

Capitalism Nature Socialism



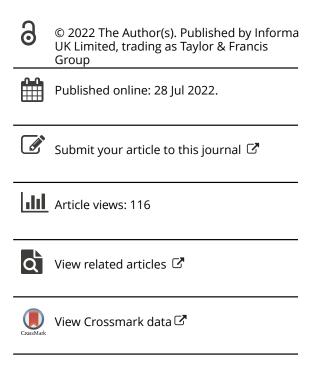
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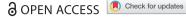
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Ecosocialism for Realists: Transitions, Trade-Offs, and **Authoritarian Dangers**

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ABSTRACT

Ecological Marxists have succeeded in developing compelling ecological critiques of capitalism and principles for alternative ecosocialist politicaleconomies. However, they have devoted relatively little attention to strategic questions, such as: How might ecosocialist transitions take place? What are the challenges, trade-offs, and risks they would likely confront? And how may ecosocialists and allied movements best strategize to navigate them? In particular, these approaches are limited by two problematic tendencies, which I focus on in this essay: 1) an "abstract utopian" tendency that describes idealized ecosocialist futures without deeply considering how they might emerge; and 2) a tendency to ignore or downplay possible trade-offs, dilemmas, and dangers that ecosocialisms-in-transition would likely confront. In contrast, I propose what I call a "realist utopian" approach to ecosocialism, which will more deeply investigate the possible dynamics of ecosocialist transitions; the possible trade-offs, dilemmas, and dangers they would likely face; and how ecosocialists may best strategize to confront them.

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Introduction

The landscape of post-capitalist alternatives has deepened in recent years as growing numbers of activists and scholars identify global capitalism and its dynamic of compound growth as the primary driver of the climate emergency. Ecosocialism is one of the foremost among them, which has become a worldwide movement that challenges the hegemonic project of "green capitalism" while also addressing the ecological weaknesses of earlier forms of socialist politics. There are multiple strands of ecosocialism: some align with movements like "degrowth," ecofeminism, and postdevelopment that challenge modernist ideologies of "progress" and advocate

pluriversal alternatives that center care and conviviality (First Ecosocialist International 2017; Kallis et al. 2020; Mellor 2019; Escobar 2015); some follow a more modernist politics that aims to build a more equitable and ecologically rational high-tech political economy (or "solar communism") (Schwartzman and Schwartzman 2018; Huber 2019); and others fall somewhere in between (Löwy 2015; Angus 2016; Baer 2018). But at core these movements share a commitment to struggling for a socioecological transition beyond capitalism by democratizing the means of production, subjecting markets to more ecologically rational planning, and subordinating private profit to social use-value and ecocentric production.

Ecosocialists convincingly demonstrate that capitalism is incapable of resolving the climate and broader earth system crises in a genuinely sustainable (let alone just) manner. However, on the whole they have devoted relatively little attention to questions of strategy, such as: how might ecosocialist transitions take place? What are the challenges, trade-offs, and risks they would likely confront? And how should ecosocialists and allied movements best strategize to navigate them? To be sure, many ecosocialists have done important work addressing such questions (e.g. Kovel 2007; Saul 2011; Schwartzman and Schwartzman 2018; Baer 2018; Huber 2019; Malm 2020), and this article will build upon their analyses. But I will argue that ecosocialist theory and practice remains limited by two problematic tendencies that deserve further investigation: 1) an "abstract utopian" tendency that describes idealized ecosocialist futures without deeply considering *how* they might emerge; and 2) a tendency to ignore possible trade-offs and dangers that ecosocialist regimes would likely confront in practice, and how these could be negotiated. Contemporary ecosocialists (particularly but not only those more aligned with degrowth politics) are thus often vulnerable to Marx and Engels's critique of utopian socialism: that they produce idealistic visions with little systematic analysis of the material tendencies and dynamics that may enable these visions to be realized in practice (Huber 2019). In contrast, I will argue that we need a more "realist utopian" approach (Wright 2010) that brings more systematic attention to the question of possible ecosocialist futures, particularly the transition pathways by which they might emerge, the conditions that may make them attainable in core countries of the world-system (particularly in the time-frame needed to stabilize the climate), and the dangers that ecosocialist movements must anticipate and preempt.

This article will focus primarily on the problem of ecosocialist transitions in the global north, since this is the context from which I write and ecosocialist struggles here will be critical to enable a broader world-system transition. I will also engage primarily with the work of ecological Marxists and degrowth scholars. While there are some important differences between these approaches—e.g. the former focusing on the logic of capitalism, the latter on the logic of economic growth (which can take both capitalist and



socialist forms)—these are differences of emphasis more than substance, and the "narcissism of small differences" should not lead us to downplay the fact that they are natural allies in the struggle for more sustainable post-capitalist futures (Andreucci and Mauro 2019). I will first give an overview of the key principles of ecosocialism. Second, I will explore what I take to be problematic tendencies throughout these literatures that militate against careful strategic thinking. Third, I will develop what I call a "realist utopian" alternative, which will more deeply investigate the possible dynamics of ecosocialist transitions along with the trade-offs and risks they may confront.

Conceptualizing Ecosocialism(s)

The discursive terrain of ecosocialist thinking is vast, and there is no single way to define ecosocialism. However, we can identify three broad principles that would likely be shared across these varieties: 1) the priority of use-value over exchange-value; 2) collective ownership and planning to shape and constrain markets; and 3) "contraction and convergence" in consumption levels between the global north and south.

To start, ecosocialism envisions the abolition or subjugation of the capitalist "law of value" to the criteria of socially determined use-value. As Michael Löwy writes, it "seeks to subordinate exchange-value to use-value, by organizing production as a function of social needs and the requirements of environmental protection" (Löwy 2005). In this sense, an ecosocialist economy would prioritize and invest in forms of labor, enterprises, and infrastructure projects that are socially useful and ecologically regenerative (rather than profitable for capitalists). As ecofeminist ecosocialists emphasize, this would be an economy that centers caring and reproductive labor, including ecosystem restoration, education, child care and care for the elderly, and other forms of work that help to reproduce healthy communities and ecologies, while abolishing the patriarchal division of labor that rules in contemporary capitalist societies (Mellor 2019; Salleh 2017; Aronoff et al. 2019).

Second, ecosocialists advocate collective ownership of the means of production and new forms of (ideally democratic) planning to organize production towards collective ends—what John Bellamy Foster and colleagues describe as the "rational regulation of human-nature relations by the associated producers in line with their needs and those of future generations" (Foster, Clark, and York 2011, 59-69). Many ecosocialists emphasize that the point of planning is not necessarily to abolish markets, so long as they are constrained by a dominant public sector, nationalization of large firms, and the abolition (or at least radical transformation) of labor markets (Baer 2018, 132-136). Yet ecosocialists put greater emphasis on planning; as Richard Smith writes, we need "a comprehensive global plan, a number of national or regional plans, and a multitude of local plans" in order to

equitably and efficiently redirect labor and resources to meet human needs while rapidly reducing stress on planetary boundaries (Smith 2016, 147). Rather than abolishing markets tout court, the task, as Sam Gindin writes, is to discover "creative institutional mechanisms that structure the proper place of planning *and* markets" (Gindin 2018, 20–21).

Third, ecosocialists argue that planning must be oriented to reducing material and energy consumption in the "over-developed" zones of the global north while reallocating financial and material resources to the global south, thereby pursuing a process of "contraction and convergence" in global per capita consumption levels towards a "happy medium" (Smith 2016; Löwy 2015; Vettese 2018; Kovel 2007). This principle is more contested and constitutes the key difference between ecosocialism and "growthoriented" socialism (Kallis 2018; Huber 2019). But calls for degrowth in over-developed zones do not imply that living standards should decline, since careful planning to reallocate material and energy resources to prioritize basic needs and well-being, while redistributing income, can enable widespread increases in living standards even while dramatically cutting overall material-energy throughput (Kallis et al. 2020; Löwy 2015). How much material-energy throughput should decline in rich countries, and whether global material-energy throughput should decline or increase overall, however, are more contested questions (Kallis and Hickel 2020; Schwartzman and Schwartzman 2018).

Beyond Utopian Ecosocialism

The ecosocialist critique of capitalism is compelling, as are the alternative systemic principles on offer. However, as noted, questions regarding *how* ecosocialisms might emerge, and the key challenges they would confront, have been insufficiently addressed by ecosocialists.

To start, though many ecosocialists are content with remaining at the level of broad principles (e.g. Foster, Clark, and York 2011), those who have gone further in describing the possible contours of ecosocialist futures tend to develop "abstract" utopian proposals without considering *how* they might emerge from current tendencies and trends. Richard Smith, for example, envisions a future ecosocialist world in which worker-led democratic planning has created a relocalized economy in which all polluting industries—from airlines and car manufacturers to oceanic shipping, chemicals, and luxury goods—have been shut down; the military-surveillance-police state complex is abolished; and equalized development between the global north and south has been achieved (Smith 2016, 148–149). Troy Vettese makes a comparable set of ecosocialist degrowth proposals, which involves contraction and convergence towards a 2,000 watt per capita global society, a shift towards deindustrialized and labor intensive agriculture, "compulsory



veganism," and a "Half Earth" rewilding strategy (Vettese 2018). Chris Williams and Fred Magdoff go even further by envisioning an ecosocialist world where "nation-states and national borders will disappear, to be replaced by regional associations that ignore national borders," thereby erasing national antagonisms and overcoming "the need to think about the geopolitical balance of power" (Magdoff & Williams 2017, 298).

At their best such visions can provide useful regulative ideals, but the problem is that none of these authors explain how these futures might be realized in practice, beyond the (necessary though insufficient) gestures towards working class struggle. In this sense, they remain at the level of "abstract" utopianism, creating inspiring yet detached proposals with no systematic analysis of how we get from here to there. Giorgos Kallis recognizes the challenge, arguing that "we must create a systematic theory of how existing conditions might evolve towards the vision" (Kallis 2018, 142), but he and other ecosocialists do not yet provide this. Some, like Ian Angus and John Bellamy Foster, describe transitional steps in the struggle for ecosocialism, but these usually involve a wish list of things we want and hope to achieve in the nearterm (e.g. "immediately" eliminating military spending, or an immediate "moratorium on economic growth in rich countries"), rather than how we might do so and the conditions that would make this possible (Angus 2016, 207; Foster 2015). Joel Kovel, in contrast, gives more attention to the revolutionary process rather than focusing on the end-point, but he is similarly quiescent on how such a process might emerge and the challenges it would face: he sketches a scenario in which "tens of thousands of local and regional experiments" join together in a worldwide revolutionary movement that brings global capitalism to a halt, self-organizes alternative provisioning systems to meet activists' needs, withstands waves of military-police repression, and triggers mass defections in national armies and police forces to join the revolution through their "spiritually superior" behavior (Kovel 2007, 267-268). This is quite an idealistic scenario, and Kovel only weakly attempts to describe conditions in which a global-scale revolution of this sort might occur, claiming that there "is no point in predicting a scenario according to which [the revolution] will expand, beyond the core condition that it occur in context of capital's inability to regulate the ecological crisis" (266). Yet developing plausible (r)evolutionary scenarios that can guide concrete praxis is one of the key challenges for ecosocialists that requires more careful reflection, lest we be guided by little more than leaps of faith with minimal grounding in current tendencies. A useful step forward is taken by ecosocialists who emphasize the strategic value of a "Green New Deal," which they view as a transitional platform that works with current tendencies and near-term achievable targets that may create the longer-term conditions for the emergence of more radical ecosocialist transitions (Schwartzman and Schwartzman 2018, 101; Aronoff et al. 2019). This is an important

suggestion, which I will expand on below, but again they do not explain how we might get from a GND to ecosocialism (particularly ecosocialist degrowth in rich countries); might the GND actually form a stabilizing mechanism for global capitalism by responding to red-green demands for green jobs, redistribution, and accelerated climate action? In this sense, more careful thinking about process and strategy is needed to envision how we may build ecosocialism(s) in the timeframe needed to stop runaway climate change.

This leads to the second conjoined tendency, which is to neglect difficult strategic questions, trade-offs, and dangers that would likely emerge during the transition process and beyond. The majority of ecosocialists ignore these sorts of questions altogether, while others address them more tepidly. Michael Löwy, for example, who has done some of the finest work on elaborating the ecosocialist alternative, does not consider whether there might be a trade-off between calls for "democratic planning" and the simultaneous emphasis on biospheric limits within which we must constrain consumption. Indeed, he affirms that "nobody has the right to tell people what their needs are" (Löwy 2015, 34), but then the question of whether this may require allowing energy-intensive modes of consumption that transgress planetary boundaries to persist is left unaddressed. Instead, Löwy expresses faith that "the rationality of democratic decisions will prevail once the power of commodity fetishism is broken" (28). This is perhaps plausible, but as Löwy himself recognizes, there will be a long period of transition in which the "old habits of consumption would persist" (34), and he doesn't grapple with the question of how they would be transformed within the requisite timeframe to avoid runaway climate change (i.e. by 2050 or shortly thereafter). Joel Kovel and Michael Lebowitz also recognize that ecosocialism (s)-in-transition would remain marked by the defects of capitalism for some time; thus they emphasize the importance of democratic praxis in forging the new subjectivities and social relations that would be needed to sustain a long-term revolutionary transformation, which otherwise risks lapsing into the same authoritarian statism that has plagued socialism throughout its history (Kovel 2007, 272; Lebowitz 2006, 66). This is an important insight, though it still begs the question of how a society-wide transformation towards ecosocialist/degrowth principles might occur in the needed time-frame. Given the possible intransigence of energy and emissions-intensive consumption practices, particularly in a context of rising rightwing populism and "fossil fascism" (Malm and Collective 2021), we should grapple squarely with the risk that state coercion would be needed enforce ecosocialist degrowth in rich countries. On the other hand, if we choose to follow the democratic will wherever it leads us, even if this entails the perpetuation or even expansion of material-energy intensive modes of living, then we must deal with the biospheric consequences. Might there be a trade-off, then, between degrowth and non-degrowth



paths to ecosocialism, each with its own set of challenges and dangers? Ecosocialists have not systematically investigated these sorts of questions.

In sum, we can see that the ecosocialist and degrowth movements have so far devoted limited attention to important strategic questions and trade-offs regarding ecosocialist transitions. Thus they are vulnerable to critiques like those of Matt Huber, who claims that degrowth variants of ecosocialism fail to articulate how their utopian aspirations could be "realistically built out of the present" (Huber 2019). Instead, Huber advocates what he calls a "scientific ecosocialism" that eschews the emphasis on degrowth and instead endorses a "traditional socialist politics not of limits and less, but of more" (Huber 2019). Unfortunately, Huber's proposal is itself "utopian" in that it disregards the biospheric devastation that would be entailed by more consumption in the already over-developed global north (which I will expand on below). However, he indicates a crucial problem that must be addressed by the degrowth ecosocialist left: how might an ecosocialist vision based on degrowth (in rich countries) win popular majorities? As Hubert Buch-Hansen bluntly states: "the degrowth project is nowhere near enjoying the degree and type of support it needs if its policies are to be implemented through democratic processes" (Buch-Hansen 2018, 160). This is undoubtedly true, at present, and thus more strategic thinking about the how of transition is needed. Following Sam Gindin, we need "an honest presentation of the risks, costs, and dilemmas the [eco]socialist project will face, alongside credible examples and promising indications of how the problems might be creatively addressed" (Gindin 2018, 14). Furthermore, as Erik Olin Wright says, we need to understand "not simply the obstacles and openings for strategies in the present, but how those obstacles and opportunities are likely to develop over time" (Wright 2010, 18).

In this sense, following Gindin and Olin Wright, we can develop a "realist" or "realist utopian" approach to ecosocialism that combines rigorous social and ecological analysis with speculative imagination, working through the likely constraints on utopian potentials, how they might be surmounted, and the likely challenges, tensions, trade-offs, and dilemmas we would face even in the best-case scenarios. No one could ever pretend to have fully worked out answers to these problems, and the claims of "realism" (i.e. "being realistic") can always be contested, given that we are dealing with an inherently open and uncertain future (Wright 2010). But the difficulties of developing more realistic models of possible futures and theories of systemic change should not lead us to dismiss the importance of facing them as rigorously (and humbly) as possible. To this end, I will first develop a plausible (r)evolutionary scenario of how something like ecosocialist degrowth might emerge in the coming decades, and then think through some of the likely trade-offs and dangers that would accompany the transition process.

A Scenario for the Ecosocialist Transition: The Green New Deal and Beyond

One way that some ecosocialists have begun to think through the problem of ecosocialist transitions is by engaging with the emerging movement surrounding the "Green New Deal" (GND). There are multiple GNDs circulating in different national contexts, which vary between more radical leftist and centrist approaches, but the various GNDs envision a state-led investment push to bolster research and development in "green" technology and create "green jobs" across the economy. The key differences between more centrist and radical GNDs center on the amount of state spending, reliance on market mechanisms vs. legislating fossil fuels out of existence, and the presence or absence of ambitious social justice objectives (Aronoff et al. 2019; Klein 2019). While engagement with the GND by ecosocialists has often been critical, others rightly view it as a promising transitional program that can begin rapidly reducing emissions while building the longer-term foundations for a post-capitalist transformation (e.g. Schwartzman and Schwartzman 2018; Aronoff et al. 2019). However, they largely leave open the question of how the GND might enable a transition in this way. As previously noted, a key issue is whether the GND may actually stabilize global capitalism in a new "accumulation regime" by partially meeting the demands of red-green movements; if not, then why and how might a GND subsequently produce opportunities for more far-reaching systemic change? The question is particularly challenging for those coming from an ecosocialist degrowth perspective, since it is not obvious why a program of green stimulus intended to boost jobs and consumption would facilitate a transition to an ecosocialist economy with lower material-energy throughput.

One possible answer, defended here, is that GNDs (particularly *moderate* GNDs, which are more likely to emerge in the near-term) would likely result in a prolonged trajectory of stagnation and crisis for global capitalism. Ecological Marxists and degrowth scholars often highlight the crucial role of crises in creating opportunities for systemic change (Angus 2016; Kallis et al. 2020; Kovel 2007), but they have not given systematic attention to the question of *how* crises are likely to unfold in the coming decades, and in particular what sorts of crises may interrupt a growth-based GND, creating both challenges and opportunities for red-green movements. While we must avoid deterministic assumptions, there are at least three reasons why a GND, rather than stabilizing global capitalism in a new accumulation regime, may in fact give way to an era of political-economic turbulence that would create opportunities (as well as challenges) for post-capitalist transformation.

First is the problem of what energy scholars call "net energy decline": as we increasingly shift to Renewable Energy (RE) sources with a lower

"Energy Return on Investment" (EROI), more energy will be required to collect and store these diffuse energy sources, which means less energy may be available for the global economy overall (Capellan-Perez, de Castro, and Gonzalez 2019; Heinberg and Fridley 2016). This will be contingent on the pace of technological advance, though there are four reasons to think (contra techno-optimists like Schwartzman and Schwartzman 2018) that the EROI of renewables may in fact decline over time: 1) the need for large-scale storage, which itself imposes high energy costs; 2) the gradual exhaustion of the best sites for solar and wind farms over time, requiring a shift to more intermittent locations and/or the construction of long-distance smart energy grids; 3) the need to eventually build an RE system in which renewables are manufactured and distributed by renewables, rather than being "subsidized" by relatively high EROI fossil fuels; and 4) the high metal-intensity of renewables relative to fossil fuels, which will require dramatically increasing energy-intensive extractivism to provide the minerals for the transition (Capellan-Perez, de Castro, and Gonzalez 2019; Heinberg and Fridley 2016; IEA 2021). Even if technological breakthroughs raise the EROI of renewables over time, a *dynamic* EROI perspective shows that the net energy available for the non-energy sectors of the economy will almost certainly decline in the early phases of the transition due to its high upfront energy and mineral demands (Capellan-Perez, de Castro, and Gonzalez 2019; Jackson and Jackson 2021; IEA 2021), which will make GND regimes prone to rising energy prices, mineral bottlenecks, and economywide inflation (or what has been dubbed "greenflation") (Sharma 2021). Combined with the declining EROI of fossil fuels (especially oil) and limited progress on "next generation" nuclear energy and hydrogen-based alternatives, energy and mineral constraints may thus doom a growthbased GND to stagnation and crisis, but technological breakthroughs could allow global capital to surmount these limits.

Second is the possibility of "green jobs" promises being oversold, which would likely be the case after an initial burst of government-led job creation: once the solar and wind farms are installed, homes and buildings are retrofitted, and new public transit systems are in place, will there be sufficient opportunities for paid employment? Kate Aronoff and company recognize the problem: "building solar panels and wind turbines is a transitional strategy—not a model for a new economy. We can't just ramp up the production of 'green' technology indefinitely" (Aronoff et al. 2019, 79). It is also possible that optimistic assessments of "green job" creation focus too heavily on net gains within the energy sector (e.g. Klein 2019, 281), which may downplay the disruptions that would be triggered by rapidly decarbonizing the rest of the economy—from manufacturing and petrochemicals to aviation and shipping (Smith 2016, 112). This would be less of a problem in a more moderate and less disruptive GND (which would of course be climactically insufficient),

though trends towards automation in the solar and wind industries may constrain green job creation in this scenario as well (Cavendish 2020).

Third, there is the possibility that a GND may exacerbate the current private and public debt burden plaguing global capitalism without generating the growth needed to make it sustainable. Private and public debt had already reached record levels before the COVID-19 pandemic, and post-pandemic total debt levels have reached an estimated 432% of GDP in rich countries (Dowding 2021). The mountain of consumer and corporate debt is a much more pressing concern to financial stability, while sovereign debt (at least in core states like the US) can theoretically accumulate without limit, though the latter can still be a concern if future conditions change (particularly so long as we remain in a world of footloose capital and predominantly privatized control over money-creation) (Mellor 2019). Fiscal expansion to create jobs and accelerate the RE transition is absolutely vital in the near-term. But the view that it would have a positive long-term impact on economic growth—advocated by centrist as well as leftwing GND proposals (e.g. IMF 2020; Pollin 2018) —may be based on unrealistic expectations about future inflation (e.g. by ignoring "greenflation" risks). In contrast, if net energy decline constrains efforts to increase productivity and raises food and energy costs across the economy, then state expenditures may not be met by a corresponding increase of aggregate demand, economic growth, and tax revenues. Furthermore, the global financial system will be facing an intensification of "physical" and "transition" risks in the coming decades: extreme weather, crop shortages, and supply chain disruptions from climate change on one hand; and "carbon bubble" risks on the other as the world weans off fossil fuels (Bolton et al. 2020). We might then witness a convergence of stagnant productivity, inflationary shocks, and financial systemic risks that constrain if not derail the GND's growth trajectory; in this case, the "fiscal multiplier" would fail to materialize, and a protracted period of "stagflation" (comparable to the ongoing inflationary shock triggered by Putin's invasion of Ukraine) may result.

In sum, it is possible that GNDs would be no more than temporary waystations before a "bifurcation" between two alternative trajectories (Wallerstein 2011): either towards greater nationalization of banks and key industries, capital controls, redistribution, rationing, job guarantees and worksharing to rapidly reduce emissions while ensuring basic needs are met; or a rightwing reversion to "growth at all costs" taking us down the road of ecological collapse. Ecosocialist degrowth could plausibly, in this way, emerge in part through the unintended consequences of efforts to reform global capitalism via GNDs in core states—a scenario in which stagnation and crisis, energy and mineral constraints, and strengthening red-green movements push governments in the direction of socializing production and distribution in a context of reduced material-energy throughput. The distinction often

made by degrowth scholars between "voluntary" and "involuntary" degrowth (e.g. Kallis 2018, 112), while necessary to an extent, is also therefore misleading: in the best-case scenario it would be an adaptive response to crisis that is part voluntary, part forced, but one that could also improve collective well-being by ensuring economic security for all.

However, the danger of a rightwing backlash in this scenario is obvious, which creates strategic challenges for the present and near future. In short, while we must fight to actualize a GND in core states as soon as possible, we should simultaneously prepare for the GND to destabilize and strategize how to push the bifurcation towards more radical ecosocialist principles (rather than rightwing reaction). In the near term, this requires thinking carefully about the narrative strategy surrounding the GND-how do we balance between bolstering public support for the GND while also being more forthright about the consumption cuts (particularly in electricity use, private mobility, aviation, and meat-heavy diets) it would probably entail? Julie Nelson usefully articulates the challenge:

The Green New Deal proposals ... are pulling a bit of a bait-and-switch when they talk about 'high wage jobs' and 'prosperity.' Politically speaking, this rhetoric is probably necessary... Realistically, though, what 'prosperity' means while living sustainably in a resource-constrained world will necessarily be different from how many define it today (Nelson and Morgan 2020, 150).

The next challenge would then be to win the narrative battle during the eventual crisis of the GND: how do we defeat the reactionary narratives that will blame environmentalists for their economy-killing strategies by instead promoting the narrative that the solution is to end reliance on growth once and for all and create a more equitable post-capitalist economy?

There are no obvious answers beyond the need to engage in a prolonged process of mass movement organizing and struggle on the conjoined terrains of political-economy, culture, and public discourse. The first task is to build a more powerful and coherent red-green coalition that can win climate objectives that improve peoples' lives (Bond 2012; Aronoff et al. 2019), while the second is to shift the GND narrative beyond the view that it "must deliver more growth" towards a different understanding of prosperity and wellbeing (Soper 2020). As Jason Hickel writes: "if the GND ends up for whatever reason working against growth, then by our own criteria it will have failed and will be vulnerable to attack on these grounds" (Hickel 2020). Thus while the argument made by degrowth critics like Matt Huber and Robert Pollin—that we must promise *more* to win the working class—is understandable, it not only chooses to ignore politically inconvenient ecological limits but is itself a strategically risky proposition, given the likely (but not inevitable) failure of growth in an era of converging climate, political-economic, energy, and food crises.

Authoritarian Ecosocialism: Navigating Trade-Offs and Possible Dangers

We can therefore see that a path to ecosocialist degrowth via a GND transition-followed-by-crisis is possible, but by no means the only possible path. However, we should then consider possible dangers and trade-offs that ecosocialisms-in-transition would likely encounter and possible strategies to confront them. In short, rather than focusing on the idealized utopian end-point, we need to ask difficult questions about the transition period.

The scenario sketched above highlights that ecosocialist degrowth transitions would most likely occur in a context of deepening political-economic crisis, intensifying climate shocks, and worsening insecurity for the majority of populations. A key danger, then, is that even in the best-case scenario in which powerful red-green movements decisively shift the balance of power vis-à-vis capital and elect leftist parties following ecosocialist platforms, this could lead to "authoritarian" forms of ecosocialism, understood as ecosocialist regimes that institutionalize "state of emergency" provisions such as unchecked executive power, the suspension of democratic rights and procedures, restrictions on free speech, and military-police repression of dissent (Petras and Fitzgerald 1988). This has of course been one of the primary challenges confronting all socialist transitions historically, which have had to fight off external military intervention, resistance from capitalist elites, and reactionary currents from below in order to protect revolutionary gains. Things would be no different for future ecosocialisms-in-transition, particularly given the likely contradiction between the speed at which consumption cuts may need to be made in the global north and the slowness with which post-materialist cultural change would occur, yet such problems have not been systematically explored by ecosocialists and degrowth scholars. The risks are twofold: first, that authoritarian measures would be needed to enforce lifestyle changes upon recalcitrant populations and "deal with the exceptional circumstances of direct and serious threat" to the survival of ecosocialist regimes in their early phases; and second, that such measures, rather than being temporally limited and abolished once the "exceptional circumstances" are dealt with, become the new normal (94).

Quincy Saul and Andreas Malm are among the few ecosocialists who don't shy away from this problem. Saul, for one, writes that "a period of 'emergency rule,' when the expropriators are expropriated, must be revised for the twenty-first century, it cannot be dismissed or glossed over" (Saul 2011, 58-59). Similarly, Malm suggests that carrying out the transition in the needed time frame would require.

warlike state management of all industries ... centralized decisions on who can consume what goods in what amounts, [and] punishment of



transgressors threatening the annual emissions targets ... [which] can only be feasible under an exceptional regime dealing with an unheard-of emergency (Malm 2015, 187)

The risk, in other words, is that ecosocialist regimes that are democratically elected in a context of unprecedented climate-energy-economic crises may be forced down an authoritarian path in order to enforce carbon rationing, enact rapid and far-reaching transformations in land-use, break through the gridlock of dysfunctional and polarized legislatures, and defend themselves against violence and sabotage from capitalist elites and the far-right. The danger is exacerbated by the fact that worsening climate and political-economic crises, far from neutralizing the threat of rightwing populism, will most likely intensify ethnonationalist reaction and political polarization. As Malm and the Zetkin Collective explain: "the higher the temperatures, the more acute the antagonism between a left that alone stands ready to pick up the instruments for alleviating the crisis and a right that, for that very reason, refuses to contemplate it" (Malm and Collective 2021, 286-287). Additionally, given that ecosocialist transitions would entail a "life-threatening situation" for most if not all sectors of the capitalist class, many of them would likely ally with the far-right in order to halt such transitions in their tracks and restore capitalist power "by any means necessary" (241). Thus even in the best-case scenario in which ecosocialists are able to assume power in core states, this would almost certainly occur in a context of rabid far-right resistance in alliance with global capital. The risks are particularly acute in, but not limited to, the US, where the spectacle of armed insurrectionists storming congress to try overthrowing the 2020 presidential election give us a taste of what ecosocialists are up against.

How do we strategically confront this challenge? On one hand, rather than hoping for smooth democratic transitions to ecosocialist degrowth or sidestepping difficult questions about the transition period, ecosocialists should reflect more systematically on the domestic and international threats that ecosocialisms-in-transition would confront - including capital flight, of course, but also militant far-right resistance, cyberattacks, social media-enhanced disinformation operations from capitalists and counterrevolutionary states, and other forms of sabotage - and how they might respond. Furthermore, ideological commitments to radical democracy should not prevent ecosocialists from at least maintaining an "openness to some degree of hard power from the state," as Malm suggests, or to the possible necessity of repurposing the state's coercive apparatus to defend ecosocialist transitions from reactionary currents (Malm 2020, 153). The specific strategies this might entail would vary according to the national-political context, but the point here is that such problems must be anticipated and systematically explored in advance in order to work out creative solutions.

On the other hand, if authoritarian or coercive measures are indeed deemed necessary to defend ecosocialisms-in-transition, then we must also envision strategies that may enable ecosocialist regimes to navigate the "emergency" phase while laying the longer-term conditions for "extension of popular democratic control over state and society," rather than irreversibly institutionalizing authoritarian forms of emergency rule (Petras and Fitzgerald 1988, 93). Lebowitz and Kovel, for instance, emphasize the importance of building and nurturing new forms of democratic self-governance from below that can avoid or at least attenuate tendencies toward authoritarian statism (Kovel 2007; Lebowitz 2006). Indeed, as many ecosocialists, ecofeminists, and degrowth scholars recognize, interstitial movements like commoning, Transition Towns, solidarity economies, peasant-based agroecology networks, and indigenous sovereignty (among others) can be considered "seeds" of an ecosocialist degrowth participatory democracy (Kallis et al. 2020; Salleh 2017; Kovel 2007). Of course, while there are thousands of such initiatives and movements across the planet, they remain small and imperfect oases in a vast desert of alienated consumption (especially in the global north). Thus the question is how these movements might gain wider participation, propagate, and with time forge critical masses of mutually-supportive cooperative economies at local and regional scales (Kallis et al. 2020, 46). One key objective of a radical GND should be to channel state funding and legal protection for these initiatives so that they can steadily grow and protect themselves from capitalist pressures (Kallis et al. 2020). This should also be accompanied by programs to revitalize rural regions that have become seedbeds of rightwing populism—involving an antitrust assault on big agribusiness, relieving pressures on small and medium scale family farms, and investing in rural hospitals, internet, and localized rural-urban food supply chains—thereby addressing the insecurities and grievances felt by many in these communities (Hogseth 2020). Together, these initiatives could help grow the micro-foundations of an ecosocialist participatory democracy while weakening the currents of rightwing populism, though this would be a slow multi-decadal process. We should not disregard the potential for social tipping points (Kallis et al. 2020, 89), but even in a bestcase scenario where democratic majorities become involved in or supportive of these alternative economies, many people will resist giving up energyintensive consumption, mobility, and dietary habits, providing ample opportunities for recalcitrant capitalists, far-right forces, and counter-revolutionary states to foment division and counter-revolutionary rebellion.

A trade-off might therefore be unavoidable, as noted earlier: do we follow the path of rich-world degrowth and flirt with the heightened risks of authoritarian statism, or advocate a GND/socialist politics of "more" that would threaten biospheric tipping points (while producing its own authoritarian risks, as I'll expand on below)? Ecosocialists and degrowth advocates who overlook or shy away from the authoritarian danger, and GND proponents or traditional socialists who ignore the ecological risks (among other problems), are not systematically thinking through the implications of their programs.

Critics of degrowth who would prefer the later path, or at least view it as more realistic (e.g. Huber 2019; Pollin 2018), would have no choice but to put their faith in a massive roll-out of "Negative Emissions Technologies" (NETs). Pollin's approach, for example, endorses the goal of an 80% reduction of emissions by 2050 (Pollin 2018, 8), and numerous models concur that, so long as we continue the train of economic growth, this is roughly the fastest we can hope to bring emissions down (Kallis and Hickel 2020; IMF 2020). In this case, it would be necessary to pull out 5-10 gigatons of CO₂ by 2050 to give us a chance at net zero emissions, which would require building roughly 15,000 carbon sequestration and direct air capture facilities—about 500 per year for the next 30 years (as a reference, there are roughly 51 carbon capture facilities globally, only 19 in operation)—whereas the scale of afforestation and bioenergy plants to sequester carbon may cover land "two to three times the size of India, which raises questions about land availability, competition with food production, carbon neutrality, and biodiversity loss" (not to mention carbon colonialism) (Kallis and Hickel 2020, 479). Furthermore, a slower emissions reduction trajectory would likely force a temporary (we hope) overshoot of the 2°C target, which may then require solar geoengineering to stave off positive feedbacks as we bring emissions down to zero—what is often called the "peak shaving" scenario (Buck 2019, 218). This is obviously not an ideal scenario, and the strength of the degrowth vision is that it wouldn't rely on these hypothetical and potentially dangerous techniques to prevent climate catastrophe. But if an ecosocialist degrowth transition doesn't happen soon enough, and emissions can only be brought down so far in a context of continuous economic growth, then we must be open to imagining ecosocialist transitions later this century that would necessarily rely on risky geoengineering interventions (as Holly Jean Buck suggests) (Buck 2019).

In this scenario, a GND-capitalism does not result in stagnation and crisis, but instead leads to an overshoot of the 2°C target; widespread realization that green capitalist approaches are too-little-too-late, combined with worsening climate chaos and strengthening red-green movements, enables a series of revolutions and democratic transitions towards ecosocialist principles in core states later this century (perhaps around 2060 or 2070). This would require a globally coordinated expansion of NETs and reforestation, global agricultural transformation to sequester carbon, collectively managed solar geoengineering, and luck that we avoid climate tipping points. However, even if this (arguably impossible) scenario materializes as Buck acknowledges, it would involve "an orchestration so elaborate and

requiring so much luck that people may find it a fantastic, utopian dream" (34)—it would generate its own authoritarian risks. This is because insecurities would be intensified by 2°C+ of climate chaos, bolstering calls for emergency governance; meanwhile, the states and global institutions responsible for carrying out solar geoengineering would place themselves in a position of immense power: all of humanity would be reliant on them to maintain the program in order to avoid a disastrous "termination shock" (Mann and Wainwright 2018, 150). Furthermore, the IEA estimates that meeting the net zero target by mid-century (in a context of rising or similar-to-today levels of energy consumption) would require increasing demand for lithium, graphite, nickel, cobalt, and rare earths by factors of 42, 25, 21, 19, and 7 times respectively above contemporary levels by 2050 (even if we assume generous recycling rates in the future) (IEA 2021, 9). Undoubtedly, this would have devastating impacts on land, water, and biodiversity and intensify extractivist conflicts around the world (particularly in the global south) (Capellan-Perez, de Castro, and Gonzalez 2019). Ecosocialist regimes would then be forced to choose between respecting the autonomy of indigenous and rural communities in the extractive frontiers and losing access to critical minerals, or engaging in neo-imperialist strategies to ensure their "green" infrastructure needs are met. Whether and how nondegrowth ecosocialist states could avoid or at least mitigate these dangers must be honestly confronted by degrowth critics.

In sum, we can speculate that there at least two different ecosocialist "equilibria" in the future possibility space: first would be the ecosocialist degrowth trajectory that emerges from a relatively near-term GND crisis (e.g. between 2030 and 2050), and second would be a more long-term ecosocialist transition (e.g. between 2050 and 2080) that forces a rapid scaleup of NETs, collectively managed solar geoengineering, and an intensification of extractivist conflicts. Each scenario would confront different authoritarian dangers. In the first they would mainly result from the need to enforce rapid emissions cuts and land-use changes in a context of unprecedented climate-energy-economic crises and intense resistance from allied capitalist and far-right forces. In the second scenario, these risks would remain but be tempered by limited disruptions to consumption patterns, but other authoritarian risks would emerge from the pressures for technocratic planetary management that global scale carbon removal and solar geoengineering might unleash, as well as from pressures to expand and police the extractive frontiers (creating a kind of "imperialist ecosocialism"). Undoubtedly there are many more risks that ecosocialists must grapple with, and one of the key tasks of a "realist utopian" approach is to bring them to the surface, ask the tough questions and consider the key dangers so that ecosocialists and allied movements can begin strategizing on how to navigate and negotiate them in practice.



Conclusion

This article has been a plea for ecosocialists and allied movements to shift more of their intellectual energy towards strategic questions concerning ecosocialist transitions, thereby going beyond both the ecological critique of capitalism as well as the development of utopian narratives. This is not to dismiss the value of utopian visions (no more than we should dismiss the importance of furthering the critique of capitalism), but merely to provoke greater attention to strategic questions.

Ecosocialists may not like asking these questions, since they reiterate the scale of what they are up against and may dampen hopes for radical change. Yet a more measured or "realist utopianism" that looks squarely at potential risks, and highlights the likely limits of what ecosocialist movements may be able to accomplish even in the best case scenarios, may actually be more capable of inspiring belief in the possibility of new worlds. We probably won't get the utopian ideal, but one way or another we will be witnessing dramatic changes in the coming decades, and conditions will be ripe for anticapitalist movements to strengthen their numbers and organizational power (though conditions will be ripe for the far-right as well). It is therefore necessary to proactively anticipate how systemic constraints may evolve in the coming decades so that ecosocialists can strategize for the challenges and opportunities ahead. If we truly believe that ecosocialists and allied movements may one day assume power, then proactive anticipation and exploration of these issues is essential, lest we find ourselves blindsided.

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