Part 2: Feel the Burn? Reviewing *Global Co-operation* and *Drawdown*

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Earth is flat and infinite, according to paid experts. – *Funny Times*

My unlikely pairing of books—*Global Co-operation*, by Tom Webb, and *Drawdown*, edited by Paul Hawken—is partially explained by noting that both are about how to redirect an unjust present and the extremely threatening near future. Webb, an educator and co-op leader, surveys global trends and cooperative potential in eight chapters, while the Drawdown Collaborative offers a hundred science-linked chapters and essays on specific responses to the climate crisis that is already upon us.

Step it up and go

There are many avenues of positive actions around these issues: citizens, mayors, and governors are acting to address global warming through initiatives involving public policy, new enterprise, and community-wide actions. Where changes are not being debated and implemented, a co-op can help raise the issues and model improved understanding. Following are a few examples among operators of energy-intensive food markets:

Many co-ops have installed solar arrays that supplement store electrical systems. Bellingham's Community Food Co-op is among the few that has obtained Energy Star® certification for its stores. Hanover Co-op and Burlington's City Market have won trade awards for their refrigerant management. (*Drawdown* rates reduction of escaped refrigerants as a top-ranked investment for reduction of global warming gases.) National Co+op Grocers gives annual sustainability awards to top performers among its member co-ops.

National Co+op Grocers helped launch The Climate Collaborative (climatecollaborative.com) in the natural products industry, a coalition effort committed to reducing environmental impacts at all points of the food system. Independent Natural Foods Retailers Association (INFRA) and a hundred other industry companies have joined The Climate Collaborative. NCG also gave major support in 2017 for Project Drawdown's continuing educational and research efforts.

All the above actions are necessary initiatives—and just a beginning.

Denial: not just a river in Egypt

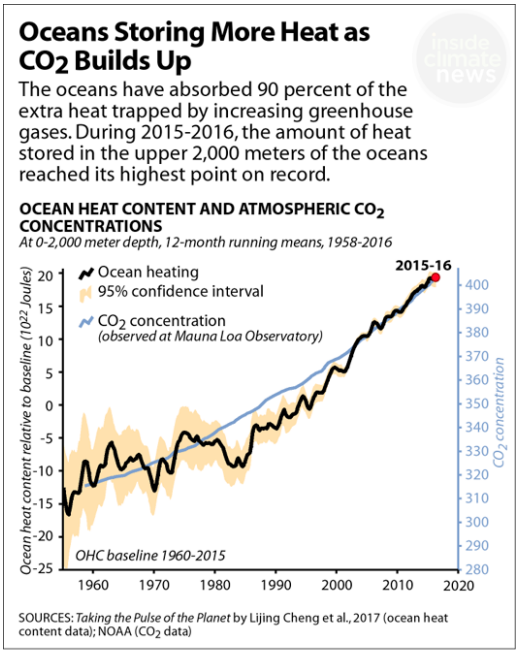
Global crises also point to widespread denial in assumptions about the economy and high-tech "solutions" to climate change. Actually, absent a social revolution or wide economic breakdown that hugely reduces emissions, it's certain that we're going to experience much more of catastrophic heat and storms. In some places that future has already arrived.

Temperature increases lag atmospheric carbon increases by 20 years, and those emission are still growing—despite a recent slowdown in the rate of increase, as the U.S. economy remains in recession and China has also slowed down and closed its dirtiest coal plants while opening new ones. Temperatures continue rising, along with positive feedback loops (such as melting arctic ice) that accelerate trends in a nonlinear fashion.

Widespread denial assumes that high-energy lifestyles can still be supported in a world experiencing accelerated warming.

Also mostly avoided are issues around sharing the wealth (and hardships). Talking about ownership challenges people in a way that is familiar in some circles—such as within cooperatives, one hopes—but not comfortable in many others. Tom Webb reminds us: "Sooner or later capitalism will collapse, weighed down by its destruction of nature and human society, without which the economy cannot exist. The combination of exponential growth in a finite world with the resulting destruction of life systems and the concentration of wealth into fewer and fewer hands is simply not sustainable."

Additional disasters will upset many projections. *Drawdown* bypasses the deeper causes of our planetary overshoot by focusing on broad technical fixes—but little on reduction of wealth disparity or on "drawdown" of the god of production. Its contributors project a world where all is still possible: enormous capital formation, unprecedented innovations, and scaling up of worthy enterprise. Socialized ownership, through nationalized resources and cooperatives, is avoided along with other awkward topics, such as the obscenely large military expenditures that must be redirected before our demise.



PAUL HORN / InsideClimate News

Envisioning a new economy

Cooperatives face the same global crises as everyone else, but with what could be the combined strength of a clearly articulated and international set of values and principles. Cooperatives grow out of deep human desires for collaboration and fairness—they are a modern response to the abuses of concentrated private wealth. Tom Webb recommends not just the seven co-op principles endorsed by the International Cooperative Alliance, but also the overlapping ten principles developed by the Mondragon Cooperatives—the latter set differs in adding principles around workplace participation and the sovereignty of labor.

Webb, quoted above in "Dangerous Myths of Neoclassical Economics," concludes that chapter with a summary of the emerging vision of a new economy:

- **Justice**: A new economy must work for all people, starting with those who have historically been marginalized and exploited by racism, imperialism, classism, patriarchy, and other systems of oppression.
- **Sustainability**: A new economy supports regeneration of both human and natural systems. It builds community resilience by rooting wealth and power in place and in service of human needs on a finite planet.
- **Democracy**: A new economy incorporates democratic principles into the management of economic and civic life.

Webb follows with chapters that summarize cooperatives' ethical foundation and their demonstrated potential as a key element of a new economy. He also recognizes the value of small business owners who are visible members of their communities, by contrast with investor-driven and publicly traded corporations. Webb's lengthy bibliography is testimony to the breadth of his interests and to the contributions of many allies and teachers.

C-words: capitalism and cooperatives

Cooperatives demonstrate an alternative ownership foundation. Their articulated principles rank among of the best of modern human achievements. Yet cooperative leaders often adopt a self-censoring outlook in the face of private capital and its dominant ideological assumptions, when they should be forthrightly promoting broader ownership principles.

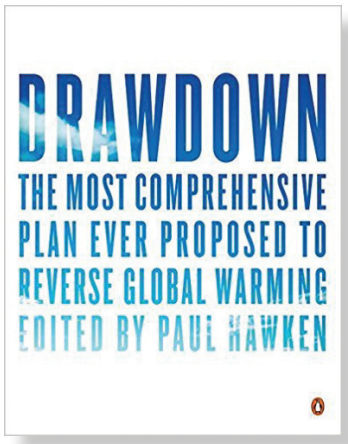
Marion Nestle, a prominent food system academic and author, comments on this intellectual environment in a new Food First Backgrounder, "The Capitalism in our Food" (at foodfirst.org):

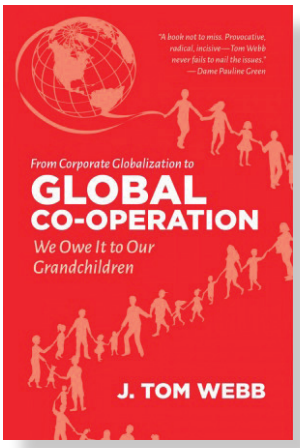
"My own work deals with the influence of the food industry on nutrition and health—the influence of capitalism, in other words, though I rarely use the term. In my experience, the C-word makes students and audiences uncomfortable. *They don't like having to think about politics or the power relationships that govern how food is produced, sold, and consumed* [emphasis added]. But food is political, and deeply so. Recognizing the uncomfortable politics behind our food system is essential if we are really going to produce food that is more sustainable, less wasteful, and healthier for body and soul—and in ways that fairly compensate everyone involved."

Despite these pervasive inhibitions, there is increasing public recognition of wealth divisions and a critique of capitalism's evident damage—and to a lesser extent its foundations. The present financial system is based on debt bubbles and investor demands for continual growth; it continually concentrates wealth at the top and is generating shocking levels of inequality.

Even climate scientists and many others, although alarmed about the extreme and imminent threat from global carbon buildup, will rarely point out that 10 percent or less of the global population generates as much atmospheric pollution as the other 90 percent. That high-consuming 10 percent could avoid catastrophe and reduce their carbon emissions by half—voluntarily or through a social revolution. (See British scientist Kevin Anderson on YouTube.) Unfortunately, most of our comfortable strata assume the opposite: "Someone will think of something."

Empowering girls and women, a weighty part of *Drawdown* recommendations, would indeed help slow the growth in the world's poor and their resource demands, but it won't do much about the wealthy world's consumption. On the other hand, the recommended adaption of plant-based diets would be an





RECOMMENDED READING

Drawdown, ed. Paul Hawken
2017, Penguin Books (New York City),
www.penguin.com (Paperback, 240 pp.)

From Corporate Globalization to Global Co-operation, by J. Tom Webb
2016, Fernwood Publishing
(Nova Scotia and Winnipeg),
www.fernwoodpublishing.ca
(Paperback, 180 pp.)

improvement almost everywhere. The *Drawdown* discussion is realistic about deep obstacles to this food system shift, yet the authors offer huge projections of change. Again, the developed world could lead—but will they?

Energy basics: drawdown and decoupling

First: how is carbon drawdown to be achieved?

Both the ocean's increasing acidity and global warming buildup are evidence of excess carbon and dangerous trends. We can't reverse fatal overheating without sequestering carbon, not just stopping emissions. However, as the Drawdown Collaborative and others recognize, new carbon sequestration technologies are unproven and/or very expensive. Also, like nuclear waste, these methods require stable long-term maintenance—how certain is that?

What certainly works for carbon sequestration is photosynthesis. Therefore, beyond reduction of consumption by the developed world, what should receive the highest strategic emphasis are local and global programs of forest protection and reforestation plus regenerative agricultural practices that build soil carbon.

Second: economic growth continues to have a direct relationship with the level of energy use—and generating energy, in one form or another, produces carbon emissions. The supposed "decoupling" of economic growth from emissions has been greatly exaggerated, explained largely by some materials substitution, elimination of inefficiencies, and export of pollution through globalization and thereby reducing national emissions figures. Projecting growth in total production but reduced emissions is another form of denial: consumption and production and emissions will be reduced together or they won't be reduced much at all.

The Intergovernmental Panel on Climate Change (IPCC) goals avoid this problem and assume a rescue from fatal overheating by 2050 in the form of carbon capture and sequestration or negative emissions technologies *that do not exist*. That's right—the highest global climate agreement is based on: "Someone will think of something."

Drawbacks to Drawdown

The Drawdown Collaborative encourages continued growth, but by the most efficient methods. Its authors perpetuate a failure to lead with conservation as a response to the global crisis. Among its globally wealthy readers, doing with less should remain the first action, as in: reduce, reuse, recycle. Conservation is a necessary, powerful, and shared tactic for most households, businesses, and communities.

In the words of a prominent international energy analyst, Dr. Vaclav Smil: "Using more energy, albeit more efficiently and with lower specific environmental effects, is unlikely to change our fortunes—yet no serious consideration has been given to how to use less, much less."

Drawdown bypasses many such complexities. For example, besides ignoring capital limitations, its note on methodology acknowledges that the book does not attempt to calculate the potentially substantial "rebound" effect—the dynamic whereby improved methods or efficiencies lead to lower prices of a resource, which in turn leads to greater use of the resource. The lesser-developed world wants more of what we enjoy.

Concerning capital, their methodology assumes (p. 219) simply that it will be available and that the cost of capital is figured into acquiring the technology and its ultimate benefits. They assume no roadblocks to scaling up in order to finance each of these "solutions." Presto—no barriers to capital formation.

Nor do *Drawdown* authors account for the enormous added infrastructure for a system of "100 percent renewable" power, constructed at what would be an unprecedented rate of growth for baseload power, storage, and dispatched electricity integrated with current infrastructure. Their speculations on grid flexibility and energy storage (pp. 30–34) offer examples of extremely optimistic assumptions, overlooking the cost of capital, waving off contradictions—solar panels are still fossil-fuel extenders, despite becoming cheaper—and promising multiple technical improvements in the near future.

Worse, *Drawdown* in at least two places repeats the common error of conflating electricity use with total power use. Electricity at present is about 22 percent of total U.S. power usage and about 20 percent of global power. References to "100 percent renewable power" disguise our deep dependence on petroleum and gas, much of which cannot easily be replaced with electricity. No electric technology exists to replace many systems that require the concentrated energy of fossil fuels: airplanes, heavy equipment, mining, much manufacturing, and our world-leading armaments industry.

The needed multi-trillion dollar infrastructure improvements are not about to be launched. Instead, expect "disaster capitalism" and tax cuts. It's not even clear whether we will rebuild Puerto Rico—an opportunity to install model infrastructure for three million dark-skinned U.S. citizens.

The problem is overshoot

Practical responses to the climate crisis need to be informed by the examples in *Drawdown*. But it is a great misdirection to ask support of its many projects without also asking that the wealthy segment of the world, including most of the book's readers, also reduce significantly their part of global consumption and emissions.

Cooperatives need to more forthrightly assert their various ownership models and principles. Of the books under review, Tom Webb gives excellent encouragement for that, while the Drawdown Collaborative offers a range of improved technologies but questionable assumptions.

Richard Heinberg of Post Carbon Institute explains: "Our core ecological problem is not climate change. It is overshoot, of which global warming is a symptom. Overshoot is a systemic issue.... The human system expanded dramatically, overshooting Earth's long-term carrying capacity for humans while upsetting the ecological systems we depend on for our survival. Until we understand and address this systemic imbalance, symptomatic treatment (doing what we can to reverse pollution dilemmas like climate change, trying to save threatened species, and hoping to feed a burgeoning population with genetically modified crops) will constitute an endlessly frustrating round of stopgap measures that are ultimately destined to fail... If climate change can be framed as an isolated problem for which there is a technological solution, the minds of economists and policy makers can continue to graze in familiar pastures."

Industrial production based on extracting critical resources leads to increasing depletion and pollution. Our resource-rich, investor-driven civilization has grown beyond the earth's carrying capacity, and we face a critical economic transformation—or our demise. Some key resources that are NOT at peak: cooperation, community, solidarity, artistry, and more.

A final word from Heinberg: "The good news is that systemic change is fractal in nature: it implies, indeed it requires, action at every level of society. We can start with our own individual choices and behavior; we can work within our communities. We needn't wait for a cathartic global or national sea change. And even if our efforts cannot 'save' consumerist industrial civilization, they could still succeed in planting the seeds of a regenerative human culture worthy of survival." •