly, will only explore these alternatives if they have evidence to believe that equity and sustainability can improve life quality today, in the here and now, better than the economics of inequality and growth. Such evidence, wondrously, does exist, in a tropical hothouse of innovation that few people outside South Asia even know exists. In this place, a coastal state within India known as Kerala, over 33 million people have created a remarkably equitable society where equity and sustainability actually offer a realistic and practical alternative to the economics of more.

Kerala, by every conventional measure, rates as a desperately poor place, "even by Indian standards."⁶⁵ Keralans average, per person, \$200 less in gross domestic product than the average Indian. The comforts conventional economic growth delivers — cars, air conditioners, washing machines — grace only a tiny percentage of Keralan households.

But the people of Kerala, in social interactions, don't come across as desperately poor. They come across as proud. Keralans, men and women alike, look visitors straight in the eye. They don't beg. They don't show, notes Akash Kapur, a thoughtful observer of the Indian scene, any of the "self-abasement that so often comes with poverty."⁶⁶ Keralans have reason to be proud. On the only measure that "ultimately matters" — "the nature of the lives people can or cannot lead," a formulation introduced by Nobel Prize-winning economist Amartya Sen — Keralans have created a society that outperforms much of the rest of the world.⁶⁷ People in Kerala lead lives that are long and healthy, in vital, safe, tolerant communities.

The numbers testify to Kerala's achievement. Morocco, a nation about equal to Kerala in population, generates about three times more wealth per person than Kerala. But people in Kerala, on average, live ten years longer than Moroccans. Colombia, another similarly sized nation, generates four times Kerala's wealth. But babies die in Kerala at less than half the rate they die in Colombia.⁶⁸

Kerala and California also carry about the same population. California, of course, overwhelms Kerala economically. California generates seventy-three times more growth per person than Kerala's. But Kerala, not California, enjoys

more social peace. In the 1990s, about two hundred thousand inmates packed California's jails and prisons. The number of full-time prisoners in Kerala: five thousand.⁶⁹

Within India, Kerala boasts the lowest rates of malaria and cholera and the highest rates of access to doctors, nurses, health clinics, and hospitals.⁷⁰ Within the world, Kerala boasts a literacy rate that tops the average of all other low-income nations — by an amazing 40 percent.⁷¹ And the literate in Kerala, unlike most of the rest of the low-income world, include girls as well as boys. In 1994, 93 percent of high school-age girls in Kerala were enrolled in high school, more than three times the rate in the rest of India and the world's poor nations.⁷²

The people of Kerala owe their good fortune, their outstanding *quality* of life, partly to the accidents of geography. On the west, Kerala stretches along the Indian Ocean. This long coastline has always left Kerala open to new ideas from abroad, everything from Christianity to communism. Meanwhile, on the east, mountain ranges have kept Kerala somewhat separate from the rest of the South Asian subcontinent. These mountains, together with the sea, helped create a land where divergent peoples — Hindus, Christians, Muslims, and Jews — have lived side by side, in tolerance, for generations.⁷³

In this heady atmosphere, intolerance — and exploitation — would not go unchallenged. In the nineteenth century, Kerala saw massive protests against the indignities of India's caste system, an outrageously rigid hierarchy that subjected people in the "lower orders" to life-long humiliation.⁷⁴ In the 1930s, inspired by the teachings of Mahatma Gandhi, small but significant numbers of Kerala's wealthy Brahmins, all born at the opposite end of the caste hierarchy, began "renouncing their privileges and giving up their lands."⁷⁵ About the same time, all across Kerala, grassroot networks of landless tenants were organizing for thorough-going land reform. They would later elect, in 1957, India's first communist-led state government, and this new government would quickly enact sweeping land reform legislation. But the legislation would not go into effect. India's central government promptly dismissed the ministers who would have been responsible for its implementation. Kerala's peasant associations would not be intimidated. They kept up the pressure, and comprehensive land reform would finally come about, fourteen years later, in 1971.⁷⁶ The reform would give about 1.5 million former tenant families title to their first property.

Over the next two decades, under steady pressure from peasant groups and trade unions, elected governments in Kerala, communist and noncommunist alike, would enact still more wealth-redistributing reforms.⁷⁷ Kerala's minimum wage became India's highest. Stiff tax rates on the wealthy, meanwhile, helped underwrite the free and low-cost distribution of basic services. Keralans, by the 1990s, were paying no charge for a minimal level of electrical power.⁷⁸ In state-supported stores, Keralans could buy everything from rice to batteries at subsidized prices.⁷⁹

All these reforms, notes environmental author Bill McKibben, helped create “a state with some of the most equal wealth distribution on Earth.”⁸⁰ That suited average families in Kerala quite nicely. But outsiders, particularly outsiders with power and wealth, considered Kerala hostile territory. Industrialists avoided Kerala. They were not about to situate manufacturing plants in a state where wage rates ran three times the Indian average.⁸¹ Kerala, as a result, would not — could not — “grow” in standard economic terms. Without capital to fund ambitious “growth” projects, no giant manufacturing plants would soar above Kerala’s tropical forests. Joblessness, on the other hand, would rise, to levels that topped the average unemployment rates elsewhere in India. But Kerala did not crumble, as conventional growth economics would have predicted. Kerala, instead, developed. Kerala’s communists may “have failed to spur economic growth,” as a 1998 *Atlantic Monthly* analysis would observe, but “they have been singularly successful at implementing development through redistribution.”⁸²

Kerala would grow better, not bigger, through a variety of imaginative initiatives. One key effort, the People’s Resource Mapping Program, mobilized villagers to inventory their local natural resources and then forge plans to develop these resources sustainably. Village volunteers, once trained, collected data on land use, local assets, and water resources. Scientists added other data into the mix to create “environmental appraisal maps” that villagers and scientists together could then use to fashion local action plans.⁸³

These plans, note anthropologist Richard Franke and sociologist Barbara Chasin, would make real differences in people’s lives. In Kalliasseri, a village in northern Kerala, the mapping helped villagers realize they were always importing, late in the dry season, expensive vegetables from elsewhere in India — at the same time their own rice fields “lay fallow for lack of water.” The village decided to try an experiment. Land owners would grant unemployed young people “free use of their fallow rice fields during the dry season,” to raise vegetables. The youths would then use the maps developed by the mapping project to identify the fields “that would make the best use of local water resources.” The end result? The jobless youths earned income, productive land no longer went wastefully fallow, and local villagers saved money buying vegetables.⁸⁴

The same spirit of sharing and sustainability has animated development efforts all across Kerala.⁸⁵ In the midst of one literacy campaign, for instance, teachers in a predominantly Muslim region realized that many people weren’t becoming literate because they needed glasses to be able to see what they were supposed to be reading. Over a two-month stretch in 1989, local people in the region proceeded to donate over fifty thousand pairs of eyeglasses. Forty trained volunteers, note Richard Franke and Barbara Chasin, then “matched those who needed glasses with the appropriate set of lenses.”⁸⁶

Sustainable solutions also emerged to meet Kerala’s energy challenges. Historically, rural Indians have used wood for fuel, a course that has leveled wide expanses of local forests and exposed families to dangerous levels of “sus-

pendent particulates” from inefficient wood-burning stoves. Cooking for three hours at one of these stoves, researchers have found, fouls lungs as grimly as smoking twenty packs of cigarettes a day. In the 1980s, activists would fan out across Kerala to educate about wood stove dangers. Scientists and engineers, meanwhile, collaborated “on improved stove design” and “seminars to bring together household cooks and scientists.” All told, the project would help Keralan households install some two hundred thousand high-efficiency stoves.⁸⁷

Kerala state officials, to conserve energy, have also encouraged architectural styles that make the most of local resources. The schools, offices, and homes designed by Laurie Baker, the British-born architect Kerala officials hired to design state housing for the poor, offer one example. Conventional builders reinforce concrete floors with steel rods. Laurie Baker’s buildings use grids of split local bamboo instead, “at less than 5 percent of the cost.” Baker’s mostly brick-and-mud structures save even more energy by avoiding air conditioning, no small feat in an oppressively hot place like Kerala. His secret? “Gaps between bricks let air and daylight through a wall, while diffusing the glare of direct sunlight,” notes Adam Hochschild, an American admirer. Baker’s buildings also often feature pools of water surrounded by tiny courtyards. The evaporation from the pools keeps temperatures down, as does the shade of the coconut palms Baker strives to keep overhead. The net effect: buildings that sit beautifully in harmony with their surroundings, all reflecting a clear understanding, sums up Adam Hochschild, “that the Earth will not forever permit us to be so profligate with its riches.”⁸⁸

THE PEOPLE OF BRAZIL COULD once credibly claim they, too, lived at least somewhat in harmony with their surroundings. In the 1950s, Brazil’s flagship city, Sao Paulo, offered a model of sensible urbanity. A neatly tuned network of trolleys and buses kept the city’s 3.7 million people coming and going in clean, fume-free air. On Sao Paulo’s streets, only 164,000 private cars, less than one for every twenty-three people, pumped out pollution.⁸⁹

But over the next half century, years that saw Kerala choose equity, Brazil chose to take a different course. Kerala would redistribute land to poor peasants and endeavor to keep rural life a viable option. In Brazil, where 43 percent of the land belonged to less than 1 percent of the nation’s landowners, authorities would make no serious effort to distribute rural land wealth.⁹⁰ Poor peasants in Brazil would react sensibly. They fled the economic dead-end the countryside had become. They filled Brazil’s urban centers. Sao Paulo would jump, in the four decades after 1960, from 3.7 to 17 million people.⁹¹

In Brazil’s new overcrowded urban environments, the affluent would create their own separate living spaces — and lose all interest in maintaining the amenities that make life livable for all. Public transportation, for instance, now made no sense. The affluent had no desire to rub elbows, in trolley cars, with people so clearly “below” them. The trolley tracks would be torn up. Once

charming cobblestone streets would be widened into multilane thoroughfares. By the end of the 1990s, average people could no longer move easily about their once beautiful Sao Paulo. Some 5.1 million cars choked the city.⁹²

And sewage would choke the rivers. Nearly half the families in Brazil, the nation's top statistical agency reported in 2001, do not have access to proper sewage-collecting. Over the course of the 1990s, a decade that saw Brazil's economic "growth" nearly double over the 1980s, the number of families without sewage treatment barely dropped at all.⁹³

In a reasonable world, the contrast between Kerala and Brazil, a contrast so strikingly evident by the 1990s, might have sparked some serious soul-searching. Brazil's choices — wealth concentration over wealth redistribution, "growth" over sustainability — had paid no dividends for either average people or that tropical piece of the Earth they called home. Kerala's commitment to equity and better, not more, had created a nation that worked for average people and their environment. Maybe the world needed more Keralas.

The world, at least the world elites that set the rules, would have other ideas. Global policy makers would promote, throughout the closing decades of the twentieth century, economic policies that undermined Kerala-like choices at every turn. The "Kerala model" stressed self-sufficiency, making the most of local resources. The world's movers and shakers insisted instead upon "free trade." They labeled as "protectionist" — and intolerable — any actions taken to shield and sustain fragile local economic activity from competition with the world's corporate giants. The Kerala model placed "infant survival, nutrition, education, and public services ahead of consumerism and private gain."⁹⁴ The world's globalizing elites would ridicule public expenditures as inefficient and inflationary. The Kerala model promoted policies that narrowed gaps in income and wealth. The globalizers accepted inequality as natural and necessary. Without inequality, they argued, economies could never "grow."⁹⁵

Kerala's political leaders never bought into this globalization mantra. But that didn't matter. Globalization would impact Kerala anyway. India's central government found itself in the same situation as governments throughout the "less developed" world. To gain economic assistance, these governments had no choice but to accept the policy prescriptions pushed by international economic agencies like the World Bank and the International Monetary Fund. That meant moving to privatize public services — and cutting the budgets of those services that remained public. That meant cutting taxes on the wealthy to create a better "business climate." That meant ending tariffs that kept the prices of imported goods high enough to give local industries and farmers the space they needed to survive.

Kerala would feel the impact of these "structural adjustment" policies throughout the 1990s. Budget cuts at the national level would force Kerala state officials to cut back on lunches for poor schoolchildren.⁹⁶ The state subsidies that kept rice and other basic goods inexpensive also had to be reduced. But Kerala's political leaders would fear the abolition of protective tariffs per-

haps most of all. Without protection, their state's labor-intensive, sustainably managed small farms and cottage industries would be competing directly with highly mechanized, energy-devouring, resource-depleting corporate operations.⁹⁷ Kerala could not win that competition. Indeed, suggests Herman Daly, societies that treat people and environment with all due respect will always be losers in a no-holds-barred "free trade" marketplace.

In societies that respect people and the Earth, Daly explains, enterprises must take environmental and social costs into account. Such societies enforce anti-pollution laws. They set minimum wage standards. They levy taxes that fund health and other basic benefits. Enterprises in these societies have responsibilities, to people and place, that must be met. These enterprises can compete with no problems against enterprises that bear similar responsibilities. But they cannot compete against enterprises that are "free" to ignore their impact on the Earth and its people. Enterprises that can dump their wastes into rivers — and exploit their workers as easily as they exploit the Earth's resources — will always be able to sell their products for less than enterprises held responsible for their conduct. Enterprises that degrade people and earth, in an entirely "free" marketplace, enjoy a "natural" advantage.⁹⁸

That advantage, of course, can be countered — by imposing tariffs "on goods imported from countries that refuse to internalize environmental and social insurance costs."⁹⁹ But tariffs, global elites insist as a matter of faith, infringe upon "free trade." Indeed they do, and that's why they're needed, not to protect inefficient domestic industries — the claim the globalizers always make — but to protect societies wise enough to recognize that no business can honestly calculate profit and loss without having to take all costs into account.¹⁰⁰

In a world dominated by "free trade" orthodoxy, and the lure of western consumer culture, Kerala would stumble into the twenty-first century working desperately to maintain its commitment to both equity and the environment. Whether Kerala could maintain that commitment remained unclear. Many educated Keralans, by 2000, had begun emigrating to the more affluent Persian Gulf. They wanted more than their society could deliver.¹⁰¹

Kerala, critics contend, can only deliver that "more" by abandoning the Kerala model. These critics have not yet triumphed. Within Kerala, limits on the economics of more remain in place. For how much longer no one can say. In a world that worships growth and welcomes inequality, Kerala's vision of our human future will never be secure.

IS A SUSTAINABLE WORLD TRULY ATTAINABLE? Can we ever go beyond the mindset that more is always better? The experience of Kerala suggests that perhaps we can — but not on a globe where the lifestyles of the rich and famous continually tease and taunt us.

"A billion people living in dire poverty alongside a billion in widening splendor on a planet growing ever smaller and more integrated," economists

Raymond Baker and Jennifer Nordin have noted, “is not a sustainable scenario.”¹⁰²

A seriously sustainable scenario, ecological economists point out, would require us to recognize what we so far have not, that the Earth cannot be exploited endlessly, that we can only consume, only discard, so much. The Earth imposes limits on what we can do. To move toward sustainability, we need to understand these limits, accept these limits, live within these limits. But we will never succeed at that endeavor so long as we place no limits on our economic behavior, no limits on the accumulation of more.

Every year, on Earth Day, earnest speakers ask us all to think about ourselves as the stewards of our planet. As stewards, they remind us, we have the responsibility to preserve and protect. This responsibility defines the environmental ethic. The lust for “more” — gluttony — poisons it. We will never become the stewards of our Earth we need to be until we reject this gluttony. But we will never be able to reject gluttony until we first reject inequality. Gluttony grows where wealth concentrates.

Where wealth concentrates, societies accumulate. They get bigger. To save our Earth, we must have better.