3. Exit Ramp to Sustainability: the plenitude path

Juliet B. Schor [1]

Abstract

Juliet Schor, a well regarded economist and professor of sociology, identifies vital signs of resistance and hope in a world confronted by extreme ecological challenges. In her very lucid and well-documented work, the author shows the interconnection among a threatening ecological collapse, global poverty and economic crises. While evidence on the intensity of global stressors on our biosphere keeps mounting prevailing economic structures, theories and policies, rather than offering meaningful solutions, keep exacerbating human contribution to the degradation of our planet's environment. While economists in wealthy societies keep treating the environment as a luxury good, scientific evidence tells us that humanity does not have the luxury of waiting for some people to feel rich again before taking effective action. There is an urgent need to find new ways to reduce our eco-footprints and green house gas emissions while solving the economic problems of the global north and raising the standard of living of poor people in the global south, she explains. This is the real problem of our time and the core of social conflict and change ahead. As Juliet Schor demonstrates in her article, we need an exit ramp, an economic vision of the transition towards a sustainable planetary economy based not only on a clear understanding of where we have been, but on the resistance of an emerging and expanding movement of people who are forging a path to a new plenitude.

Resumen

Juliet Schor, economista de renombre y catedrática de sociología, identifica signos vitales de resistencia y esperanza en un mundo confrontado con desafíos ecológicos extremos. En su muy lúcido y documentado trabajo, la autora muestra las interconexiones existentes entre un amenazante colapso ecológico, la pobreza global y las crisis económicas. Mientras que las pruebas acerca de la intensidad de los abusos humanos globales sobre nuestra biosfera siguen aumentando, las estructuras, teorías y políticas económicas hegemónicas, en lugar de ofrecer soluciones sensatas, siguen exacerbando la contribución humana a la degradación del medioambiente de nuestro planeta. Mientras que los economistas de las sociedades ricas siguen tratando el medioambiente como un bien de lujo, las pruebas científicas nos dicen que la humanidad no puede darse el lujo de esperar que ciertos individuos perciban que son de nuevo ricos antes de tomar acciones efectivas. Según explica la autora, hay una necesidad urgente de encontrar formas nuevas de reducir nuestras huellas ecológicas y emisiones de gas de efecto invernadero mientras se resuelven los problemas económicos del Norte global y aumentan los estándares de vida de la gente pobre del Sur global. Este es el problema real de nuestro tiempo y el núcleo de los conflictos y cambios sociales que tenemos por delante. Como demuestra Juliet Schor en su artículo, necesitamos una rampa de salida, una visión económica de transición hacia una economía planetaria sostenible que se base, no solo en una comprensión clara de dónde hemos estado, sino de la resistencia de un movimiento emergente y en expansión de personas que están forjando una senda hacia una nueva plenitud.

Resum

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Juliet Schor, economista de renom i catedràtica de sociologia, identifica signes vitals de resistència i esperança en un món confrontat per desafiaments ecològics extrems. En el seu molt lúcid i documentat treball, l'autora mostra les interconnexions existents entre un amenaçant col·lapse ecològic, la pobresa global i les crisis econòmiques. Mentre les proves al voltant de la intensitat dels abusos humans globals sobre la nostra biosfera segueixen augmentant, les estructures, teories i polítiques econòmiques hegemòniques, en lloc d'oferir solucions sensates, segueixen exacerbant la contribució humana a la degradació del medi ambient del nostre planeta. Mentre els economistes de les societats riques segueixen tractant el medi ambient com un be de luxe, les proves científiques ens diuen que la humanitat no pot permetre's el luxe d'esperar que certs individus percebin que són novament rics abans de prendre accions efectives. Segons explica l'autora, hi ha una necessitat urgent de trobar noves formes de reduir les nostres petjades ecològiques i les emissions de gas d'efecte hivernacle mentre es resolen els problemes econòmics del Nord global i augmenten els estàndards de vida de la gent pobre del Sud global. Aquest és el problema real del nostre temps i el nucli dels conflictes i canvis socials que tenim pel davant. Com demostra Juliet Schor en el seu article, necessitem una rampa de sortida, una visió econòmica de transició cap a una economia planetària sostenible que es fonamenti, no només en una comprensió clara del lloc on hem estat, sinó de la resistència d'un moviment emergent i en expansió de persones que estan forjant un camí cap a una nova plenitud.

Humans are now degrading planetary ecosystems to an extent never seen in our history. The world faces an unprecedented biodiversity collapse, with what biologists have identified as the sixth mass extinction well under way. Comprehensive measures of ecosystem use, such as ecological footprint calculations, show that we are using 150% of the earth's bio-capacity and operating in the zone ecologists call overshoot. At the center of ecological collapse is climate, and global heating. GHG concentrations are now at 390 ppm, well above the 350 ppm that a growing number of scientists have identified as the level at which we can prevent catastrophic climate dynamics. In late 2009, a worldwide group of scientists published an important paper in *Nature*, which identified 9 critical planetary boundaries beyond which humanity could not go without jeopardizing the biosphere and human reproduction. The paper argued we had already exceeded safe operating space on three of them, biodiversity, climate, and the nitrogen cycle, and are approaching boundaries on others.

What this accumulating body of evidence suggests is that since roughly 1970, human impacts on the planet have intensified and accelerated. We are jeopardizing our home in ways that are historically unprecedented and ultimately suicidal. Reversing course, and healing the planet is a monumental task. It is made much harder by two factors. First, global population is likely on its way to 9 billion, with most of the increase coming in the global south. These additional roughly 2 billion people need to be, and hopefully will be, consuming energy, food, and manufactured goods at higher rates than their national counterparts currently are. With over a billion people getting inadequate nutrition and more than half of the global population living at $2.50 per day poverty or less, sustainability solutions must be compatible with considerable increases in the ecological space afforded to low income populations of the global south.

Second, sustainable economic solutions must be framed in light of the current economic collapse and what I believe will be protracted stagnation besetting many economies of

the global North. The economic downturn has already impeded progress on a climate agreement, with examples including conflict within the European Union on what to offer at Copenhagen, and the failure of the U.S. congress to pass a climate bill, and global stalemate on a successor treaty to Kyoto. Historically, environmental legislation has been viewed as a "luxury" good. But we do not have the luxury of waiting for people to feel rich again. So we need a trifecta which dramatically reduce eco-footprints and greenhouse gas emissions while solving the economic problems of the global north and raising the standard of living of poor people in the global south.

These three issues—living in an ecological danger zone, global poverty, and economic distress associated with the current downturn—are linked in a number of ways. Perhaps the most important linkage is that the conventional solution to the latter two exacerbates the first. Unemployment and poverty are typically addressed by raising the aggregate rate of growth of the economy. But growth is at the core of what is causing ecological degradation. On ecological grounds, the conventional solution is no longer available, nor, I believe, would it even solve an unemployment problem as severe as that currently facing the wealthy countries.

More structural, indeed radical solutions are therefore necessary. In my recent book *Plenitude: the new economics of true wealth*, I have put forward an alternative path for the global North which will reduce unemployment and ecological footprint without raising the rate of aggregate growth. It will also enhance well-being, the quality of daily life, and the health of communities. It is not primarily a technological solution, although new, green, clean technologies are an important part of it. Its core insight is the need to transform how people spend their time. Altering patterns of time use changes the macroeconomic path of the economy and allows people to transition out of activities that are destructive to their well-being and the planet. Plenitude rejects the mainstream approach that emphasizes tradeoffs, and argues that protecting the environment yields an economy that generates less welfare for people. By contrast, I argue for a new way of living that is rich in those elements that yield true well-being, namely time affluence, higher levels of self-providing and self-reliance, social capital, and what I call "true materialism."

The debate about growth

The conversation about planetary boundaries, or to use an earlier terminology, limits, is not new. The problem of the earth's carrying capacity was famously put forward by ecologist Paul Ehrlich, whose *Population Bomb* argued that humans were risking collapse by overbreeding. Similarly, Garrett Hardin argued, in his classic "Tragedy of the Commons" article that humans couldn't avoid over-using the biosphere, because it is in our nature to over-consume common resources. As it happens, both of these accounts were deeply flawed. Ehrlich's racist alarm was later shown to have been sounded at the peak population growth rate, and rates of population growth have declined precipitously since then. Harding's model has been powerfully de-bunked by the work of Elinor Ostrom, who has analyzed the conditions under which people do manage commons successfully. The third major intervention from this period was the Limits to

Growth by Donella (Dana) Meadows, Dennis Meadows and their collaborators. Their model focused not just on population (which does play a role), but on industrial growth and the pollution associated with it. The LTG analysis indicated that if we continued with along the trajectory then being followed (or what the climate change literature calls BAU) in the first decade of the 21st century there would be the beginnings of a significant collapse. Their model was wrong in a number of ways, as economists rather arrogantly pointed out, but the early 21st century did bring evidence of rampant ecosystem degradation as well as an economic collapse.

Economists argued that collapse narratives failed to take into account that GDP could de-materialize, that is every dollar of growth could be associated with much lower material impact. Natural resource productivity would grow, perhaps dramatically, an idea which has been very popular in the design and engineering world, where movements such as Factor 4, Factor 10, cradle to cradle, zero waste, and bio-mimicry have proliferated. In sociology it is called ecological modernization theory, which argues that capitalism is in the process of a rational, profitable greening that will be the basis of the next major growth phase of capitalism.

De-materialization, de-carbonization and the delinking of ecological degradation from growth in GDP have been most successful in Western Europe where these ideas are most influential. However, once we account for trade flows and outsourcing of carbon use, even the European record is modest. In North America, materials use rose rapidly since the 1980s, by nearly 70%, on account of expanding fossil fuel consumption and large rises in construction materials. Globally, emissions are accelerating, materials use continues to growth, and de-linking remains mostly an aspiration.

So economists, engineers, and eco-modernizationists have been overly optimistic. Conversely, other paradigms have been too pessimistic, including the eco-Marxist "treadmill of production" school which says there are inherent dynamics within a market system that make environmental protection almost impossible. The successes of some countries in moving to clean energy, or industrial materials reductions shows that extensive growth in materials and natural resources is not a necessary condition for successful capitalist growth.

A second pessimistic paradigm includes an emerging school of thought based in behavioral economics and neuro-psychology that says humans are hard-wired to avoid responding to risks such as climate change. This view also founders on the great variation in responses to ecological threats across countries, times and cultures. The British Climate Change Law of 2007, German feed-in tariffs, and Denmark's windmill sector, or even regional climate change laws in the United States suggest that humans' abilities to respond to climate change depends more on political economy than inherent limitations in thinking. One hardly needs to invoke brain science to explain opposition to climate legislation in the United States—a look at the political influence of fossil fuel energy sector is sufficient.

In recent years a third "new economy" paradigm has emerged, which is both cognizant of the enormity or ecological threats and hopeful that motivated humans can confront them. In the United States, the new economy movement is made up of sustainability activists, political or "conscious" consumers, low-income inner city residents whose communities have been de-linking from the formal economy for decades, newly unemployed or under-employed from the 2008 downturn, and young people increasingly involved in consumption sharing and philosophical commitment to commons philosophy. It includes groups such as Bioneers (biological pioneers), transition towns, local currency efforts, the Business Alliance for Local Living Economies, much of the alternative food movement, the Do-It-Yourself (DIY) community, economic justice groups, and people involved in small-scale manufacturing technologies using fabrication labs. It also includes a segment of the information technology world, mainly advocates of peer production, and open source software. A related group, which merges sustainability and open source, is the open-source hardware community, which is involved in permaculture, construction, energy generation and small-scale manufacturing.

There is also a parallel set of activities on the consumption side. These include local neighborhood tool sharing, toys, clothing, appliance and other consumer good swapping, sharing and selling, car and ride sharing, couch surfing, supper/soup collectives, community gardens, CSAs and so on. There is tremendous social innovation around concepts of sharing, commons, barter, informal exchange, neighborhood exchange, re-use and re-sale are changing huge swaths of the consumer economy. The internet has facilitated it. The sustainability movement motivated it. And the downturn mainstreamed it because of the changing economics of daily life—people have moved toward more cash scarcity and time abundance.

While the de-growth movement *per se* is weak in the U.S., there is an emergent sector of of academics, public intellectuals and activists explicitly challenging the growth imperative. What most of these groups share is a commitment to local, small scale, low-impact production and consumption methods, expanded motivations for economic activity, a commitment to social capital and community, and a rejection of the dominant consumer culture.

Plenitude sketches out an economic vision that is consistent with the practices, values and aspirations of this movement. It addresses issues of macroeconomic balance, and other economic requirements for constructing a small-scale, ecologically-light economy that has high productivity, efficiency, and high levels of welfare for people, as well as articulating a feasible economic pathway for getting there. Here I will sketch out two of its four principles, which are both necessary to achieve the type of alternative this movement is calling for, and which are now emerging on the ground in terms of actual practice.

The first principle of plenitude is the withdrawal of labor from the formal economy, and a resulting decline in average annual hours of work per employee.

Before the downturn the U.S. had been on a trajectory of rising hours, with average annual hours per employee rising 204 between 1973 and 2006. Rising hours propel the growth of GDP, climate emissions and ecological degradation. Overwork creates stress, impairs family life, undermines community, and reduces political and civic engagement. Many "Plenitude practitioners" have marginal attachment to the formal economy. They may be downshifters, homesteaders, small business people, voluntary simplifiers, early retirees, or late entrants. The key point is that they are altering patterns of time use to reduce dependence on formal jobs. (Unfortunately, we do not have more than anecdotal data on these trends yet, however, surveying from before the downturn found increasing prevalence of downshifting, i.e., voluntary labor market choices that trade income for time.)

A rebalancing between hours of work in the formal economy and outside it is crucial for a variety of reasons. Only by hours' reductions can we solve the unemployment problem. To understand why new patterns of time use are so central, we must appreciate the size of the unemployed population, which is now more than 26 million, including those who are underemployed or marginally-attached. There are now 4.8 seekers for every available position. The jobs crisis developed over a number of years, and is deeper and more structural than one might imagine from an analysis that is centered on the financial sector. The U.S. needs to create 11 million jobs to return to the pre-downturn labor market situation.

The standard solution to such a situation has been a trickle down approach, that is, to create jobs through an increase in the rate of growth of GDP. But that approach is not working, and recent political developments suggest that no significant government stimulus will be forthcoming. Recovery to date has failed to create more than about 500,000 jobs, and no one has convincingly argued where the job growth will come from. Part of the problem is that GDP has become a far less efficient generator of jobs domestically, because of outsourcing, a heavy propensity to import and labor-displacing technical change. Therefore, the first plenitude principle is to re-structure the labor market. Using short-time schedules to avoid additional layoffs, hiring new workers on 80% schedules, instituting voluntary programs to trade income for time, job sharing, and earlier retirement are some of the types of changes that will yield shorter average hours per employee and per person.

Reducing hours of work also reduces the ecological impact of the economy, because time-rich households shift to lower impact forms of transport and consumption. Cross-national analyses find that countries with higher working hours have higher ecological footprints. In addition, taking productivity growth in the form of shorter hours, rather than more production, is a powerful way to reduce ecological impact.

It is important to recognize one aspect of this scenarios—people are typically not being asked to give up income they already have. They are starting jobs at lower salaries than they might be if they worked 100% time. Furthermore, if we build in the principle of using productivity growth to fund reductions in work time, people will experience steady incomes with rising leisure time. There is now good evidence from behavioral

economics and from the study of happiness that people are far less attached to income they haven't yet gotten than income they already have. In addition, once people are out of poverty incremental income does less to improve well-being than people imagine it will and than economists have typically assumed it does.

The second important consequence of shorter hours is that people can use the time freed up from formal jobs to meet needs through self-providing (or making and doing, or what is colloquially called DIY, Do-It-Yourself). This allows them to increase their consumption, reduce dependence on cash income, become more self-reliant, build skills and exercise creativity. Following the work of Frithjof Bergmann, I use the term high tech self-providing for this activity.

In the United States these kinds of activities have become newly popular, especially since the economic collapse. Examples include: growing food, raising livestock, beekeeping, small-scale, off-the-grid energy generation, eco-friendly home construction, and the manufacture of arts and crafts, clothing, and small household items. What are the economics of this type of small-scale household activity?

Mainstream economists have traditionally argued that people should specialize in one activity in the market, earn money from that and purchase what they need and want. I believe that we have reached a point at which further specialization does not make sense, and that a diversification of activities and income streams is the smarter way to go. One reason is uncertainty and future catastrophic events. The instability of both the climate and the economy mean that reliance on the market is more risky. Being able to meet one's needs even in the event of market collapse and climate catastrophes is a smart strategy. Doing that on a community level is even smarter than on an individual level. Initiatives such as Transition Towns are directed to that type of self-reliance.

But in addition to its insurance function, there are other reasons to think that a re-balancing between market and informal sector makes sense. One is that the productivity potential of hours worked outside the market is rising markedly. If self-providing meant going back to technologies and ways of doing things from the 19th century, mainstream economists would be right. But now, there are newly available technologies, knowledges, and web-based innovations that enhance the productivity of labor at a household or community level. We are all aware of these in the realm of information, software and culture. There's a vibrant peer production model that has developed high value products such as Wikipedia, Linux, Firefox and other open-source software programs and products through this informal, extra-market process. Self-production in music, video, ads, writing, etc. has exploded and people are learning new skills, enjoying the opportunity to be creative, and producing real value to be used and shared by others.

The self-providing path takes this model and extends it to the material world—to food, shelter, power, clothing and small manufactures. This has been called the "open-source hardware" movement. The point is that the model that has emerged in information and culture should not be confined to those sectors. It is relevant across the board. What is important about the new form of self-providing is that it is high-productivity because it is knowledge-intensive. It employs high-tech knowledge, in computers and ecology, to

raise the productivity of labor. Examples include the use of permaculture principles in food provisioning, living wall gardens, small scale energy generation, and fabrication laboratories.

The model of retrieving labor time from the market and putting it to work at the household and community level to self-provide also makes sense because the economics of scale have changed. What computerization and the development of the web have done is make small-scale production much more efficient. I think this point is of vital importance. The economics of scale have changed in recent decades in the direction of favoring small-scale enterprises. The rise of information technology has transformed micro-enterprise from a romantic throwback to a smart 21st century institutional form. Indeed, the massive command and control entities that we call corporations no longer possess the advantages they once did. Small companies are where the dynamism and employment growth is coming. If we extend this insight farther we can see that there are new possibilities at the household and local level for engaging in high productivity economic activity. What becomes possible is a synthesis of the pre-modern household form and modern technology. By the former I refer to peasant households that did not work for others, had diverse skills, activities and income streams, and actively managed risk through that diversity.

A key aspect of self-providing activities is that they are low footprint, and therefore a central contributor to reducing ecological impact. Furthermore, as people learn how to make things, they develop skills and affinities for particular activities and products and then turn these into businesses and careers. Self-providing becomes one mechanism for expanding a sector of green, small businesses, which become the basis of a new, sustainable economy. High-tech self-providing therefore is a transitional strategy for an exit from the highly destructive capitalist firms that now dominate the economy. Of course, this is a more complex process with a difficult politics to this. But what I offer here is an economic vision and the first steps of a transition that can get us there. What I find most exciting about it is that far from being mainly a paper blueprint, it is a living, breathing, expanding, successful movement of people who are forging a new, plenitudinous path.

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Nearly all sources for this article can be found in *Plenitude: the new economics of true wealth* (The Penguin Press, 2010).