



Green Backlash and Climate Change Policies

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On January 30–31, 2025, IGCC convened a first-of-its-kind research incubator to examine the links between climate change, democratic backsliding, and public backlash against green policies. The conversation aimed to bridge the divide between scholars within the political and climate sciences to promote interdisciplinary studies at the crossroads between global environmental and governance challenges.

Workshop participants prepared memos before the meeting responding to two questions: *under which conditions can climate change and climate policies trigger a green backlash?* And what are the *consequences of climate change disruptions and green backlash for democracy?* These memos are now published as part of an ongoing IGCC essay series on Climate Change, Green Backlash, and Democracy.

About the Author

Robert O. Keohane, professor of international affairs at Princeton University, examines different climate policy frames to generate some thoughts about a theory of green backlash.

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Keohane, Robert O. 2025. *Green Backlash and Climate Change Policies*. IGCC Essay. escholarship.org/uc/item/6q2833r3 In this memo I will address one question posed by the organizers of this meeting: **under** which conditions can climate change and climate policies trigger green backlash?

With respect to conditions, I will focus on how climate advocacy is framed by its proponents. I envisage five different framings and ask how they may affect which agents are likely to be mobilized against advocates of climate change using these framings. I will distinguish between domestic and international backlash. As the organizers of this meeting seem to have intended, these comments will be speculative.

My first hypothesis is that for a social movement to generate a domestic backlash, it must achieve a degree of success that makes it sufficiently threatening to groups supporting the status quo for any potential opposing coalition to overcome its own collective action problem. The difficulties of collective action afflict all social movements—progressive or not—that seek what Mancur Olson called collective goods. If these difficulties are sufficient to make progressive social movements unthreatening, they eliminate the incentives for their potential opponents to organize.

Only if the conditions for backlash exist will the framing of advocacy demands affect whether backlash occurs. My second hypothesis is that the more *targeted* is a social movement, the more likely it is to generate a backlash. However, I also believe that more targeted social movements are more likely than diffuse ones to succeed; so tensions between efficacy and avoiding backlash are likely to be inherent. Villains are useful for social movements, but constructing villains reinforces enmity.

My third hypothesis focuses on international backlash. For an international backlash against green policies to materialize, there must be serious climate action by some countries, and resistance by others who are sufficiently powerful to challenge the activist coalition.

The Illusion of a Technological Utopia

The technology available to deal with climate change is rapidly improving. Costs of solar and wind power, and of batteries, have fallen dramatically in the last decade, generating optimism that effective action can be taken, at a relatively moderate cost, to achieve decarbonization in the United States and elsewhere in the world. This optimism comes not merely from imaginative futurologists but from sober reports by competent scientists and engineers. A large team of researchers at Princeton University issued a report, *NetZero America*, featuring five detailed scenarios incorporating varying assumptions about the rate of renewables installation and the use of other technologies such as nuclear power and carbon capture and storage. The report's conclusion is that the United States could achieve net-zero carbon emissions by 2050, but that doing so would require immense technological and infrastructure investment.

A similar conclusion was reached by a February 2021 report of the National Academies of Science, Engineering, and Medicine (NASEM), entitled *Accelerating Decarbonization of the U.S. Energy System.* This NASEM report emphasizes clean energy standards, infrastructure investment for long-lived projects, and technology investment by the U.S. government, along with having a sustained focus on equity issues. It argues that although deep decarbonization in the United States will require an enormous investment of \$2.1 trillion, this investment will repay itself with much lower continuing inputs, and that it is therefore feasible and economic. Immediate action is necessary, as are very large investments in technological innovation. According to both reports, a well-managed transition will create jobs, although the NASEM report stressed that explicit effort will be necessary to ensure that they are distributed in areas where fossil fuel jobs are now and that they are as well-paying as current jobs.

In his book aimed at an educated general audience, Bill Gates (2022) also argues that the climate problem can be solved. His distinctive focus is on what he calls the "green premium"—the excess cost of no-emissions energy. For each of a variety of sectors, he asks what innovation, research and development (R&D), and deployment would be needed to reduce the green premium to zero. He points out that in some sectors (such as renewable electricity and electric vehicles) deployment can be effective now, whereas in others (like airlines, cement, and steel) a decade or more of R&D may be needed to reach that point.

Gates admits (p. 14) that "I think more like an engineer than a political scientist, and I don't have a solution to the politics of climate change." All the actions that he suggests at the end of his book are individual acts by people or corporations.

Gates' disinterest in politics is understandable in view of his emphasis on reducing the green premium to zero. If the green premium were reduced to zero, there would be no need for political action or for consumers to be willing to bear costs for the sake of the planet. Politics, and persuasion in general, would be unnecessary since participants in the economy would not notice the effects of climate action.

In a sense, then, Gates' vision of a world with zero green premium is a vision of a scientific and technical utopia: a world in which recalcitrant and self-interested human nature does not interfere with the integrity of the global climate because science and technology have made it costless to decarbonize. With a zero green premium in all

sectors, human beings would not be forced to make tradeoffs between the value of climate integrity and other values, such as societal economic welfare or individual self-interest.

As with many utopias, the problem is less in the vision than in the pathway. The irony is that without government action—regulation, subsidies, and incentives—climate change is likely to spin out of control before the utopian decarbonized equilibrium can be reached. Perhaps in climate utopia, politics will disappear, as class struggle disappears in Marx's utopia; but as in the Marxist vision, politics is a crucial part of the process of reaching this state of affairs. Technological innovation makes decarbonization feasible, but no serious analysis shows that it is automatic.

So climate change is a political problem, but the character of the ensuing politics is likely to depend on how that political problem is conceived. In this essay I ask how five different framings of the problem of climate politics could generate different types of backlash against climate change advocates.

The Collective Action Framing: Inaction, Little Backlash

The first framing sees the central issue of climate politics as one of collective action (Olson 1965, Keohane and Victor 2011). How can human beings engage in collective action to achieve a common good when such action is costly and individuals have incentives to avoid the costs of participation? Elinor Ostrom has cautioned that what she calls common-pool resource problems (CPRs) come in many distinct forms, depending on the resource and institutional conditions. In some settings, common-pool resource problems are solvable through self-organized collective action; in others, they are not (Ostrom 1990, ch. 1). Yet the generic problem is the same: how to provide a public good for a set of actors whose individual incentives do not lead them to provide it through their own autonomous actions, either through market mechanisms or otherwise.

Economists and political scientists following economic lines of analysis have often used this framing. Failure to act vigorously on climate change is viewed as a market failure, tragedy of the commons, or free-riding problem (Nordhaus 2022; Keohane and Victor 2016). In such an analysis, inaction or weak action on climate change is accounted for by the combination of discounting and collective action problems. The benefits from action on climate change are remote, and therefore heavily discounted; and the costs of action—taxes or the effects of regulation—are immediate. The agent being considered is the individual consumer, voter, or—at the international level—state. None of these

agents have the incentive to engage in costly emissions reduction on their own, since the damage from an individual's emissions is shared globally. Except for large states, reducing one's own emissions will not significantly reduce the emissions damage that one incurs.

Notably, in this framing there are no villains. Everyone is acting as a normal human being. Different people and corporations have different carbon footprints, but these different footprints emerge from differences in lifestyle or income inequalities, not from malevolence, hostility, or inherent inter-agent conflict. The politics that results is one of problem-solving with distributional implications, but not one in which opponents or obstructers need to be eliminated.

Lacking villains, the collective action framing seems likely to generate a rather diffuse backlash. This framing has weaknesses, including that it should expect major states, notably the United States and China, to have taken the lead on climate issues, but they have not done so, or have done so only weakly. China—the world's number-one polluter, accounting for 30.10 percent of global emissions in 2023—and the United States—number two, at 11.25 percent—are not taking effective action: China's emissions continue to increase and the United States has been unable to enact tough emissions limits. Of the other top-five emitters, only the European Union (6.08 percent of global emissions) has taken strong actions. India (7.8 percent) and Russia (5.05 percent) have done relatively little.

Since the United States has solved collective action problems on other issues, its own reluctance cannot be explained by the international collective action problem. For most of the last 75 years, the United States has been the leader of pluralist democracies on a variety of issues ranging from economic growth to alliance security and human rights.

Since the collective action framing has no villains, and there has been little action on climate change by most governments, this framing has generated little backlash.

Political-Economic Interests and the "Existential" Politics of Climate Change

Missing from the simple collective action story are powerful and well-organized interests seeking to veto action because they will be hurt by it. In pluralist democracies such as the United States, concentrated producer interests play an outsized political role. They have strong stakes in these issues and possess the resources to influence electoral and legislative outcomes.

Firms and sectors depend for revenues on profits from specific income streams, which they seek to maintain. The more they depend on fossil fuel income streams, the more they will lobby for, and defend, the status quo. Outstanding examples are the fossil fuel industry and industries that it supplies with energy: historically, the auto-industrial complex, the utility sector, and manufacturers dependent on cheap energy. Independent actions to internalize social costs of emissions are discouraged by the collective action problem.

When dangers to these interests are remote, they may sometimes be relatively passive; but when such interests are in danger from policy initiatives, they can be expected to wield their resources to block action adverse to their interests. The more that such dangers are "existential"—endangering vital interests and even their existence as thriving enterprises—the more resistance we can expect. Indeed, major fossil fuel firms have been vigorous opponents of legislation that would threaten their profits or their very existence. Colgan, Green, and Hale conceptualize this struggle in materialist terms as one between owners of assets that generate climate change—such as fossil fuels—and owners of assets that will be devalued by it, such as prime ocean beach property (Colgan, Green, and Hale 2021).

This focus on economic interests calls attention to sectoral divisions within a political economy such as that of the United States. Any serious analysis of the political economy of climate change has to disaggregate interests within countries, identifying sectors with interests in continued carbonization and in decarbonization.

Owners of "climate-forcing assets" predictably engage in backlash activities, which we observe. These agents include major corporations with enormous economic and political resources; so their interests are overrepresented in the American political system. In 2024, the oil and gas industry in the United States contributed \$219 million to political action on climate change, 88 percent of which went to the Republican Party or organizations such as political action committees (PACs) that contribute to Republicans (Yale Climate Connections.org, January 2025). Any coherent account of the political economy of climate change needs to emphasize the role of corporate power.

It is especially important to identify sectors whose interests will change as a result of technological change combined with policy actions. Most salient in this respect is the automobile industry, since the proven technology for low-cost electric vehicles was rapidly shifting this industry in a green direction, at least before the election of Donald Trump in 2024. From being a major climate-forcing industry, automobiles were becoming an important green industry, divorced from the fossil fuel economy as long as electrification does not depend on fossil fuels. Backlash is not necessarily permanent. Yet, as Trump's election indicates, neither are moves in a green direction necessarily irreversible.

Whenever economic interests in a political economy change, analysts must ask about the institutional implications of such changes. At the turn of the 20th century, the internal combustion engine and Henry Ford's Model T led to the demise of a whole industrial structure built around canals, railroads, and horse-drawn wagons. Canals and railroads remained, although their operators had to adapt; horse-drawn wagons disappeared. Likewise, the rise of electric vehicles, if continued, seems likely to lead to a radical streamlining of the fossil fuel industry and a reduction in its political power as well as its economic profile. Agents in government that depend on it for support would be stigmatized and would have to adjust radically or suffer reduced influence—and therefore they will therefore resist, as fossil fuel producers are doing now. Agents that have not relied on fossil fuels would become stronger. Both backlash and changing political strength are inherent in the existential distributional politics of a dynamic economy.

Modern Capitalism and Backlash

The emissions that are generating climate change are shaped by the nature of modern capitalism as an industrial system. Socialist economies were wasteful and had poor records of pollution, including carbon emissions; but they have mostly given way to various forms of capitalism. In my view, major policy efforts to achieve decarbonization will create major disruptions in any advanced capitalist economy. Social movements oriented toward rapid change will challenge the political dominance of business. As noted above, intense political struggles will take place.

The survival of capitalism as a system in the context of democratic politics depends on its legitimacy—that is, its acceptance by publics as a defensible way to organize economic institutions and processes, and making decisions in appropriate ways. Capitalism lost this legitimacy in some countries after the Great Depression of 1929–33 and could have lost it after the financial crash of 2008–09, but for prompt reflationary actions by governments. Insofar as climate change advocacy is perceived as an attack on capitalism, it will generate fierce backlash, reflected in the recent election in the United States, which seems likely to delay adjustment until both disruptive climate change and frantic efforts to limit it become more likely.

Non-Marxist economists such as Joseph Schumpeter agree with Marxist economists that the history of capitalism is a history of uneven development—or what Schumpeter called "creative destruction" (Schumpeter 1942). Capitalism spawns innovations that create some industries and destroy others, as Henry Ford's Model T destroyed the

horse-and-wagon economic complex, and as the Internet is disrupting the media, movie theatres, and travel agencies. Economic losers resist such changes politically if they can. If the losers are politically well-organized and entrenched, they may prevail for a time, generating enormous political battles. Early in the product cycle, the coalitions that prevail in these political struggles will intervene to accelerate or delay technological changes that could be expected to affect their own fortunes. Later in the cycle, they will seek to accelerate or delay measures to reduce emissions or turn them in different directions. Throughout the product cycle, they will seek to shape institutions in their interests, either to change them or to maintain them in order to block change.

An apt analogy to the possible abolition of fossil fuel use is the abolition of slavery, since emancipation and the Northern victory in the American Civil War destroyed economic assets of enormous magnitude, essential to the white-dominated political economy of the South and the wealth and status of its planter class. Suddenly, the "assets" that deeds in slaves had conveyed were economically worthless in asset terms, very much like the stranded assets that will remain when serious climate change policies are undertaken. The South opposed emancipation so intensely that it was willing to fight a tremendously destructive civil war, on its own territory, against a much stronger opponent, and with low odds of eventual success, in order to retain the cruel system of bondage that rendered human beings marketable assets. Resistance to effective climate change policies is unlikely to be quite so intense; but the magnitude of anticipated loss—to assets and way a life—suggests that backlash will be fierce. So do the initial responses of the Trump administration.

Geopolitics: The Second Image Reversed

In climate politics, the impact of domestic on international politics is obvious. The Biden administration deliberately developed nationalistic policies that antagonized U.S. allies in order to pass its climate bill in 2022, the curiously named Inflation Reduction Act (IRA). The political necessity to gain domestic support made it impossible to follow policies that would facilitate international agreement. Donald Trump has now started to pursue opposite policies, which are likely to weaken the incipient international climate change regime, as well as to create an international backlash—at least in Europe—against American policy.

More serious from the standpoint of those of us seeking to respond effectively to climate change, the whole climate regime seems on the verge of collapse, between the OPEC nations that have already managed to a considerable degree to hijack the COP process, and a United States government in climate denial, its basis of support is too

weak. International backlash, reinforcing domestic backlash in the United States and elsewhere, is a likelihood.

A Technological Solution?

If we were very lucky, green backlash would be avoided by new technological breakthroughs that could generate radical change in the energy system. Solar power is now competitive with conventional power generation and becoming more cost effective. In some areas, wind power is the lowest-cost source. The most serious obstacle to electrification in the United States is securing permits to build out the grid to at least three times its current capacity. Transportation is likely to lead the electrification process, but heating and cooling buildings with electricity from the grid is also feasible, although it would probably require a long process of infrastructure building.

Heavy industry—notably cement, aluminum, and steel—poses a more difficult problem, but early signs suggest that progress is feasible in these sectors. The Wallenberg and Maersk interests have been doing equity fundraising for green steel fueled by hydropower in northern Sweden, with a target of €1.5 billion (*Financial Times,* April 25, 2023).

Manufacturing may also be transformed by 3D printing on an industrial scale. And probably most difficult—early efforts are being made for the development of noncarbon liquid fuels that would be suitable for uses such as in airplanes. Notably, the IRA included a big subsidy for hydrogen fuel.

As implied above, we may now be in a Schumpeterian moment of creative destruction. Schumpeter wrote in 1942 that what matters is not ordinary oligopolistic competition but "competition from the new commodity, the new technology, the new source of supply, the new type of organization—which strikes not at the margins of the profits and outputs of the existing firms but at their foundations and their very lives." (Schumpeter 1942, p. 84). Electric vehicles strike at the "very lives" of firms such as Stellantis—the former Chrysler—and have forced attempts at mergers of major firms, such as Honda and Nissan. Even with the Trump administration seeking to apply the brakes, there is likely to be an enormous expansion of electric infrastructure in the United States, and certainly in other industrial countries. There will be great opportunities for entrepreneurs.

At the same time, there will be huge challenges for U.S. trade unions. Electric vehicles require many fewer workers, and less skill, than internal combustion vehicles. Technological change and the opportunity to build nonunion plants in the South will work against unions, which can expect little support from the Trump administration. But the absence of a backlash would be a positive effect of a technological solution.

Conclusion

As noted at the beginning of this memo, generating a backlash on the part of the status quo requires a progressive coalition to be sufficiently effective to be threatening to supporters of the established order. During the last 65 years, the movements for civil rights, against the Vietnam War, and for women's rights have attained this degree of efficacy. So far, climate change advocacy based on efforts to resolve collective action problems has not. Facing their own collective action problem, advocacy groups have not generated either the massive protests of these other movements, a threat to capitalism, or even a high priority on the political agenda. As a result, backlash has been muted.

Other framings of climate change generate a mixed pattern of potential backlash. The political-economic interest framing generates agitation against the fossil fuel industry, and a backlash, taking the form of intense political activity, by that industry. The modern capitalism framing could generate backlash if it became sufficiently popular to affect policy. International backlash is a likelihood, in view of Trump Administration policy. Finally, technological responses offer the possibility of win-win solutions that do not generate backlash.

From a climate advocacy standpoint, the only thing worse than backlash is its absence.

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