MEMEWARS

THE CREATIVE OF OF NEOCLASSICAL ECONOMICS

A REAL WORLD
ECONOMICS TEXTBOOK
BY KALLE LASN



EDITED FLEDT DARREN DIRECTOR CREATIVE INOUE RING AKERLOF GEORGE MARGARET ATWOOD BENERÍA LOURDES DALY HERMAN HUDSON MICHAEL KEEN STEVE MAX-NEEF MANFRED ORRELL DAVID REES BILL JOHN RALSTON SAUL STIGLITZ JOSEPH DIRECTOR ART BROWN ASSISTANT ART DIRECTOR LEE MANAGER PRODUCTION LAUREN BERCOVITCH

Hey all you students out there,

You are entering university at a critical juncture. Capitalism is in crisis and the crisis is growing ever deeper. The inability of economists to incorporate externalities into their models and to account for phenomena such as species extinction, resource depletion and climate change—not to mention the 2008 financial meltdown that blindsided them all—has turned the profession into a target for derision and ridicule. And it's not just some academic joke—today even ordinary people look down their noses at the ineptitude of economics.

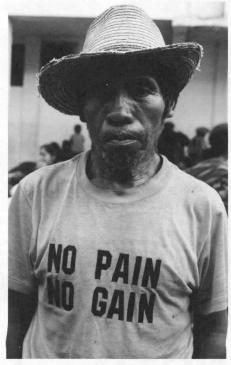
And yet as you delve into your textbooks, listen to the sensible, ordered tone of lectures and come to associate your professors with the accolades that hang on their walls, you may get the sense that economics is a science: A rigorous discipline with its own immutable laws, proven theories and crop of Nobel laureates. Far from it. You may be temporarily fooled by this façade, but you need only look beneath the surface to discover that economics is a highly contested field ... a profession whose axioms and credibility are being questioned like never before. The prevailing neoclassical paradigm is crumbling and a new, more chaotic, more biologically and behaviorally based paradigm is struggling to emerge.

But your department, like most others around the world, is still marching in lockstep with the old guard. That's because generations of tenured professors have marginalized dissenters and eliminated competition. Your economics department operates very much like a police state ... not a free marketplace of ideas in which innovation is acknowledged and rewarded. But outside your department, a vigorous heterodox economics thrives ... there are social economists, feminist economists, interdisciplinary economists,

MANFRED MAX-NEEF

"I worked for about ten years in areas of extreme poverty in the Sierras, in the jungle and urban areas of Latin America. And one day at the beginning of that period I found myself in an Indian village in the Sierra in Peru. It was an ugly day. It had been raining nonstop. And I was standing in the slum. And across from me, a guy was standing in the mud-not in the slum,

in the mud. guy...thin, five kids, a grandmother. fine economist As we looked I suddenly I had nothing say to that circumstances, language as was absolutely

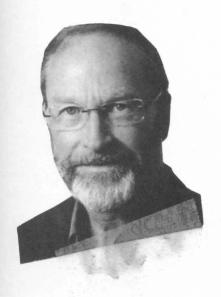


He was a short hungry, jobless, wife and a And I was the from Berkeley. at each other, realized that coherent to man in those that my whole an economist useless. Should

I tell him that he should be happy because the GDP had grown 5 percent or something? Everything felt absurd. Economists study and analyze poverty in their nice offices, they have all the statistics, they make all the models and are convinced they know everything.

But they don't understand poverty."

BILL REES



"LET'S ADMIT THAT OUR BELIEFS ARE KILLING US"

Bill Rees is a global leader in ecology and professor emeritus at the University of British Columbia, Canada. His book, Our Ecological Footprint: Reducing Human Impact on Earth, revolutionized the field of urban planning.

Famed Canadian ecologist Bill Rees spends most of his time these days making the links between ecology and neuroscience. After hundreds of papers documenting the declining health of Earth's biosphere and years spent in the field as an urban planning expert, he's searching for the optimal motivational curve between human limits and human action.

Unlike the majority of ecological scientists who tail off the end of a catastrophe speech with a plea to the never-ending resilience of the human spirit, Rees encourages people to focus on social psychology for clues on how to convince humanity about the hard choices necessary to steer civilization from collapse. So far he fears that only a catastrophe can re-set the neuropathways responsible for the social myths that govern our most destructive actions.

"We don't respond to the data ... what is it about the human mind that is so easily fooled into doing something that is self destructive when all the evidence is clear that [exhaustion] is the case?"

In a recent paper titled "The Ecological Crisis and Self-Delusion: Implications for the Building Sector," Rees argues that mainstream solutions like hybrid cars, green buildings, smart growth and urban density not only ignore the fundamental concept of ecological overshoot but could end up doing more harm than good in convincing people that consumption is a solution.

As a researcher he is no stranger to the often-limited impact scientific findings have on human behavior. He is the man who coined one of the most recognizable terms in environmental science today—Ecological Footprint. In 1996, Rees along with graduate student Mathis Wackernagel, published *Our Ecological Footprint: Reducing Human Impact on the Earth*, providing a mathematical model to determine sustainable levels of consumption for cities and civilizations. The model is a staple of sustainability planning in the world. The degree to which its valuations are actually heeded, however, remains to be seen.

"In spite of all the rhetoric, all of the political bafflegab around sustainability, absolutely nothing has been put into place. [There are] no policies in the international arena that have had any detectable impact on the general direction of the human ecological footprint."

The premise of Ecological Footprint (EF) is that human beings depend on nature. While this ought to be a given, it is almost universally absent from mainstream economic models and philosophies. EF is a measure of carrying capacity, the amount of resources and waste sink volume it takes to sustain a single human's consumption. It treats the global system as a whole rather than examining communities in isolation. Five categories of consumption—food, housing, transportation, consumer goods and services—are measured and their corresponding resource draw subtracted from surrounding and global eco-systems. In

1996 the average North American used 4.5 hectares of the Earth to meet their needs with the average European not that far behind. At the time, Rees and Wackernagel calculated that the planet was already in overshoot—one and a half Earths were needed to maintain 1996 levels of global consumption, and three Earths needed if the entire globe was brought to the level of an American. Fifteen years on, and after much publicity and political coverage, the global footprint of the Earth has increased to 2.7 hectares per person, the majority of it treaded in the developed world. This is already signifficantly higher than the 2.1 hectares per person they originally estimated for sustainable consumption. Now, according to the Global Footprint Network, the average American footprint is 8 hectares; Canadian 7.1; Australian 6.84; German 5.08; South Korean 4.87; Mexican 3.0; Iranian 2.68; Chinese 2.21; Kenyan 1.1; Angolan 1.0; Pakistani 0.77; Malawian 0.73.

Today we live in a world of ecological surplus nations and ecological deficit nations. All industrialized states in Europe, the Americas and much of East Asia are in ecological debt. If they were cut off from global trade they would immediately collapse, their resource bases far below what is necessary for their populations to survive. The remaining ecological surplus societies are in the poorest corners of the world, primarily Sub-Saharan Africa. It is from these impoverished surplus ecosystems that deficit states increasingly draw their life support systems.

"Let's admit that our beliefs are killing us," Rees says as he describes the faith-based system of economics today. He points out a maxim by one of the earliest thinkers in economics and sustainability, W. Stanley Jevons, as an example of how our larger cultural myth ignores scientific analysis. "It is a confusion of ideas to suppose that the economical use of fuel [or any other resource] is equivalent to diminished consumption. The very contrary is the truth," Jevons wrote in 1865.

Rees asserts that the Jevons paradox, the idea that greater efficiency leads to greater consumption, not less, has been wholeheartedly ignored by economists. Instead, permanent substitution, or factor productivity, first articulated by neoclassical economics Nobel laureate Robert Solow, is the standard ideal—we'll eat jellyfish when the tuna is dead; sea worms when the jellyfish are dead; bottom feeders when the worms are dead and so on and so forth. What we'll eat when the bottom feeders are dead nobody knows.

Once a quiet researcher, Rees believes scientists have a duty to speak out in a world where government, ideologies and private industry actively work to discredit sound science. Early on in his career he was told that his life as a professor at the University of British Columbia would be "nasty, brutish and short" if he continued waxing on about Earth's carrying capacity. Inspired with a fire that only threat can produce, Rees not only carried on with his study but eventually broke the sacred fourth wall of scientific objectivity, calling on researchers and scientists like himself not to just throw their data into the political spin machine, but to interpret it as well.

"It has been a gradual realization that not only is society not receptive to the data and information but that society will organize to explicitly frustrate and deny the science in order to maintain the status quo."

It will take a new cultural myth, Rees says, like the one that "uncooled" smoking tobacco, to turn the tables towards a sustainable future. Excessive consumption and growth need to become symbols of shame not status. According to the evolutionary psychology he's immersed himself in of late, only collective social pressure can rearrange the destructive neuropathways reinforcing our worst habits. The evolutionary advantage of optimism helped us to become one of the most successful species on Earth, but now our hopeful-thinking hardwiring, our belief that tomorrow will always be miraculously better than today, is working against us. We need a dose of realism, Rees says, to save ourselves.



A HISTOFY

We exhaust the richest and most accessible of the Earth's mineral deposits; clear the old-growth forests; fish the oceans to exhaustion. Potable water becomes a costly commodity. We go deeper and deeper into the earth's crust to get oil. Our lives are threatened by the very methods and technologies we invented to enrich them.

For thousands of generations, humans are nature—subject to its laws, its sunrises, moon cycles, tides, feasts and famines. Then we begin to modify our surroundings: Damming and channeling rivers, breeding cereal grasses, draining swamps, domesticating animals. Humans diverge from nature. Our barely perceptible footprint grows deeper, larger, more clearly delineated: Like a field instead of a meadow, a road instead of a path.

Agriculture spreads, and coal fuels the Industrial Revolution. Nature remains abundant, but railroads, cities, freeways, airports and industrial parks carve a kind of landscape the earth has never known.

1800

1900

RACE RESIDENT

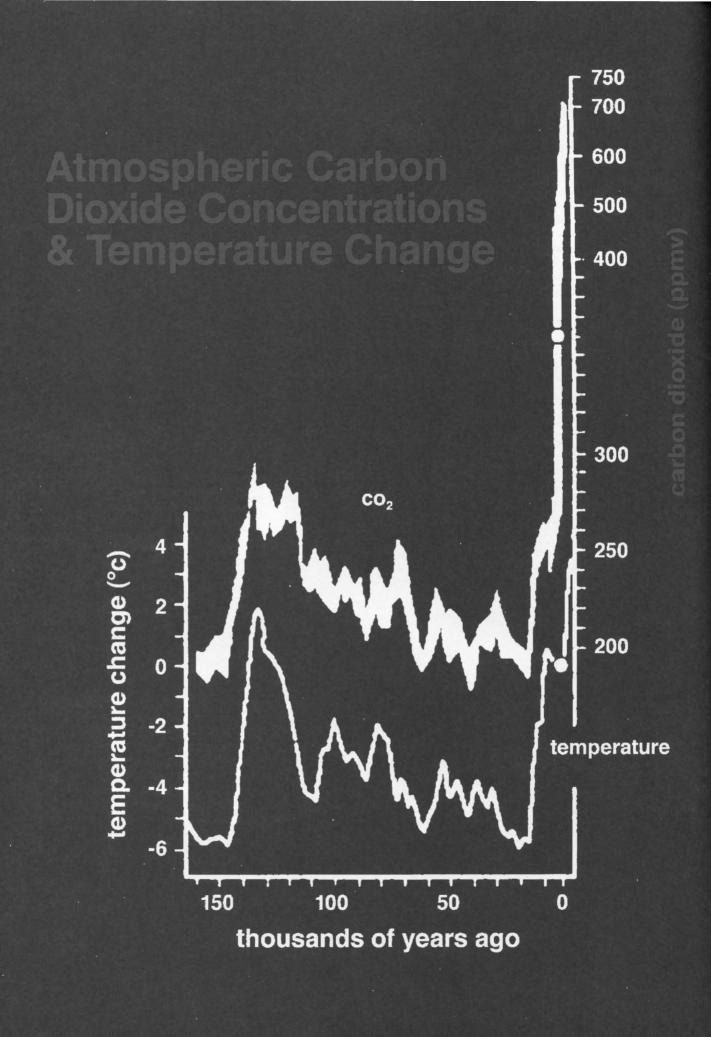
We find ourselves in the age of diminishing returns. Environmental cleanups—expensive industrial scrubbers and waste treatment plants ... long-term storage for dangerous, indestructible wastes—all become essential to sustain a growing economy. Competition for resources becomes fevered, spawning discord and conflict. Medical costs bloat as quality of life shrivels. We have been issued the warnings: Collapsed fisheries, erratic weather, cancer epidemics. The planet, and all living things, are in cataclysmic distress.

We abandon everything we thought we knew about progress. We completely reimagine industry, nutrition, communication, transportation and housing. We rehabilitate consumer culture, and create a level and holistic playing field for living and future generations. Humanity, and the world it depends on, are sustained.

We continue down the road of unrestrained growth until it is too late. Global ecosystems erode beyond any chance of repair or renewal. The Earth's capacity is reached and exceeded; economic growth starts to yield negative returns. The crash begins. No austerity measure—no matter how radical—can halt the descent.

2000

2100



the vague and incoherent "system," the international regulatory regimes, he righteousness of the right, everyone and everything he hypocrisy of the left, You blame the CEOs, You blame America. our bank account, vour mental health, the oil companies, our government, You blame China. You blame India. vour childhood, he educators, he economy, vour parents, but yourself. our job,

This is no joke.
This is actually happening and your five-planet lifestyle is the primary cause of it.

Wake up!



On March 18, 1968, early in his presidential campaign, Senator Robert Kennedy, the brother of assassinated president John F. Kennedy, stepped to the podium at the University of Kansas. His words seem as appropriate today as they were then, and they are worth quoting at length:



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David Batker is chief economist and executive director of Earth Economics. He completed his postgraduate work under famed economist Herman Daly. He has taught in the training department of the World Bank and has worked with Greenpeace

International.

John De Graaf is an independent documentary producer. He has won three Emmys and over one hundred national and international awards for filmmaking. He is co-author of Affluenza: The All-Consuming Epidemic and is national coordinator of Take Back Your Time, an organization that challenges overwork and time-poverty in North America.

This excerpt is from their recent book: What's the Economy For, Anyway?: Why It's Time to Stop Chasing Growth and Start Pursuing Happiness.

For too long we seem to have surrendered personal excellence and community value in the mere accumulation of material things. Our Gross National Product now is over \$800 billion dollars a year, but that Gross National Product counts air pollution, and cigarette advertising, and ambulances to clear our highways of carnage. It counts special locks for our doors and the jails for people who break them. It counts the destruction of the redwoods and the loss of our natural wonder in chaotic sprawl. It counts napalm, and it counts nuclear warheads, and armored cars for the police to fight the riots in our cities. It counts Whitman's rifle and Speck's knives and the television programs which glorify violence in order to sell toys to our children. Yet, the Gross National Product does not allow for the health of our children, the quality of their education, or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country. It measures everything in short except that which makes life worthwhile. And it can tell us everything about America except why we are proud that we are Americans. 99

WHAT IS THE TRANS COST OF

ONE CONTAINER MILE?



HOW CAN A THREE BY TEN INCH BOX OF CRACKERS FROM PORTUGAL ONLY COST \$1.50 AFTER BEING SENT HALFWAY ACROSS THE OCEAN IN A FREIGHTER AND THEN TRUCKED TO MY TOWN? I ASKED THE STORE MANAGER AND HE DIDN'T KNOW EITHER.



IT'S PRETTY AMAZING THAT OUR SOCIETY HAS REACHED A POINT WHERE THE EFFORT NECESSARY TO

EXTRACT OIL FROM THE GROUND SHIP IT TO A REFINERY TURN IT INTO PLASTIC SHAPE IT APPROPRIATELY TRUCK IT TO A STORE BUY IT AND BRING IT HOME

IS CONSIDERED TO BE LESS EFFORT THAN WHAT IT TAKES TO JUST WASH THE SPOON WHEN YOU'RE DONE WITH IT

Δ Bill of Rights for Future Generations

We, the people of the future, like the multitudes who came before us, have the right to air that smells sweet, to water that tastes pure, and to land that is fertile, unspoiled and green.

We have the right to inherit a world free of chemicals, nuclear waste and genetic pollution. We have the right to live alongside nature, some of which is still untamed.

We ask you, the people of the present, not to bequeath us a toxic legacy. We ask that you not pamble with technology that may backfire in the future, and request that you not burden us with the weight of ever-deferred debt. We would like to claim our share of the planet's bounty. Please do not use it all up.

In turn, we promise to grant the same rights and privileges to the generations who follow us, in the sacred hope that the human spirit will live forever.

 Δ curse an any generation who ignores this desperate plea.

ASK YOUR PROFESSOR:

What is the ultimate responsibility of economists? Is it to do no harm? Is it to manage our planetary household in a responsible way ... to make sure the human race survives?