

Planned Degrowth: Ecosocialism and Sustainable Human Development

All important concepts are dialectically vague at the margins. —Herman E. Daly¹

John Bellamy Foster

The word degrowth stands for a family of political-economic approaches that, in the face of today's accelerating planetary ecological crisis, reject unlimited, exponential economic growth as the definition of human progress. To abandon economic growth in wealthy societies means to shift to zero net capital formation. With continual technological development and the enhancement of human capabilities, mere replacement investment is able to promote steady qualitative advancements in production in mature industrial societies, while eliminating exploitative labor conditions and reducing working hours. Coupled with global redistribution of the social surplus product and reduction of waste, this would allow for vast improvements in the lives of most people. Degrowth, which specifically targets the most opulent sectors of the world population, is thus directed at the enhancement of the living conditions of the vast majority while maintaining the environmental conditions of existence and promoting sustainable human development.²

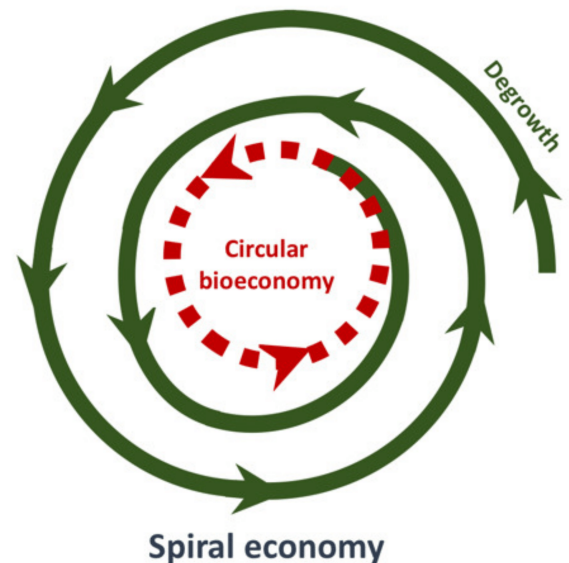


Illustration of Degrowth. Figure 1 from Hoehn D, et al, "[Introducing a Degrowth Approach to the Circular Economy Policies of Food Production, and Food Loss and Waste Management: Towards a Circular Bioeconomy.](#)" Sustainability 13(6):3379 (2021).

¹ ↪ Herman E. Daly, *Beyond Growth* (Boston: Beacon Press, 1996), 2.

² ↪ In Marxist terms, degrowth stands for a shift from expanded reproduction in terms of material throughput to simple reproduction. See Paul M. Sweezy, *The Theory of Capitalist Development* (New York: Monthly Review Press, 1970), 75–95. The pre-eminent theorist of a steady-state economy (aimed at simple reproduction in the context of a full-world economy) is the late Herman E. Daly in works such as *Beyond Growth* and *Steady-State Economics*. Daly was a sharp critic of the existing capitalist economy and frequently made use of Marx in his analysis. However, his approach to steady-state economics was originally inspired by John Stuart Mill's conception of the "stationary state" and like Mill, sought, in Marx's words, to "reconcile the irreconcilables" of capital and labor, seeing a no-growth economy as compatible with capitalism or at least a market system, and implemented by government policy, licensing, and caps. The irrationalism of this was partly recognized by Daly, who dealt with the implementation of a no-growth economy as a matter of faith, ending his great work *Beyond Growth* with God and a "Creation-centered economy." Nevertheless, his analysis was at its core deeply critical and even radical. See Herman E. Daly, *Beyond Growth* (Boston: Beacon Press, 1996), 216–24; Herman E. Daly, *Steady-State Economics* (Washington, D.C.: Island Press, 1991); Herman E. Daly and John B. Cobb Jr., *For the Common Good* (Boston: Beacon Press, 1989). For a criticism of attempts to reconcile a no-growth economy with capitalism, see John Bellamy Foster, *Capitalism in the Anthropocene* (New York: Monthly Review Press, 2022), 363–72.

Science has established without a doubt that, in today's "full-world economy," it is necessary to operate within an overall Earth System budget with respect to allowable physical throughput.³ However, rather than constituting an

Degrowth is not aimed at austerity, but at finding a "prosperous way down" from our current extractivist, wasteful, ecologically unsustainable, maldeveloped, exploitative, and unequal, class-hierarchical world

insurmountable obstacle to human development, this can be seen as initiating a whole new stage of ecological civilisation based on the creation of a society of substantive equality and ecological sustainability, or ecosocialism. Degrowth, in this sense, is not aimed at

austerity, but at finding a "prosperous way down" from our current extractivist, wasteful, ecologically unsustainable, maldeveloped, exploitative, and unequal, class-hierarchical world.⁴ Continued growth would occur in some areas of the economy, made possible by reductions elsewhere. Spending on fossil fuels, armaments, private jets, sport utility vehicles, second homes, and advertising would need to be cut in order to provide room for growth in such areas as regenerative agriculture, food production, decent housing, clean energy, accessible health care, universal education, community welfare, public transportation, digital connectivity, and other areas related to green production and social needs.⁵

When the first systems of national income accounting were devised at the time of the Second World War, all increases in

GDP, became the primary measure of human progress... According to the prevailing system of national economic accounting, anything that provides "value added," in accordance with the capitalist valorisation process, represents "growth"... Maximum extraction of natural resources is seen as crucial for rapid economic growth, since it draws on nature's "free gift...to capital."

national income, regardless of source, were characterised as constituting economic growth. Gross Domestic Product, or GDP, became the primary measure of human progress.⁶ Nevertheless, much of this was questionable from a wider social and ecological standpoint. According to the prevailing system of national economic accounting, anything that provides "value added," in accordance with the capitalist valorisation process, represents "growth."

This includes such things as war spending; the production of wasteful and toxic products; luxury consumption by the very rich; marketing (encompassing motivation research, targeting, advertising, and sales promotion); replacements of social by private consumption, as in the substitution of the private automobile for public transportation; expropriation of the commons; business expenditures to enhance the exploitation of workers; legal costs related to the administration, control, and enhancement of private property; anti-union activities by corporate management; the so-called criminal justice system; rising pharmaceutical and insurance costs; financial sector employment; military spending; and even criminal activities.⁷ Maximum extraction of natural resources is seen as crucial for rapid economic growth, since it draws on nature's "free gift...to capital."⁸

In contrast, non-market and subsistence production carried out throughout the world; domestic labor mainly performed by women; numerous expenditures for human growth and development (seen as relatively nonproductive); conservation

³ ↪ Herman E. Daly, "Economics in a Full World," *Scientific American* (September 2005): 100–7.

⁴ ↪ Howard T. Odum and Elisabeth C. Odum, *A Prosperous Way Down* (Boulder, Colorado: University Press of Colorado, 2001).

⁵ ↪ Jason Hickel, *Less Is More* (London: Windmill, 2020), 30.

⁶ ↪ For ecological critiques of national income accounting, see Daly and Cobb, *For the Common Good*, 64–84, 401–55; John Bellamy Foster and Brett Clark, *The Robbery of Nature* (New York: Monthly Review Press, 2020), 260–61; Marilyn Waring, *Counting for Nothing* (Toronto: University of Toronto Press, 1999).

⁷ ↪ For a discussion of waste in capitalism see Victor Wallis, *Red-Green Revolution: The Politics and Technology of Ecosocialism* (Toronto: Political Animal Press, 2022), 24–30.

⁸ ↪ Karl Marx and Frederick Engels, *Collected Works* (New York: International Publishers, 1975), vol. 37, 732–33.

of the environment; and reductions in the toxicity of production were all seen as “counting for nothing” or assigned a diminished worth, since they do not enhance productivity or directly promote economic value.⁹

Today the elemental tragedy of this is all around us. It is now widely perceived that economic growth, based on nonstop

It is now widely perceived that economic growth, based on nonstop capital accumulation, is the main cause of the destruction of the earth as a safe place for humanity.

capital accumulation, is the main cause of the destruction of the earth as a safe place for humanity.

The Earth System crisis is evident in the crossing of planetary boundaries related to climate change,

ocean acidification, destruction of the ozone layer, species extinction, disruption of the nitrogen and phosphorus cycles, loss of ground cover (including forests), depletion of fresh water, aerosol loading, and novel entities (such as synthetic chemicals, nuclear radiation, and genetically modified organisms).¹⁰ The drive to capital accumulation is thus generating a “habitability crisis” for humanity in this century.¹¹

The world scientific consensus, as represented by the UN Intergovernmental Panel on Climate Change (IPCC), has established that the global average temperature needs to be kept below a 1.5°C increase over pre-industrial levels this century—or else, with a disproportionately higher level of risk, “well below” a 2°C increase—if climate destabilization is not to threaten absolute catastrophe as positive feedback mechanisms come into effect. In the IPCC’s Sixth Assessment Report (AR6, released in its various parts over 2021–23), the most optimistic scenario is one of an end-of-the-century increase in global average temperature over pre-industrial levels of below 1.5°C. This requires that the 1.5°C boundary not be crossed until 2040, rising by a tenth of a degree to 1.6°C, and then falling near the end of the century back down to a 1.4°C increase. All of this is predicated on reaching net zero (in fact, real zero) carbon emissions by 2050, which gives a fifty-fifty chance that the climate-temperature boundary will not be exceeded.¹²

Yet, according to leading climate scientist Kevin Anderson of the Tyndall Center for Climate Change Research, this scenario is already out of date. It is now necessary, based on the IPCC’s own figures, to reach the zero-carbon dioxide emissions point by 2040, in order to have the same 50 percent chance of avoiding a 1.5°C increase. “Starting now,” Anderson wrote in March 2023,

to not exceed 1.5°C of warming requires 11% year-on-year cuts in emissions, falling to nearer 5% for 2°C. However, these global average rates ignore the core concept of equity, central to all UN climate negotiations, which gives “developing country parties” a little longer to decarbonise. Include equity and most “developed” nations need to reach zero CO2 emissions between 2030 and 2035, with developing nations following suit up to a decade later. Any delay will shrink these timelines still further.¹³

⁹ ↪ Waring, Counting for Nothing, 153–81.

¹⁰ ↪ Johan Rockström et al., “A Safe Operating Space for Humanity,” *Nature* 461, no. 24 (2009): 472–75; Will Steffen et al., “Planetary Boundaries,” *Science* 347, no. 6223 (2015): 736–46; Sadrine Dixon-Declève et al., *Earth for All* (Gabriella, BC: New Society Publishers, 2022): 13–19.

¹¹ ↪ Carles Soriano, “*Anthropocene, Capitalocene, and Other ‘-Cenes*,” *Monthly Review* 74, no. 6 (November 2022): 1.

¹² ↪ United Nations Intergovernmental Panel on Climate Change, *Sixth Assessment Report, Working Group I: The Physical Science Basis* (2021), 14, [ipcc.ch](https://www.ipcc.ch); Andrea Januta, “Explainer: The U.N. Climate Report’s Five Futures Decoded,” Reuters, August 9, 2021; International Energy Agency, “*Net Zero by 2050 Scenario (MZE)*,” Global Energy and Climate Model, October 2022, www.iea.org.

¹³ ↪ Kevin Anderson, “IPCC’s Conservative Nature Masks True Scale of Action Needed to Avert Catastrophic Climate Change,” *The Conversation*, March 24, 2023; see also David Spratt, “*Faster, Higher, Hotter: What We Learned About the Climate System in 2022*,” part 1, Resilience.org, February 20, 2023.

The World Meteorological Organization indicated in May 2023 that there is a 66 percent chance that the annual average near-surface global temperature will temporarily exceed a 1.5°C increase over pre-industrial levels during “at least” one year by 2027.¹⁴

Existing IPCC scenarios are part of a conservative process, designed to conform to the prerequisites of the capitalist economy, which builds continued economic growth in the wealthy countries into all scenarios while excluding any

The scientists authoring the report suggested that low-energy solutions based on popular mobilisation might offer the best hope of carrying out the massive ecological transformations now required. All of this, was excluded from the final published Summary for Policymakers as determined by governments, as part of the normal IPCC process, which allows for censorship of the scientists.

substantial changes in social relations. The sole device relied upon in such climate modelling is to assume price-induced shifts in technology. Existing scenarios thus necessarily rely heavily on negative emissions technologies, such as Bioenergy and Carbon Capture and Sequestration (BECCS) and Direct Carbon Air Capture (DAC), that do not presently exist at scale and cannot be instituted within the prescribed timeline, while also presenting enormous ecological hazards in themselves.

This emphasis on essentially nonexistent technologies that are themselves environmentally destructive (given their enormous land, water, and energy requirements) has been challenged by scientists within the IPCC itself. Thus, in the original Summary for Policymakers for the mitigation report, part 3 of AR6, the scientists authoring the report agreed that such technologies are not viable in a reasonable time frame and suggested that low-energy solutions based on popular mobilisation might offer the best hope of carrying out the massive ecological transformations now required. All of this, however, was excluded from the final published Summary for Policymakers as determined by governments, as part of the normal IPCC process, which allows for censorship of the scientists.¹⁵

Price-induced technological solutions, which would allow continued economic growth and the perpetuation of current social relations, do not exist on anything like the required scale and tempo. Hence, major socioeconomic changes in the mode of production and consumption are needed, running counter to the reigning political-economic hegemony. “Three decades of complacency,” Anderson writes, “has meant that technology on its own cannot now cut emissions fast enough.” There is thus a drastic need for low-energy solutions based on changes in relations of production and consumption that also address deep inequalities. The necessary reductions in emissions are “only possible by re-

A degrowth/deaccumulation approach that challenges accumulative society and the primacy of economic growth is crucial here.

allocating society’s productive capacity away from enabling the private luxury of a few and austerity for everyone else, and toward wider public prosperity and private sufficiency. For most people, tackling climate change will bring multiple benefits,

from affordable housing to secure employment. But for those few of us who have disproportionately benefited from the status quo,” Anderson insists, “it means a profound reduction in how much energy we use and stuff we accumulate.”¹⁶

A degrowth/deaccumulation approach that challenges accumulative society and the primacy of economic growth is crucial here. Social provisioning for human needs and sharp reductions in inequality are essential parts of a shift to a

¹⁴ ↪ “Global Temperatures Set to Reach New Records in Next Five Years,” World Meteorological Organization, May 17, 2023.

¹⁵ ↪ “Leaked Scientist Consensus Report on Mitigation, AR6, part 3, section B4.3; “Notes on Time is Running Out,” — The Jus Semper Global Alliance, (June 2022). On low-energy solutions to climate change, see Joel Milward Hopkins, Julia K. Steinberger, Narasimha D. Rao, and Yannick Oswald, “Providing Decent Living with Minimum Energy: A Global Scenario,” — The Jus Semper Global Alliance, (April 2022); Jason Hickel et al., “Urgent Need for Post-Growth Climate Mitigation Scenarios,” *Nature Energy* 6 (2021): 766–68.

¹⁶ ↪ Anderson, “IPCC’s Conservative Nature”; Hickel, *Less Is More*, 126–64.

low-energy transformation in the economy and the elimination of ecologically destructive forms and scales of output. In this way, the lives of most people can be improved both economically and ecologically. Accomplishing this, however, requires going against the logic of capitalism and the mythology of a self-regulating market system. Such a radical transformation can only be achieved by introducing significant levels of economic and social planning, through which, if carried to its fullest, the associated producers would work together in a rational way to regulate the labor and production process governing the social metabolism of humanity and nature as a whole.

Classical nineteenth-century socialism in the work of Karl Marx and Frederick Engels saw the need for the institution of collective planning in response to the ecological and social contradictions of capitalism, as well as its economic ones. Engels's analysis insisted on the need for socialist planning to overcome the ecological rift between town and country, while Marx's theory of metabolic rift, operating on a more general level, insisted on the need for sustainable human development.

Planning has been crucial to all economies, both capitalist and socialist, in times of war. Giant, monopolistic

It is now clear that, without the return of planning and environmental-state regulation of the economy in a context of the degrowth/deaccumulation of capital, there is zero possibility of successfully addressing the present planetary emergency and ensuring the continuation of industrialised society and the survival of the human population.

corporations have themselves instituted of their own accord what economist John Kenneth Galbraith called a "planning system," though operating largely within, rather than between, multinational conglomerates.¹⁷

Nevertheless, the whole idea of economic planning is seen, in the received ideology, as antagonistic to the capitalist market and has been effectively banned from public discussion—declared unworkable and a form of

despotism—following the triumph of capitalism in the Cold War and the demise of the Soviet Union.

This is now rapidly changing. As French economist Jacques Sapir recently noted, "plan and planning are back in fashion," due to the internal and external contradictions of the capitalist market system.¹⁸ It is now clear that, without the return of planning and environmental-state regulation of the economy in a context of the degrowth/deaccumulation of capital, there is zero possibility of successfully addressing the present planetary emergency and ensuring the continuation of industrialised society and the survival of the human population.

Marx, Engels, and Ecological Planning

Marx and Engels were always reluctant to provide what Marx called "recipes...for the cook-shops of the future," demarcating what forms socialist and communist societies should take. As Engels put it, "to speculate on how a future society might organise the distribution of food and dwellings leads directly to utopia."¹⁹ Nevertheless, they were clear throughout their writings that the reorganisation of production under a society of associated producers would involve cooperative labor organised in accordance with a common plan.

In *Principles of Communism*, Engels wrote that in the future society, "all...branches of production" would be "operated by society as a whole, that is, for the common account, according to a common plan, with the participation of all

¹⁷ ↪ John Kenneth Galbraith, *Economics and the Public Purpose* (New York: New American Library, 1973), 77–204; Paul M. Sweezy, "Utopian Reformism," *Monthly Review* 25, no. 6 (November 1973): 1–11.

¹⁸ ↪ Jacques Sapir, "Is Economic Planning Our Future?," *Studies on Russian Economic Development* 33, no. 6 (2022): 583–97.

¹⁹ ↪ Karl Marx, *Capital*, vol. 1 (London: Penguin, 1976), 99; Frederick Engels, *The Housing Question* (Moscow: Progress Publishers, 1975), 97.

members of society.” The same approach was adopted by Marx and Engels in the *Communist Manifesto*, where they singled out the need for the “extension of factories and instruments of production owned by the State; the bringing into cultivation of waste lands, and the improvement of the soil generally in accordance with a common plan.”²⁰ Here the problem of ending the division between town and country through the dispersal of the population more evenly across the country, so that it was no longer concentrated in the large industrial cities separating the urban and rural populations, was central to their idea of a common plan.

Much of Marx’s analysis in the *Grundrisse* focused on the need for the “economy of time, [which] in accord with the planned distribution of labour time among the various branches” of industry, constituted “the first economic law on the basis of communal production.”²¹ As he wrote to Engels on January 8, 1868: “No form of society can prevent the working time at the disposal of society from regulating production one way or another. So long, however, as this

In Capital, Marx argued with respect to planning that the part of the social product destined for the reproduction of the means of production is properly collective while the other part, devoted to consumption, is divided among consumers individually. How a given society carries out this all-important division is the key to the entire mode of production and reflects the historical development of society itself.

regulation is accomplished not by the direct and conscious control of society over its working time—which is possible only with common ownership—but by the movement of commodity prices, things remain as you have already quite aptly described them in *Deutsch-Französische Jahrbücher*”—referring to Engels’s “*Outlines of a Critique of Political Economy*” of 1843.²² This early work of Engels was greatly admired by Marx. In his 1843 “Summary of Engels’s

‘*Outlines*,’” Marx emphasised “the split between the land and the human being,” and thus, the alienation of nature, as the external basis of capitalist production.

In *Capital*, Marx argued with respect to planning that the part of the social product destined for the reproduction of the means of production is properly collective while the other part, devoted to consumption, is divided among consumers individually. How a given society carries out this all-important division is the key to the entire mode of production and reflects the historical development of society itself. Under socialism, labor-time would necessarily be apportioned “in accordance with a definite social plan” that “maintains the correct proportion between the different functions of labour and the various needs of the associations” of labor. This was only possible when “the practical relations of everyday life between man and man, and man and nature generally present themselves...in a rational form” as a result of historical development, making possible “production by freely associated [individuals]...under their conscious and planned control.”²³ As Marx explained in response to the Paris Commune, “cooperative societies” in the future society would “regulate national production upon a common plan.”²⁴ The fact that such planning was both an economic problem and an ecological one was clear throughout his work.

“Freedom in this sphere,” a higher society, Marx wrote in the third volume of *Capital*, “can consist only in this, that socialised man, the associated producers, govern the human metabolism with nature in a rational way, bringing it under their collective control...accomplishing it with the least expenditure of energy and in conditions most worthy and

²⁰ ↪ Karl Marx and Frederick Engels, *The Communist Manifesto* (New York: Monthly Review Press, 1964), 40, 74.

²¹ ↪ Karl Marx, *Grundrisse* (London: Penguin, 1973), 173; Michael A. Lebowitz, *The Socialist Imperative* (New York: Monthly Review Press, 2015), 70–71.

²² ↪ Karl Marx and Frederick Engels, *Selected Correspondence* (Moscow: Progress Publishers, 1975), 186–87; Marx and Engels, *Collected Works*, vol. 3 (London: Penguin, 1981), 375–76, 418–43.

²³ ↪ Marx, *Capital*, vol. 1, 172–73.

²⁴ ↪ Karl Marx and Frederick Engels, *Writings on the Paris Commune*, ed. Hal Draper (New York: Monthly Review Press, 1971), 77.

appropriate for their human nature.”²⁵ The historical record of human-caused ecological destruction in forms such as deforestation and desertification, embodied, for Marx, unconscious “socialist tendencies” since demonstrating the necessity of social control.²⁶

However, it was Engels in *Anti-Dühring* who most explicitly grounded the need for planning in relation to environmental conditions. For Engels, it was the negative externalities of capitalist production, associated with the division between town and country, a permanent housing problem, and the destruction of both the natural as well as social conditions of working-class existence, that most clearly called for large-scale planning. Modern industry itself, he argued, needed “relatively pure water,” as opposed to what existed in “the factory town” that “transforms all water into stinking manure.”²⁷ Extending themes present in both *The Condition of the Working Class in England* and the *Communist Manifesto*, he declared:

*Abolition of the antithesis between town and country is not merely possible. It has become a direct necessity of industrial production itself, just as it has become a necessity for agricultural production and, besides, of public health. The present poisoning of the air, water and land can be put an end to only by the fusion of town and country; and only such fusion will change the situation of the masses languishing in the towns, and enable their excrement to be used for the production of plants instead of for the production of disease.... The abolition of the separation of town and country is therefore not utopian...in so far as it is conditioned on the most equal distribution possible of modern industry over the whole country.*²⁸

Organising production collectively according to a “social plan,” Engels argued, would “end the...subjection of men to their own means of production” characteristic of capitalist commodity production.²⁹ Under socialism, it would of course

“Only a society which makes it possible for its productive forces to dovetail harmoniously into each other on the basis of one single vast plan,” Engels wrote, “can allow industry to be distributed over the whole country in the way best adapted to its own development, and to the maintenance and development of the other elements of production.”

“still be necessary for society to know how much labour each article of consumption requires for its production.” It would then “have to arrange its plan of production in accordance with its means of production, which include, in particular, its labour-powers. The useful effects of the various articles of consumption compared with one another and with

the quantities of labour required for their production, will in the end determine the plan.”³⁰ But beyond the rational and economical use of labor within industry, planning would be necessary to overcome the exhaustion of the soil in the country and the related pollution of the town. “Only a society which makes it possible for its productive forces to dovetail harmoniously into each other on the basis of one single vast plan,” Engels wrote, “can allow industry to be distributed over the whole country in the way best adapted to its own development, and to the maintenance and development of the other elements of production.”³¹

²⁵ ↪ Karl Marx, *Capital*, vol. 3, 959. Most current ecosocialist approaches to degrowth rely heavily on Marx’s notions of social metabolism and metabolic rift. See Mattias Schmelzer, Andrea Vetter, and Aaron Vansintjan, *The Future Is Degrowth* (London: Verso, 2022), 84–86, 122–23, 237–44.

²⁶ ↪ Marx and Engels, *Selected Correspondence*, 190 (Marx to Engels, March 25, 1868); John Bellamy Foster, “Capitalism and the Accumulation of Catastrophe,” *Monthly Review* 63, no. 7 (December 2011): 3–5.

²⁷ ↪ Marx and Engels, *Collected Works*, vol. 25, 281–82; Engels, *The Housing Question*, 92.

²⁸ ↪ Marx and Engels, *Collected Works*, vol. 25, 279, 282–83.

²⁹ ↪ Marx and Engels, *Collected Works*, vol. 25, 219, 282.

³⁰ ↪ Marx and Engels, *Collected Works*, vol. 25, 294–95.

³¹ ↪ Marx and Engels, *Collected Works*, vol. 25, 277–82; Jasper Bernes, “The Belly of the Revolution,” in *Materialism and the Critique of Energy*, eds. Brent Ryan Bellamy and Jeff Diamanti (Chicago: MCM Publishing, 2018), 340–42.

In the *Dialectics of Nature*, Engels was concerned in particular with the failure of classical political economy as “the social science of the bourgeoisie” to account for “human actions in the fields of production and exchange” that were unintended, external to the market, and remote. The anarchic and unplanned character of the capitalist economy thus amplified ecological disasters. “What cared the Spanish planters in Cuba,” he wrote,

*who burned down forests on the slopes of the mountains and obtained from the ashes sufficient fertiliser for one generation of very highly profitable coffee trees—what cared they that the heavy tropical rainfall afterwards washed away the unprotected upper stratum of the soil, leaving behind only bare rock! In relation to nature, as to society, the present mode of production is predominantly concerned only about the immediate, the most tangible result; and then surprise is expressed that the more remote effects of actions directed to this end turn out to be quite different, are mostly quite the opposite in character.*³²

In order to promote the interests of the human community as a whole, it was therefore necessary to carry out “planned action” and regulate production in line with science, taking into consideration the earthly environment, that is, in accord with nature’s laws.³³

Marx and Engels saw socialism as expanding the forces of production in a quantitative as well as a qualitative sense, and Engels even referred in *Anti-Dühring* to how the advent of socialism would bring about “the constantly accelerated development of the productive forces and...a practically unlimited increase of production itself.” However, the context in which they were writing was not today’s “full-world economy,” but rather a still early stage of industrialisation. In the period of industrial development, extending from the beginning of the eighteenth century until the first Earth Day in 1970, world industrial productive potential increased in size around 1,730 times, which from a nineteenth-century perspective, would have seemed “a practically unlimited increase.” Today it, however, it raises the issue of ecological “overshoot.”³⁴

Hence, the long-term ecological consequences of production emphasised by Engels have more and more come to the fore in our time. This is symbolised by the proposed Anthropocene Epoch in the Geologic Time Scale, beginning around

[For Engels], the goal of socialism was not the expansion of production itself, but rather the “free development” of human beings, which required a rational and planned relation to “the whole sphere of the conditions of life which environ man.”

1950, representing the emergence of human-industrialised society as the primary factor in Earth System change. From this standpoint, what is perhaps most remarkable about Engels’s statement on the development of the productive forces under socialism was that it was immediately followed—in the same paragraph and the one after—by the

view that the goal of socialism was not the expansion of production itself, but rather the “free development” of human beings, which required a rational and planned relation to “the whole sphere of the conditions of life which environ man.”³⁵

³² ↪ Marx and Engels, *Collected Works*, vol. 25, 463–64.

³³ ↪ Marx and Engels, *Collected Works*, vol. 25, 460–63.

³⁴ ↪ William R. Catton, *Overshoot* (Urbana: University of Illinois Press, 1982).

³⁵ ↪ Marx and Engels, *Collected Works*, vol. 25, 269–70; Walt Rostow, *The World Economy* (Austin: University of Texas Press, 1978), 47–48, 659–62.

Marx and Engels, therefore, viewed planning as crucial in the organisation of socialist/communist society, freeing it from the domination of commodity exchange, and relying on a “common plan.” Nevertheless, they cannot be seen as envisioning the kind of central planning under a command economy, as this was to emerge in the late 1920s and ’30s in the Soviet Union. Rather, they contended that planning by the direct producers would be democratic with respect to production itself.³⁶ The entire system of socialism, as Marx put it, “starts with the self-government of the communities” in a society where “cooperative labor” would be “developed to national dimensions and, consequently...fostered by national means.”³⁷ The rational organisation of human labor as communal or cooperative labor, moreover, could not occur without a planning system. “All directly social or communal labour on a larger scale requires, to a greater or lesser degree, a directing authority, in order to secure the harmonious co-operation of the activities of individuals, and to perform the general functions that have their origin in the total productive organism,” as a system of social metabolic reproduction. Production therefore requires guidance, foresight, and management, in the sense of a “conductor” of an orchestra. Marx’s vision of a planned economy, as Michael A. Lebowitz emphasised, was one run by “associated conductors” who would rationally govern the metabolism between humanity and nature.³⁸

As Marx wrote in *Theories of Surplus Value*, on the need for a non-capitalist, and thus a non-exhaustive, approach to labor and nature,

Anticipation of the future—real anticipation—occurs in the production of wealth only in relation to the worker and to the land. The future can indeed be anticipated and ruined in both cases by premature over-exertion and exhaustion, and by the disturbance of the balance between expenditure and income. In capitalist production this happens to both the worker and the land.... What is expended here exists as δίνανις [the Greek word for power, in Aristotle’s sense of a causal force] and the life span of this δίνανις is shortened as a result of accelerated expenditure.³⁹

Capitalism, according to the founders of historical materialism, promoted a negative, perverse dialectic of exploitation, expropriation, and exhaustion/extermination, the “common ruin of the contending classes.” What was necessary, therefore, was the “revolutionary reconstitution of society as a whole.”⁴⁰

This negative dialectic of exploitation, expropriation, and exhaustion/extermination characterising capitalism was vividly captured by Engels in terms of the notion of the “revenge” of nature, a metaphorical expression that Jean-Paul Sartre in

³⁶ ↪ Michał Kalecki argued for “a synthesis of central planning and workers’ control.” Michał Kalecki, *Selected Essays on Economic Planning* (Cambridge: Cambridge University Press, 1986), 31. Marta Harnecker stressed the participatory planning system developed in Kerala state in India as a viable model. Marta Harnecker, *A World to Build* (New York: Monthly Review Press, 2015), 153–57. She also provided a guide for the implementation of participatory planning in Marta Harnecker and José Bartolomé, *Planning From Below: A Decentralized Participatory Planning Proposal* (New York: Monthly Review Press, 2019). For a critical Marxist work on the role of the direct producers in “real socialism,” see Michael A. Lebowitz, *The Contradictions of “Real Socialism”* (New York: Monthly Review Press, 2012).

³⁷ ↪ Marx and Engels, *Collected Works*, vol. 24, 519; Karl Marx, *On the First International* (New York: McGraw Hill, 1973), 11; Marx, *Grundrisse*, 159, 171–72; Paul Burkett, “Marx’s Vision of Sustainable Human Development,” *Monthly Review* 57, no. 5 (October 2005), 43; Ernest Mandel, “In Defense of Socialist Planning,” *New Left Review* 159 (September–October 1986): 7.

³⁸ ↪ Marx, *Capital*, vol. 1, 448–49; Lebowitz, *Contradictions of “Real Socialism,”* 21. The concept of “social metabolic reproduction” was developed by István Mészáros based on Marx’s use of the concept of social metabolism in the *Grundrisse*. See István Mészáros, *Beyond Capital* (New York: Monthly Review Press, 1995), 39–71.

³⁹ ↪ Karl Marx, *Theories of Surplus Value*, vol. 3 (Moscow: Progress Publishers, 1971), 309–10; John Bellamy Foster and Paul Burkett, *Marx and the Earth* (Chicago: Haymarket, 2016), 149. The Greek word δίνανις, as used by Aristotle, refers to “power” as a source of change in something else, thus a causal power. William Charlton, “Aristotelian Powers,” *Phronesis* 32, no. 3 (1987): 277–89.

⁴⁰ ↪ Marx and Engels, *Communist Manifesto*, 2.

his Critique of Dialectical Reason was to convert into the concept of “counter-finality.”⁴¹ Human beings, through their

This negative dialectic of exploitation, expropriation, and exhaustion/extermination characterising capitalism was vividly captured by Engels in terms of the notion of the “revenge” of nature, a metaphorical expression that Jean-Paul Sartre in his Critique of Dialectical Reason was to convert into the concept of “counter-finality.”

class-based social formations, became anti-physis (anti-nature). This could be seen in the destruction of forests and the consequent floods (Sartre had in mind Chinese peasant production described in René Grousset’s 1942 *Histoire de la Chine*), in which populations undermined their own existence and their own supposed victories over nature, leading to

catastrophic results. “Nature,” Sartre wrote, “becomes the negation of man precisely to the extent that man is made anti-physis” and thus “antipraxis.”⁴² The only answer to the problem of the alienation of nature for Sartre, as for Marx and Engels, was to alter the social relations of production that propel humanity forward to ultimate catastrophe. This required a revolution of the earth in the form of a new socialist praxis of sustainable human development in which life itself was no longer posited as the enemy of humanity: the reunification of nature and society.

The tradition of “degrowth communism” within Marxism goes back to William Morris, who argued that Britain could do with less than half the coal it used.⁴³ But it can also be seen as related to what Paul Burkett called Marx’s overall “vision of sustainable human development.” Here, the accumulation of capital was to be displaced by advances in qualitative human development and dedicated to the production of use value (rather than exchange value) and the fulfillment of the needs of all individuals, moving from the most basic needs all the way to the most developed human and social needs, in harmony with the environment as a whole.⁴⁴

The Efficacy of Central Planning

Upon taking power in the October Revolution in 1917, “the Bolsheviks,” as the Marxist economist Paul Baran observed, “had no intention of immediately establishing socialism (and comprehensive economic planning) in their hungry and devastated country.”⁴⁵ They originally envisioned a strict regulation and control of the capitalist market under a worker-directed government and the nationalisation of key enterprises, encompassing a long and slow transition to a fully socialist economy. In fact, no concrete notion of central planning or of a command economy existed at the time.⁴⁶ “The word ‘planning,’” Alec Nove wrote in *An Economic History of the U.S.S.R.*,

⁴¹ ↪ Marx and Engels, *Collected Works*, vol. 25, 460–61; Jean-Paul Sartre, *Critique of Dialectical Reason*, vol. 1 (London: Verso, 2004), 164. Marx and Engels utilised the notion of “extermination” in the nineteenth-century sense of both death and removal in the context of the ecological ruination of Ireland in the nineteenth century under British colonialism. See Foster and Clark, *The Robbery of Nature*, 64–77. On the dialectic of exploitation, expropriation, and exhaustion in Marx and Sartre, see Alberto Toscano, “Antiphysics/Antipraxis: Universal Exhaustion and the Tragedy of Materiality,” in *Materialism and the Critique of Energy*, eds. Bellamy and Diamanti, 480–92; Michael A. Lebowitz, *Between Capitalism and Community* (New York: Monthly Review Press, 2020), 176–77.

⁴² ↪ Marx and Engels, *Collected Works*, vol. 25, 460–61; Jean-Paul Sartre, *Critique of Dialectical Reason*, vol. 1, 164–66. Engels himself vividly described how deforestation in Russia “destroyed the stocks of subsoil water,” so that “the rain and snow water flowed quickly along the streams and rivers without being absorbed, producing serious floods,” while “in summer the rivers became shallow and the ground dried out. In many of the most fertile areas of Russia the level of subsoil water is said to have dropped a full metre, so that the roots of the corn crops can no longer reach it and wither away. So that not only are the human beings ruined, but in many areas so is the land itself for at least a generation.” Marx and Engels, *Collected Works*, vol. 27, 387. Such ecological observations were to impact later socialist thinkers. Lenin specifically noted these passages in Engels on deforestation and impoverishment of the soil in Russia. V. I. Lenin, *Collected Works*, vol. 39 (Moscow: Progress Publishers, 1974 printing), 501.

⁴³ ↪ John Bellamy Foster, *The Return of Nature* (New York: Monthly Review Press, 2020), 137–38.

⁴⁴ ↪ Burkett, “Marx’s Vision of Sustainable Human Development,” 34–62; Kohei Saito, *Marxism in the Anthropocene* (Cambridge: Cambridge University Press, 2022), 232–42.

⁴⁵ ↪ Paul A. Baran, *The Longer View* (New York: Monthly Review Press, 1969), 151.

⁴⁶ ↪ Andrew Zimbalist and Howard J. Sherman, *Comparing Economic Systems* (Orlando: Academic Press Inc., 1984), 130.

had a very different meaning [in the Soviet Union] in 1923–6 to that which it later acquired. There was no fully worked-out production and allocation programme, no “command economy.” The experts in Gosplan...worked with remarkable originality, struggling with inadequate statistics to create the first “balance of the national economy” in history, so as to provide some sort of basis for the planning of growth.... The point is that what emerged from these calculations were not plans in the sense of orders to act, but “control figures,” which were partly a forecast and partly a guide for strategic investment decisions, a basis for discussing and determining priorities.⁴⁷

War Communism, which began in the middle of 1918, eight months after the October Revolution, was a desperate effort to cope with the chaos and ravages resulting from the Russian Civil War, including the invasion of the country by all the major imperial powers in support of the “White” forces. War Communism was not about planning, but about wholesale nationalisation, war production, a ban on private trade, partial elimination of prices, free rations, and the forced requisition of supplies and surpluses.⁴⁸ The revolutionary Soviet state won the Civil War, defeating the White armies and forcing the imperial powers to vacate the country. But the economy was devastated and the small industrial proletariat, which had been the backbone of the revolution, was decimated, with only half as many industrial workers in 1920 as in 1914.⁴⁹ In 1921, faced with economic deterioration, famine, and the revolt of the Kronstadt sailors, V. I. Lenin organised a strategic retreat, reintroducing market trading in the New Economic Policy (NEP). Beginning in 1920, Lenin also took personal initiative in introducing a plan for the electrification within ten to fifteen years of all of Russia, building power stations and related infrastructure in all the major industrial regions. This was to prove to be the greatest accomplishment with respect to economic development in the early 1920s.⁵⁰

The NEP was seen as a transitional period in the movement toward socialism. Lenin designated it as “state capitalism.”

Lenin utilised the concept of state capitalism to refer not only to the state sector in a mixed economy, but also to a definite social formation in the movement toward socialism, constituting the essence of the NEP.

The Soviet state retained control of the commanding heights of the economy, including heavy industry, finance, and foreign trade. In Lenin’s initial conception, the NEP was a limited alliance with big capital with the goal of transforming production in accordance with its

most developed form of monopoly capitalism, but under socialist control, together with an accommodation with the peasantry. “The Soviet state,” Tamás Krausz wrote in *Reconstructing Lenin*, “gave preferential treatment to organised large-scale capital and market-oriented state property rather than anarchic private property, the uncontrollably chaotic economy of the petit bourgeois.” Lenin utilised the concept of state capitalism to refer not only to the state sector in a mixed economy, but also to a definite social formation in the movement toward socialism, constituting the essence of the NEP.⁵¹

It was during the NEP that a level of development planning was first introduced into the economy. The Supreme Council of the National Economy had been established as early as 1917. However, it was under the NEP that Gosplan was set up

⁴⁷ ↪ Alec Nove, *An Economic History of the U.S.S.R.* (London: Penguin, 1969), 101.

⁴⁸ ↪ Nove, *An Economic History of the U.S.S.R.*, 74, 80; Zimbalist and Sherman, *Comparing Economic Systems*, 132.

⁴⁹ ↪ Zimbalist and Sherman, *Comparing Economic Systems*, 130.

⁵⁰ ↪ Tadeusz Kowalik, “Central Planning,” in *Problems of the Planned Economy*, eds. John Eatwell, Murray Milgate, and Peter Newman (London: Macmillan, 1990), 43.

⁵¹ ↪ Tamás Krausz, *Reconstructing Lenin* (New York: Monthly Review Press, 2015), 335–38; Moshe Lewin, *Lenin’s Last Struggle* (London: Pluto, 1975), 26–28, 115–16; Nove, *An Economic History of the U.S.S.R.*, 52, 58; Alfred Rosmer, *Moscow Under Lenin* (New York: Monthly Review Press, 1972), 131–33.

as the main state planning commission. Gosplan developed the first system of balances for a national economy, providing control figures to guide investment decisions with limited directives to a few strategic sectors under state control. A nascent method of input-output tables was introduced in 1923–24, inspired by François Quesnay's *Tableau économique* and Marx's reproduction schemes in *Capital*.⁵²

By 1925, the NEP had succeeded in restoring the prewar economy and industrial production outside of agriculture was beginning to level off. Lenin had hinted in 1922 that the NEP might need to remain in place for a long time, with twenty-five years as “a bit too pessimistic.”⁵³ But with his death in 1924 and the success of the NEP in restoring the economy, a Great Debate arose over socialist transformation and planning. Classical Marxist theory had been based on revolutions occurring first in the developed countries of Western Europe. The Russian Revolution was originally envisioned as sparking a wider European proletarian revolution, which, however, never materialised. Russia found itself an underdeveloped, primarily peasant country, existing in a state of political and economic isolation and faced by the continual threat of further imperial invasions.

All the major participants in the Great Debate agreed on the need to move toward a socialist planned economy, but disagreements arose over the nature and tempo of the change, and the degree to which the peasants should have their land expropriated. Some leading Bolsheviks, such as Nikolai Bukharin, argued for what was then the dominant line, insisting on a slower, balanced-growth approach based on the continuation of the NEP as a transitional period. In contrast, those like the economist E. A. Preobrazhensky, identified with the “left opposition,” favoured a much more rapid shift to a centrally planned economy and the expropriation of the peasantry through a process of socialist primitive accumulation.⁵⁴ The major figures of both the left opposition, including Preobrazhensky and Leon Trotsky, and what Joseph Stalin was to characterise as the right opposition, associated with Bukharin (with whom Stalin had been aligned during the Great Debate), were all eventually eliminated one after the other, leaving Stalin entirely in command.⁵⁵

With Stalin's rise to power by 1928, a rapid industrialisation course was adopted in line with the proposals originally advanced by the left opposition, which Stalin himself had at first opposed. The goal became one of building “Socialism in One Country” given the USSR's isolated position. This, however, took the form of a brutal socialist primitive accumulation, and a top-down, bureaucratic command economy, commencing with the first five-year plan in 1929. In 1925–26, under the NEP, the state sector constituted 46 percent of the economy; by 1932, this had risen to 91 percent.⁵⁶

The tragedy of Soviet planning lay in the dire historical circumstances in which it arose, leading to what the noted historian of the USSR, Moshe Lewin, called “the disappearance of planning in the plan.”⁵⁷ Industrial output in 1928–29 under the NEP had grown at a rate of 20 percent. Yet that was not considered enough. Bukharin spoke out against plans being constructed by “madmen” who sought an annual economic growth rate twice what the NEP had delivered. The

⁵² ↪ Nove, *An Economic History of the U.S.S.R.*, 100–1, 134; Fyodor I. Kushirsky, *Soviet Economic Planning, 1965–1980* (Boulder: Westview, 1982), 6–8; Zimbalist and Sherman, *Comparing Economic Systems*, 147.

⁵³ ↪ Nove, *An Economic History of the U.S.S.R.*, 120; V. I. Lenin, *Collected Works*, vol. 32 (Moscow: Progress Publishers, 1973), 429–30.

⁵⁴ ↪ Nikolai Bukharin, *The Politics and Economics of the Transition Period* (London: Routledge, 1979), 108–13; E. A. Preobrazhensky, *The Crisis of Soviet Industrialization* (White Plains, New York: M. E. Sharpe, 1979), 63; Harry Magdoff and Paul M. Sweezy, “Perestroika and the Future of Socialism—Part Two,” *Monthly Review* 41, no. 11 (April 1990): 2; Nicholas Spulber, *Soviet Strategy for Economic Growth* (Bloomington: Indiana University Press, 1964), 102–3.

⁵⁵ ↪ Nove, *An Economic History of the U.S.S.R.*, 124–28, 132, 147; Spulber, *Soviet Strategy for Economic Growth*, 66–68, 72.

⁵⁶ ↪ Nove, *An Economic History of the U.S.S.R.*, 137; Harry Braverman, *Labor and Monopoly Capital* (New York: Monthly Review Press, 1998), 8–12; Gregory Grossman, “Command Economy,” in *Problems of the Planned Economy*, eds. Eatwell, Milgate, and Newman, 58–62.

⁵⁷ ↪ Moshe Lewin, *Russia/USSR/Russia* (New York: New Press, 1995), 95–114. See also Alec Nove, *The Economics of Feasible Socialism* (London: George Allen and Unwin, 1983), 79–81; Michael Ellman, “Socialist Planning,” in *Problems of the Planned Economy*, eds. Eatwell, Milgate, and Newman, 14.

The planning process was thus conceived from the first on unrealistic bases.... This was coupled with a perpetuation of the basic character of the capitalist labor process with the incorporation of Taylorist scientific management techniques, eliminating the possibility of bottom-up forms of organisation or workers' control, as originally envisioned in the workers' Soviets.

bottom-up forms of organisation or workers' control, as originally envisioned in the workers' Soviets.

The directives laid out in the first five-year plan were beyond all possibility of fulfilment, with the result that the plan was

"Stalin's anti-peasant drive was an attack against the popular masses. It required coercion on such a large scale that the whole state had to be transformed into a huge, oppressive machine."

effectively shelved almost from the beginning. The command system that emerged was centrally and bureaucratically administered, while rational planning was hardly in evidence. Meanwhile, the "supertempo" of industrialisation meant the massive confiscation of peasant property and forced collectivisation, affecting millions. As Lewin wrote, "Stalin's anti-peasant drive was an attack against the popular masses. It required coercion on such a large scale that the whole state had to be transformed into a huge, oppressive machine." Under such circumstances, the harsh regimentation of the population was inevitable.⁵⁸

Nevertheless, with all of its shortcomings and barbarities, the crude, clunky, bureaucratic command economy that arose in the Soviet Union was hugely successful in its developmental effects. It was able to prioritise investment in heavy industry in a way never quite seen before. The average annual growth rate in industrial output for the years 1930–40 was officially "16.5 percent," which, in Lewin's words, was "certainly an impressive figure (and not much less impressive even if smaller assessments by Western economists are preferred)."⁵⁹ The Soviet Union leaped into industrialisation, also expanding transportation and electrical generation, albeit with agriculture lagging behind. Other vast improvements occurred in education and urbanisation.⁶⁰ Some eight thousand massive, modern enterprises were constructed between 1928 and 1941.⁶¹

In 1928, the Soviet Union was still an underdeveloped country. By the Second World War it had emerged as a major industrial power. There is no questioning Stalin's hard realism when he stated, in 1931, "We are 50–100 years behind the advanced countries. We have to traverse this distance in ten years. We will either accomplish it or else we will be crushed."⁶² His calculations were correct. By the time the German Wehrmacht invaded Russia exactly ten years later, in 1941, with more than three million Axis troops, organised in armoured divisions, and deployed on an 1,800-mile front, the invading forces found themselves confronted by a major industrial and military power quite unlike the Russia they had faced in the First World War. The Soviet forces carried out an extraordinary resistance far exceeding anything that

⁵⁸ ↪ Lewin, *Russia/USSR/Russia*, 112, 95–108; Magdoff and Sweezy, "Perestroika and the Future of Socialism—Part Two," 2; Spulber, *Soviet Strategy for Economic Growth*, 126.

⁵⁹ ↪ Lewin, *Russia/USSR/Russia*, 108–9.

⁶⁰ ↪ Ernest Mandel, *Marxist Economic Theory*, vol. 2 (New York: Monthly Review Press, 1968), 557–59.

⁶¹ ↪ Lewin, *Russia/USSR/Russia*, 114. For a listing of the main structural characteristics of the Soviet planned economy, see Paul Cockshott, *How the World Works* (New York: Monthly Review Press, 2019), 209–10.

⁶² ↪ Stalin quoted in Baran, *The Longer View*, 179.

Adolf Hitler and his advisers had conceived. The history of the modern world was to turn on that very fact, leading to the defeat of Nazi Germany.⁶³

Yet, the weaknesses of the Soviet economy, with its centrally administered and planned production, were to haunt the

The bureaucratic planned economy had led to a concentration of power and the emergence of a new ruling class of bureaucratic bosses, or nachal'niki, arising out of the nomenklatura system (exercising control over top-level nominees to the Party), which weighed on the system, preventing necessary changes.

system after the Second World War. Although maintaining fairly impressive growth rates and, in the post-Stalinist, particularly early Leonid Brezhnev era, able to provide both guns and butter in the context of the Cold War—in which it was confronted by a much larger and more aggressive counterpart in the United States—the weaknesses of the Soviet system became

more and more evident.⁶⁴ The bureaucratic planned economy had led to a concentration of power and the emergence of a new ruling class of bureaucratic bosses, or nachal'niki, arising out of the nomenklatura system (exercising control over top-level nominees to the Party), which weighed on the system, preventing necessary changes.⁶⁵ Despite its early developments in input-output analysis the Soviet command economy never integrated the methods of cybernetics and the possibilities for more optimal planning that emerged with the new computing revolution in the decades after the Second World War, despite some movements in this direction.⁶⁶ An overemphasis on new investment projects led to a neglect of replacement investment, with the result that production was carried on with obsolete equipment resulting in numerous work stoppages.⁶⁷ The proletarianisation of labor, coupled with full employment and other guarantees, reduced the possibilities of economic coercion within the system compared to capitalism, leading to problems of material incentives for the workers.⁶⁸

The Soviet system of enterprise management, as Che Guevara acutely recognised, was based on pre-monopoly

The Soviet command economy was reliant from the first on extensive, rather than intensive, development through the forced drafting of labor and resources, as opposed to the cultivation of dynamic efficiencies.

capitalism, not monopoly capitalism, and thus relied more heavily on inter-firm rather than intra-firm transactions. This meant that enterprises were dependent on external prices, with the ironic result that market relations undercut planning at the enterprise level in ways that did not occur within what Galbraith had called the “planning system” of monopolistic corporations

in the West. At the same time, factory production was organised along the old Ford Motors model in which each division or syndicate made all the components, as opposed to the more developed monopoly capitalist production system with

⁶³ ↪ “Invasion of the Soviet Union, June 1941,” *Holocaust Encyclopedia*, United States Holocaust Memorial Museum, ushmm.org.

⁶⁴ ↪ David Kotz, “The Direction of Soviet Economic Reform,” *Monthly Review* 44, no. 4 (September 1992): 15.

⁶⁵ ↪ Lewin, *Russia/USSR/Russia*, 142, ix; Moshe Lewin, “Society and the Stalinist State in the Period of the Five-Year Plans,” *Social History* 1, no. 2 (May 1976): 172–73; Paul M. Sweezy, *Post-Revolutionary Society* (New York: Monthly Review Press, 1980), 144–45; Harry Magdoff and Fred Magdoff, “Approaching Socialism,” *Monthly Review* 57, no. 3 (July–August 2005): 40–41.

⁶⁶ ↪ Elena Veduta, “Some Lessons on Planning from the World’s First Socialist Economy,” *Monthly Review* 74, no. 5 (October 2022): 23–36; Lebowitz, *Contradictions of “Real Socialism,”* 115–20. The notion promoted by the “Austrian” school of economics, including figures such as Ludwig von Mises, Friedrich Hayek, and Lionel Robbins that central planning was impossible because it would require simultaneously solving millions of equations was wrong from the start, as adequately demonstrated by Oskar Lange. Today the bulk of goods are not produced on the basis of market signals but are the product of internal, intrafirm corporate planning. Nevertheless, computerization of the inputs and outputs in the planning system would have greatly aided overall efficiencies. Oskar Lange and Fred M. Taylor, *On the Economic Theory of Socialism* (New York: McGraw-Hill, 1938), 57–98; Ernest Mandel, “In Defense of Socialist Planning,” *New Left Review* 1/159 (September–October 1986), 11; P. Cockshott, A. Cottrell, and J. Dapprich, *Economic Planning in an Age of Climate Crisis* (London: Cockshott, Cottrell, and Dapprich, 2022).

⁶⁷ ↪ Magdoff and Sweezy, “Perestroika and the Future of Socialism—Part Two,” 6; Magdoff and Magdoff, “Approaching Socialism,” 44.

⁶⁸ ↪ Sweezy, *Post-Revolutionary Society*, 140–41.

multiple suppliers, which prevented bottlenecks.⁶⁹ Most important, the Soviet command economy was reliant from the first on extensive, rather than intensive, development through the forced drafting of labor and resources, as opposed to the cultivation of dynamic efficiencies.⁷⁰ Consequently, once labor and resources began to be scarce, rather than abundant, the economy went into stagnation, creating widespread shortages.⁷¹

Still, even then the economy continued to grow, although more slowly, until the chaos of the Gorbachev era—while also providing extensive social welfare amenities to the population, which were enviable from the standpoint of most of the world, if lacking in mass consumerism and luxury goods.⁷² In the end, it was the direction taken by the upper end of the social hierarchy associated with the nomenklatura system, which aspired to the same opulent lifestyle as the upper echelons in the West, that was to seal the fate of the Soviet system.⁷³

As Harry Magdoff and Fred Magdoff explained in “Approaching Socialism,” “The shortcomings of the Soviet economy, which became evident not long after recovery from the Second World War, were not a result of the failure of central planning, but of the way planning was conducted. Central planning in peacetime does not need control by the central authorities over every detail of production. Not only are commandism and the absence of democracy not necessary ingredients of central planning, they are counterproductive to good planning.” Ironically, it was the class character of the Soviet system and rampant corruption that led to its demise.⁷⁴

China’s command economy period, following the 1949 Revolution, was much shorter, lasting essentially from 1953–78.

During its central planning period, when it had also to deal with the U.S, China nevertheless logged impressive achievements, establishing the industrial and social base for the even more impressive economic development that was to follow with the opening up of the Chinese economy and its controlled integration with the world economy.

It launched its first five-year plan based on the Soviet model in 1953, with its planning phase lasting until it instituted “market reforms” a quarter-century later. During its central planning period, when it had also to deal with the U.S. threat and thus was forced to divert major needed resources to national defence, the People’s Republic of China nevertheless logged impressive achievements, establishing the industrial and social base for the even more impressive

economic development that was to follow with the opening up of the Chinese economy and its controlled integration with the world economy.

There is no doubt that the record of the Chinese command economy in its initial planning period was patchy. Central planning, as instituted in China, had many of the same weaknesses as it had in the Soviet Union, leading to imbalances and the same phenomenon of “the disappearance of planning in the plan.” Nevertheless, huge accomplishments were made. Agriculture was put on a new foundation with collectives and social property.⁷⁵ “Few people are aware,” Fred

⁶⁹ ↪ Helen Yaffe, *Che Guevara: The Economics of Revolution* (New York: Palgrave Macmillan, 2009), 38–39; Michael Löwy, *The Marxism of Che Guevara* (New York: Rowman and Littlefield, 1973), 440–41, 7–51. On Soviet enterprises see Spulber, *Soviet Strategy for Economic Growth*, 119–29; Magdoff and Magdoff, “Approaching Socialism,” 44; Galbraith, *Economics and the Public Purpose*, 108–17.

⁷⁰ ↪ Zimbalist and Sherman, *Comparing Economic Systems*, 24–25.

⁷¹ ↪ Magdoff and Sweezy, “Perestroika and the Future of Socialism—Part Two,” 3–7; János Kornai, *The Socialist System* (Princeton: Princeton University Press, 1992).

⁷² ↪ For a comparison of U.S. and Soviet growth rates, see David M. Kotz with Fred Weir, *Russia’s Path from Gorbachev to Putin* (London: Routledge, 2007), 35–36.

⁷³ ↪ Stephen F. Cohen, *Soviet Fates and Lost Alternatives* (New York: Columbia University Press, 2011), 136–40; Stanislav Menshikov, “Russian Capitalism Today,” *Monthly Review* 51, no. 3 (July–August 1999): 81–99; Kotz, *Russia’s Path from Gorbachev to Putin*, 105–25; Gordon M. Hahn, *Russia’s Revolution from Above, 1985–2000* (New Brunswick, New Jersey: Transaction Publishers, 2002).

⁷⁴ ↪ Magdoff and Magdoff, “Approaching Socialism,” 49.

⁷⁵ ↪ On China’s land reform, see William Hinton, *Through a Glass Darkly* (New York: Monthly Review Press, 2006), 37–84.

Magdoff wrote in his preface to Dongping Han's *The Unknown Cultural Revolution: Life and Change in a Chinese Village*,

of the visit to China in the summer of 1974, during the Cultural Revolution, by a delegation of U.S. agronomists. They traveled widely and were amazed by what they observed, as described in an article in the New York Times (September 24, 1974). The delegation was composed of ten scientists who were "experienced crop observers with wide experience in Asia." As Nobel Prize winner Norman Borlaug put it— "You had to look hard to find a bad field. Everything was green and nice everywhere we traveled. I felt the progress had been much more remarkable than what I expected." The head of the delegation, Sterling Wortman, a vice president of the Rockefeller Foundation described the rice crop as "...really first rate. There was just field after field that was as good as anything you can see." They were also impressed with the increased skill levels of the farmers on the communes. Wortman said "They're all being brought up to the level of skills of the best people. They all share the available inputs." A detailed description of their observations on agriculture in China was published in the prestigious journal Science in 1975 by Dr. Sprague. Much of the progress in China's agriculture after the Cultural Revolution was made possible by the advances during that period. Even the increase in fertiliser use that occurred in the late 1970s and early 1980s was made possible by factories that were contracted for by China in 1973.⁷⁶

Growth of industrial potential in China under Mao Zedong was "relatively rapid" when compared to almost all other developing countries.⁷⁷ Literacy and average life expectancy were completely transformed, placing China on a par with middle-income countries in terms of human development factors by the late 1970s, despite its still extremely low per capita income. The "net impact of planning" was a vast increase in "the rate of technical progress." As Chris Bramall wrote in his major 1993 work, *In Praise of Maoist Economic Planning*, "If one believes that capabilities are a better indicator of economic development than opulence, both China and Sichuan [Province] had developed a great deal by the time of Mao's death. That the World Bank chooses to place more emphasis on opulence is an entirely normative decision."⁷⁸

Post-1978 China moved rapidly from an entirely centrally planned economy to a mixed economy system resembling Lenin's NEP. It could be structurally seen, in Marxist terms, as Samir Amin noted, as a "state capitalism" under the leadership of the Chinese Communist Party (although the terms "market socialism" and even "state socialism" have also been used).⁷⁹ This meant that there was a sharp turn to the market, while the state sector remained enormous, dominating the commanding heights of the economy and guiding the whole system, under "socialism with Chinese characteristics." China's GDP grew by thirty times between 1978 and 2015, far exceeding all the other historic "economic miracles" with respect to industrialisation.⁸⁰

⁷⁶ ↩ Fred Magdoff, "Preface," in Dongping Han, [The Unknown Cultural Revolution: Life and Change in a Chinese Village](#) (New York: Monthly Review Press, 2008), x.

⁷⁷ ↩ Rostow, *World Economy*, 522, 536.

⁷⁸ ↩ Chris Bramall, *In Praise of Maoist Economic Planning: Living Standards and Economic Development in Sichuan Since 1931* (Oxford: Oxford University Press, 1993), 335–36.

⁷⁹ ↩ Samir Amin, "China 2013," *Monthly Review* 64, no. 10 (March 2013): 20.

⁸⁰ ↩ Yi Wen, "The Making of an Economic Superpower: Unlocking China's Secret of Rapid Industrialization," Federal Reserve Board of St. Louis, Economic Research, Working Paper Series (August 2015), 2; John Ross, *China's Great Road* (Glasgow: Praxis, 2021), 13, 178.

Land, particularly in rural areas, remained for the most part under state/collective ownership. China, at present, has about 150,000 state-owned enterprises, about 50,000 of which are owned by the central government, and the rest by

It is explicitly recognised by the Chinese Communist Party that the market is a force that is heartless and brainless, requiring that the state play a direct role in guiding the economy.

local governments. State-owned enterprises account for about 30 percent of total GDP (around 40 percent of non-agricultural GDP) and some 44 percent of national assets.⁸¹ These firms are tightly controlled by the government (with general managers of the state-owned

enterprises appointed by the Party's Central Organization Department). They are integrated with the market but receive state support and subsidies and are expected to fulfil government objectives beyond profit-maximisation while also providing economic surpluses to the state, amounting to 30 percent of their profits. During the COVID-19 pandemic the Party gave the state firms a significant role.⁸²

China continues to introduce five-year plans in which its control over the state-sector is its major point of leverage in guiding the entire economy.⁸³ In 2002, there were six Chinese state-owned enterprises in the Global Fortune 500. By 2012, this had risen to sixty-five. It is explicitly recognised by the Chinese Communist Party that the market is a force that is heartless and brainless, requiring that the state play a direct role in guiding the economy. This has taken the form of what is known as "state regulation (a.k.a. planned regulation)" and the principle of "co-production" of state and market.⁸⁴

As Yi Wen, economist and vice president of the Federal Reserve Board of St. Louis has noted, "China compressed the roughly 150 to 200 (or even more) years of revolutionary economic changes experienced by England in 1700–1900 and

The central contradictions of "socialism with Chinese characteristics" are to be found in the level of inequality that has now almost reached U.S. proportions, and in the extreme exploitation of migrant labor from rural areas employed in export production for foreign multinationals. These have become major areas of concern.

the United States in 1760–1920 and Japan in 1850–1960 into one single generation."⁸⁵ An important aspect of the Chinese economy, which retains a guiding state sector, and therefore a much greater capacity of the state to regulate the economy—and, in effect, to plan shifts in the allocation of labor and resources—is a much greater immunity to economic

crises, which are generally confined to local disturbances in production.⁸⁶ Nevertheless, central contradictions of "socialism with Chinese characteristics" are to be found in the level of inequality that has now almost reached U.S. proportions, and in the extreme exploitation of migrant labor from rural areas employed in export production for foreign multinationals. These have become major areas of concern.⁸⁷

⁸¹ ↪ Lowell Dittmer, "Transformation of the Chinese Political Economy in the New Era," in *China's Political Economy in the Xi Jinping Epoch*, ed. Lowell Dittmer (Singapore: World Scientific Publishing, 2021), 8; Gang Chen, "Consolidating Leninist Control of State-Owned Enterprises: China's State Capitalism 2.0," in *China's Political Economy in the Xi Jinping Epoch*, ed. Dittmer, 44.

⁸² ↪ Chen, "Consolidating Leninist Control of State-Owned Enterprises," 59.

⁸³ ↪ Chen, "Consolidating Leninist Control of State-Owned Enterprises," 45–49, 59; Tian Hongzhi and Li Hui, "How Does the Five-Year Plan Promote China's Economic Development?," *Hradec Economic Days* (2021), diglib.uhk.cz.

⁸⁴ ↪ Cheng Enfu, *China's Economic Dialectic* (New York: International Publishers, 2021), 48–49, 66–67, 143, 295–310.

⁸⁵ ↪ Wen, "The Making of an Economic Superpower," 9.

⁸⁶ ↪ China's seeming ability to avoid major business-cycle swings does not mean that the society is free from crises in a larger transformational sense. See Wen Tiejun, *Ten Crises: The Political Economy of China's Development (1949–2020)* (New York: Palgrave Macmillan, 2021); John Ross, "Why China's Socialist Economy Is More Efficient than Capitalism," MR Online, June 6, 2023.

⁸⁷ ↪ "Wealth and Inequality in the U.S. and China," University of Southern California US-China Institute, November 19, 2020, china.usc.edu; Cheng Enfu, *China's Economic Dialectic*, 287–93; Marc Blecker, "The Political Economy of Working Class Re-formation," in *China's Political Economy in the Xi Jinping Epoch*, ed. Dittmer, 87–105; John Bellamy Foster and Robert W. McChesney, *The Endless Crisis* (New York: Monthly Review Press, 2012), 155–83.

The demise of the Soviet Union and the opening up of China to the world economy were universally greeted in the West—particularly within orthodox economics as the ideological core of the system—as offering definitive proof that economic planning was unworkable and doomed to fail from the start. Socialism was identified entirely with planning, which, it was said, led to inevitable failure. Implicit in this was the “assumption that Soviet practice reveals the essential nature of a centrally planned economy.”⁸⁸

However, such a blanket condemnation of central planning in all forms and circumstances, divorced from concrete analysis, had no real theoretical basis, and was contradicted by reality. Capitalist economies had themselves frequently resorted to emergency wartime central planning. During the Second World War, the United States, for example, instituted an extensive system of national planning, run by the War Production Board and other agencies, which shifted resources and production while instituting rationing and price controls. Civilian automobile production, constituting the core industrial sector of the country, was rapidly converted into the production of armaments, tanks, and aircraft. There was a desperate need to produce warships and merchant ships. Military goods were needed not only for the United States but also for its allies.⁸⁹ This also demanded a massive expansion of and major shifts in the labor force, as millions of men were drawn into military service. Paid employment of women grew by 57 percent during the war; in 1943, women made up 65 percent of the work force in the aircraft industry.⁹⁰ All of this required central planning, including planning agencies, directives by the state, and fiscal and monetary controls. Government research in science and technology was boosted, most famously in the Manhattan Project. The economic surplus generated by the society was massively redirected to facilitate war production, while industry had to be coordinated to maximise specific military

Planning, however, needs to be democratic if it is to attain socially optimal results.

goods at the right time and tempo.⁹¹ Central planning, as Michał Kalecki defined it, “embraces the volume of production, the wage fund, larger investment projects, as well as control over prices and the distribution of basic materials.” U.S. wartime planning fits this definition to a considerable extent, demonstrating that a mixed economy was not incompatible in all circumstances with centralised planning.⁹²

Without social and economic planning, the objectives of socialism aimed at substantive equality and ecological sustainability are impossible to achieve. Logic and historical experience show that without a planning system of some sort operating at various levels, from workplace to local to national, there is no conceivable way of effectively addressing the planetary ecological emergency or ensuring “buen vivir for all people.”⁹³ This simply cannot be achieved in a society of “Accumulate, accumulate! That is Moses and the prophets!”⁹⁴ Planning, however, needs to be democratic if it is to attain socially optimal results. “There is nothing in central planning” in itself, Fred and Harry Magdoff observed in “Approaching Socialism,”

that requires commandism and confining all aspects of planning to the central authorities. That occurs because of the influence of special bureaucratic interests and the overarching power of the state. Planning for the people has to involve the people. Plans of regions, cities, and towns need the active involvement of local populations,

⁸⁸ ↪ Magdoff and Sweezy, “Perestroika and the Future of Socialism—Part Two,” 1; Mandel, “In Defense of Socialist Planning,” 9.

⁸⁹ ↪ See Martin Hart-Landsberg’s article on “Planning an Ecologically Sustainable and Democratic Economy” in this issue. On British wartime planning, see Cockshott, Cottrell, and Dapprich, *Economic Planning in an Age of Climate Crisis*, 63–75.

⁹⁰ ↪ “Rosie the Riveter: More than a Poster Girl,” U.S. Army Ordnance Corps, goordnance.army.mil; “Rosie the Riveter,” History.com, March 27, 2023.

⁹¹ ↪ Magdoff and Magdoff, “Approaching Socialism,” 53–54.

⁹² ↪ Kalecki, *Selected Essays on Economic Planning*, 27.

⁹³ ↪ Fred Magdoff and Chris Williams, *Creating an Ecological Society* (New York: Monthly Review Press, 2017), 290.

⁹⁴ ↪ Marx, *Capital*, vol. 1, 742.

*factories, and stores in worker and community councils. The overall program—especially deciding the distribution of resources between consumption goods and investment—calls for people’s participation. And for that, the people must have the facts, a clear way to inform their thinking, and contribute to the basic decisions.*⁹⁵

A unified, multifaceted planned economy, which would encompass multiple levels and involve “whole-process democracy,” does not demand the elimination of consumer markets or of the freedom of workers to work where they

This does not require that all decisions be made by a centralised bureaucracy; it is consistent with a socialised democracy based on the “institutionalisation of popular sovereignty.”

please (and thus a labor market in this sense).⁹⁶ It does, however, require control over investment in capital goods and of finance, and thus social controls allowing for the mobilisation of the economic surplus in ways that benefit the population in its entirety (including future generations),

ensuring egalitarian conditions, the fundamental bases of human development for all individuals, and protection of the natural environment.

In his essay “In Defense of Socialist Planning” in 1986, Ernest Mandel argued that the main advantage of economic planning is that decisions on allocation of resources and labor are made ex ante and then corrected by trial and error,

The All-Russian Society for the Preservation of Nature, largely led by scientists, had thirty-seven million members by 1987, making it the largest conservation advocacy organisation in the world.... In the 1980s, the concept of “ecological civilisation” first arose in the Soviet Union and was soon to be adopted in China, where it has become a core aspect of overall planning, as reflected in China’s five-year plans.

rather than ex post through the mediating force of the commodity market (and its “rationing by the wallet”). Planning thus allows for decisions to be made directly on the basis of what Marx called the “hierarchy of...needs.” This does not require that all decisions be made by a centralised bureaucracy; it is consistent with a socialised democracy based on the “institutionalisation of popular sovereignty.” The fundamental parameters of production would be established by the associated producers in a

society organised on the principle of cooperation. Such a society “would grow in civilisation rather than in mere consumption.”⁹⁷

Socialist States and the Environment

There is a widely propagated notion, which became almost universally accepted after the demise of the Soviet Union, that the Soviet record on the environment was much worse than that of the West, and that this was attributable to socialism and central planning.⁹⁸ It is true that the USSR’s record on the environment was deplorable in many respects. One only has to think of Chernobyl and the Aral Sea. In the Stalin era, many of the pioneering Soviet ecologists were purged, with major consequences for Soviet development. Yet, the dominant view erases Soviet environmental

⁹⁵ ↪ Magdoff and Magdoff, “Approaching Socialism,” 54–55.

⁹⁶ ↪ Lange, “On the Economic Theory of Socialism,” 72–73. The term “whole-process people’s democracy” is intrinsic to contemporary Chinese conceptions of how democracy might be made more meaningful. Despite limitations on how this has been applied in China itself, the concept is critically important in the development of socialist democracy. Xi Jinping, *The Governance of China*, vol. 4 (Beijing: Foreign Languages Press, 2022), 299–301.

⁹⁷ ↪ Mandel, “In Defense of Socialist Planning,” 6–8, 13–17, 22, 25; Karl Marx, *Texts on Method* (Oxford: Basil Blackwell, 1975), 195; Gregory Grossman, “Material Balances,” in *Problems of the Planned Economy*, eds. Eatwell, Milgate, and Newman, 178.

⁹⁸ ↪ A key work in the ideological attack on the Soviet environmental record was Murray Feshbach and Arthur Friendly Jr., *Ecocide in the USSR* (New York: Basic Books, 1992). The technique utilised was to play up Soviet ecological destruction, while ignoring the fact that many of the same ecocidal conditions existed and often on a larger scale in per capita terms and global impact in the West.

successes, manifested in its green belts around cities, its famous zapovedniki (scientific ecological preserves), its massive reforestation/afforestation campaigns, its leading role in promoting environmental agreements internationally, and its powerful environmental organisations, which exerted pressure on the government. The All-Russian Society for the Preservation of Nature, largely led by scientists, had thirty-seven million members by 1987, making it the largest conservation advocacy organisation in the world.⁹⁹

As the Soviet Union industrialised and modernised while facing the need for high levels of military spending given the Cold War threat from the West, it naturally converged with Western levels of environmental destruction. Like the West, it eventually responded, though not without contradictions, to its environmental movements. Environmental protection and conservation were incorporated, if inadequately, into its overall planning system. The Soviet Union had a very extensive system of environmental laws, which, however, were insufficiently enforced. It was Soviet scientists, soon followed by U.S. scientists, who first raised the alarm on accelerated global warming.¹⁰⁰ Major efforts were also made in the area of soil conservation.¹⁰¹ In the 1980s, the concept of “ecological civilisation” first arose in the Soviet Union and was soon to be adopted in China, where it has become a core aspect of overall planning, as reflected in China’s five-year plans.¹⁰² Leading Soviet economists, such as P. G. Oldak, argued for a radical transformation of Soviet national-income accounting to integrate direct measures of environmental destruction. “More,” he argued, “is by no means always ‘better.’”¹⁰³

The Soviet Union’s environmental record with respect to pollution, while hardly satisfactory, was generally favorable

The per capita ecological footprint of the Soviet Union, the most comprehensive measure of environmental impact, was far lower than that of the United States.

when compared to the United States, with roughly equal populations. The Soviet Union’s per capita sulfur dioxide, nitrous oxide, particulate matter, and carbon dioxide emissions were all far below those of the United States, while its per capita carbon dioxide emissions actually declined in its final years. The per capita ecological footprint of the Soviet Union, the most comprehensive measure of environmental impact, was far lower than that of the United States, with the gap increasing in the 1980s, as the U.S. per capita ecological footprint continued to grow while that of the USSR levelled off. Moreover, this was true even though the United States was able “to offload environmental harms on many other countries.” The United States was far wealthier and more technologically advanced, but also did much more damage to the global environment.¹⁰⁴

Although Soviet planning and that of other post-revolutionary societies had been directed at economic growth,

Cuba, though a poor country faced with a perpetual economic blockade from the United States, has long been recognised as the most ecological nation on Earth.

mimicking capitalism to some extent in this respect, the inner, class-based drive for capital accumulation is not an inherent structural feature of a socialist, planned society. For this reason, Paul M. Sweezy argued in 1989 that the actually existing planned economies offered the best chance for

⁹⁹ ↪ Salvatore Engel-Di Mauro, *Socialist States and the Environment* (London: Pluto, 2021), 115; Foster, *Capitalism in the Anthropocene*, 328.

¹⁰⁰ ↪ Foster, *Capitalism in the Anthropocene*, 316–37.

¹⁰¹ ↪ Engel-Di Mauro, *Socialist States and the Environment*, 120–24, 139.

¹⁰² ↪ John Bellamy Foster, “Ecological Civilization, Ecological Revolution,” — The Jus Semper Global Alliance (July 2023).

¹⁰³ ↪ G. Oldak, “Balanced Natural Resource Utilization and Economic Growth,” *Problems in Economics* 28, no. 3 (1985): 3; P. G. Oldak, “The Environment and Social Production,” Pyotr Kapitsa et al., *Society and the Environment: A Soviet View* (Moscow: Progress Publishers, 1977), 56–68; P. G. Oldak and D. R. Darbanov, “A Bioeconomic Program,” *Soviet Studies in Philosophy* 13, no. 2–3 (1974): 68–73.

¹⁰⁴ ↪ Engel Di-Mauro, *Socialist States and the Environment*, 129–31, 141–42.

humanity in terms of the rapid transformations in production and consumption needed to confront the global environmental crisis.¹⁰⁵

Cuba, though a poor country faced with a perpetual economic blockade from the United States, has long been recognised as the most ecological nation on Earth, according to the World Wildlife Federation's Living Planet Report. Cuba was able to demonstrate that a country can be rated highly on human development while having a low ecological footprint. This is due to its placing human development for the population as a whole, including environmental conditions, at the forefront of its planning.¹⁰⁶

The People's Republic of China, meanwhile, has made huge strides in the direction of "ecological civilisation"—despite its attempt to bring up the per capita income of its population above the current level, which is currently less than one-fifth that of the United States (in market exchange terms), requiring high rates of economic growth.¹⁰⁷ This has been accompanied though by a continuing, if diminished, reliance on coal-fired plants as its main source of energy. Still, China has forged ahead in sustainable technologies, where it is the world leader; in rapid reductions in pollution; and in global levels of reforestation/afforestation.¹⁰⁸

In the current ecological climate, China and Cuba—along with other mixed, state-directed, semi-planned economies,

Planned degrowth or deaccumulation and a shift to sustainable human development is now unavoidable in the wealthiest countries, whose per capita ecological footprints are non-sustainable on a planetary basis, if organised civilisation is to survive.

such as Venezuela, with its attempts, through its Bolivarian Revolution, to build a communal state and its extraordinary achievements in food security and food sovereignty—offer hope of ecological breakthroughs in the present planetary emergency, currently lacking in the opulent capitalist world.¹⁰⁹

Planning Sustainable Human Development

Planned degrowth or deaccumulation and a shift to sustainable human development is now unavoidable in the wealthiest countries, whose per capita ecological footprints are non-sustainable on a planetary basis, if organised civilisation is to survive. The scale and tempo of the necessary ecological-energy transformation, as emphasised in scientific reports on climate change and other planetary boundaries, indicate that in order to avert disaster a revolutionary transformation of the entire system of production and consumption must be implemented under the principle "Better Smaller But Better."¹¹⁰ Hence, the core capitalist/imperialist countries, which constitute the main source

¹⁰⁵ ↪ Paul M. Sweezy, "Socialism and Ecology," *Monthly Review* 41, no. 4 (September 1989): 1–8.

¹⁰⁶ ↪ Engel Di-Mauro, *Socialist States and the Environment*, 170–94; "As World Burns, Cuba Number 1 for Sustainable Development: WWF," Telesur, October 27, 2016; Matt Trinder, "Cuba Found to Be the Most Sustainable Country in the World," *Green Left*, January 10, 2020; Mauricio Betancourt, "The Effect of Cuban Agroecology in Mitigating the Metabolic Rift: A Quantitative Approach to Latin American Food Production," *Global Environmental Change* 63 (2020): 1–10; Rebecca Clausen, Brett Clark, and Stefano B. Longo, "Metabolic Rifts and Restoration: Agricultural Crises and the Potential of Cuba's Organic, Socialist Approach to Food Production," *World Review of Political Economy* 6, no. 1 (2015): 4–32.

¹⁰⁷ ↪ "Comparing the United States and China by Economy," *Statistics Times*, May 15, 2021, [statisticstimes.com](https://www.statisticstimes.com).

¹⁰⁸ ↪ Foster, "Ecological Civilization, Ecological Revolution"; Barbara Finamore, *Will China Save the Planet?* (Cambridge: Polity Press, 2018); 156–58.

¹⁰⁹ ↪ Ana Felicien, Christina M. Schiavoni, and Licia Romero, "The Politics of Food in Venezuela," — The Jus Semper Global Alliance (April 2021): 1–19; Owen Schalk, "Venezuela's Seed Law Should Be a Global Model," *Canadian Dimension*, January 16, 2023. On Venezuela and degrowth, see Chris Gilbert, "'Where Danger Lies...': The Communal Alternative in Venezuela," in this issue. See also John Bellamy Foster, "Chávez and the Communal State," *Monthly Review* 66, no. 11 (April 2015): 1–17.

¹¹⁰ ↪ One of Lenin's last articles was "Better Fewer, But Better." Baran later wrote an essay entitled "Better Smaller But Better." Both had to do with strategic political retreats. But they also both reflected a way of thinking that recognized that qualitative changes are often more important than quantitative changes in achieving meaningful progress. See V. I. Lenin, "Better Fewer But Better," in Lewin, *Lenin's Last Struggle*, 156–76; Baran, *The Longer View*, 203–9.

of the problem, must seek a “prosperous way down,” focusing on use value rather than exchange value.¹¹¹ This requires moving toward much lower levels of energy consumption and gravitating to equal global per capita shares while simultaneously zeroing out carbon emissions.

At the same time, the poorer countries with low ecological footprints have to be allowed to develop in a general process that includes contraction in throughput of energy and materials in the rich countries and the convergence of per capita consumption in physical terms in the world as a whole.¹¹² The downsizing of the rich economies will require a massive shift to sustainable technologies, including solar and wind energy. But no existing technologies by themselves can come anywhere near to solving the climate problem in the required timeline, not to mention addressing the planetary emergency in its entirety, while allowing for the continued unlimited exponential accumulation and maldistribution required by capitalism.¹¹³

What is objectively necessary at this point in human history is therefore a revolutionary transformation in social relations

What is necessary at this point in human history is a revolutionary transformation in social relations governing production, consumption, and distribution.... a dramatic shift away from the system of monopoly capital, exploitation, expropriation, waste, and the endless drive to accumulation.

governing production, consumption, and distribution. This means a dramatic shift away from the system of monopoly capital, exploitation, expropriation, waste, and the endless drive to accumulation.¹¹⁴ In its place, a revolutionary humanity based in the working population—an emergent environmental proletariat—will need to demand a new social formation that provides for the

basic needs of all of the population, followed by community needs, including the developmental needs of all individuals.¹¹⁵ This will be made possible by qualitative improvements in work, an emphasis on useful labor and care work, along with the sharing of abundant social wealth, itself the product of human labor. A sustainable relation to the earth is an absolute requirement without which there can be no human future. All of this necessitates going against the logic of capitalist accumulation in the present. Economic planning will need to be repurposed, not for economic growth or war on other countries, but in order to create a new set of social priorities aimed at human flourishing and a sustainable social metabolism with the earth.

A “socialist vision of the United States,” Harry Magdoff wrote in 1995, would require decreases in the use of energy, production of civilian cars, and government subsidies to environmentally destructive firms. “A much simpler lifestyle would be needed in the rich countries for the sake of preserving the earth as a place of human existence.” In order to achieve this, “growth would need to be curtailed or controlled.” It would be essential in such a system to focus on basic needs, such as adequate and dignified housing for all. War spending geared to imperialism would have to cease and immigration restrictions would need to be eliminated. All of this requires social and economic planning. None of it could be achieved by relying primarily on the system of market prices, which invariably promotes inequality,

¹¹¹ ↪ Odum and Odum, *A Prosperous Way Down*, 139.

¹¹² ↪ Erald Kolasi, “*The Ecological State*,” — The Jus Semper Global Alliance (February 2021); Tom Athanasiou and Paul Baer, *Dead Heat: Global Justice and Global Warming* (New York: Seven Stories, 2002).

¹¹³ ↪ The leaked original scientists’ consensus report on mitigation, prior to its being censored by governments before publication, indicated that the scale-up of carbon capture and sequestration (CCS), bioenergy with carbon capture and sequestration (BECCS), and nuclear technologies were all impractical and unable to play anything but a minor role in mitigating climate change. See Leaked Scientist Consensus Report on Mitigation, AR6, part 3, B4.3. See also Mathilde Fajardy, Alexandre Köberle, Niall MacDowell, and Andrea Fantuzzi, “BECCS Deployment: A Reality Check,” Grantham Institute, Imperial College London, Briefing Paper no. 28, January 19, 2019; Julian Allwood, “*Technology Will Not Solve the Problem of Climate Change*,” *Financial Ti*

¹¹⁴ ↪ On the ecological and economic waste of monopoly capital, see Foster, *Capitalism in the Anthropocene*, 373–89.

¹¹⁵ ↪ On the environmental proletariat, see Foster, *Capitalism in the Anthropocene*, 483–92.

environmental destruction, war, and exclusion.¹¹⁶ As British sociologist Anthony Giddens wrote in *The Politics of Climate Change*, “planning of some sort is inevitable” in the face of the current planetary crisis.¹¹⁷

In the United States and other rich countries, the means already exist at present for such a massive, qualitative

A study by RAND Corporation estimated that \$47 trillion was expropriated from the bottom 90 percent of the U.S. population between 1980 and 2018, calculated based on what they would have received if income had grown equitably within the economy over the period.

transformation of society in line with social priorities and the needs of the oppressed working class, while shifting away from imperialism and the global oppression of “the wretched of the earth.” This can be easily seen by pointing to the now trillion-dollar military budget, which could be repurposed to carry out those changes in the energy infrastructure necessary for human survival. But it can also be seen in the rising levels of

expropriation of surplus from the direct producers. A study by RAND Corporation estimated that \$47 trillion (in 2018 dollars) was expropriated from the bottom 90 percent of the U.S. population between 1980 and 2018, calculated based on what they would have received if income had grown equitably within the economy over the period. This exceeds the entire current value of the U.S. housing stock, which in January 2022 was \$43 trillion dollars.¹¹⁸ At the base of this enormous social surplus is social labor, which needs to be allocated on an economic and ecological basis, and no longer on the basis of private accumulation.¹¹⁹

Even the most cursory examination of the wider waste and exploitation in the system raises what Morris called the

It is capitalism itself that imposes scarcity and austerity on the population in order to compel workers to sacrifice their lives still further for an exploitative system, now threatening a planetary habitability crisis for all of humanity along with innumerable other life forms.

problem of “Useful work versus Useless Toil.”¹²⁰ The massive economic surplus arising from social labor—measured not simply by profits, interest, and rent, but also the waste, maldistribution, and elementary irrationality of the system—is already many times that which is necessary to carry out the vast changes needed to create a society of sustainable human development. It is capitalism itself that imposes scarcity and

austerity on the population in order to compel workers to sacrifice their lives still further for an exploitative system, now threatening a planetary habitability crisis for all of humanity along with innumerable other life forms.

Most degrowth strategies, even those promulgated by ecosocialists, defer to the reigning ideology, preferring not to raise the issue of planning, even in the face of the planetary emergency. Indeed, there is a tendency to back off from such obvious measures as nationalisation of energy companies and mandatory emissions cuts on corporations. Degrowth theorists instead generally propose a menu of “policy alternatives,” like a Keynesian-style Green New Deal, universal basic income, ecological tax reform, a shortened work week, increased automation, and so on, none of which come into

¹¹⁶ ↪ Harry Magdoff, “A Note on Market Socialism,” *Monthly Review* 47, no. 1 (May 1995): 12–18.

¹¹⁷ ↪ Anthony Giddens, *The Politics of Climate Change* (Cambridge: Polity Press, 2011), 95; Andreas Malm, *Fossil Capital* (London: Verso, 2016), 382; On the various ways of combining plan and market, see Alec Nove, “Planned Economy,” in *Problems of the Planned Economy*, eds. Eatwell, Milgate, and Newman, 195–97.

¹¹⁸ ↪ Fred Magdoff and John Foster, “Grand Theft Capital,” *Monthly Review* 75, no. 1 (May 2023): 19–20; Carter C. Price and Kathryn A. Edwards, “Trends in Income from 1975 to 2018,” RAND Corporation Working Paper WR-A156-1, Santa Monica, 2020, 12 (fig. 2), 40; “U.S. Housing Market Has Doubled in Value Since the Great Recession, Gaining 6.9 Trillion in 2021,” Cision PR Newswire, January 27, 2002.

¹¹⁹ ↪ On the calculation of economic surplus, see Michael Dawson and John Bellamy Foster, “The Tendency of the Surplus to Rise, 1963–1988,” in *The Economic Surplus in Advanced Economies* (Brookfield, Vermont: Edward Elgar, 1992): 42–70.

¹²⁰ ↪ William Morris, *Signs of Change* (London: Longmans, Green, and Co., 1896), 141–73; Foster, *The Return of Nature*, 103–5

direct conflict with the system, or get close to addressing the enormity of the problem, in what are thought of as non-reformist reforms.¹²¹

Proposals for drastically reduced employment, not just shorter working hours, backed up in many degrowth schemes by a guaranteed basic income, seek to adjust the parameters of capitalism, rather than transcend them, in an approach that would generate the kind of dystopian conditions described in Kurt Vonnegut's novel, *Player Piano*.¹²² As Leo Huberman and Sweezy wrote when the notion of a guaranteed basic income was first floated in the 1960s, "our conclusion can only be that the idea of unconditionally guaranteed incomes is not the great revolutionary principle which the authors of 'The Triple Revolution' evidently believe it to be. If applied under our present system, it would be, like religion, an opiate of the people tending to strengthen the status quo. And under a socialist system...it would be quite unnecessary and might do more harm than good."¹²³

Some non-degrowth socialists, confronted with climate change, have succumbed to technology fetishism, proposing dangerous geoengineering measures that would inevitably compound the planetary ecological crisis as a whole.¹²⁴ There is no doubt that many on the left see the entire solution today as consisting of a Green New Deal that would expand green jobs and green technology, leading to green growth in a seemingly virtuous circle. But since this is usually geared to a Keynesian growth economy and defended in those terms, the assumptions behind it are questionable.¹²⁵ A more radical proposal, more in line with degrowth, would be a People's Green New Deal oriented toward socialism and democratic ecological planning.¹²⁶

Under the monopoly-finance capital of today, whole sectors of the caring profession, education, the arts, and so on are affected by what is known as the "Baumol cost disease," named after William J. Baumol, who introduced the idea in his 1966 book, *Performing Arts: The Economic Dilemma*.¹²⁷ This applies when wages rise and productivity does not. Thus, as *Forbes* magazine declares, without a trace of irony: "The output of a [string] quartet playing Beethoven has not increased since the 19th century," although their income has. The Baumol cost disease is seen as applicable mainly to those work areas where notions of quantitative increases in productivity are generally meaningless. Yet, how does one measure the productivity of a nurse treating patients? Certainly not by the number of patients per nurse, regardless of the amount of care each receives and their outcomes. The result of profit-centred goals in the highly financialised economy of today is underinvestment and institutionalisation of low wages in precisely those sectors characterised as subject to the so-called Baumol cost disease, simply because they are not directly conducive to capital accumulation.

In contrast, in an ecosocialist society, where accumulation of capital is not the primary objective, it would often be those labor-intensive areas in the caring professions, education, the arts, and organic relations to the earth that would be

¹²¹ ↪ Schmelzer, Vetter, and Vansintjan, *The Future is Degrowth*, 240.

¹²² ↪ Kurt Vonnegut Jr., *Player Piano* (New York: Dell, 1974).

¹²³ ↪ Leo Huberman and Paul M. Sweezy, "The Triple Revolution," *Monthly Review* 16, no. 7 (November 1964): 422; Robert W. McChesney and John Nichols, *People Get Ready* (New York: Nation Books, 2016), 80–81; Giorgos Kallis, "The Degrowth Alternative," Great Transition Initiative, February 2015, [org](#).

¹²⁴ ↪ See the critique offered in Foster and Clark, *The Robbery of Nature*, 269–87.

¹²⁵ ↪ See, for example, Noam Chomsky and Robert Pollin, *Climate Crisis and the Global Green New Deal* (London: Verso, 2020). Pollin, whose views are somewhat distinguished from Chomsky's in this respect, is a strong opponent of degrowth alternatives, insisting that absolute decoupling on the scale required can be achieved at minimal cost without economic growth contracting through an "industrial policy" framework with green taxes, state financing, and market incentives.

¹²⁶ ↪ Max Ajl, *A People's Green New Deal* (London: Pluto, 2021).

¹²⁷ ↪ William J. Baumol and William G. Bowen, *Performing Arts: An Economic Dilemma* (Cambridge, Massachusetts: MIT Press, 1968).

considered most important and built into social planning.¹²⁸ In an economy geared to sustainability, labor itself might be substituted for fossil-fuel energy, as in small, organic, sustainable farming, which is more efficient in ecological terms.¹²⁹

Writing in *The Political Economy of Growth* in 1957, Baran argued that the planned economic surplus might be

In the words of Engels and Marx, it is necessary to release the “jammed safety-valve” on the capitalist locomotive “racing to ruin.” The choice is one of socialism or exterminism, “ruin or revolution.”

intentionally reduced in socialist planning, in comparison to what was then possible, in order to ensure the “conservation of human and natural resources.” Here the emphasis would not be simply on economic growth, but on meeting social needs, including decreasing environmental costs; for example, by choosing to cut “coal mining.”¹³⁰ All of this meant, in effect, prioritising sustainable human development

over destructive forms of economic growth. Today elimination of fossil fuels, even if this means a reduction in the economic surplus generated by society, has become an absolute necessity for the world at large, which is faced by what Noam Chomsky has called “the end of organised humanity.”¹³¹ In the words of Engels and Marx, it is necessary to release the “jammed safety-valve” on the capitalist locomotive “racing to ruin.” The choice is one of socialism or exterminism, “ruin or revolution.”¹³²

¹²⁸ ↪ Varun Ganapathi, “Understanding Baumol’s Cost Disease and its Impacts on Healthcare,” *Forbes*, April 8, 2022; Aaron Benanav, *Automation and the Future of Work* (London: Verso, 2020), 57–60.

¹²⁹ ↪ Magdoff and Williams, *Creating an Ecological Society*, 251–57; Herman Daly, “Postscript,” in *Economics, Ecology, Ethics: Essays Toward a Steady State Economy*, ed. Herman E. Daly (San Francisco: W. H. Freeman, 1980), 366.

¹³⁰ ↪ Paul A. Baran, *The Political Economy of Growth* (New York: Monthly Review Press, 1957), 42.

¹³¹ ↪ Noam Chomsky, “The End of Organized Humanity,” Climate Damage, YouTube video, 19:24, April 12, 2023.

¹³² ↪ Marx and Engels, *Collected Works*, vol. 25, 145–46, 153, 270; Marx and Engels, *The Communist Manifesto*, 2; Karl Marx and Frederick Engels, *Ireland and the Irish Question* (Moscow: Progress Publishers, 1971), 142. See also Walter Benjamin, *Selected Writings*, vol. 4 (Cambridge, Massachusetts: Harvard University Press, 2003), 402; Michael Löwy, *Fire Alarm* (London: Verso, 2016), 66–67; John Bellamy Foster, “Engels’s *Dialectics of Nature in the Anthropocene*,” *Monthly Review* 72, no. 6 (November 2020): 1–3.

Related links:

- The Jus Semper Global Alliance
- Monthly Review
- John Bellamy Foster: [The Defense of Nature: Resisting the Financialization of the Earth](#)
- John Bellamy Foster: [Marxism and Ecology: Common Fonts of a Great Transition](#)
- John Bellamy Foster: [The Long Ecological Revolution](#)
- John Bellamy Foster: [“Notes on Exterminism” for the Twenty-First-Century Ecology and Peace Movement](#)
- John Bellamy Foster y Brett Clark: [Socialism and Ecological Survival: An Introduction](#)
- John Bellamy Foster: [Ecology and the Future of History](#)
- John Bellamy Foster: [Marx’s Open-ended Critique](#)
- John Bellamy Foster: [Marx’s Critique of Enlightenment Humanism: A Revolutionary Ecological Perspective](#)
- John Bellamy Foster: [The Return of the Dialectics of Nature: The Struggle for Freedom as Necessity](#)
- John Bellamy Foster: [Ecological Civilisation, Ecological Revolution](#)
- The Editors: Notes on Time is Running Out
- Lau Kin Chi, Jin Peiyun and Yan Xiaohui: [From Sandstorm and Smog to Sustainability and Justice: China's Challenges](#)
- Tony Andréani, Rémy Herrera and Zhiming Long: [Is China Transforming the World?](#)
- Ana Felicien, Christina M. Schiavoni, and Licia Romero: [The Politics of Food in Venezuela](#)
- Erald Kolasi: The Ecological State
- J. M. Hopkins, J. Steinberger, N. Rao, and Y. Oswald, Providing Decent Living with Minimum Energy: A Global Scenario
- Álvaro J de Regil: [Transitioning to Geocratia](#)
- Alejandro Pedregal and Juan Bordera: [Toward an Ecosocialist Degrowth](#)



❖ **About Jus Semper:** The Jus Semper Global Alliance aims to contribute to achieving a sustainable ethos of social justice in the world, where all communities live in truly democratic environments that provide full enjoyment of human rights and sustainable living standards in accordance with human dignity. To accomplish this, it contributes to the liberalisation of the democratic institutions of society that have been captured by the owners of the market. With that purpose, it is devoted to research and analysis to provoke the awareness and critical thinking to generate ideas for a transformative vision to materialise the truly democratic and sustainable paradigm of People and Planet and NOT of the market.

❖ **About the author: John Bellamy Foster** is the editor of MR and a professor of sociology at the University of Oregon. He has written extensively on political economy, ecology, and Marxism.



❖ **About this paper:** This paper was originally published in English by Monthly Review in July 2023.

❖ **Quote this paper as:** John Bellamy Foster: Planned Degrowth: Ecosocialism and Sustainable Human Development — The Jus Semper Global Alliance, September 2023. This paper has been published under Creative Commons, CC-BY-NC-ND 4.0. You are welcome to reproduce the material for non-commercial use, crediting the author and providing a link to the original publisher.

❖ **Tags:** Capitalism, Democracy, Ecology, Marxism, Marxist Ecology, Degrowth, Sustainable Development, Philosophy, Places: Global.

❖ The responsibility for opinions expressed in this work rests only with the author(s), and its publication does not necessarily constitute an endorsement by The Jus Semper Global Alliance.



Under Creative Commons Attribution 4.0 License
<https://creativecommons.org/licenses/by-nc-nd/4.0/>

© 2023. The Jus Semper Global Alliance
Portal on the net: <https://www.jussemper.org/>
e-mail: informa@jussemper.org