

Perspective

How inequality fuels climate change: The climate case for a Green New Deal

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SUMMARY

Recent proposals in the US and elsewhere aim to tackle climate change and socioeconomic inequalities together through a Green New Deal (GND). GND proposals have been criticized by high-profile advocates of carbon-centric climate policies—advocates who do not perceive socioeconomic inequalities to be significant drivers of climate change and who argue that GNDs' wider agenda will undermine decarbonization efforts. Here, we show that socioeconomic inequalities drive emissions-intensive consumption and production, facilitate the obstruction of climate policies by wealthy elites, undermine public support for climate policy, and weaken the social foundations of collective action. This suggests that integrating certain carbon-centric policies into a wider program of social, economic, and democratic reforms would achieve decarbonization more effectively than carbon-centric policies alone. We show that common policy components of GNDs do indeed tackle the causal mechanisms by which inequalities fuel climate change, and we argue that GNDs enable more effective political strategies than carbon-centric policies.

INTRODUCTION

Policy proposals for mitigating climate change have predominantly emerged from a carbon-centric policy paradigm: a reductionist approach that focuses on reducing greenhouse gas emissions (GHGs). Amid growing concerns about the normative credentials and political viability of this agenda, proponents of more radically transformative approaches have begun to coalesce around a Green New Deal (GND) policy paradigm.^{1–4} For GND proponents, excessive GHGs are densely intertwined with socioeconomic inequalities—such as income and wealth inequality, poverty, extreme wealth concentration, unequal political influence, and social hierarchies based on race and gender—which must be tackled simultaneously if deep decarbonization is to succeed. In [Box 1](#), below, we contrast more fully the key features of the carbon-centric and GND policy paradigms.

In the US, where the GND agenda is most politically advanced, GND proposals have provoked predictable resistance from conservative elites and carbon-intensive capital interests.^{12,13} More interestingly, they have attracted criticism from advocates of decarbonization who endorse the carbon-centric paradigm (see [Table S1](#)). Essentially, these criticisms reflect a view that socioeconomic inequalities are not significant drivers of climate change and that tackling them together would be unjustified and/or politically counterproductive. The following quote from distinguished climate scientist Michael Mann, writing in *Nature*, is illustrative: “Saddling a climate movement with a laundry list of other worthy social programmes risks alienating needed supporters (say, independents and moderate conservatives) who are apprehensive about a broader agenda of progressive social change.”¹⁴

Here, we aim to provide a systematic response to critiques of this kind. We show that socioeconomic inequalities causally contribute to climate change. We then argue that a more systematic approach to climate mitigation, exemplified by the GND policy paradigm, better addresses these inequality-related drivers and is more likely to be politically effective than carbon-centric policy alone.

We synthesize the theory and evidence linking climate change to socioeconomic inequalities. The numerous channels through which climate change exacerbates socioeconomic inequalities are well established and widely understood in the climate policy community,¹⁵ so we do not discuss these here. Less well known, and therefore the focus of our synthesis, are the channels through which causation flows in the opposite direction: from existing socioeconomic inequalities to climate change. We use “socioeconomic inequalities” as an umbrella term, intending that it be understood to encompass both interpersonal inequalities *per se* and absolute forms of disadvantage (e.g., financial insecurity) and advantage (e.g., extreme wealth). However, when analyzing causal mechanisms linking socioeconomic inequalities to climate change, we identify the particular explanatory variable relevant to each. We identify 10 such mechanisms, which we discuss under five themes: consumption patterns, production decisions, the obstruction of climate change mitigation policies by elites, households' fears about the economic and social effects of climate mitigation policies, and the erosion of the social bonds that underpin collective political action—in short, consumption, production, obstruction, trepidation, and non-cooperation.

This evidence suggests that integrating certain carbon-centric policies into a wider program of social, economic, and democratic reforms would achieve decarbonization more effectively

Box 1. Carbon-centric versus GND policy paradigms

According to the carbon-centric paradigm, climate change is understood in reductionist terms—as a technical problem of excessive GHG emissions—and the goal of climate policy is to reduce such emissions efficiently. A range of policy instruments has been advocated within this paradigm, including subsidies for low-emissions technologies and regulated standards, but the dominant focus has been on carbon pricing—carbon taxes or emissions trading schemes—so that polluters internalize (some of) the social costs of GHGs. Though it is true that revenue raised from carbon prices can be applied in ways that achieve other objectives, such as redistribution, such measures are typically envisaged to be ancillary to the dominant purpose of reducing emissions (that said, the more an emissions reduction policy is supplemented by associated policies that aim to achieve other objectives, the less “carbon-centric” it becomes). Policy recommendations within the paradigm tend to be informed primarily by economic calculations rather than by a theory of political change. But political scientists have developed more sophisticated political strategies for enacting carbon-centric policies, which we discuss later in the paper.

We define a GND as follows:

A Green New Deal is an integrative policy program that aims to mobilize society’s economic resources around a transformative vision of rapid decarbonization, environmental sustainability, and socioeconomic justice, underpinned by a governing philosophy in which the state is conceived as legitimately having a central and creative role in the economy and by a theory of change that emphasizes mass politics.

In addition to the different implicit conceptualization of the underlying problem, mentioned in the main text, four key features of this definition suggest that GNDs represent a distinctive policy paradigm: their scope, scale, governing philosophy, and theory of change (we take these elements to be paradigmatic; not all GND proposals will fully reflect all these elements, just as not all carbon-centric proposals fully reflect the carbon-centric paradigm).

Scope: The scope of GNDs extends beyond policies aimed at efficiently cutting GHG emissions to encompass a wide range of social, economic, and democratic reforms that are not typically considered to fall within the domain of climate and environmental policy.

Scale: GNDs aim to effect large-scale economic transformation. The scale, or ambition, of GNDs is driven largely by the scale and urgency of the climate mitigation challenge and therefore implies an economic mobilization to decarbonize carbon-intensive sectors within one to two decades (at least for high-income countries), depending on the country and sector in question.⁵ As such, a GND should be thought of not as a single piece of legislation or even a one-time policy package, but rather as a multi-year, whole-of-government, mission-oriented policy program or governing agenda.⁵

Governing philosophy: The GND policy paradigm embodies a distinctive conception of the role of the state, public goods, and the legitimate scope of policy instruments. The state is understood as legitimately playing a central and active role in “creating,” “shaping,” and “steering” markets—through its investments in public goods and services, its laws and regulations, monetary and fiscal policy settings, public procurement, and its capacities for innovation—in pursuit of broad social goals and specific missions.^{3,5–8} These social goals are envisaged as including universal provision of the resources and services that meet people’s basic needs and enable them to live flourishing lives; reducing economic inequalities; and redressing legacies of racial, colonial and gender oppression.^{4,9} In this regard, GND proposals herald a return to the assumption of the inherent interconnectedness of the environmental, social, and economic domains that underlies the concept of sustainability and the Sustainable Development Goals. Finally, there may be functional and political complementarities among policies such that individual policy instruments can legitimately serve multiple goals, and multiple instruments combined may have net benefits greater than the sum of their parts.^{2–7}

Theory of change: GND proponents aim to forge a broad-based social movement consisting of both active participants (especially organized interest groups representing workers and ordinary citizens) and passive majority support that together are sufficient to sustain a progressive electoral majority for a decade or more.^{10,11}

than carbon-centric policies alone. In the second half of the paper, we draw on this evidence to evaluate the case for GNDs as a means of climate action. We argue first that GNDs make for good policy. On the basis of our review of 29 GND-style proposals from around the world in 2019–2021, we show that common policy components of GNDs do indeed tackle the mechanisms by which inequalities fuel climate change, making them more effective than carbon-centric policies alone. We then argue that GNDs make for good politics: the political strategy associated with

GNDs is likely to be more effective than the political strategies associated with carbon-centric policies.

Before we begin, three caveats are in order. First, we acknowledge that GNDs are about much more than decarbonization. A key motivation for GNDs is to tackle socioeconomic inequalities for reasons of social justice as an end in itself, including redressing legacies of racism, sexism, and indigenous oppression. We are not suggesting that redressing these injustices is only or even primarily justified because doing so is instrumental to

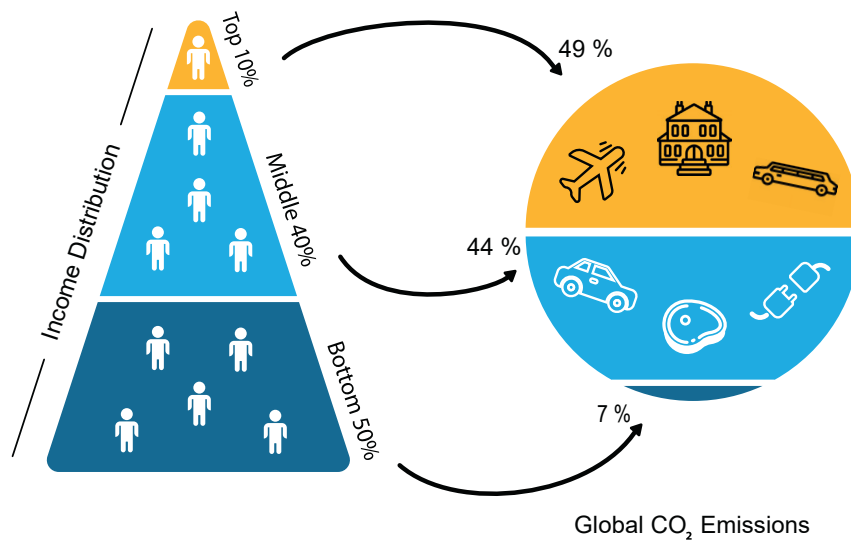


Figure 1. The wealthy are disproportionately responsible for consumption emissions

Source of data linking global CO₂ emissions to consumption by income decile in 2015: reference #¹⁶. Right-hand side of diagram: symbols represent illustrative components of the consumption baskets of the top 10% of the income distribution and of the next 40%, respectively, informed by reference #²².

climate mitigation. Rather, we focus on the climate case for tackling inequalities since this is the case about which our target audience—proponents of carbon-centric mitigation policy—seems unconvinced. Consequently, most of the mechanisms we focus on are economic and political ones, as these are better established in the climate literature. Second, our focus on the climate case also explains why we mostly discuss climate-inequality links and policy responses, largely leaving aside the links between other ecological problems and socioeconomic inequalities, which are also central to the GND paradigm (e.g., stopping harms caused by fossil fuel-related air pollution that asymmetrically fall on low-income communities, especially communities of color). We fully endorse this wider motivation for, and scope of, GNDs, but we concentrate on those parts of the GND paradigm that are instrumental to decarbonization. The third caveat relates to the geographic scope and scale of our analysis. Our synthesis in the first half of the paper considers evidence relating to inequalities at a global scale and within countries. Our geographic scope is not limited, although the greater number of studies on industrialized countries is reflected in our synthesis. Our subsequent discussion of GND politics focuses only on the high-income democracies where GND-style policies have been most central to political debates, namely the US and Europe.

HOW SOCIOECONOMIC INEQUALITIES FUEL CLIMATE CHANGE

Consumption

The level and composition of consumption patterns influence GHG emissions, and consumption is highly dependent on income. So how do income inequalities affect emissions associated with consumption? The literature can be roughly divided into three dominant perspectives.

The first focuses on the role of consumption patterns at the top of the income distribution.^{16–21} People tend to consume more goods and services and more energy as their incomes rise,²² meaning that wealthy people's consumption causes more emissions than poor people's. In one study,¹⁶ the consump-

tion-based emissions of the richest 10% of the world's population were estimated to account for nearly half of global carbon dioxide emissions in 2015 (see Figure 1), while other studies put the figure at between 36% and 47% of emissions.^{20,23} Large inequalities in consumption emissions across income deciles have also been reported within countries, especially in high-income and, to a lesser extent, middle-income countries.²³ Substantial cuts in emissions could thus be achieved by reducing income and wealth at the top of the distribution, or more steeply taxing or limiting carbon-intensive luxury consumption.^{9,17–22,24} To give an indication of the magnitude of emissions savings that such measures could yield, one study²⁵ found that global CO₂ emissions could be reduced by 30% in 2030 relative to a business-as-usual baseline if the emissions of the 1.1 billion highest emitters globally were capped at the level of their least-polluting member. (The cap envisaged in the study would need to be institutionalized globally; in reality, measures to curb top incomes, wealth, and consumption are likely to be more feasible at the national level than at the global level).

It is not only wealthy people's own consumption that influences emissions. In a context of economic inequality, conspicuous consumption by the wealthy drives society-wide increases in consumption-related GHG emissions,²⁶ by inducing status-based consumption competition¹⁹ and longer working hours among the rest of the population.²⁷

A second, somewhat contrasting, set of studies looks at income inequality across the full income distribution. Based on findings that poorer people have a higher marginal propensity to emit GHGs than wealthier people, some studies find that income inequality, as measured by the Gini coefficient, is negatively associated with emissions, though the association is weaker or positive for higher-income countries^{28–30}; reducing income inequalities may therefore increase emissions.^{28,31,32} The theory is that a low-income person will tend to spend more of their next dollar on energy services (that are currently emissions intensive) than a high-income person will, so moving dollars from the latter to the former will increase emissions, all else equal. For instance, Oswald and Millward-Hopkins find that redistribution to reduce current income inequalities across 32 countries to levels perceived as “fair” by survey respondents would result in total emissions increasing by under 2%, all else equal.³¹ But this assumes a very low elasticity of emissions to expenditure (uniformly set to 0.7), which heightens the trade-off between redistribution and emissions. And it assumes that household consumption patterns at a given level of income will not become

less carbon intensive with dramatic reductions in inequality, which the authors acknowledge is unrealistic. It is also worth noting that some studies use the top 10% income share, instead of the Gini coefficient, as the explanatory variable and find that greater inequality according to this measure is positively associated with CO₂ emissions,^{33,34} at least in the short term.³⁵

What are we to make of these two contrasting perspectives on the relationship between inequality and consumption emissions? A third perspective suggests a promising way forward. It starts by positing a reasonable normative goal of ensuring that all persons can enjoy a high level of well-being within a safe carbon budget—sometimes discussed in terms of minimum individual energy use and maximum aggregate energy use, respectively—and considers whether income inequality helps or hinders that goal.^{9,36–39} To satisfy the minimum well-being (or energy use) constraint, poor people's consumption must generally rise, increasing demand for energy and GHG emissions (consistent with the second perspective discussed above).^{23,36,38,39} That being so, the decarbonization (or maximum energy use) constraint can be satisfied only if, additionally, consumption patterns across the distribution are recomposed and fully or close-to-fully decarbonized (or made radically more energy efficient).^{9,36,38,39} This, it turns out, is much more achievable when inequality—of incomes, consumption, energy footprints, and carbon footprints—is reduced from the other direction, by constraining the consumption possibilities of the wealthy (consistent with the first perspective discussed above).^{9,36–39} (What the goals and measures discussed in this paragraph would imply for GDP growth is an unresolved empirical question about which there is much debate in the literature.^{40,41})

A key reason why recomposing and decarbonizing consumption is more feasible with lower inequality is that the energy services associated with wealthy people's consumption are concentrated in hard-to-abate transport sectors, especially air travel, whereas the increases in energy services consumption associated with reducing poverty are concentrated in buildings (e.g., heat and electricity), which are relatively easy to supply using zero-emissions technologies.³⁶ So, when top-end inequalities are reduced, overall consumption shifts from hard-to-abate transport toward easier-to-abate residential energy use.³⁶ Reduced inequality may also reduce emissions by expanding the mass uptake of clean technologies.⁴² Furthermore, as societies become more equal and the focus of economic provision shifts to satisfying needs, there will be greater opportunities for carbon-efficiency gains through collective provisioning.⁹

The task of decarbonizing systems of provision depends only partly on consumers' decisions.^{32,43} It also depends crucially on firms' production decisions and government policies, which are influenced by multiple political phenomena. As we shall now explain, these key factors affecting GHG emissions are also influenced by socioeconomic inequalities.

Production and obstruction

Concentrated material wealth is a particularly versatile and potent power resource that can be deployed to exert influence over the production process and over politics.⁴⁴ Inequalities in wealth and power play important roles in driving both carbon-intensive production and the obstruction of climate policies.^{17,45,46}

Globally, the wealthy own most of the means of production—productive and financial assets are concentrated in the top 10%, and especially the top 1%, of wealth holders.²¹ This alone concentrates power over investment in an elite (that is disproportionately white and male) whose interests and preferences are often contrary to those of the majority.^{47,48} Historians have explored the enabling role of colonialism and class conflict in the emergence of fossil-fueled industrial capitalism⁴⁹ and scholars continue to document the entanglements between “fossil capital”⁵⁰ and neocolonial exploitation, authoritarianism, racism, and patriarchy.^{51–53}

Other scholars have focused on the neoliberal era, which became increasingly entrenched from the 1980s, illuminating the channels through which financial elites have gained increasing power over what does and does not get produced. Many public assets have been privatized,²¹ so decisions about productive investment are increasingly being made according to the logic of maximizing private profit rather than serving the public interest.⁵⁴ Simultaneously, shareholders have gained increasing control over the management of business enterprises through changes in corporate governance laws and norms, which have converged on a “shareholder primacy” model.^{55–57} As shareholders have become more myopically focused on short-term corporate earnings, so corporate managers have come to prioritize shareholders at the expense of wider stakeholder interests, and short-term earnings at the expense of long-term performance.^{55,56} These changes, though perhaps the product of well-intentioned efforts to increase efficiency, have likely been detrimental to climate change mitigation, because managers of such firms face stronger incentives to shift costs, including GHG emissions, onto third parties and face weaker incentives to invest in low-carbon innovation.^{55,56,58} Privately-owned oil companies, for example, are governed in the interests of shareholders and thus focus on expanding carbon-intensive production in pursuit of short-term financial gains.^{17,59} Via similar mechanisms (short-term profit seeking and cost shifting), the increasing concentration of global wealth has also been linked to the expansion of tropical deforestation in Latin America and Southeast Asia.⁶⁰

Crucially, capital owners also use their capital to sustain and expand political-institutional regimes that facilitate profit-making above all other considerations. Carbon-dependent investors and firms are no exception, having used their power to secure a political-institutional context favorable to expanding emissions-intensive production, including by obstructing climate policy proposals and deceiving the public about the causes and implications of climate change.^{61–66} Many emissions-intensive producers have also gone to great lengths to suppress community resistance to their operations, either directly or by co-opting the state.^{67,68}

Wealthy people's dominance of economic production and politics are closely related (see [Figure 2](#)). Recent work by sociologists,⁴⁶ economists,^{55,69–71} and political scientists⁷² emphasizes feedback loops by which economic elites (1) gain increasing control over important organizations, networks, and assets; (2) use these to influence political and rule-making processes; and (3) benefit financially from market transactions governed by the rules that they shaped in their interests, enabling them to further entrench their control. As such, democratic control and

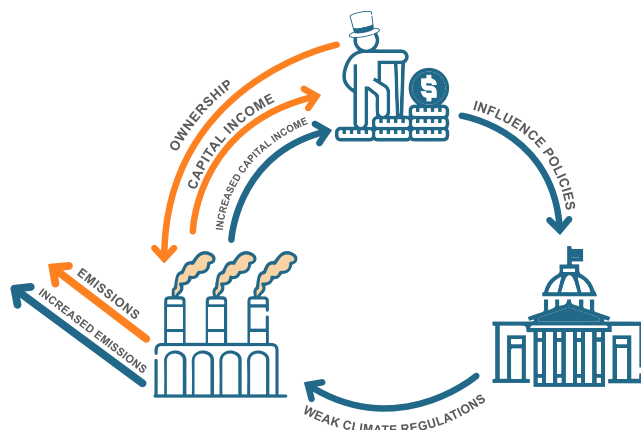


Figure 2. Wealth concentration drives emissions-intensive production and climate policy obstruction

The figure illustrates how production and obstruction dynamics are self-reinforcing. Orange arrows depict the basic production dynamics linking private ownership of assets (capital) and flows of both income (internalized) and emissions (externalized) from the owned assets. Blue arrows depict the political power resulting from capital ownership/income, which is used to influence lawmaking in ways that facilitate increased production and externalization of emissions, thus increasing capital income.

accountability (in both politics and firms), corporate and financial regulation, and many other issues not ostensibly having to do with climate change are in fact tightly intertwined with the prospects for decarbonization.

Trepidation: The politics of economic insecurity

Given the consumption and production opportunities afforded to the beneficiaries of fossil-fueled capitalism, it is unsurprising that efforts to constrain and phase out fossil fuels meet with political resistance. We have discussed the organized obstruction of climate policy by wealthy capital interests. Now, we explore a different set of political mechanisms through which socioeconomic inequalities drive emissions, all of which link economic or social insecurity to grassroots opposition to climate policies via household fears about the consequences of such policies.

The first mechanism focuses on the labor market. Before the COVID-19 pandemic took hold, the world was already confronting a crisis of work: high levels of labor underutilization, declines in work quality at the bottom end of the labor market, and declining union membership were among its chief indicators (not to mention demographic disparities within these).⁷³ Many of these problems have been exacerbated by the pandemic and associated emergency-response measures.⁷⁴ Although economic stimulus measures have reduced unemployment, the recovery is nascent and uneven, occurring faster in high-income countries than elsewhere.⁷⁵ While decarbonization promises net job creation across the economy,⁷⁶ the threat—actual and perceived—of absolute job losses and other adverse labor market impacts in some sectors⁷⁷ undermines political support for deep decarbonization measures.^{62,78,79} The persistent labor market challenges and economic inequalities associated with COVID-19 increase the risk that carbon-centric climate policies will be avoided or delayed.

A second mechanism focuses on consumption-related political effects. In high-income countries, carbon-pricing policies (absent accompanying redistributive measures) tend to be regressive, because they raise consumer prices for carbon-intensive necessities, which comprise a disproportionately high share of low-income households' expenditure.⁸⁰ This problem may be exacerbated by the fact that low-income households in such countries tend to live in less energy-efficient dwellings and lack the incentives (because they tend to rent) or financial means to invest in energy efficiency improvements.⁸¹ In poorer countries, pricing carbon or removing fossil fuel subsidies can also have an inflationary effect that harms poor consumers, even if the overall reform is economically progressive.⁸² Whatever the actual inflationary effect of such policies, they are often perceived to have inflationary effects on salient consumer items.^{82–85} Actual and perceived inflationary effects of carbon-centric policies play into households' financial concerns in ways that undermine popular support for those policies.^{82–85}

These employment and consumption effects can, broadly speaking, trigger two types of political response. More often than not, such policies simply fail to inspire mass popular mobilization in support of climate policy⁸⁶—mobilization that is arguably necessary given the obstructive influence of elites, discussed earlier. Intersecting inequalities may exacerbate this problem: although women and people of color are disproportionately affected by climate change, and so have reason to mobilize for climate action, they also tend to be disproportionately vulnerable to the inflationary effects of carbon-centric mitigation policies.^{87–89}

More detrimentally to the cause of climate action, carbon-centric policies sometimes provoke active counter-mobilization. Understanding anti-climate backlash requires attention to intersecting grievances, of which spatial inequalities are perhaps the most salient and tractable. For instance, the risk of household opposition to climate policy is magnified in communities where carbon-dependent industrial activities are concentrated. The closure of mining and industrial facilities can disrupt local economies⁹⁰ and unsettle deeply held regional identities, social bonds, and place attachments.⁹¹ Many such communities have already experienced the deindustrialization wrought by trade exposure and automation, making them wary of further losses in the name of climate policy.⁷⁹ Electoral institutions in many democratic countries make political parties especially sensitive to such geographically concentrated policy backlash.⁹² The inflationary consequences of carbon-centric climate policies are also unevenly spatially distributed. In industrialized countries, such policies can disproportionately burden residents in poorer but car-dependent semi-urban and rural areas.⁹³ These spatial concentrations, too, can trigger backlash against carbon-centric climate policies—as with the *gilets jaunes* movement in France.⁹⁴ In poorer countries, concentrated effects of energy or transport pricing reforms can also trigger political backlash, as occurred in numerous countries, including Nigeria, Ecuador, and Chile, over the last decade.^{82,95}

Although we have focused on intersecting spatial inequalities, some fossil-fueled forms of production and consumption have also been linked to social identities grounded in racial and gender hierarchies. Threats to fossil fuels can thus provoke

“petro-masculine” backlash against decarbonization, which celebrates and protects fossil fuel-based gender identities, and “fossil fascism,” of which Trumpism is a prominent contemporary example.^{52,53}

Non-cooperation

Finally, we consider some more complex and speculative, but potentially important, links between inequality and climate change that operate via the social bonds or “collective capacities”⁹⁶ necessary to support collective climate action.

Economic inequalities have long been thought to undermine the social foundations of democratic government.⁹⁷ Recent social science research posits a link between higher inequality and lower levels of both social trust (trust in other people) and political trust (trust in political institutions and organizations).^{98–100} Separately, lower levels of political trust are associated with lower support for (carbon-centric) climate policy, especially tax instruments.^{101–105} However, the empirical associations and causal pathways are complex and contested—partly because “inequality” and “trust” can be specified and measured in different ways. On the basis of the existing research, we suggest two possible mechanisms by which social and economic inequalities may undermine the social foundations of collective climate action.

In the first mechanism, economic inequality increases political corruption (see above, “Production and obstruction”), fostering the belief among citizens that political elites serve only themselves and the wealthy.⁹⁹ Cynical citizens, in turn, will be less inclined to trust politicians to deliver on their promises.¹⁰³ Such cynicism plausibly hampers public support for ambitious carbon-centric climate policy, since decarbonization requires extensive policies that impose short-term costs for promised future benefits.^{101,103,105,106}

The second mechanism concerns the interaction between social and economic inequalities and the role of culture in mediating this interaction.⁹⁶ As economic inequality grows, social divisions become more pronounced.^{100,107} Wealthy elites can physically separate themselves from the rest of society and insulate themselves from social and environmental ills.¹⁰⁸ Moreover, as wealthy elites have gained disproportionate influence over the means of cultural production, such as news media, some have used this power to stoke social divisions and foment a sense of zero-sum competition among subordinate groups.^{109,110} For example, wealthy conservatives in the US have promoted the belief that government takes from the “hard-working” white working class to give handouts to the “undeserving” poor, immigrants and people of color.¹¹¹ Such beliefs weaken the bonds of solidarity that are needed for cooperation across groups.¹¹² This, in turn, likely undermines collective climate action: lower willingness to sacrifice for others’ benefit is associated with lower support for climate policy (which is often framed in terms of sacrifice),¹⁰¹ and lower social trust is associated with lower willingness to pay for climate policy.¹¹³ This suggests that cultivating the mass social movement that seems necessary for rapid decarbonization will require initiatives aimed at strengthening the social bonds between groups—not only measures that distribute material resources more equally but also inclusive cultural narratives that enable people to see themselves as part of a common, positive-sum project.^{110,112}

This concludes our synthesis. We have identified 10 mechanisms by which socioeconomic inequalities fuel GHG emissions, summarized in column 3 of [Table 1](#).

GREEN NEW DEALS: GOOD POLICY AND GOOD POLITICS

We now build on the evidence synthesized above to make the climate case for GNDs: first the policy case, then the political case.

GNDs as good policy

Implicit in the critique of proposed GNDs to which we are responding is the idea that their non-carbon policy components would distract from or otherwise undermine the aim of rapid decarbonization. But the evidence linking existing socioeconomic inequalities to climate change suggests the opposite: that integrating certain carbon-centric policies into a wider program of social, economic, and democratic reforms would achieve decarbonization more effectively than carbon-centric policies alone.

To test this, we conducted a desk review of 29 GND-style policies that have been proposed in 2019–2021 across five continents (mostly from the US and Europe). We identified the specific policy components proposed in each and then grouped similar components into generic categories (see [Table S3](#); different GND proposals contain decarbonization goals that differ in time frame and scope, per [Table S2](#)). We evaluated whether these policy components would likely advance the goal of decarbonization, given the mechanisms linking socioeconomic inequalities to climate change identified above (summarized in [Table 1](#)). We considered policy components individually and in combination to account for complementarities and feedback effects. The list of potential policy components is long, but they can be conveniently grouped into six clusters (see [Figure 3](#)).

The first three clusters contain policy components distinctively associated with GND proposals. These, we argue, are justified components of a GND because they counteract the mechanisms by which socioeconomic inequalities fuel climate change, making GNDs more effective than carbon-centric policies alone (many of these policies also facilitate climate adaptation and resilience by low-income groups, reducing the effect of climate change on inequalities).

First, sustainable social-provisioning policies aim to ensure that everyone has access to goods and services that securely satisfy basic human needs via provisioning systems that are environmentally sustainable: they entail zero or very low GHG emissions and address other environmental problems such as air and water pollution. Examples include policies that give people access to: thermally efficient and gas-free public housing; zero-emissions and non-polluting household energy; active and public transport; and sustainably produced, nutritious food and safe drinking water. Because they service basic needs, such policies play a key role in reducing unjust—often racialized and gendered—distributive inequalities.⁴ They enhance the prospects for decarbonization relative to carbon-centric policies by ensuring that low-carbon necessities are provisioned in a way that does not erode low-income groups’ purchasing power

Table 1. The mechanisms by which inequalities fuel climate change and how GND policies address them

#	Factor driving increased GHGs	Mechanism	GND policy response
1	High incomes	The higher people's incomes are, the more they consume and the more GHGs are caused by their consumption.	Reconfiguring power
2	Income inequality	People with high incomes conspicuously consume, and this induces status-based competitive consumption and longer working hours among those on lower incomes.	Reconfiguring power
3	Extreme wealth/wealth inequality	The wealthy use their power to gain control over productive investment; production is increasingly organized for the benefit of myopic private shareholders, to the detriment of climate mitigation.	Reconfiguring power
4	Extreme wealth/wealth inequality	The wealthy use their wealth to influence the political process, and the result is laws and policies that favor the expansion of carbon-intensive production (e.g., expansion of fossil fuel subsidies; obstruction of climate policies).	Reconfiguring power
5	Unemployment, underemployment, or job insecurity	The un(der)employed and job-insecure oppose, or do not actively support, climate policies out of fear for their economic position.	Financial security Reconfiguring power
6	Low incomes or financial insecurity	People on low incomes and those who are financially insecure oppose, or do not actively support, climate policies due to perceived inflationary effects on salient household consumption items.	Sustainable social provisioning Financial security
7	Low incomes	Poor people lack the financial means or incentives to invest in costly energy-efficient or low-carbon products (e.g., poor people in high-income countries tend to live in less energy-efficient dwellings and lack the incentives—because they tend to rent—and/or financial means to invest in energy efficiency improvements). This both directly undermines their ability to reduce consumption emissions and contributes to their fears about inflationary effects.	Sustainable social provisioning Financial security
8	Spatial inequalities	Mechanisms 5–7 are unevenly spatially distributed and often intersect with existing spatial inequalities, and this fuels backlash against climate policy.	Financial security Reconfiguring power
9	Economic inequality ^a	Economic inequalities lead to corruption, making people cynical about government policy promises and thus less likely to support policies that promise future benefits.	Reconfiguring power Sustainable social provisioning Financial security
10	Social and economic inequalities ^a	Social and economic inequalities weaken the social bonds between groups, making people less willing to make sacrifices and cooperate for the collective good.	Reconfiguring power Sustainable social provisioning Financial security

^aOn the limitations of studies linking socioeconomic inequalities and trust, see the section “Non-cooperation” in the main text.

(mechanism 6) and that enables those on lower incomes to access energy-efficient and low-carbon goods (mechanism 7). Additionally, decarbonizing the provisioning systems for these necessities will add considerably to demand for labor (especially housing retrofits and construction), complementing the pro-jobs and pro-labor policy components discussed below.⁴

Second, financial security policies aim to enhance the financial security of those who are poor or at significant risk of poverty, such as people who are highly indebted, un(der)employed, or working in low-paid or precarious jobs. Example policy components include a job guarantee; a mandatory minimum wage (set at living-wage levels); free or subsidized training programs for GND-relevant skills; secure access to healthcare, social care, and childcare; enhanced social safety nets (e.g., categorical transfer payments); and targeted debt relief (e.g., medical and student debt).⁶ These policies can mitigate opposition to climate policies arising from job, financial, and social insecurity (mechanisms 5–8) in a way that carbon-centric policies cannot. Indeed, financial security policies equip people to embrace the inevitable transformations associated with deep and rapid

decarbonization without fearing for their financial circumstances.^{5,6} Moreover, because they encompass support to workers in declining carbon-intensive sectors, they can be thought of as a much-expanded version of a “just-transition” package.^{114,115}

The third cluster we call reconfiguring power. We have discussed how excessive concentration of wealth enables wealthy people and large corporations to expand carbon-intensive production by controlling the means of production and capturing political processes (mechanisms 3 and 4). Because of these linkages between wealth, power, and emissions-intensive production, climate policy will be more effective if it counteracts the dynamics by which wealth and power are becoming increasingly concentrated. Justified components of a GND therefore include measures that: reduce the wealth of the wealthy (e.g., increased progressivity of income and wealth taxation, closing corporate tax loopholes);^{6,116} distribute power and wealth to workers, consumers, and local communities rather than shareholders (e.g., pro-union reforms such as strengthening organizing and bargaining rights; reforms to shareholder-biased



Figure 3. The six clusters of GND policy components

The first three clusters of GND policy components, clockwise from “Sustainable Social Provisioning Policies”, are distinctive of GND programs. The remaining three clusters cover areas closer to the mainstream concerns of the carbon-centric paradigm or address cross-cutting institutions and policies.

corporations, tax and bankruptcy laws; strengthening antitrust/competition laws; decentralizing ownership over community assets^{55,56,117,118}, and reduce the influence of private money in politics (e.g., limits on campaign finance/donations, lobbying restrictions, political advertising restrictions, public financing of campaigns).⁷² Since power relations are also racialized, gendered, and colonial, many GND proposals justifiably incorporate measures that explicitly advance racial, gender, and indigenous justice.^{1,4} These measures not only target the material resources of such groups but also include procedural rights that elevate their voices in policy design and implementation, as well as symbolic forms of cultural recognition that affirm their inclusion in a common, positive-sum political project.¹¹⁰

Policies in these first three clusters should help build collective capacities in ways that gradually facilitate further cooperation and collective action to tackle climate change. By delivering tangible benefits that improve ordinary people’s lives and by reducing opportunities for corruption, policies in these clusters can foster trust and confidence in government as a force for good (mechanism 9). Moreover, by compressing economic inequalities at both ends of the income distribution and promoting inclusive cultural narratives, they strengthen bonds of solidarity across groups (mechanism 10).

Table 1, column 4, summarizes the distinctive contributions of these first three clusters of GND policy components to decarbonization.

The remaining three clusters cover areas closer to the mainstream concerns of the carbon-centric paradigm or address cross-cutting institutions and policies.

The fourth cluster is complementary carbon-centric policies. Significant decarbonization is likely to result from the first three policy clusters—especially sustainable social provisioning. But additional carbon-centric measures are likely to be necessary to achieve deep and rapid decarbonization, such as carbon taxation, regulation of industrial emitters, regulation of upstream fossil fuel supply, and measures to promote the development and deployment of zero-carbon technologies.¹¹⁹ Some of these, when considered alone, may be regressive in the short term by increasing the price of necessities (see above, “Trepidation”) or may otherwise undermine GNDs’ social justice objectives. We argue that they can still be justified where they are complementary to the rest of a GND program. We suggest two conditions for this: (1) the policy contributes substantially to mitigating climate change beyond what would be the case if it were excluded from the overall GND program; and (2) any regressive effects are at least fully counteracted by other policy components, such that the other policies’ socioeconomic goals (e.g., needs provisioning, financial security, and power-reconfiguring) are not compromised.⁹

To illustrate, consider carbon pricing. Carbon taxes can be designed to meet these conditions. First, they provide a consistent, predictable price signal that can stimulate emissions reductions at the margins, including by covering activities missed by other policy components and counteracting rebound effects to which some of them are prone (e.g., energy efficiency standards).^{119,120} Second, the level and sectoral scope of carbon taxes can be set in conjunction with the needs-provisioning and financial security policy components to ensure their progressive socioeconomic aims are not compromised.³ By

contrast, GHG cap-and-trade schemes generally achieve little in sectors covered by other mitigation measures: the abatement from the other measures simply lowers the price of emissions permits rather than reducing emissions below the level at which the cap is set.¹²¹ Moreover, the floating price level creates volatility that discourages investment and makes it more difficult to manage socioeconomic impacts.^{119,122} The main drawbacks of carbon taxes are political. We are making a point about good policy that brackets questions of political feasibility, which we discuss separately below. Political challenges associated with implementing carbon taxation suggest it may need to be introduced later in the sequence of policy components that constitute a GND program, or at least start with a lower tax rate or trial period.¹²³

The fifth cluster consists of supportive macroeconomic institutions. With regard to fiscal policy, a notable feature of GNDs is the extensive role they envisage for government outlays.^{3,4,6,7} Under current macroeconomic conditions, government investment in GND-related outlays is an attractive option, given the value of these investments and the large potential multiplier effects of government stimulus.^{8,124} This raises the question of how such outlays can be financed, and the trade-offs implicit in such decisions. Governments that issue their own currency do not need to first raise sufficient revenue to “pay for” their expenditure. Rather, monetary and fiscal policy can be coordinated such that national governments can finance whatever expenditure they lawfully authorize (this point is broadly supported by GND-supportive economists, though they differ on the mechanics^{3,6,125}; for Eurozone countries, which do not issue their own currency, financing the needed outlays is more complicated, but feasible.¹²⁶) The above-mentioned carbon, income, and capital taxes, in addition to their primary functions, facilitate non-inflationary GND-related government outlays by withdrawing money from circulation, though whether the complementary role of such taxes is best understood in terms of paying down public debt or inflation control is a matter of debate among GND-supportive economists.^{3,6,125} Existing macroeconomic institutions, such as central banks, need to be “greened” so that monetary policy favors low-carbon sectors, while dedicated investment institutions, such as mission-oriented green investment banks, are also needed to make strategic investments in innovative low-carbon technologies and companies.^{7,8} GND objectives would be further supported by sustainable national accounting and corporate reporting frameworks and genuine progress indicators.¹²⁷

Finally, national-level GNDs need a foreign policy agenda, since the causes of climate change and socioeconomic inequalities have important global dimensions. Among the few GND proposals in our sample that mention foreign policy, some focus on border adjustments to penalize other countries taking inadequate action to reduce emissions, while others focus on rules about trade and capital flows. Further research and policy development are required in this area. We suggest that the objective of simultaneously tackling climate change and socioeconomic inequalities that motivate the other GND policy clusters likewise justifies a more systematic set of parallel initiatives in the foreign policy domain, i.e., initiatives aimed at universal sustainable social provisioning, universal financial security, reconfiguring global power imbalances, complementary global carbon-centric

initiatives, and the reform of international financial institutions to allow states greater policy space and more control over financial flows. For example, a GND foreign policy might seek to facilitate sharing green technologies and intellectual property with poorer countries, liberalize trade in green technologies and restrict trade in carbon-intensive goods and services, increase cross-border and local public investment in decarbonized social provisioning systems and climate adaptation, curtail cross-border financing of fossil fuels and other carbon-intensive projects, close tax havens and loopholes, provide debt relief/restructuring, and establish global tax floors.^{3,4,8,116,128,129}

GNDs as good politics

We now turn to the political case for GNDs. We begin by setting out the political strategy, or theory of change, associated with the carbon-centric policy paradigm and then compare this with the political strategy associated with GNDs. We compare strategies in terms of their capacity to attract passive support among the voting public and active support from organized interest groups. We focus on the US, since it is the US GND proposed by Representative Alexandria Ocasio-Cortez and Senator Ed Markey,² and close variants advocated by activist groups,⁵ that have attracted the critiques from advocates of carbon-centric policy that motivate this article. At the end of this section, we briefly consider the prospects for the GND paradigm in Europe.

We focus here on GND proposals in general, rather than on individual policy components. Of course, individual policy components will undoubtedly influence the politics surrounding a proposal.¹³⁰ Our more general analysis could usefully be adapted when considering specific components of a GND proposal.

The carbon-centric strategy

A large literature on public preferences for carbon-centric climate policies reveals a trade-off between the ambition of such policies and voter support for them.^{130–132} High carbon prices—the holy grail of carbon-centric climate policy—tend to be acutely unpopular among voting publics, especially in liberal-market economies such as the US.^{83,84,133}

This may be why politically sophisticated carbon-centric strategies focus on expanding a supportive coalition of businesses (e.g., by offering subsidies to invest in low-carbon energy) and leveraging that expanded support to strike bipartisan bargains over increasingly ambitious carbon-centric policies.^{134,135} However, supportive coalitions for ambitious carbon-centric policies tend to be weak. Even as the low-carbon business sector (e.g., renewable energy producers) grows thanks to supportive subsidies and regulations, it is typically less powerful than incumbent, carbon-dependent industries.^{119,136} Ambitious climate policy threatens the profits and competitiveness—even the existence—of carbon-dependent industries, which virtually guarantees the fierce counter-mobilization by both business and labor in those industries.^{61–63,66}

Two features of the US political system exacerbate this conservative bias in interest-group mobilization. First, the system does not grant formal, guaranteed access to interest groups, and interest groups are not hierarchically organized; rather, pluralistic interests compete for influence over the policy process. Accordingly, interest groups are incentivized to invest heavily in building relationships with politicians and regulators

(through lobbying, donating, fraternizing, “revolving door” relationships, etc.) and in influencing the public to favor their policy positions through advertising and public relations campaigns. Consequently, policy debates become more polarized, and in those debates the costs of policies to consumers are made more salient.⁶² Since the public is averse to salient costs and tends to value climate mitigation only weakly, this dynamic strengthens the hand of interest groups seeking to oppose carbon-centric climate policies.^{62,137} Second, the US political process is virtually unshielded from the influence of money.⁷² These two features combined mean that incumbent interests, with long-standing relationships and more money, wield disproportionate political influence.⁷²

A further feature of US politics works against the logic of bipartisan compromise that ultimately motivates the carbon-centric political strategy. The US’s majoritarian electoral system makes partisan control of government more volatile and gives the party in power more authority. This means that office-seeking political opponents have strong incentives to oppose government policies and weak incentives to reach compromise deals.^{62,138}

The GND strategy

There is good reason to think GNDs will enjoy greater popular support than ambitious carbon-centric policies in isolation. Numerous opinion survey studies find that carbon-centric policies are more popular among respondents when respondents perceive the policy’s costs to be borne by others, especially businesses and the relatively wealthy^{139,140}; when benefits are framed in terms of co-benefits that are more proximate, near-term, and tangible (compared with the benefit of climate change mitigation)¹⁴¹; and when policies are packaged with ancillary measures that offset costs or provide benefits that are valued more highly by respondents.^{123,131,142} This suggests that GNDs should be relatively popular, as they include and emphasize non-carbon measures that people value more highly and shift costs onto the wealthy. Opinion poll evidence from the US supports this prediction,^{13,143} as does a recent conjoint survey experiment.¹³⁰ The authors of the latter study conclude that “climate policy bundles that include social and economic reforms such as affordable housing, a \$15 minimum wage, or a job guarantee increase US public support for climate mitigation.”¹³⁰

Members of the Sunrise movement, a key proponent of a GND in the US, have explained that their political strategy aims not only to grow this base of passive political support but also to connect it to organized interest groups, forging a mass social movement around a new ideological consensus.^{10,11} Rather than seeking to strike compromise bargains on ideological terms largely defined by conservatives, this strategy embraces the competitive nature of the US political system. Drawing lessons from the political realignments that underpinned the original New Deal and the neoliberal ascendancy four decades later,¹⁴⁴ proponents seek to build a movement powerful enough to sustain a multi-decadal program for a GND.¹¹

How is this strategy likely to fare? We can acknowledge that it carries some political liabilities. First, it will provoke wider organized opposition than carbon-centric strategies because many of the proposed non-carbon policy components—such as an increased minimum wage, pro-union reforms, and progressive tax reform—threaten the interests of powerful corporations,

financial institutions, and wealthy elites from sectors that are not particularly carbon dependent.¹² Second, GNDs may be more vulnerable than carbon-centric policies to certain tried-and-tested lines of conservative attack: contrived fiscal constraints, fears of “socialist” state planning, and racial dog whistles that aim to undermine support for welfare state expansions.^{12,110} All these attacks will be amplified by a disciplined conservative media machine¹⁰⁹—a polarization strategy that has already caused a decline in GND support among Republican voters.¹³

However, because GNDs integrate decarbonization into a broader political program of socioeconomic reforms aimed at benefiting the vast majority, they have the potential to mobilize a broad-based coalition of worker- and community-aligned interest groups: a political asset that carbon-centric policies typically lack.^{1,4,136,137} One key example is service sector unions. Meeting human needs in a zero-carbon, ecologically resilient world entails decommodifying much economic activity, implying growth in labor-intensive and low-carbon sectors such as education, health and social care, and the arts.⁹ Currently, much work in these sectors involves low pay and poor conditions and is disproportionately done by women and people of color. GNDs provide a framework in which ongoing struggles to improve service sector pay and conditions can be bolstered by the imperative to decarbonize and dematerialize, giving service sector unions reasons to mobilize for climate action.^{4,145}

To take another example, many GND proponents explicitly integrate racial and indigenous justice agendas into GND policy platforms and political organizing. Decades of work by environmental justice activists and scholars has linked pervasive, environmentally mediated health inequalities to wider patterns of racial and indigenous oppression, paving the way for distinctive racial and indigenous perspectives on, and agendas for, climate action.^{87,146,147} The broad scope, ambitious scale, and more systemic governing philosophy of the GND paradigm coheres with these perspectives and agendas much more closely than does the narrower, more technocratic carbon-centric paradigm. It thus opens the space for multiracial climate mobilization in the US, without which ambitious climate policy seems unlikely to emerge.¹¹⁰

Whether the GND’s political advantages outweigh its liabilities enough to make GND legislation viable in the gridlocked US Congress remains to be seen. But it is clear that the GND paradigm has influenced the climate-policy strategy of the Biden administration and has inspired and catalyzed GND proposals at US state and municipal levels and within the framework of indigenous sovereignty.¹⁴⁸ One example is the successful campaign for Boston mayor by Michelle Wu, who was elected in November 2021 on the back of a highly detailed GND platform.^{148,149}

The GND paradigm in Europe

Among high-income countries, the US has exceptionally high levels of inequality.²¹ We expect GNDs in less unequal countries and those with more generous welfare states to include somewhat different and more modest proposals for reconfiguring power, ensuring financial security, and providing for basic needs.¹⁵⁰ Cross-national variation in electoral institutions is another reason we should continue to see different patterns in the content and political trajectories of GNDs, as is the case

with climate policy more generally.^{62,138} In the negotiated political economies of continental Europe, for example, we would expect the privileged access to policymaking enjoyed by businesses and unions to moderate grassroots pressure for more radically transformative policy agendas.⁶² Perhaps these incumbents will channel that pressure into an industry-focused just transition agenda that lies somewhere between a purely carbon-centric approach and a comprehensive GND.

It is too early to test these predictions, but evidence is already emerging to suggest that GND-style programs are politically feasible and perceived to be electoral assets by political actors in Europe. The European Commission promulgated the European Green Deal (EGD) in December 2019, an overarching policy framework to achieve “climate neutrality” in Europe by 2050.¹⁵¹ The substance of the EGD is modest by the standards of the GND paradigm that we and others have outlined,^{152,153} but it marks a shift toward a more integrative, investment-driven, and solidaristic approach, which suggests a break from the EU’s prevailing carbon-centric, incrementalist approach to climate policy.^{154–156} Recent experiences with GND-style policies in some EU member states further suggest the paradigm’s viability. For instance, the incumbent Spanish Socialist Party ran successfully on a prominent GND platform in April 2019, adding 38 seats to its plurality in the 350-seat Congress. In Germany, social and economic support measures were central to forging a “just transition” deal to phase out coal,¹⁵⁷ and recent national election results suggest the country is poised to adopt more ambitious energy and climate policies.

Inevitably, in Europe and elsewhere, shocks and crises will pose challenges for any climate-focused agenda—the current European “gas crisis,” Russia’s invasion of Ukraine, and resulting energy security concerns being one case in point, and the COVID-19 pandemic being another. If anything, however, GNDs are likely to prove more politically resilient to such shocks than carbon-centric alternatives. This proposition was put to the test in 2020–21: so far, the more integrative, solidaristic, and investment-oriented features of the EGD have enabled its proponents not only to keep it on the political agenda but to position it at the center of the EU’s strategy for economic recovery from COVID-19.^{154,155}

CONCLUSION

Contrary to the assumptions of carbon-centric critics of GNDs, climate change and socioeconomic inequalities are deeply connected. Not only does climate change exacerbate socioeconomic inequalities, but existing inequalities also fuel climate change. Economic inequality creates power imbalances that enable capital interests to expand carbon-intensive production and obstruct climate policy, and it empowers the wealthy to live unsustainably carbon-intensive lifestyles that set standards of consumption to which those on lower incomes aspire. At the other end of the income distribution, poverty, un(der)employment, and financial insecurity leave people trepidatious of ambitious carbon-centric policies that threaten to erode their purchasing power or deprive them of decent work. These economic effects are often geographically clustered and layered onto existing spatial inequalities, fueling political backlash. Finally, it is plausible that social and economic inequalities un-

dermine the social bonds of trust necessary for transformative collective climate action. In light of these linkages, to attempt to decarbonize without also addressing socioeconomic inequalities is like swimming against the tide.

Identifying these mechanisms that link socioeconomic inequalities to climate change is a crucial first step to crafting a policy program and political strategy for deep and rapid decarbonization. Because GNDs contain clusters of policy components that together mitigate all these mechanisms, we have argued that they would be more effective at achieving deep and rapid decarbonization than carbon-centric policies alone. Moreover, because the GND paradigm rests on a solidaristic, justice-based normative foundation,¹⁵⁸ it is a powerful vehicle for the kind of transformative governance increasingly seen as essential for tackling interlinked social-ecological crises and achieving the Sustainable Development Goals.^{159,160}

But sound policy is valuable only to the extent that it can be enacted and implemented. The GND policy agenda will succeed only if it inspires a mass movement that aligns the political interests of numerous organized groups with a majority of citizens. Looking at the US, we argued that although GND proposals face many political obstacles, the political strategies associated with them embody a more realistic theory of change than the strategies associated with the carbon-centric policy paradigm. In Europe, differences in patterns of socioeconomic inequalities and in political and economic institutions may mean that GND proposals take different forms, but there is suggestive evidence that there, too, the more integrative, solidaristic, and investment-oriented GND paradigm offers a politically viable alternative to carbon-centrism.

We conclude by suggesting three areas that could fruitfully be explored in future research. First, while there is much literature and vibrant debate on the role of income inequalities in driving climate change through consumption channels, we urge more attention to the other themes and mechanisms that we identified, particularly production. The consumption bias in current scholarship may reflect prevailing fidelity to the neoclassical economic assumption of “consumer sovereignty.” In any event, excessive attention to the role of consumers leaves underexplored the other forces that determine what gets produced and to what ecological effect. We encourage more scholarship on how inequalities shape ownership patterns, systems of provision, corporate governance regimes, and firm decision-making—and how these affect the emissions, low-carbon innovation, and political engagement of different kinds of firms and organizations.

Second, as GND-style policies become increasingly adopted by political parties and governments, we see growing opportunities to research both the political effectiveness of GND strategies and their success in disrupting carbon lock-in and reducing GHG emissions. At present, many GND proposals are relatively broad and goal oriented, which has helped to mobilize wide coalitions of interest groups. However, as GND proposals are sharpened amid the hard battles of political campaigning, legislative enactment, and policy implementation, proponents will increasingly need to confront potential trade-offs. For instance, electoral imperatives will incentivize the prioritization of growth- and welfare-oriented aspects of the GND agenda, such as large-scale investment in sustainable social provisioning, and financial

security policies. But if these measures are not soon complemented by more radical measures to reconfigure power and curb private luxury consumption, the project's ambitious climate mitigation objectives may prove elusive,⁴⁰ or it may be undermined by real resource constraints in the economy or the difficult politics of public debts, deficits, and inflation. How GND proponents manage these tensions and trade-offs in the years ahead will be fascinating to study.

Finally, our discussion of GND-style policies and politics has focused on national-level policies in high-income countries, but climate change is a global problem, it is one of many ecological crises we face, and socioeconomic inequalities persist in all countries and between them. Accordingly, proponents will increasingly need to embed the GND paradigm in international institutions and norms and to craft policy responses that encompass the full breadth of ecological and socioeconomic challenges.¹⁶¹ Failure to attend to the global dimensions of the GND paradigm risks perpetuating neocolonial and extractivist patterns of accumulation and dispossession, albeit with a green gloss.^{4,162} In this respect, scholars and practitioners in high-income countries have much to learn from greater engagement with scholars and social movements in low- and middle-income countries, and from marginalized communities everywhere, that are aiming to tackle climate change, ecological destruction, and socioeconomic inequalities together.

SUPPLEMENTAL INFORMATION

Supplemental information can be found online at <https://doi.org/10.1016/j.oneear.2022.05.005>.

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AUTHOR CONTRIBUTIONS

The paper was jointly conceived and researched. F.G. drafted the manuscript and its revisions. N.H. compiled and reviewed the corpus of GND proposals and produced the supplemental information tables. F.G. and N.H. jointly conceived the figures. F.G. and N.H. jointly reviewed and edited the manuscript, revisions, and supplemental information tables.

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