UNDER THE RADAR: A COHERENT SYSTEM OF CLIMATE GOVERNANCE, DRIVEN BY BUSINESS

by Louis G. Leonard III

Louis G. Leonard III is a visiting scholar with the Environmental Law Institute. For over a decade, he worked for World Wildlife Fund as Senior Vice President and leader of climate change and energy programs, and prior to that, practiced environmental and natural resources law with the federal government and in private practice.

SUMMARY

This Article argues that growing private efforts to address climate change collectively take on the attributes and functions of a governance system that could be vital to societal decarbonization. Instead of evaluating specific initiatives or actions of particular businesses, it explores the entire field of private climate action and offers new ways of thinking about the path ahead. The author explores the opportunities and benefits of private climate governance, tests the current landscape of initiatives against criteria of effectiveness and legitimacy, and suggests a research and action agenda for the climate community to bridge gaps in the system.

In 2003, the first major bill to address climate change was introduced in the U.S. Senate by John McCain (R-Ariz.) and Joe Lieberman (D-Conn.). In two decades since, the primary barometer used by advocates and experts to measure progress on climate change in the United States has been proximity to a new federal climate law. This measuring stick usually focuses on the U.S. Congress, but at times can extend to federal regulatory action (e.g., the Barack Obama Administration's Clean Power Plan), state climate or renewable energy laws, or even international public law, like the Paris Climate Agreement.

It's understandable that influential leaders in philanthropy, the media, or civil society would use public policy as the capstone goal for their strategies or stories about how to tackle climate change. After all, the climate crisis is so pervasive that only systems change matters. Motivating broad-scale, science-based behavior change by companies and individuals is hard to imagine otherwise. Pilot programs or anecdotes won't drive societal shifts.

Even so, what if I told you that quietly over the past several years, a system has begun to emerge in the United States and beyond that is motivating meaningful climate action without regard to government mandates? And what if this system contained elements we would want to see in any climate legislation: science-based ambition, public reporting, steps to foster implementation and innovation among the regulated community, and accountability for participation and compliance? Who could build such a system amid the divided politics of the United States in 2020?

The following pages tell this unlikely story with the unlikeliest of main characters: major corporations, supported by a cast of largely low-profile civil society groups. As you wonder whether such a story could be anything but fiction, you probably have some questions: Can this system produce change at a scale that matters? Why do private actors participate? Are there gaps in the system, and what are the barriers to optimizing it? How does it relate to public policy—is it an alternative to the holy grail of federal climate legislation or does it make public law solutions more likely? And perhaps importantly, you may ask, how has it flown under the radar with the media and failed to garner sufficient support from climate funders?

Here's the CliffsNotes[1] version: in recent years, initiatives by private-actor groups[2] to cut carbon emissions, adopt climate-smart agriculture practices, and increase renewable energy have grown in scope and ambition. Although there are important links between these efforts and public policy, the actions described here are not mandated by public law.

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1. *See* CliffsNotes, *About CliffsNotes*, https://www.cliffsnotes.com/discover-about (last visited May 21, 2020).
2. Private-actor groups include not only companies, but also higher education institutions, nonprofit hospitals, cultural institutions like museums, and others. For clarity, this Article focuses on activity within the business sector, but many of the issues discussed also are relevant to the important ongoing private climate activity in other areas.

Instead, participation is driven by a complex mix of other compelling motivations, including pressure from investors and the public, maintaining access to markets, and a growing economic and social case for climate action. But the system is at a delicate moment, perhaps having flown too far, too fast. Its future, and perhaps ours, depends on whether bridges are built, barriers are cleared, and current and new players come together to help it endure.

This Article presents the hypothesis that these growing private efforts, when examined collectively, begin to take on the attributes and functions of a system of governance that could be vital to societal decarbonization.[3] Use of the term "governance" is intentional, but also potentially confusing because, among experts and casual readers alike, "governance" often connotes a system created by public law. In the private sector, corporate governance is well understood but describes the much narrower fiduciary and decisionmaking functions internal to a specific company. In this Article, private governance is used more broadly to encompass private activity that takes on a role traditionally assigned to government. In other words, these actions can advance the common good, even where company motivations also include advancing their own interests.

This analysis takes the concept of private governance further than most studies to date, by evaluating not just specific initiatives or actions of particular businesses against governance criteria. Instead, the entire field of private climate action is explored, in order to ask whether the collective effort hangs together as a system of governance and should be treated as such by its many participants.[4] Although a set of civil society organizations and influential individuals within the private sector have provided important coordination, what's explored here has largely emerged over time through a bottom-up process. The idea that it might be evaluated collectively as a governance system was rarely, if ever, considered. So the reflections made here are offered to provoke new ways of thinking going forward, rather than as critique of past efforts.

The aim of this Article is not to contribute deeply to the study of how private climate governance nests within broader theories of political science or law. Rather its goal is to build a practical bridge, from the academy's efforts to differentiate effective private activity from greenwash to the broader climate movement's work to set priorities and build strategies. And also, if private climate action is to be elevated from the pages of sustainability reports to a pillar of society's climate-driven transformation, governance may help us to understand what more we should expect of this promising field of work.

Chapter I of our story explores opportunities and benefits of private climate governance, including the scale of its potential to deliver emissions reductions as well as other advantages it brings to the broader effort to address climate change. Chapter II reviews scholarship around private environmental governance[5] and tests the current landscape of initiatives against criteria of effectiveness and legitimacy. Chapter III explores gaps in the system and suggests a research and action agenda for the climate community to bridge them. In total, this review supports the case that the fledgling system of private climate governance—if improved, supported, and scaled—can take its place within the assemblage of system change efforts that are needed to drive decarbonization and help ensure a happier ending for our bigger story of human life on planet earth.

Chapter I: How Much Really Could Be Achieved by a Private Climate System and Why Should We Bother?

Recent research points to significant emissions reduction potential from private climate action. And there are other benefits from a robust private climate governance system at a time of political controversy and public confusion over climate change in the United States and elsewhere.

A. Quantifying the Opportunity

The number and type of private actors making legally voluntary commitments is large and growing. Collectively, these commitments represent an opportunity to reduce emissions on the scale of entire nations. A 2018 global assessment of individual corporate climate commitments found that 2,175 companies have pledged at least one climate commitment under CDP's (formerly Carbon Disclosure Project's) reporting platform.[6] These companies represent $21 trillion in revenue (roughly equivalent to the entire U.S. gross domestic product). A separate 2017 analysis found that nearly one-half (48%) of the Standard &

3. Any effective response to climate change must include efforts both to reduce greenhouse gas (GHG) emissions (climate mitigation) and to prepare for the physical risks and impacts of climate change (climate adaptation). Physical climate risks are an important motivator for many businesses that take action to reduce emissions. That said, to manage its scope, this Article does not attempt to assess the important private governance efforts related to climate adaptation, which are growing but less mature than those focused on climate mitigation. *See*, *e.g.*, European Bank for Reconstruction and Development & Global Center on Adaptation, Advancing TCFD Guidance on Physical Climate Risks and Opportunities (2019), https://cdn.gca.org/assets/2018-08/EBRD-GCECA%20final%20report_full_0.pdf; Annica Cochu et al., Adelphi, The Roles of the Private Sector in Climate Change Adaptation—An Introduction (2019), https://www.adelphi.de/en/system/files/mediathek/bilder/EXPLAINER%20The%20roles%20of%20the%20private%20sector%20in%20climate%20change%20adaptation%20-%20adelphi.pdf.

4. Evaluating private climate action in this way can be seen as part of a "profound conceptual shift" that is underway more broadly in the areas of both public and private climate governance. *See* Steven Bernstein & Matthew Hoffmann, *The Politics of Decarbonization and the Catalytic Impact of Subnational Climate Experiments*, 51 Pol'y Sci. 189-211 (2018), *available at* https://doi.org/10.1007/s11077-018-9314-8.

5. The phrase "private environmental governance" was introduced into the legal literature by Prof. Michael Vandenbergh in his article *Private Environmental Governance*, 99 Cornell L. Rev. 129-99 (2013). Political scientists have explored theories of governance, including by purely private actors for even longer. *See*, *e.g.*, Liliana B. Andonova et al., *Transnational Climate Governance*, 9 Global Envtl. Pol. 52 (2009).

6. Angel Hsu et al., Data Driven Yale et al., Global Climate Action From Cities, Regions, and Businesses (2018) [hereinafter Hsu et al., Global Climate Action]. *See also* Angel Hsu et al., Data Driven Yale, Who's Acting on Climate Change?: Subnational and Non-State Global Climate Action (2017); United Nations Environment Programme, Emissions Gap Report 2018, at 31 tbl. 5.1 (2018).

Poor's (S&P) 500 have at least one climate or renewable energy target.[7]

Even with currently available data, the collective opportunity of this groundswell of new commitments (and the initiatives driving their adoption) is unquestionably large.[8] If the 2,175 companies with at least one CDP-reported climate commitment were to successfully achieve their goals, global emissions[9] would be reduced by 3.4 gigatons of carbon dioxide equivalent (GT CO_2e) annually by 2030.[10] This is equivalent to cutting U.S. annual emissions by nearly 59% from 2019 levels.[11]

Scaling up existing private climate initiatives offers another view of the opportunity. For example, if the Science Based Targets initiative (SBTi) (discussed more later) were to expand its participation to 2,000 companies (currently more than 885 companies are in its pipeline), implementation of these commitments would produce 2.7 GT CO_2e of annual emissions reductions by 2030 (equivalent to nearly thrice the annual emissions of Germany, the largest economy in Europe). Under the same study, if the RE100 initiative were to scale to 2,000 companies (currently 230 companies participate), successfully implementing their goals would result in a similarly significant range of impact (1.9-4.0 GT CO_2e per annum by 2030).[12] A separate analysis found at least 1 GT CO_2e of potential emissions reductions annually by 2030 from private climate action in the United States.[13]

Complementing the significant potential of purely private climate action, there is a growing suite of collaborative initiatives that endeavor to connect the activated private sector with local (and at times national) governments. Studies show that these public-private collaborations have the potential to close the gap to a global trajectory limiting warming to 2° Celsius (C), and in the United States to cut emissions in half by 2030.[14] Public-private collaboration indeed offers significant promise and warrants deeper consideration. That said, due to its reliance on engaged government actors, these partnerships can be limited by political barriers that purely private action can avoid and even help dissolve. Moreover, any robust public-private collaboration on the scale analyzed in recent studies will require an accountable and engaged private sector with experience built from advancing its own climate priorities. This Article focuses on purely private action.

The technical potential of even a subset of private climate initiatives is unquestionably large. The key challenge then is whether an effective system exists to reach it. But first, let's examine other possible benefits of a robust system of private climate action.

B. Circumventing Political Gridlock

The most obvious advantage of a private system of climate governance, particularly in a country like the United States, is the ability to grow climate initiatives with high levels of ambition without being blocked by political barriers. Gridlock around climate change is driven by many factors—both cultural and political. As discussed further below, extensive psychological and sociological research[15] indicates political divisions are shaped by tribal allegiance and concerns about climate solutions, rather than a widespread rejection of the science of climate change by politicians or the public.[16] Moreover, powerful trade associations consistently neutralize support for climate action along both ideological and geographic lines.

The factors driving political gridlock have less impact on private initiatives. First, these initiatives don't rely on public policy for their formation or implementation, so they can bypass the cautious tendencies of politicians. Second, at least in early stages of decarbonization, private action

7. World Wildlife Fund et al., Power Forward 3.0, at 2 (2017).
8. As called for elsewhere, the quantification of the technical potential of private climate action would benefit from greater research attention, including harmonizing terminology, methodological approaches, and means of estimating overlap with government-driven reductions. *See* Angel Hsu et al., *A Research Roadmap for Quantifying Non-State and Subnational Climate Mitigation Action*, 9 Nature Climate Change 11-17 (2019) [hereinafter *Research Roadmap*], *available at* https://doi.org/10.1038/s41558-018-0338-z.
9. Most recent assessments that have examined the technical potential of solely private climate action have been global in scope, rather than focused just on the United States. In many respects, this reflects the reality that private-sector emissions do not cleanly fit within national borders, particularly when supply chain emissions are included (as they must be under new target-setting protocols). Comparisons here to the size of national emissions are to underscore the scale of the opportunity.
10. Hsu et al., Global Climate Action, *supra* note 6, at 36. This assessment estimates the additional impact of these corporate climate commitments over and above reductions achieved by government action under the Paris Agreement during this same period. *See id.*
11. *See* Trevor Houser & Hannah Pitt, *Note: Preliminary U.S. Emissions Estimates for 2019*, Rhodium Group, Jan. 7, 2020, https://rhg.com/research/preliminary-us-emissions-2019/.
12. NewClimate Institute et al., Global Climate Action From Cities, Regions, and Businesses (2d ed. 2019), http://datadrivenlab.org/wp-content/uploads/2019/11/Report-Global-Climate-Action-from-Cities-Regions-and-Businesses_2019.pdf. This analysis only considers the scope 1 and 2 emissions from company targets, not the impact of scope 3 targets. According to a 2019 CDP study, scope 3 targets already approved by the SBTi cover 3.9 GT. *See* SBTi, Raising the Bar (2019), https://sciencebasedtargets.org/wp-content/uploads/2019/12/SBTi-Progress-Report-2019-FINAL-v1.2.pdf.
13. Michael P. Vandenbergh & Jonathan M. Gilligan, Beyond Politics: The Private Governance Response to Climate Change (Cambridge Univ. Press 2017) [hereinafter Beyond Politics]; Michael P. Vandenbergh & Jonathan M. Gilligan, *Beyond Gridlock*, 40 Colum. Envtl. L.J. 217-303 (2015).
14. NewClimate Institute et al., *supra* note 12, at 8-9 (international cooperative initiatives could reduce global emissions in 2030 by 18-21 GT CO_2e below a national policies scenario); Nathan Hultman et al., America's Pledge Initiative on Climate Change, Accelerating America's Pledge: Going All-In to Build a Prosperous, Low-Carbon Economy for the United States (2019), https://www.bbhub.io/dotorg/sites/28/2019/12/Accelerating-Americas-Pledge.pdf (combining bottom-up efforts by business and state/local governments with aggressive new federal policy could reduce U.S. GHG emissions 49% below 2005 levels by 2030, but will "require political prioritization"). Note that the Paris Agreement and many scientists and stakeholders call for using best efforts to limit warming to 1.5°C rather than 2°C.
15. *See, e.g.*, Robert J. Brulle et al., *Shifting Public Opinion on Climate Change: An Empirical Assessment of Factors Influencing Concern Over Climate Change in the U.S., 2002-2010*, 114 Climatic Change 169-88 (2012), *available at* https://doi.org/10.1007/s10584-012-0403-y; Karin Edvardsson Björnberg et al., *Climate and Environmental Science Denial: A Review of the Scientific Literature Published in 1990-2015*, 167 J. Cleaner Production 229-41 (2017), *available at* https://www.sciencedirect.com/science/article/pii/S0959652617317821; Stuart Capstick et al., *International Trends in Public Perceptions of Climate Change Over the Past Quarter Century*, 6 WIREs Climate Change 35-61 (2015).
16. Leaf Van Boven et al., *Psychological Barriers to Bipartisan Public Support for Climate Policy*, 13 Persp. on Psychol. Sci. 492, 494 (2018), *available at* https://journals.sagepub.com/doi/10.1177/1745691617748966.

can successfully proceed without the presence of policy tools that would have to cross cultural and political fault lines. As such, private climate initiatives not only circumvent political decisionmakers and trade associations that may seek to block action, but they involve actions that are less likely to trigger opposition from some sectors of the public—thus making it easier for private-sector actors to move forward with less risk of controversy.

C. Unlocking Public Policy

It cannot be ignored that corporate climate action is circumventing political gridlock that is, at least partially, of its own making. Painting the private sector with such a broad brush is in some ways unfair. Even so, it is unarguable that active opposition from fossil fuel interests and trade associations, combined with relative silence from much of the private sector, strongly contributes to political gridlock on climate issues in the United States and elsewhere.[17] Therefore, to be seriously considered a primary element of a broader climate transition, a private governance system should pass two preliminary thresholds: First, the level of ambition and implementation must be high; it cannot be merely a weak greenwash for the negative impact of corporate influence on climate politics. Second, the collective effort must contribute to unlocking the divisive politics around climate change.

Chapter II takes on the question of ambition and greenwash while also positing that a growing aspect, and important function, of private climate governance is advancing corporate engagement on public policy. As described more in that chapter, by setting ambitious targets that are often impossible to meet on their own, private actors are increasingly compelled toward policy advocacy. In this way, the emerging system of private climate governance is circumventing political gridlock in the near term and slowly beginning to erode it over the longer term. Accelerating the latter trend deserves strong attention going forward.

D. Broadening the Climate Narrative

These political challenges are linked to weak public activation around and prioritization of a response to climate change, which in turn is affected by psychological factors, including how people respond to media and political narratives around climate change. Collectively, these could be among the most significant obstacles to societal action. This Article is not the place to explore these questions deeply, but there is evidence that a rise in private action on climate change could address some barriers to public engagement identified by behavioral experts.

For example, due to its global nature and complex causation, climate change commonly is framed as a collective action problem that governments must solve. This framing erects multiple obstacles to broad public support for action. First, it can stimulate forms of cognitive dissonance where the perception of a lack of viable solutions to the climate challenge lead people to unconsciously discount the problem itself.[18] In other words, at a time when public trust in government is historically low, making climate change a problem for the government to solve contributes to feelings of hopelessness, which in turn lead people to avoid thinking about it.

Another obstacle relates to cultural identity. When climate action is equated with "big government" solutions, it comes into conflict with a conservative worldview common in the United States and elsewhere.[19] In response, many holding that view engage in "motivated reasoning" where they seek out information that discounts the climate challenge or they experience "solution aversion" and look for ways to deprioritize the issue.[20] Also, climate change often is framed as too costly or too complicated to solve; this too can lead people to become discouraged and "check out."[21] The leadership and success stories of corporate leaders can push back against this negative framing, while elevating voices trusted across the societal spectrum.[22]

Of course, this isn't just a psychological issue. The changes necessary to quickly decarbonize and prepare for climate impacts in fact will require engagement and leadership from all levels of society, motivated by some combination of government mandates and other powerful societal drivers.[23] As discussed more in Chapter II, companies are beginning to take on levels of accountability and complex implementation challenges normally associated with governments. In so doing, they are shifting both societal norms[24] around climate change and the story of climate solutions away from the exclusive purview of governments. And this should help dissolve mental barriers to greater public engagement.

17. *See*, *e.g.*, Justin Farrell, *Corporate Funding and Ideological Polarization About Climate Change*, 113 PNAS 92-97 (2016), *available at* https://www.pnas.org/content/113/1/92.

18. Per Espen Stoknes, *Rethinking Climate Communications and the "Psychological Climate Paradox,"* 1 Energy Res. & Soc. Sci. 161, 166 (2014), *available at* https://www.sciencedirect.com/science/article/abs/pii/S2214629614000218.

19. Of course, there is a wide suite of public policy approaches to reducing emissions and scaling up renewable energy. And even the carbon-pricing tools that are often a stalking horse for "big government" solutions actually are market-based measures supported by conservative economists. Eric Levitz, *Bipartisan Group of Economists Endorses (Surprisingly Robust) Carbon Tax*, NY Mag., Jan. 17, 2019, https://nymag.com/intelligencer/2019/01/carbon-tax-latter-gop-economists-endorse-surprisingly-robust-plan.html.

20. *See* Troy H. Campbell & Aaron C. Kay, *Solution Aversion: On the Relation Between Ideology and Motivated Disbelief*, 107 J. Personality & Soc. Psychol. 809 (2014); Beyond Politics, *supra* note 13, at 317-26; Van Boven et al., *supra* note 16, at 502; Jonathan Haidt, The Righteous Mind: Why Good People Are Divided by Politics and Religion (2012).

21. Stoknes, *supra* note 18, at 164.

22. *Id.* at 165; Van Boven et al., *supra* note 16, at 502. *See also* Daniel C. Esty & Michelle L. Bell, *Business Leadership in Global Climate Change Responses*, 108 Am. J. Pub. Health S80-S84 (2018), *available at* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5922211/.

23. *See Research Roadmap*, *supra* note 8, at 16; Kenneth W. Abbott, *The Transnational Regime Complex for Climate Change*, 30 Env't & Plan. C: Gov't & Pol'y 571, 585 (2012) ("climate change is best addressed through governance that is not only polycentric but also multiscalar, with communities at each scale . . . taking actions appropriate for that scale").

24. *See* Bernstein & Hoffman, *supra* note 4, at 198-99 (how private climate action can drive norm change).

Chapter II: Can a Private Governance System Be an Effective and Legitimate Part of Society's Climate Response?

With the growth in private-sector action on environmental issues, a cadre of experts has begun to develop approaches for placing this activity within conceptual theories of governance. Business administration scholars Eric Orts and Sarah Light suggest 10 normative criteria to inform comparisons of private and public environmental governance.[25] Michael Vandenbergh and Jonathan Gilligan analyze private climate action against questions of accountability, environmental justice, adequacy, and effectiveness.[26] Christopher May explores traditional notions of governance powers and the extent to which companies effectively and legitimately exercise those powers.[27] Political scientists, like Liliana Andonova et al. and Jonathan Kuyper et al., examine the broader set of non-state actors involved in climate governance against considerations of justice, legitimacy, and effectiveness.[28]

In order to make a theoretical topic accessible to the diverse community of leaders who shape the broader climate movement, this chapter employs a distilled, two-part governance inquiry—built upon concepts of effectiveness and legitimacy. Effectiveness points to concerns over greenwashing, while also examining the feasibility of initiatives to reach their goals. Legitimacy asks whether a private climate governance approach, even if it works, is in the broader interests of its participants and society.[29]

One analytical challenge is setting the scope: what activities or initiatives within the broad field of private climate action should be evaluated for effectiveness and legitimacy? Drawing the line too broadly risks a vague analysis. Looking only at a few initiatives risks an unrepresentative sample that doesn't speak to the system as a whole. Navigating these risks, I offer a conceptual framework for both effectiveness and legitimacy to apply at the system level. From there, specific initiatives that have attracted meaningful participation are examined briefly within these frameworks. To truly test this framework, and otherwise encourage effective private initiatives, further empirical study is needed.

With this in mind, the following inquiries frame the analysis:

1. *Is the private climate governance system effective?* Does the collective body of private climate activity measure up against key operational functions expected of public climate policy? How can we be confident that particular private initiatives are likely to achieve their goals?
2. *Is a private climate governance system legitimate?* Do private climate initiatives meet considerations of legitimacy by addressing three core safeguards: procedural fairness, transparency, and justice?

A. *Do Both the Collective System and Particular Initiatives Represent Effective Forms of Governance?*

Effectiveness calls for examination at both the systems and initiative levels. First, if a private system seeks to advance public priorities, effectiveness suggests that it drive behaviors and results that, in some meaningful way, are comparable to those of a "good" public system. Recognizing the risks of comparing real-world actions to hypothetical public policy,[30] this Article suggests a systemwide effectiveness framework based upon core "operational functions" that might be expected under a public climate law,[31] specifically:

1. **Motivating participation.** In a public law system, entities are compelled to participate by the threat of negative sanctions or the benefit of positive incentives. In the absence of legal coercion, other mechanisms are needed to drive private-sector actors to enter the system. This must be a core and particular function of a private governance system.
2. **Assessing and disclosing emissions data.** Any climate governance system requires information on emissions attributed to specific actors to facilitate allocation of responsibility. Particularly in a decentralized private system, these data should be as transparently accessible as possible.
3. **Setting standards.** Effective public policy standards include emissions targets, carbon pricing levels, technology-based performance standards, and other tools to align policy with science-informed goals, such as decarbonization or temperature trajectories (e.g., 2°C or 1.5°C). An effective private

25. Sarah E. Light & Eric W. Orts, *Parallels in Public and Private Environmental Governance*, 5 Mich. J. Envtl. & Admin. L. 1, 16 (2015) (effectiveness, efficiency, environmental justice, ability to stimulate innovation, accountability and transparency, legitimacy, potential for transnational impacts, risk of greenwashing, durability and adaptability, and expressive content).
26. *See generally* Beyond Politics, *supra* note 13, at 383-400; Vandenbergh, *supra* note 5, at 129; Michael P. Vandenbergh, *The New Wal-Mart Effect: The Role of Private Contracting in Global Governance*, 54 UCLA L. Rev. 913 (2007).
27. *See generally* Christopher May, *Who's in Charge? Corporations and Institutions of Global Governance*, 1 Palgrave Comm. 15042 (2015), https://www.nature.com/articles/palcomms201542 (exploring the concept of corporate governance against efficacy and legitimacy considerations).
28. Jonathan W. Kuyper et al., *Non-State Actors in Hybrid Global Climate Governance: Justice, Legitimacy, and Effectiveness in a Post-Paris Era*, 9 WIREs Climate Change e497 (2018); Andonova et al., *supra* note 5, at 52-73.
29. *See* Jerry L. Mashaw, Reasoned Administration and Democratic Legitimacy 163-80 (Cambridge Univ. Press 2018); Susan S. Raines, *Perceptions of Legitimacy and Efficacy in International Environmental Management Standards: The Impact of the Participation Gap*, 3 Global Envtl. Pol. 47-73 (2003); May, *supra* note 27, at 4.
30. As some have noted, such comparisons may be unwise because hypothetical policy scenarios have largely been rendered unachievable due to legislative gridlock or political trade offs. *See* Beyond Politics, *supra* note 13, at 385.
31. Most governance scholars have focused on evaluating initiatives, looking at "functions" from that perspective. Under that view, some different functions emerge (e.g., deploying information, promoting networking, or providing financing) while some (e.g., setting standards) are common to both approaches. *See*, *e.g.*, Abbott, *The Transnational Regime Complex*, *supra* note 23, at 575. This Article posits that both a systemwide perspective and an initiative-level perspective are useful.

system also needs standards that promote alignment with societal, science-based benchmarks.

4. **Driving implementation.** Public law uses various tools to foster performance against standards and goals, including subsidies, market-based instruments, and capacity-building programs. A private system needs to create tools and initiatives specifically focused on helping address implementation challenges within and across companies and sectors.
5. **Fostering cooperation with government and other partners.** Any good public climate policy would recognize that achieving global goals requires action across systems (e.g., geographic, political, social, economic), and include elements to foster such engagement. A private system also cannot operate in a vacuum, and must promote connections and cooperation with other systems advancing climate goals, particularly around public policy.
6. **Tracking progress.** Mechanisms to measure and publicly report progress against goals are fundamental to any governance system. In a distributed, bottom-up private system, accurate and accessible tracking systems are vital.
7. **Promoting accountability.** Not all public law systems have robust mechanisms to hold those who do not comply to account, but some form of accountability is fundamental to the function of governance, including private governance.
8. **Coordinating the system.** The scope of the climate challenge demands governance that can manage complexity. Although government bureaucracies implementing complex policies raise their own issues, coordination strategies are a common attribute of public governance. An inherently decentralized private governance system needs to efficiently engage targeted participants, limit overlapping initiatives, ensure scaling of impactful initiatives, and fill critical gaps, all while maintaining agility and a culture of innovation.

The sections that follow explore, from a systemwide perspective, the extent to which these eight functions are advanced within the current field of private climate action. Use of a comparative approach is not intended to demonstrate that strong public policy isn't also critical; it is. Additional research that looks more deeply into the optimization of system roles and cooperation among private and public governance systems would be useful.[32] But if the collective body of private climate action can advance similar goals and functions as a public climate law, this system of governance deserves consideration as a primary and complementary component of the climate transition.

Second, in addition to a systemwide assessment, the theoretical and practical effectiveness of private climate governance requires an approach to evaluating specific initiatives. Without confidence that private initiatives are feasible or likely to succeed in reaching their goals, assessments of their technical potential ring hollow. Some work by political scientists, legal scholars, and others is emerging in the broader field of non-state actor climate initiatives that begins to tease out direct metrics, indirect indicators, and qualitative criteria.[33] Less attention has been given to developing and empirically testing models for judging the feasibility of strictly private climate initiatives.

Efforts evaluating non-state actor initiatives use considerations such as (1) operational design elements (e.g., quantified targets or reporting requirements); (2) background conditions (e.g., enabling policy and legal systems); (3) management and technical capacities (e.g., business expertise, administrative structure, and workplans); and (4) evidence-based strategies for impact (e.g., behavioral plasticity, scaling, or entrenchment) and positive and negative feedbacks and spillover effects.[34] But the expert community has not reached a consensus around key criteria. Recognizing the gap between research and practice, some scholars call for private climate initiatives to be designed and implemented more explicitly to facilitate impact evaluation.[35]

Reaching rough consensus among engaged experts, funders, and key initiative leaders on an approach for judging impact and feasibility could be catalytic. It would not only support theoretical questions of governance, but sharpen quantitative assessments of the emissions potential of private initiatives while helping funders and other leaders to design and prioritize initiatives with the greatest likelihood of impact. This Article does not address the need for an integrated assessment framework. Rather, it focuses primarily on a systemwide review against the eight

32. *See*, *e.g.*, Sander Chan et al., *Exploring National and Regional Orchestration of Non-State Action for a < 1.5°C World*, 18 Int'l Envtl. Agreements 135-52 (2018), *available at* https://doi.org/10.1007/s10784-018-9384-2.

33. Bernstein & Hoffmann, *supra* note 4; Chan et al., *supra* note 32; Katharina Michaelowa & Axel Michaelowa, *Transnational Climate Governance Initiatives: Designed for Effective Climate Change Mitigation?*, 43 Int'l Interactions 129, 132 (2017); Maria L. Banda, *The Bottom-Up Alternative: The Mitigation Potential of Private Climate Governance After the Paris Agreement*, 42 Harv. Envtl. L. Rev. 325 (2017); Harriett Bulkeley et al., *Governing Climate Change Transnationally: Assessing the Evidence From a Database of Sixty Initiatives*, 30 Env't & Plan. C: Gov't & Pol'y 591-612 (2012), *available at* https://journals.sagepub.com/doi/10.1068/c11126.

34. *See*, *e.g.*, Bernstein & Hoffman, *supra* note 4, at 200-03 (calling for broader consideration of impact through scaling and entrenchment effects); *Research Roadmap*, *supra* note 8, at 14-15 (summarizing literature on likelihood of initiative success); Michaelowa & Michaelowa, *supra* note 33 (examining initiatives against four criteria: mitigation targets; incentives for mitigation; definition of a baseline; and existence of a monitoring, reporting, and verification procedure); Kenneth W. Abbott & Duncan Snidal, *Strengthening International Regulation Through Transnational New Governance: Overcoming the Orchestration Deficit*, 42 Vand. J. Transnat'l L. 501, 548-50 (2009) (examining strengths and weaknesses of initiative types based on the organizing actor group—business, nongovernmental organization (NGO), state); Hamish van der Ven et al., *Valuing the Contributions of Nonstate and Subnational Actors to Climate Governance*, 17 Global Envtl. Pol. 1 (2017) (positive and negative feedbacks are possible and must be monitored over time to ascertain the direct and indirect effects of an intervention).

35. Bernstein & Hoffman, *supra* note 4, at 193 (calling for an approach of experimental interventions); Kenneth W. Abbott, *Orchestrating Experimentation in Non-State Environmental Commitments*, 26 Envtl. Pol. 738-63 (2017) (treat initiatives as informal experiments, orchestrating them to promote innovation, comparability, analysis, and systematic learning).

operational functions listed above,[36] and later suggests three "legitimacy" criteria—procedural fairness, transparency, and justice—which could be considered alongside effectiveness criteria under future initiative-specific evaluation frameworks.

1. Motivating Participation

For many, a threshold question regarding private climate action is "Why are companies involved?" Traditional organizational behavior theory suggests two primary categories of motivation: self-interest and self-identity.[37] Self-interest encompasses motivations driven by "an expectation of private gain," including traditional cost-benefit calculations, pressure from shareholders or external actors, reputational benefits, or "first-mover advantage" with respect to new markets or future regulation.[38] Self-identity describes decisions driven by a broader sense of normative or moral values. Actors with a charitable or religious purpose act from self-identity, but this reflects a small number of those engaged in private climate action. As society's norms shift, so can actors' motivations. Also, the type of motivation driving an actor can change. "Actions that begin as simple calculations of self-interest may over time trigger normative change and become embedded in organizational practices."[39]

The increasing number of companies engaged in some form of private climate action appears driven by a mix of primary forces: (1) a growing business case for action; (2) business-to-business pressure; (3) public pressure; (4) financial system pressure; and (5) evolving societal and business norms.[40] Conceptually, the first four of these forces are based in self-interest, while the last is an example of a newly emerging self-identity.

❑ *The business case.* The business case driving private climate action includes several elements, including (1) growing recognition of climate risks (both physical and those associated with the economic impacts of the climate transition); (2) improving return on investment (ROI) from climate action due to the falling costs of climate solutions; and (3) rise of public policy and climate change. The influence of climate risks is strongly driven by the financial system and discussed further below.

Regarding ROI, experts increasingly uncover links between taking action on climate change and improved business performance. A study by professors at Harvard Business School found that companies with a substantial number of sustainability policies "significantly outperform their counterparts over the long-term, both in terms of stock market as well as accounting performance."[41] A 2013 report by CDP, World Wildlife Fund (WWF), and McKinsey & Co. found that fully reaching climate science-aligned goals in the United States could be achieved profitably through net present value positive investments.[42] Other studies have shown a positive correlation between merely disclosing carbon emissions and market value.[43]

In one of many relationships between private and public climate governance, the business case for climate action is further strengthened by the specter of future government regulation. For example, many of the initiatives described in this Article were developed in the shadow of negotiations toward a new international climate treaty. Once reached, the Paris Agreement committed national governments to develop targets and implement policies, which sent a collective signal to global markets that further public regulation was coming.[44]

❑ *Business-to-business pressure.* As the private sector acts in various forms, positive feedback loops are created whereby companies themselves place pressure on peers to join them. This pressure can emerge from positive opportunities to innovate around products or operations, as well as negative incentives tied to potential loss of market share or corporate customers by those who are slow to act. A recent survey of corporate leaders found that companies increasingly see climate change as providing a competitive advantage and are willing to publicly call on others in their sector to take action.[45]

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36. Note that taking a systems perspective in evaluating private climate governance indicates that some criteria—like the need for quantified targets or reporting—should be reconsidered as a necessary function at the initiative level. For example, an initiative with a reporting or disclosure function, like CDP or Global Reporting Initiative (GRI), might not need to mandate particular targets to perform its role within the system.
37. *See* James G. March & Johan P. Olsen, *The Institutional Dynamics of International Political Orders*, 52 Int'l Org. 943 (1998); Banda, *supra* note 33, at 345.
38. Banda, *supra* note 33, at 345.
39. *Id.*
40. *See, e.g.*, Schneider Electric & GreenBiz, 2019 Corporate Energy & Sustainability Progress Report 20 (2019) [hereinafter 2019 Corporate Sustainability Progress Report], https://perspectives.se.com/aem/2019-corporate-energy-sustainability-progress-report.
41. Robert G. Eccles et al., *The Impact of Corporate Sustainability on Organizational Processes and Performance*, 60 Mgmt. Sci. 2835-57 (2014), *available at* https://www.hbs.edu/faculty/Pages/item.aspx?num=47307; *see also* George Serafeim et al., Calvert, The Calvert-Serafeim Series—The Role of the Corporation in Society: Implications for Investors 5 (2015), *available at* https://supplements.pionline.com/uploads/supplements/Calvert_Paper_The_Role_of_the_Corporation_in_Society_Implications_for_In._._._.pdf ("sustainability leaders enjoy a valuation premium in both equity and fixed income markets").
42. WWF & CDP, The 3% Solution (2013).
43. Chika Saka & Tomoki Oshika, *Disclosure Effects, Carbon Emissions, and Corporate Value*, 5 Sustainability Acct., Mgmt. & Pol'y J. 22-45 (2014) (finding that disclosure of carbon management has a positive relation with the market value of equity, and the positive relation is stronger with a larger volume of carbon emissions); Ella Mae Matsumura et al., *Firm-Value Effects of Carbon Emissions and Carbon Disclosures*, 89 Acct. Rev. 695-724 (2014) (using 2006-2008 data, finding that median value of firms that disclose their carbon emissions is about $2.3 billion higher than that of comparable non-disclosing firms). *See also* Jody Grewal et al., *Material Sustainability Information and Stock Price Informativeness*, J. Bus. Ethics (forthcoming 2020), http://dx.doi.org/10.2139/ssrn.2966144 (finding that firms voluntarily disclosing more sustainability information have higher stock price informativeness, while changes in material sustainability disclosure are followed by changes in stock price informativeness).
44. David Sandalow et al., Columbia University Center on Global Energy Policy, The Paris Agreement and Market Signals: A Survey (2016), https://energypolicy.columbia.edu/sites/default/files/The%20Paris%20Agreement%20and%20Market%20Signals%20A%20Survey.pdf.
45. 2019 Corporate Sustainability Progress Report, *supra* note 40, at 19 ("imperative to set public goals has also become a competitive differentiator, with companies going so far as to call out others in their industry in public forums").

As noted, corporate climate goals increasingly are expected to include reducing emissions from a company's supply chain. A company's supply chain largely consists of other private entities with whom it engages via contract. So, achieving a buyer company's supply chain target requires suppliers to address their own climate emissions. To motivate engagement by suppliers, some companies include compliance with their sustainability priorities as mandates within supply chain contracts. Others, like Walmart, have created elaborate supply chain initiatives that set standards for, and support action by, their suppliers.[46]

❑ *Public pressure*. Using tools like boycotts and naming-shaming, advocacy organizations put pressure on private actors to reduce impacts on society, the environment, and increasingly to encourage action on climate change.[47] Clever campaigns focused on individual companies have gained attention and impacted corporate practices.[48] And as public concern and societal prioritization of climate change grows, some argue that demonstrating adequate action has become a fundamental part of a company's "social license" to operate, though the concept is at most softly applied in the United States.[49] That said, public consumer-facing companies, including those that rely on carefully cultivated brand-named products, are particularly exposed to public pressure tactics. Perhaps it is not surprising, then, that a strong correlation exists between brand-exposed consumer-facing companies and the first wave of science-based target-setting companies.[50]

One segment of the public particularly important to some companies is their employees, both present and future. Top-ranked business school graduates say that a corporate culture embracing sustainability is more likely to attract and retain talent.[51] In the information technology sector, employees are publicly and collectively calling for their employers to take stronger action.

In an open letter to chief executive officer (CEO) Jeff Bezos released on April 10, 2019, more than 8,700 Amazon employees set forth a detailed climate agenda for the company encompassing its emissions, investments, and lobbying. The letter called on Amazon to "adopt the climate plan shareholder resolution and release a company-wide climate plan that incorporates the principles outlined in this letter."[52] Similar statements have been made by Google and Microsoft employees. A few months after issuing their letter, more than 15,000 Amazon employees announced they would join a "climate strike" to call for stronger action. A day before the scheduled strike, Amazon announced significant new climate commitments, including achieving "net carbon neutrality" by 2040 and 100% renewable electricity by 2030.[53] New efforts are emerging to test whether employee pressure can drive corporate decisions across various sectors.[54]

❑ *Financial system pressure*. While advocacy groups have traditionally applied pressure, a more recent driver of corporate action is actors within the financial system, specifically investors, lenders, and insurers. Investors, banks, and insurance companies play multiple roles in the private climate system beyond motivating other companies to take action. They are also the focus of nongovernmental organization (NGO)/public pressure to establish their own targets, and they can enforce accountability on others, as discussed later. On the whole, the influence of the financial system remains mixed with new initiatives emerging, particularly from investors, while the lending practices of private banks remain heavily tilted toward fossil fuels and insurance companies sit largely on the sidelines of efforts to reduce emissions.

Investors. Investors have begun to exert their influence to elevate climate action as a priority among firms in which they are invested through various instruments.[55] This influence is wielded in different ways: (1) making public statements related to climate action; (2) invoking corporate governance to drive climate action through shareholder resolutions and elections of board directors;

46. *See* Walmart, *Project Gigaton*, https://www.walmartsustainabilityhub.com/project-gigaton (last visited May 21, 2020).
47. Organizations like Greenpeace, the Sierra Club, Oil Change International, and 350.org have driven campaigns to boycott certain products or pressure financial institutions to divest from fossil fuels—for example, the Greenpeace campaign against Nestlé tied to deforestation, 350.org's divestment campaign, which launched a series of related campaigns, and the Sierra Club's Beyond Coal campaign on coal-fired power plants.
48. *See*, *e.g.*, *How Nestlé Dealt With a Social Media Campaign Against It*, Fin. Times, Dec. 3, 2012.
49. Kathleen Wilburn & Ralph Wilburn, *Achieving Social License to Operate Using Stakeholder Theory*, J. Int'l Bus. Ethics 3-16 (2011); Neil Gunningham et al., *Social License and Environmental Protection: Why Businesses Go Beyond Compliance*, 29 Law & Soc. Inquiry 307, 308-10 (2004) (suggesting that firms function as though they need a "social license" to operate).
50. According to the SBTi's 2019 annual report, consumer-facing sectors like apparel, food and beverage, information technology, and hospitality are seeing the greatest percentage of corporate participation in science-based target-setting. SBTi, *supra* note 12, at 14. *See also* Matthias Damert & Rupert J. Baumgartner, *External Pressures or Internal Governance—What Determines the Extent of Corporate Responses to Climate Change?*, 25 Corp. Soc. Resp. & Envtl. Mgmt. 473-88 (2018), *available at* https://doi.org/10.1002/csr.1473 (finding that companies with business activities that necessitate interaction with the end consumer tend to be most active in corporate climate action).
51. *See* Yale Center for Business and the Environment et al., Rising Leaders on Environmental Sustainability and Climate Change (2015), https://cbey.yale.edu/sites/default/files/2019-09/Rising%20Leaders%20on%20Environmental%20Sustainability%20and%20Climate%20Change%20Dec_2015.pdf (study of 3,700 students at 29 top business schools finding 20% of students unwilling to work for company with bad environmental policies regardless of salary and 44% willing to work for less pay at company with good practices).
52. Amazon Employees for Climate Justice, *Open Letter to Jeff Bezos and the Amazon Board of Directors* (Apr. 10, 2019), https://medium.com/@amazonemployeesclimatejustice/public-letter-to-jeff-bezos-and-the-amazon-board-of-directors-82a8405f5e38.
53. Justine Calma, *Jeff Bezos Pledges That Amazon Will Swiftly Combat Climate Change*, Verge, Sept. 19, 2019, https://www.theverge.com/2019/9/19/20873834/amazon-sustainability-jeff-bezos-climate-change-pledge-emissions-paris-accord.
54. *See* Dan Levine, *Ex-Facebook Executive Starts Group to Help Employees Push Companies on Climate*, Reuters, Feb. 24, 2020, https://www.reuters.com/article/us-climatechange-companies/ex-facebook-executive-starts-group-to-help-employees-push-companies-on-climate-idUSKCN20I0CA.
55. *See* Gregory Unruh et al., MIT Sloan Management Review, Investing for a Sustainable Future: Findings From the 2016 Sustainability Global Executive Study and Research Project (2016), https://sloanreview.mit.edu/projects/investing-for-a-sustainable-future/ ("investors are using sustainability performance as a key criterion for making (and leaving) investments").

(3) catalyzing the creation of initiatives or even entire civil society organizations like Ceres and CDP[56] to drive their agenda; and (4) shifting investments based on steps taken (or not) by companies.

In 2015, the Financial Stability Board, responsible for advising G20 governments on risks to global financial markets, created the industry-led Task Force on Climate-Related Financial Disclosures (TCFD) to "develop voluntary climate-related financial disclosures . . . to provide decision-useful information to lenders, insurers, and investors."[57] TCFD identified three forms of business risk: physical risks (to infrastructure, agriculture, and real estate), transition risks (for carbon-intensive business models that could result in "stranded assets" or obsolete business models, products, and technologies), and liability risks (from compensation claims).[58]

In the face of these risks, major private investors have begun to act.[59] In 2017, a consortium of investors launched Climate Action 100+, currently with more than 450 investor partners with $40 trillion in assets under management, focused on changing the behavior of 161 companies with the highest greenhouse gas (GHG) footprint.[60] In 2020, BlackRock, the world's largest asset manager with $7.4 trillion in assets under management, joined Climate Action 100+ and announced efforts to place climate action and sustainability at the center of its investment practices, including exiting holdings in thermal coal and ramping up climate-positive investments.[61]

Insurers. Property and liability risks associated with climate change are insured by private companies. Often, these same companies also are significant investors in products like life insurance. Trends indicate that while some are innovating around instruments and practices designed to support climate solutions,[62] the insurance industry as a whole is not as active as other parts of the financial system in advancing emissions reductions. A prominent industry think-tank recently issued a report exploring the obstacles to deeper engagement.[63]

Some individual insurers are taking steps to address emissions in their operations and investments as well as within the practices of their customers, but this isn't common practice. Zurich Insurance Group has announced a two-year initiative to work with clients generating more than 30% of their revenue or 30% of their electricity from oil sands or coal to develop transition plans to change these practices. And Zurich will no longer underwrite or invest in companies with these levels of fossil fuel practices.[64] A few insurers like Allianz, but not many, are signatories to Climate Action 100+.

Lenders. The role of lenders has been mixed as a motivator for other companies to take climate action. The Equator Principles are a set of guidelines adopted by private lenders to ensure environmental and social risks, including climate change, are appropriately considered. First adopted in 2003, a fourth version of the principles effective on July 1, 2020, "support[s] the objectives of the Paris Agreement" and requires high-emitting projects to conduct a climate risk assessment that considers alternatives with lower GHG emissions.[65]

Project assessment requirements can shed light on GHG impacts and require the consideration of alternatives, but lending portfolios of large private banks remain heavily invested in fossil fuel projects. A 2019 report by a coalition of NGOs, including the Sierra Club, Oil Change International, and Rainforest Action Network, reviewed 33 global banks for fossil fuel investments, finding that these banks had lent or underwritten $1.9 trillion in fossil fuel projects from 2016-2018, "dominated by the big U.S. banks, with JPMorgan Chase as the world's top funder of fossil fuels by a wide margin."[66]

The report found some improving trends, including 21 of 33 global banks placing some restrictions on coal financing.[67] Along these lines, during the same week in April 2020, Morgan Stanley and Citi announced significant new climate policies including pledges to increase climate-friendly lending and end lending for some fossil fuel projects, including coal-fired power plants and oil and gas drilling in the Arctic.[68] As discussed further later, new climate-focused financial tools, like "climate bonds" and

56. Philipp Pattberg, *The Emergence of Carbon Disclosure: Exploring the Role of Governance Entrepreneurs*, 35 Env't & Plan. C: Pol. & Space 1437-55 (2017) (describing origin of Ceres and CDP).
57. TCFD, *About the Task Force*, https://www.fsb-tcfd.org/about/ (last visited May 21, 2020).
58. Alan S. Miller & Stacy A. Swann, *Climate Change and the Financial Sector: A Time of Risk and Opportunity*, 29 Geo. Envtl. L. Rev. 69, 89-90 (2017).
59. S&P has issued reports on the impact of climate risk on credit ratings; the World Bank has conducted comprehensive assessments of the potential economic impact of climate change; and the World Economic Forum's annual Global Risks Report increasingly has elevated climate-related risks to the top of its list of greatest threats to the global economy. *See id*. at 88.
60. Climate Action 100+, 2019 Progress Report (2019), https://climateaction100.files.wordpress.com/2019/10/progressreport2019.pdf.
61. Larry Fink, *A Fundamental Reshaping of Finance* (2020), https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter. *See also* Steven Mufson & Rachel Siegel, *BlackRock Makes Climate Change Central to Its Investment Strategy*, Wash. Post, Jan. 14, 2020, https://www.washingtonpost.com/business/2020/01/14/blackrock-letter-climate-change/.
62. *See* Munich Climate Insurance Initiative, *About*, http://www.climate-insurance.org/about/ (last visited May 21, 2020) (founded in 2005 as collaboration of insurance companies, researchers, and NGOs focused on thought leadership and climate adaptation).
63. Geneva Association, Climate Change and the Insurance Industry: Taking Action as Risk Managers and Investors (2018), https://www.genevaassociation.org/sites/default/files/research-topics-document-type/pdf_public//climate_change_and_the_insurance_industry_-_taking_action_as_risk_managers_and_investors.pdf.
64. Press Release, Zurich, Zurich Signs Up to UN Business Pledge to Limit Global Temperature Rise and Announces It Will Use Only Renewable Energy by 2022 (June 25, 2019), https://www.zurich.com/media/news-releases/2019/2019-0625-01.
65. Equator Principles Association, The Equator Principles 9 (2020), https://equator-principles.com/wp-content/uploads/2020/05/The-Equator-Principles-July-2020-v2.pdf.
66. Rainforest Action Network et al., Banking on Climate Change 3 (2019), https://www.ran.org/wp-content/uploads/2019/03/Banking_on_Climate_Change_2019_vFINAL1.pdf. Note that this scorecard itself is an example of both the motivation and compliance functions of the private climate governance system, in this case focused at the financial sector itself.
67. *Id*. at 9.
68. Morgan Stanley, Environmental and Social Policy Statement (2020), https://www.morganstanley.com/about-us-governance/pdf/Environmental_Policy.pdf; Citi, Environmental and Social Policy Framework (2020), https://www.citigroup.com/citi/sustainability/data/Environmental-and-Social-Policy-Framework.pdf.

impact investing strategies, also are emerging to positively motivate climate action.

❑ *Evolving norms*. Conventional wisdom holds that for-profit businesses make decisions based on narrow evaluations of profit or of fiduciary obligation to shareholders. However, within the rising risks and growing opportunities associated with climate change, the "business judgment rule" could provide companies and corporate officers discretion around individual business decisions[69]; many seem to be exercising this discretion in the direction of climate action.

There is evidence that a broader societal shift toward sustainability is becoming a motivator of private climate action.[70] According to a recent study led by Harvard Business School Prof. George Serafeim, "the public has formed social expectations that have guided the corporate sector's increased involvement in contributing to social and environmental solutions."[71] Such norm-shifting appears to be driven both by peer-to-peer influence among companies and within the culture of individual companies. For example, data show that a large share of companies taking one climate action tend to engage in others.[72]

As a practical matter, companies are not monolithic entities but composed of individuals who shape decisionmaking processes. Some evidence indicates that "environmental entrepreneurs" within companies, often driven by various motivations, can have a strong role in shaping sustainability decisions.[73]

This analysis has teased out a set of motivations for the rise in corporate climate action, but in practice these factors often interrelate. More empirical research on motivations and decisionmaking process could help prioritize interventions with the greatest likelihood to drive particular behaviors (e.g., corporate reporting v. target-setting v. implementation). This could improve both the motivation and accountability functions within private climate governance, both of which differ markedly from related functions in public governance and require special attention.

2. Assessing and Disclosing Impact

From a governance perspective, information on emissions that can be attributed to specific actors is vital to understanding and allocating responsibility. From a practical perspective, mid-20th-century management guru Peter Drucker's famous business dogma applies: "You can't manage what you don't measure." Disclosure promotes accountability to stakeholders, enables benchmarking and comparison, and creates opportunity to exert pressure on non-disclosers.[74] It is also often the first step a company takes on its journey to address climate change.[75]

An extensive network of initiatives facilitating corporate carbon emissions accounting and public self-disclosure were among the early foundation stones of the current, more comprehensive system of private climate governance. Some initiatives develop professional standards that companies can use to conduct their own self-disclosure, often through sustainability reports that are self-published.[76] For example, in 1997, the Global Reporting Initiative (GRI) was created as a nonprofit foundation and has developed sustainability reporting standards across multiple areas of environmental impact, including climate change, which are used by 74% of the Global Fortune 250 companies.[77]

In other cases, initiatives, like the CDP launched in 2001, create systems for companies to submit information to a neutral third party. CDP was created in partnership with institutional investors; currently more than 525 investors representing nearly $100 trillion in assets support CDP's annual questionnaire. Self-reporting to CDP is driven by a request to disclose issued by an investor or a customer and then communicated to the company by CDP. If a company is requested to disclose by a customer, it is presented with additional questions specific to its relationship with the customer.[78]

Disclosure to CDP can be made unilaterally, but an active and engaged group of investors and customers seems to be a key aspect of CDP's value proposition and institutionalizes a motivation function within disclosure and

69. *See* Beyond Politics, *supra* note 13, at 153.
70. 2019 Corporate Sustainability Progress Report, *supra* note 40, at 20 (44% of companies that have made public commitments cite environmental concern as their motivation, while 42% view customer and investor expectations as a driver); *see also* Ronald B. Mitchell & Charli Carpenter, *Norms for the Earth: Changing the Climate on "Climate Change,"* 4 J. Global Security Stud. 413-29 (2019), *available at* https://doi.org/10.1093/jogss/ogz006; Serafeim et al., *supra* note 41 ("our analysis documents both moral and economic reasons" for corporate action on sustainability).
71. Serafeim et al., *supra* note 41, at 3.
72. Natural Capital Partners, Deeds Not Words: The Growth of Climate Action in the Corporate World 2 (2019), https://assets.naturalcapitalpartners.com/downloads/Deeds_Not_Words_-_The_Growth_Of_Climate_Action_In_The_Corporate_World.pdf (companies with a public climate commitment are four times more likely to have a science-based target and six times more likely to have 100% renewable energy target than companies not taking any climate action or publicly committed).
73. Susan S. Raines & Aseem Prakash, *Leadership Matters: Policy Entrepreneurship in Corporate Environmental Policy Making*, 37 Admin. & Soc'y 3 (2005) (survey of company motivations to adopt International Organization for Standardization (ISO) 14000 frameworks and role of environmental entrepreneurs).
74. Daniel C. Matisoff et al., *Convergence in Environmental Reporting: Assessing the Carbon Disclosure Project*, 22 Bus. Strategy & Env't 285-305 (2013) (finding CDP demonstrated increase in transparency in scope 2 emissions reporting, but transparency of direct and scope 3 emissions did not improve); Ans Kolk et al., *Corporate Responses in an Emerging Climate Regime: The Institutionalization and Commensuration of Carbon Disclosure*, 17 Eur. Acct. Rev. 719-45 (2008).
75. Although there is overlap between the "disclosure" function and the "tracking performance" function discussed later, self-disclosure deserves separate mention as it often serves as a gateway into the system of private climate action leading to subsequent steps like target-setting.
76. *See* KPMG, The Road Ahead: The KPMG Survey of Corporate Responsibility Reporting 2017 (2017), https://assets.kpmg/content/dam/kpmg/xx/pdf/2017/10/kpmg-survey-of-corporate-responsibility-reporting-2017.pdf (75% of nearly 5,000 companies surveyed issued sustainability reports with two-thirds of reports applying GRI standards).
77. *See* GRI, GRI Annual Report 2018: Towards More and Better Reporting (2019), https://www.globalreporting.org/SiteCollectionDocuments/2019/Towards%20more%20and%20better%20reporting%20-%20GRI%20Annual%20Report%202018.pdf; KPMG, *supra* note 76 (75% of nearly 5,000 companies surveyed disclosed sustainability practices with two-thirds of reports applying GRI standards).
78. CDP, *Frequently Asked Questions*, https://www.cdp.net/en/companies-discloser/how-to-disclose-as-a-company/faqs-for-companies (last visited May 21, 2020).

reporting mechanisms. Regarding the accuracy of information, CDP requires third-party verification of reported information according to specified requirements.[79] In 2019, 8,400 companies representing 50% of global market capitalization reported to CDP.[80] These numbers and those of companies using GRI's standards demonstrate a strong uptake of disclosure, though percentages appear to fall off with smaller companies.[81]

Some scholars argue that "sustainability reporting varies widely in quality, and its accuracy is rarely audited or monitored, reducing its effectiveness as a tool for improving accountability."[82] Disclosures are often incomplete (though in the case of CDP, this can negatively affect a company's reporting score).[83] CDP disclosures can be kept confidential at the company's request and access to much of CDP's database is limited to paying members. As private reporting initiatives[84] have proliferated and TCFD has emerged,[85] the efficiency and consistency of the disclosure system has been questioned. In response, the most prominent organizations involved in corporate climate disclosure have come together to align their processes with TCFD.[86]

Participation in self-disclosure efforts is widespread and growing within North America and Europe, but the system has limitations. In a private governance context, clear and publicly available information is a foundation for most other functions. At present, emissions and implementation data are neither as complete nor as accessible as needed to track impact, uncover best practices, or encourage companies to keep commitments. Successfully streamlining the system and building even stronger linkages with standard-setting and accountability functions within the system are critical to its overall effectiveness.

3. Setting Standards of Performance

Effective governance systems establish benchmarks to drive performance toward societal goals. When evaluating the standards of private climate governance, it is important to consider whether the level of ambition and the scope of accountability are adequate to address the problem. Without ambitious targets and benchmarks—not just collectively for society, but for individual actors—a private governance system can create the impression of meaningful action, but actually be doomed to failure.

Historically, private-sector climate efforts have fallen far short in this area. For years, many companies created strategies or set targets to reduce GHG emissions. But their level of ambition was rarely aligned with scientific benchmarks. Targets largely did not seek to absolutely reduce emissions but to modestly reduce the intensity of emissions growth. Decisions about ambition often were shaped by narrow assessments of economic or technical feasibility, by internal trade offs, or, at best, by aspirations to be "best in class." Moreover, the scope of these goals was narrow. Where targets existed, they usually covered only direct operations (scope 1) where a company had direct control over the sources of emissions.

Levels of ambition and scope of commitments have improved significantly in recent years. As indicated by its name, the SBTi, working with data and scenarios produced by the International Energy Agency (IEA) and advised by a panel of independent experts, has created an approach to GHG target validation grounded in science using sector-specific decarbonization pathways. The SBTi has strengthened its benchmarks over time, from alignment with emissions trajectories limiting global temperature rise to 2°C to requiring targets aligned with either "below 2°C" or 1.5°C trajectories. To ensure ongoing alignment with evolving scientific consensus, the SBTi requires company targets be reevaluated every five years to align with any new SBTi guidance.[87]

Other target-setting initiatives, like RE100 and EP100, have set ambitious benchmarks of 100% renewable electricity or doubling energy productivity.[88] More recently, the high-end benchmark for corporate ambition has shifted further. Through the campaign on "Business Ambition for 1.5°C" 177 companies have pledged to set emissions reduction targets that align with limiting global temperature rise to 1.5°C and reaching net-zero CO_2 emissions by 2050.[89]

The scope of targets required has also expanded; the SBTi and RE100 now require company targets to cover emissions from purchased electricity (scope 2), and the SBTi requires supply chain (scope 3) emissions targets. This increased scope places a company in a much greater position of accountability—in many ways similar to that

79. CDP, *Verification*, https://www.cdp.net/en/guidance/verification (last visited May 21, 2020).
80. CDP, *The A List 2019*, https://www.cdp.net/en/companies/companies-scores (last visited May 21, 2020).
81. *See* Era Anagnosti et al., *A Survey of Sustainability Disclosures by Small- and Mid-Cap Companies*, White & Case, Dec. 4, 2019, https://www.whitecase.com/publications/alert/survey-sustainability-disclosures-small-and-mid-cap-companies# (only 35% of surveyed small- and mid-cap companies provided some website sustainability disclosure with GRI and Sustainability Accounting Standards Board (SASB), the most often-used standards).
82. *See* Jill E. Fisch, *Making Sustainability Disclosure Sustainable*, 107 Geo. L.J. 923, 927 (2019) (the range of approaches to disclosure limits comparability and reliability of information disclosed).
83. CDP, *Frequently Asked Questions*, *supra* note 78.
84. Climate Disclosure Standards Board, the GRI, the International Integrated Reporting Council, and the SASB.
85. As mentioned earlier, TCFD calls for disclosing not just emissions-related data and strategies, but other aspects of climate risk, including physical risks from extreme weather and climate change, transition risk, and liability risks. The platforms discussed here are increasingly aligning with this broader scope of disclosure.
86. *See* Corporate Reporting Dialogue, Driving Alignment in Climate-Related Reporting (2019), https://corporatereportingdialogue.com/wp-content/uploads/2019/09/CRD_BAP_Report_2019.pdf.
87. SBTi, SBTi Criteria and Recommendations, TWG-INF-002, Version 4.1, at 15 (2020) [hereinafter SBTi Criteria], https://sciencebasedtargets.org/wp-content/uploads/2019/03/SBTi-criteria.pdf.
88. RE100 is a joint initiative of the Climate Group and CDP; EP100 is an initiative of the Climate Group. *See* The Climate Group, *Business Actions*, https://www.theclimategroup.org/project/business-actions (last visited May 21, 2020).
89. United Nations Global Compact, *Business Ambition for 1.5°C*, https://www.unglobalcompact.org/take-action/events/climate-action-summit-2019/business-ambition (last visited May 21, 2020). Note that a net-zero goal without a target end date or with one beyond 2050 would not qualify for the campaign nor likely meet many definitions of "high ambition." *See also* SBTi & CDP, Towards a Science-Based Approach to Climate Neutrality in the Corporate Sector, Discussion Paper Draft for Initial Feedback (2019), https://sciencebasedtargets.org/wp-content/uploads/2019/10/Towards-a-science-based-approach-to-climate-neutrality-in-the-corporate-sector-Draft-for-comments.pdf.

of governments when setting national targets—requiring it to set targets for large swaths of emissions that lay beyond its control.

In addition to individual corporate target-setting regimes, private initiatives have set ambitious sector- and product-based climate targets, including "deforestation-free" or "conversion-free" goals for agricultural commodities like palm oil, soy, and cocoa under the Consumer Goods Forum and the New York Declaration on Forests.[90] In 2019, leading apparel companies formed the Fashion Industry Charter for Climate Action, calling on industry peers to cut scope 1, 2, and 3 emissions 30% by 2030, reach net-zero emissions by 2050, and halt new coal-fired heat or power generation for tier 1 and 2 factories and mills by 2025.[91] In 2015, the World Business Council on Sustainable Development launched the Low Carbon Technology Partnerships initiative with more than 140 companies and 50 partners to scale up action toward a number of sector-based targets on low-carbon freight systems, science-based targets for buildings, climate-smart agriculture, cement, and many others.[92]

These ambitious targets are being taken up by companies at an increasing rate.[93] As of the second quarter of 2020, 885 companies either have an approved science-based target or are in the SBTi pipeline,[94] with thousands of additional supplier companies covered, at least partially, by their customers' targets. Approximately 230 companies have set targets to reach 100% renewable electricity under the RE100 initiative.[95] According to a 2017 study, more than 62% (447 of 718) of companies with carbon-intensive agricultural supply chains had made commitments to reduce or eliminate deforestation.[96]

The growth in adoption of ambitious targets is encouraging, and injects the private climate system with a new level of credibility vital to its potential growth. Even so, such targets have been taken up by a minority of large companies, saying nothing of small or mid-cap companies.[97] A comprehensive 2017 study of corporate climate disclosures by KPMG found that 67% of the Global Fortune 250 companies have a climate reduction target (up from 57% in 2015), while in a large sample of nearly 5,000 companies across 49 countries, 50% set carbon reduction goals of some kind. The percentages dip to 23% across both samples of companies when looking for targets that merely reference (but don't necessarily align with) the Paris Agreement's 2°C goal.[98] Increasing momentum toward targets consistent with science is crucial to the future credibility and effectiveness of the private climate governance system.

4. Driving Implementation of Standards

Although targets and goals are important, they mean little if companies are unable or unlikely to meet them. Under public law, various tools are available to foster implementation, including carbon pricing, subsidies for solutions (like renewable energy or electric cars), and capacity-building to help regulated entities comply with the law. Similarly, an effective private governance system must include an ecosystem of efforts to position private actors to successfully meet targets.

Increasingly, initiatives and tools are available to support corporate implementation of climate commitments. These are emerging internally within companies, from capacity-building efforts by civil society organizations and for-profit climate consultants, to collective platforms that engage groups of companies in collaborative learning. Moreover, new financial instruments create the potential for capital to be more widely available for such efforts.

The first path to implementing company targets are systems within the company itself. Analysis shows that simply setting a target tends to unleash these internal systems. According to a 2019 survey of corporate sustainability leaders, "[c]ompanies that have made a public commitment use almost all available strategies and technologies at a higher rate, including on- and offsite renewables, combined heat and power, and clean fleet technologies."[99] Similarly, a study by WWF, CDP, and McKinsey & Co. found that "those companies that set 'stretch' targets often reach and exceed them because the targets spur innovation and more profitable reductions than anticipated."[100] Key

90. *See* Daan Wensing & Daan van der Wekken, *Implementing and Scaling Up the CGF Zero Net Deforestation Commitment*, Consumer Goods F., Apr. 12, 2017, https://www.theconsumergoodsforum.com/implementing-and-scaling-up-the-cgf-zero-net-deforestation-commitment/.
91. United Nations Framework Convention on Climate Change, *About the Fashion Industry Charter for Climate Action*, https://unfccc.int/climate-action/sectoral-engagement/global-climate-action-in-fashion/about-the-fashion-industry-charter-for-climate-action (last visited May 21, 2020). As of March 2020, more than 90 companies in the sector had adopted the charter and are developing an implementation framework for the initiative, including developing science-based target methodologies for the sector aligned with the SBTi. *Id.*
92. World Business Council for Sustainable Development, *Low Carbon Technologies Partnerships Initiative*, https://www.wbcsd.org/Programs/Climate-and-Energy/Climate/Low-Carbon-Technology-Partnerships-initiative (last visited May 21, 2020).
93. According to the SBTi:
> As of October 31, 2019, 686 companies have publicly joined the SBTi and 285 of these have had their targets officially approved. Notably, the pace at which companies join the initiative has doubled over the past 18 months, with 352 companies, (19 per month), joining between April 2018 and October 2019, compared to 334 companies, (9 per month), in the previous 36 months between April 2015 and March 2018.

SBTi, *supra* note 12, at 3.
94. *See* SBTi, *Meet the Companies Already Setting Their Emissions Reduction Targets in Line With Climate Science*, https://www.sciencebasedtargets.org/companies-taking-action/ (last visited May 21, 2020).
95. *See* RE100, *Companies*, http://there100.org/companies (last visited May 21, 2020).
96. Forest Trends, Supply Change: Tracking Corporate Commitments to Deforestation-Free Supply Chains (2017), https://www.forest-trends.org/wp-content/uploads/2018/04/2017SupplyChange_Trackin-Committments.pdf.
97. On April 20, 2020, the SBTi launched a new effort to streamline participation for small and medium sized enterprises. *See* Alexander Farsan, *Smoothing the Way for Small and Medium-Sized Businesses to Set Science-Based Climate Targets*, SBTi Blog (Apr. 20, 2020), https://sciencebasedtargets.org/2020/04/20/smoothing-the-way-for-small-and-medium-sized-businesses-to-set-science-based-climate-targets/.
98. KPMG, *supra* note 76, at 50-51. The larger company sample included 4,900 companies comprising the top 100 companies by revenue in each of 49 countries surveyed. *Id.* at 3.
99. 2019 Corporate Sustainability Progress Report, *supra* note 40.
100. WWF & CDP, *supra* note 42, at 8. Note that with the rise of science-based and net-zero targets, what is considered a "stretch target" has likely become more ambitious since this study was published.

strategies to unlock a company's internal capacities include a strong ROI, support by executive leadership, and available capital.[101] Internally, companies often use instruments similar to those associated with public policy. As of 2017, 600 companies reported to CDP that they use internal carbon pricing to drive climate performance.[102]

Civil society organizations have developed programs to assist companies in implementing commitments. To name a few, CDP offers an "organizational guide for environmental action" building on insights from its databases[103]; for more than 20 years, the WWF Climate Savers Program has supported companies through capacity-building and collaborative learning programs[104]; the Environmental Defense Fund's (EDF's) Supply Chain Solutions Center aggregates tools focused on value chain[105]; and Business for Social Responsibility (BSR) has a full suite of climate offerings.[106] And a growing number of for-profit consultancies have substantial climate practices, including to help companies set and meet climate targets.

A critical shift happened as targets became more ambitious: companies now often are unable to fully reach them alone. Meeting scope 2 targets for purchased electricity requires a company to either convince an electric utility to change its practices or to find another source of cleaner electricity, where possible. To fill this gap, companies and their civil society partners have developed peer learning and collaboration platforms. For example, in 2014, the Renewable Energy Buyers Alliance (REBA) was created by linking several civil society programs helping companies to scale up their purchase of renewable energy, including by executing procurement agreements and collaborating on cleaning up the electricity grid. As REBA grew in scope and achievements, the organizing partners agreed in 2019 to transform it into a business trade association, led by a majority-corporate board of directors.[107]

Implementing aggressive supply chain targets requires greater levels of coordination and collaboration but with a much bigger potential impact.[108] Walmart initiated a major initiative—called Project Gigaton—to work with its suppliers to reach the company's SBTi-approved scope 3 target (a cumulative reduction of 1 GT CO_2e by 2030). A joint team of Walmart staff and those of several NGOs, including WWF, CDP, and EDF, drives Project Gigaton, which establishes metrics and programs for tracking emissions from energy, forests, packaging, waste, and agriculture; requires regular reporting; and convenes annual meetings with Walmart suppliers to recognize achievement and encourage more action.[109]

Despite this important progress, the pace and number of private initiatives focused on setting ambitious targets appears to be outpacing the activity within the private governance system to support implementing those commitments. An important gap, discussed further in Chapter III, is the need for new financial instruments to support implementation strategies for ambitious targets.[110]

5. Fostering Cooperation WIth Government and Other Partners

The climate crisis is global in scope and societywide in reach, so any climate governance system (public or private) must connect with other systems to achieve impact. Any public policy framework should include strategies to engage with other governments to drive transnational action, with the private sector on policy implementation and technology innovation, and with the scientific community on tracking progress and improving performance. In the same way, an effective private climate governance system should include initiatives that drive cooperation among the private sector, governments, and the scientific community.

This is not meant to argue that all private climate initiatives should involve collaboration with government, or even that this is where private actors can have their greatest impact (although that may be the case in the longer term). However, when examining the private climate governance system as a whole, elements and initiatives focused on inter-

101. *See id*.

102. CDP, *Carbon Pricing*, https://www.cdp.net/en/climate/carbon-pricing (last visited May 21, 2020).

103. CDP, *Organizational Guide for Environmental Action*, https://www.cdp.net/en/guidance/guidance-for-companies/organizational-guide-for-environmental-action (last visited May 21, 2020).

104. WWF Climate Savers Program, *Home Page*, https://climatesavers.org/ (last visited May 21, 2020).

105. EDF Supply Chain Solutions Center, *Home Page*, https://supplychain.edf.org/ (last visited May 21, 2020).

106. BSR, *Climate Change*, https://www.bsr.org/en/expertise/climate-change (last visited May 21, 2020).

107. Sarah Golden, *Newly Independent REBA and Founding NGOs Plan to Supercharge Corporate Renewables Procurement*, GreenBiz, May 23, 2019, https://www.greenbiz.com/article/newly-independent-reba-and-founding-ngos-plan-supercharge-corporate-renewables-procurement.

108. According to analysis by CDP's Supply Chain program, companies report having upstream supply chain GHG emissions that are, on average, 5.5 times greater than their own direct impact from scope 1 and scope 2 emissions. This can be more than 10 times greater for retailers. CDP, Cascading Commitments: Driving Ambitious Action Through Supply Chain Engagement (2019), https://6fefcbb86e61af1b2fc4-c70d8ead6ced550b4d987d7c03fcdd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/004/072/original/CDP_Supply_Chain_Report_2019.pdf?1550490556.

109. Walmart encourages reporting through CDP's Supply Chain program, while also offering its own reporting template for those who prefer to only report to Walmart directly. *See* Walmart, *supra* note 46.

110. It is notable that an Article like this one, focused on private-sector climate activity, would not include a detailed treatment of carbon offsetting mechanisms. Until recently, buying carbon credits was the primary or only strategy employed by many companies to address their carbon footprint. Carbon offsetting is controversial as it can be seen as avoiding direct action to reduce emissions through instruments with questionable environmental impact. Moreover, as societal climate goals shift to full decarbonization, offsetting can only be a temporary approach. Although still an often-used tool, particularly for hard-to-decarbonize activities, purchasing carbon credits has shifted for many companies from a primary to a complementary tactic. This is partially driven by the prohibition on using carbon credits to meet SBTi-approved science-based targets and also a reflection of the lack of widespread use of carbon credits by government climate policies.

As companies and civil society seek to align with "net-zero" climate targets, stakeholders are grappling again with the role of carbon credits as a limited and temporary tool toward full, mid-century decarbonization goals. *See* SBTi & CDP, *supra* note 89. For more information on the evolving role of voluntary carbon offset credits in meeting corporate climate commitments and its relationship to the Paris Agreement, see, e.g., *Post 2020 Voluntary Carbon Market Principles*, Gold Standard (Feb. 27, 2020), https://www.goldstandard.org/blog-item/post-2020-voluntary-carbon-market-principles; Mereike Blum & Eva Lövbrand, *The Return of Carbon Offsetting? The Discursive Legitimation of New Market Arrangements in the Paris Climate Regime*, 2 Earth Sys. Governance 100028 (2019), *available at* https://doi.org/10.1016/j.esg.2019.100028.

acting with policymakers are a core factor in its effectiveness. Moreover, advancing robust public policy solutions is important to the corporate sector's overall standing on sustainability and increasingly with society more broadly.

As noted, there has been a striking inconsistency between action by the private sector to address company climate footprints and its relative silence on climate policy. Policy progress is further inhibited by prominent corporate trade associations that have actively opposed or worked to undermine climate policy.[111] Perhaps a bigger issue is the lack of engagement, or inconsistent engagement, by most companies. According to a 2013 study, even among a subset of companies predisposed to sustainability, only 30% aligned "traditional government affairs activities, such as lobbying, with their corporate responsibility commitments, such as reducing GHG emissions."[112] This inconsistency reflects both prioritization of climate against other issues and bureaucratic divisions within many companies where sustainability decisions often involve different individuals and considerations than those regarding government relations.

Although vastly more is needed to affect current gridlock, corporate policy engagement is becoming a more prominent aspect of private climate action. For example, civil society organizations have created corporate policy advocacy coalitions, like Ceres' Business for Innovative Climate and Energy Policy (BICEP) Network where more than 50 companies regularly advocate for federal and state policy.[113] Within days of President Donald Trump's announcement to pull the United States out of the Paris Agreement, the We Are Still In coalition arose, including thousands of U.S. businesses and higher education leaders together with mayors, American Indian tribes, and state governors who collectively made a strong claim to wrest the climate agenda in the United States from the federal government.[114] On May 22, 2019, the largest coordinated corporate "lobby day" took place in support of a federal carbon price.[115] Other coalitions of corporate actors have emerged to advocate for climate policy on the federal level.[116]

Civil society-led corporate advocacy campaigns can help drive large numbers of companies to engage at key moments, but they are less powerful than direct corporate lobbying or that of business trade associations. In an important development, companies have begun to reshape the landscape of trade associations—arguably their most powerful tool to influence each other and public policy. Associations like REBA, the Business Council on Sustainable Energy, and the Advanced Energy Economy (AEE) have emerged to advance sectorwide change. Prominent companies are withdrawing from influential associations in disagreement over climate positions or pledging to change those positions from within. In 2018, due to disagreements on climate policy, Danone, Mars, Nestlé, and Unilever withdrew from the Grocery Manufacturers Association and founded the Sustainable Food Policy Alliance.[117]

This trend coincides with a coordinated emphasis by business-friendly civil society organizations to call for more direct corporate engagement on climate policy. In September 2019, CEOs of 11 prominent NGOs issued an open letter to their corporate counterparts calling for a new "AAA framework" for corporate leadership on climate policy, including more direct advocacy, aligning trade association lobbying, and allocating lobby spending against ambitious climate goals.[118] Similarly, institutional investors are calling on companies to prioritize climate policy engagement, including investors within Climate Action 100+[119] and Principles for Responsible Investment (PRI).[120] Recent efforts by corporate employees to pressure their employers have led to the launch of a new private climate initiative called ClimateVoice, where employee

111. *See also* Auden Schendler & Michael Toffel, What Environmental Ratings Miss (Harvard Business School, Working Paper No. 12-017, 2011), http://www.hbs.edu/faculty/Publication%20Files/12-017.pdf (calling for integration of public policy advocacy into corporate sustainability ratings); Robert Repetto, *The Need for Better Internal Oversight of Corporate Lobbying*, 50 Challenge 76-96 (2007), *available at* https://doi.org/10.2753/0577-5132500107 (describing negative influence of corporate lobbying on advancing environmental policy).

112. United Nations Global Compact et al., The Guide for Responsible Corporate Engagement in Climate Policy: A Caring for Climate Report (2013), https://d306pr3pise04h.cloudfront.net/docs/issues_doc%2FEnvironment%2Fclimate%2FGuide_Responsible_Corporate_Engagement_Climate_Policy.pdf.

113. Ceres, *Ceres Policy Network*, https://www.ceres.org/networks/ceres-policy-network (last visited May 21, 2020).

114. Madeleine Sheehan Perkins, *A Group Representing $6.2 Trillion of the U.S. Economy Says They're "Still in" the Paris Climate Agreement*, Bus. Insider, June 5, 2017, https://www.businessinsider.com/we-are-still-in-group-represents-62-trillion-of-the-us-economy-plans-to-stay-in-paris-agreement-2017-6; *see also* We Are Still In, *Home Page*, https://www.wearestillin.com (last visited May 21, 2020).

115. Chris Coons & Francis Rooney, *75 Executives Lobbied Congress for a National Carbon Price. We Listened*, Fortune, June 1, 2019, https://fortune.com/2019/06/01/congress-national-carbon-price-bill/.

116. *See* Climate Leadership Council, *Home Page*, https://clcouncil.org/ (last visited May 21, 2020) (coalition of prominent companies supporting revenue-neutral carbon fee and dividend proposal); CEO Climate Dialogue, *Home Page*, https://www.ceoclimatedialogue.org/ (last visited May 21, 2020) (group of 21 major companies and four NGOs calling for market-based approach to climate legislation in accordance with a set of six guiding principles).

117. Cathy Siegner, *Danone, Mars, Nestlé, and Unilever Launch Sustainable Food Policy Alliance*, Food Dive, July 13, 2018, https://www.fooddive.com/news/danone-mars-nestle-and-unilever-launch-sustainable-food-policy-alliance/527699/. *See also* Ron Bousso, *Citing Climate Differences, Shell Walks Away From U.S. Refining Lobby*, Reuters, Apr. 2, 2019, https://www.reuters.com/article/us-shell-afpm-idUSKCN1RE0VB; Stacy Morford, *Nike Joins Exodus From U.S. Chamber of Commerce Board*, InsideClimate News, Sept. 30, 2009, https://insideclimatenews.org/news/20090930/nike-joins-exodus-us-chamber-commerce-board.

118. Climate Policy Leadership, *An Open Letter to the CEOs of Corporate America* (Oct. 15, 2019), https://medium.com/@timetolead/its-time-to-lead-on-climate-policy-6f849eb114ba.

119. Press Release, Ceres, 200 Investors Call on U.S. Companies to Align Climate Lobbying With Paris Agreement (Sept. 16, 2019), https://www.ceres.org/news-center/press-releases/200-investors-call-us-companies-align-climate-lobbying-paris-agreement.

120. PRI, Converging on Climate Lobbying (2018), https://www.unpri.org/Uploads/g/v/q/PRI_Converging_on_climate_lobbying.pdf (guide for investors when engaging with investee companies on climate policy lobbying).

influence will be channeled to pressure companies toward climate policy advocacy.[121]

Reaching mid-century decarbonization goals not only requires greater engagement by corporate actors in public policy, but also new ways of thinking about the kind of policy we need. Looking ahead to a possible new U.S. federal administration in 2021, policy development should not ignore the recent shifts in corporate behavior. A focused effort should be made to translate the rising tide of direct corporate climate action into widespread support for a suite of policies that can directly facilitate implementing these commitments.

6. Tracking Progress

In any system of governance, it is vital to create the mechanisms to ensure that performance against goals can be monitored, both to track overall system progress and to lay the foundation for accountability. The tracking function can be delivered through self-reporting or third-party efforts to track progress against various benchmarks. Both approaches exist within the current landscape of private climate action. Entities that facilitate disclosure, like CDP, also analyze and publicize data tracking progress. More recently, initiatives are emerging that aggregate data from multiple sources to inform tracking tools.

CDP evaluates information submitted through its questionnaire and publicly releases the information in annual reports and via an online database. The CDP reporting tool tracks four categories of information:

1. Governance—tracking a company's internal oversight of implementation;
2. Strategy—tracking integration of climate considerations into business strategy;
3. Risk management—tracking corporate approaches for managing climate risk and action;
4. Metrics and targets—which includes the core reporting on emissions data, as well as the metrics used and targets set.[122]

These reports provide a systemwide status check on the state of corporate climate action, including exposing weaknesses. For example, according to 2018 CDP reporting, more than 50% of companies (3,610) claimed to have an absolute and/or intensity climate target, but only 67% of those who claimed targets (2,407) disclosed sufficient data for CDP to confirm this claim.[123]

There are links between the standard-setting and tracking functions. As a condition of having a corporate target certified as science-based, the SBTi requires that companies report "company-wide GHG emissions inventory and progress against published targets on an annual basis."[124] The SBTi does not proscribe where reporting should occur, allowing "annual reports, the company's website, and/or CDP's annual questionnaire." RE100, a joint initiative of the Climate Group and CDP, requires companies to report through the CDP platform.[125]

As the types of private commitments grow, new initiatives to track progress have emerged. The Transition Pathway Initiative (TPI) was founded in 2017 by private asset owners to help the finance system assess and engage with companies through open access analytical tools and publicly available research findings.[126] TPI assesses individual companies against 17 criteria with a focus on management/governance and carbon performance. On carbon performance, emissions reduction efforts are judged against the global 2°C target and national pledges made at, or subsequent to, the Paris Agreement. TPI also provides systemwide analyses to support a global view of company performance.[127] TPI's tracking system currently covers 332 corporations worldwide across 16 business sectors.

Arabesque S-Ray, launched in 2018 by leaders in finance, mathematics, data science, and sustainability, uses big data and machine-learning models to track corporate GHG performance. In September 2019, Arabesque launched the Temperature Score[128] tool, which assesses corporate GHG emissions reporting and progress on climate commitments for approximately 3,000 companies covering 76% of global market capitalization. Established in 2009, the Carbon Tracker Initiative is a financial think-tank focused on providing analyses to the financial sector on the impact of the energy transition on capital markets to help investors advance private-sector climate action.[129] It provides both sector-level analyses and company-specific assessments. InfluenceMap, launched in 2015, tracks performance of both sectors and individual companies on various aspects of climate action. Among its important additions to the tracking function, InfluenceMap has developed metrics and tracking both for a company's "corporate carbon policy footprint" and for the performance of asset managers using its Finance Map tool.[130]

7. Promoting Accountability and Compliance

A fundamental function of any system of governance is promoting accountability to ensure compliance with its

121. ClimateVoice, *Home Page*, https://climatevoice.org/ (last visited May 21, 2020) (mission to mobilize voice of the work force to urge companies to go "all in" on climate, both in business practices and policy advocacy).
122. *See* CDP, *Global Climate Change Analysis 2018*, https://www.cdp.net/en/research/global-reports/global-climate-change-report-2018 (last visited June 10, 2020).
123. *See id.*
124. SBTi Criteria, *supra* note 87, at 14.
125. *See* RE100, *FAQs*, http://there100.org/faqs (last visited May 21, 2020) (RE100 also asks companies to report their strategies toward renewable energy sourcing and types of renewable energy sourcing options and technology).
126. *See* TPI, *Overview of the TPI*, https://www.transitionpathwayinitiative.org/tpi/overview (last visited May 21, 2020).
127. *See* TPI, *All Sectors*, https://www.transitionpathwayinitiative.org/tpi/sectors (last visited May 21, 2020).
128. *See Analysing the Temperature Score*, Arabesque S-Ray, Feb. 4, 2020, https://www.arabesque.com/2020/02/04/analysing-the-temperature-score/.
129. Carbon Tracker Initiative, Annual Review 2018-2019 (2019), https://carbontracker.org/wp-content/uploads/2019/10/CTI_Annual-Review-2018-19.pdf.
130. InfluenceMap, *Home Page*, https://influencemap.org/index.html (last visited May 21, 2020).

standards, reporting procedures, and other elements. Unlike other functions discussed here where public and private governance use similar approaches (i.e., disclosure, target-setting, cross-system collaboration, carbon pricing, reporting), private governance has fewer traditional tools than a public law system (i.e., monetary sanctions, injunctive relief) to coerce compliance.[131] Even so, the current landscape of private climate actors and initiatives includes elements that collectively could form an effective compliance system. At present, the impact of these efforts seems to fall short.

Two important elements form the cornerstones of a private climate compliance function: tailored information[132] and engaged enforcers. A growing body of data is collected on private-sector climate action, but to be useful in supporting compliance, the information must be publicly available and tailored to this use. Much of the company-specific data in the system is self-reported and often incomplete, thus eroding an important source of compliance-tailored information.

Some initiatives, particularly newer reporting platforms, have begun to prioritize compliance-tailored information. CDP employs positive pressure through its Climate A List, where top performers are highlighted on its platform and in reports. In 2017, CDP modified its scoring approach to rank all companies on an A-F scale, with each of the five score bands (A, B, C, D, F) linked to a stage of progression toward "leadership"-level disclosure recognized as the "A List."[133] In addition to the Climate A List report, intrepid researchers also can uncover companies with lower letter grades via the scoring page on CDP's website.[134]

Newer efforts like Arabesque Temperature Score, Carbon Tracker Initiative, TPI, and InfluenceMap all provide tools, as described above, to generate company-specific data against benchmarks tailored to support compliance. TPI, for example, works directly with Climate Action 100+ to provide tailored information to advance their work to both influence companies and hold them accountable.[135] InfluenceMap creates accessible tools like scorecards to provide public-friendly formats of its data on corporate support for public climate change policy, including individual corporate ties to trade associations.[136] Efforts to develop more comprehensive, third-party environmental, social, and governance (ESG) ratings and rankings are also coming online with user-friendly information and communications.[137]

With sources of appropriate information growing, the biggest compliance-related challenge may be an engaged set of enforcers. The role of enforcer can be found within a target-setting company's internal governance or through business-to-business contract provisions or intentionally outsourced to a business association or taken up by investors, civil society organizations, or even corporate employees.

The first place to look for enforcers is within the internal governance of the company adopting the commitment. Just as setting a target seems to unlock innovative capacity to implement it, setting a target also should trigger corporate self-governance processes to drive compliance. Understanding this, reporting standards and platforms are increasingly calling on companies to report on the extent to which climate commitments and climate risk management are subject to internal corporate governance mechanisms (e.g., fiduciary boards or senior management).[138] A downside of this type of enforcement is it often happens behind closed doors and is difficult to track or support.

Other traditional tools to drive compliance are business-to-business contracts, particularly in the supply chain context and in power purchase agreements for sourcing renewable energy. A growing number of companies with sprawling supply chains, like Walmart and Starbucks, include supply chain contract provisions for suppliers to report climate strategies in place and share climate information, including emissions.[139] Some provisions are structured with mandatory language, others are more ambiguous. As demonstrated by Walmart's Project Gigaton, in addition to contract provisions, buyer companies deploy positive incentive strategies to drive supplier engagement.

Multi-stakeholder platforms have emerged in some sectors to build capacity and create standard approaches for supply chain governance including compliance. For example, the Responsible Business Alliance (RBA) is a business association created within the electronics industry to promote a common code of conduct, training, and continuous improvement in supplier engagement around environmental and social issues. RBA currently has more than 380 members with combined annual revenues of greater than $7.7 trillion, with most members required to commit publicly to the RBA Code of Conduct and at a minimum require their next tier suppliers to acknowledge and imple-

131. Of course, public law systems do not always have complete compliance mechanisms either where policymakers have not granted affirmative powers to impose civil or criminal penalties.

132. Although the functions of tracking progress and incentivizing compliance are related, they provide different functions within the system. As discussed in this section, particular types of information are needed to support compliance, and without engaged enforcers, tracking data alone would not drive robust compliance.

133. CDP, Scoring Introduction 2020, Version 1.1 (2020), https://b8f65cb373b1b7b15feb-c70d8ead6ced550b4d987d7c03fcdd1d.ssl.cf3.rackcdn.com/cms/guidance_docs/pdfs/000/000/233/original/Scoring-Introduction.pdf?1479494696.

134. The most recent year's CDP company scores can be viewed on a dedicated scores page that highlights both the A List and the full set of public scores. CDP, *The A List 2019*, *supra* note 80.

135. In the Climate Action 100+ 2019 annual report, TPI analysis of the 160+ target companies found that "70% of companies have set long-term quantitative targets for reducing GHG emissions. However, only 9% of companies have targets that are aligned with either the IEA Beyond 2°C Scenario or the IEA 2°C Scenario." Climate Action 100+, *supra* note 60, at 21.

136. InfluenceMap, *InfluenceMap Scoring Table: Corporations and Influencers*, https://influencemap.org/filter/List-of-Companies-and-Influencers (last visited May 21, 2020).

137. *See* JUST Capital, *About*, https://justcapital.com/about/ (last visited May 21, 2020).

138. CDP's latest scoring methodology places its highest weight on governance-related scoring categories. *See* CDP, Climate Change 2020: General Scoring Methodology Category Weightings (2020), *available at* https://6fefcbb86e61af1b2fc4-c70d8ead6ced550b4d987d7c03fcdd1d.ssl.cf3.rackcdn.com/cms/guidance_docs/pdfs/000/002/290/original/2020_CC_General_and_Sectors_weightings_V2_FINAL.pdf?1588864063. *See also* accompanying text on reporting requirements in Chapter II.A.6.

139. Vandenbergh, *supra* note 5, at 156.

ment the code. RBA members are held accountable to their Code of Conduct commitment via a range of accountability and assessment means, including self-assessment questionnaires, audits, and corrective actions.[140]

Civil society organizations have done much to grow the current landscape of private climate activity discussed here and to create an overall atmosphere of accountability for environmental performance. That said, those groups with the capacity and expertise to track complex reporting data often are not engaged enforcers, because their primary role in the system is to work cooperatively with companies. NGOs with missions oriented toward harder-edged tactics often do not have expertise on corporate practices, nor do they seem to prioritize a compliance function within this system.[141] One area where grassroots civil society has launched sustained campaigns related to private climate action is around the divestment of financial portfolios, largely focused on university endowments but also lenders and other institutional investors.[142] As noted above, a coalition of NGOs, including the Sierra Club, Oil Change International, and Rainforest Action Network, has produced hard-hitting annual reports on the fossil fuel intensity of private bank lending portfolios.[143]

Promising new sources of engaged enforcement rest within the financial system and with corporate employees. As discussed, increased engagement by the finance sector has helped to trigger new sources of information tailored to supporting investors in a compliance function, including Arabesque S-Ray, TPI, and Carbon Tracker Initiative. Private investors like BlackRock and State Street are beginning to divest from carbon-intensive investments and ramp up new sustainable investing options. These large investors are developing tools to evaluate companies against environmental and social criteria. State Street has created a proprietary ratings system called "R-Factor," which draws on data from ratings agencies to guide its decisions.[144] In this way, investors are beginning to hold companies accountable for their environmental performance through standards for access to capital, although it is unclear how much compliance with specific climate commitments is considered in these rating systems.

In addition to placing limits on access to capital, investors and investor-related initiatives can drive compliance by exercising their shareholder governance powers over companies in which they invest. In his 2020 letter to CEOs, BlackRock CEO Larry Fink said "we will be increasingly disposed to vote against management and board directors when companies are not making sufficient progress on sustainability-related disclosures and the business practices and plans underlying them."[145] At about the same time, State Street made a similar commitment to use its voting power to drive environmental performance.[146]

Climate Action 100+ was designed by large institutional investors to drive performance of a narrow set of carbon-intensive companies. In 2019, Climate Action 100+ drove a successful shareholder initiative that requires oil giant BP to disclose the carbon intensity of its products, to set and measure emissions targets against the goals of the Paris Agreement, and to report on links between executive pay and its climate goals.[147] Recent letters from the employees of companies like Amazon, Google, and Microsoft read like elaborate shareholder initiatives with clear demands for company leadership and accountability for inadequate targets or strategies.[148]

8. Coordinating the System

It is no doubt abundantly clear to readers who have made it this far that the current landscape of private climate action is extensive and complex. As a decentralized field driven by a constellation of disparate actors, the private climate system faces different coordination issues than its hypothetical public governance counterpart. Given the nature of the climate transition, a public governance approach would be similarly complex, but U.S. executive branch mechanisms, for example, are designed to address economywide, multiagency coordination. For a private governance system, the question is whether and what kinds of coordination are needed.

The fact that private climate activity is not the product of a single strategy or governed by a single entity is one of its strengths. With an issue as wide-reaching and complicated as climate change, a dynamic, open-field approach allows for innovation, agility, and (relative) speed in test-

140. RBA, *Standards & Accountability*, http://www.responsiblebusiness.org/code-standards-and-accountability/ (last visited May 21, 2020).

141. *See* Beyond Politics, *supra* note 13, at 161.

142. The higher education divestment campaigns are not purely an example of compliance as these campaigns have focused on convincing institutions to make commitments, but the "motivation" and "compliance" functions within the private climate system are strongly related. *See generally* Julie Ayling & Neil Gunningham, *Non-State Governance and Climate Policy: The Fossil Fuel Divestment Movement*, 17 Climate Pol'y 131 (2017).

143. Rainforest Action Network et al., *supra* note 66, at 3.

144. David M. Silk et al., *ESG Disclosures—Considerations for Companies*, Harv. L. Sch. F. on Corp. Governance, Mar. 3, 2020, https://corpgov.law.harvard.edu/2020/03/03/esg-disclosures-considerations-for-companies/.

145. Fink, *supra* note 61.

146. State Street is "prepared to use our proxy voting power to ensure companies are identifying material ESG (environmental, social, and governance) issues and incorporating the implications into their long-term strategy." *State Street Global Advisors to Vote Proxies Based on ESG Factors*, Seeking Alpha, Jan. 28, 2020, https://seekingalpha.com/news/3535239-state-street-global-advisors-to-vote-proxies-based-on-esg-factors.

147. *BP to Support Investor Group's Call for Greater Reporting Around Paris Goals*, BP, Feb. 1, 2019, https://www.bp.com/en/global/corporate/news-and-insights/press-releases/bp-to-support-investor-groups-call-for-greater-reporting-around-paris-goals.html. Notably, at the same shareholder meeting, the board voted down a second resolution (supported by Climate Action 100+) requiring the company to take accountability for reducing emissions from the end-use of its products (where most of its emissions footprint lies), rather than just its direct operations. Steven Mufson, *BP, One of the World's Largest Gas and Oil Companies, Says It Is Turning Over a Green Leaf*, Wash. Post, Feb. 12, 2020, https://www.washingtonpost.com/climate-environment/2020/02/12/1a867124-4da4-11ea-bf44-f5043eb3918a_story.html. *See also* Climate Action 100+, *supra* note 60 (claiming to have influenced target companies through shareholder actions and information consultations).

148. Google Workers for Action on Climate, *Open Letter on Climate Action at Google* (Nov. 4, 2019), https://medium.com/@googworkersac/ruth-porat-497bbb841b52; Amazon Employees for Climate Justice, *supra* note 52; Microsoft Workers for Climate Justice, *Microsoft Workers for Climate Justice*, https://github.com/MSWorkers/for.ClimateAction (last visited May 21, 2020). And as noted earlier, the Amazon employee letter and associated strike were closely associated with new commitments announced by Amazon.

ing out new ideas and moving forward with initiatives that demonstrate impact.[149] On the other hand, a fragmented approach can create confusion among companies and the public as well as extra costs when initiatives overlap or unnecessarily compete.

Governance scholars have examined attempts to coordinate—or "orchestrate"—the growing proliferation of non-state actor climate initiatives, largely focused on efforts by the United Nations and other actors around the international climate negotiations.[150] "Orchestration" attempts to respond to the fragmented landscape of initiatives by steering or facilitating key stakeholders toward addressing significant gaps or making obvious connections between related activities.[151] Given the urgency of scaling up the impact of all climate strategies, as well as the many linkages among the seven other functions described above, coordination of this kind should be considered an essential aspect of the system.

Some efforts to orchestrate private climate initiatives already exist and have helped the field of activity begin to hang together as an integrated system. Some of the seven functions described above already connect (e.g., target-setting initiatives link with reporting platforms and implementation efforts), thanks to basic coordination among organizations and individuals driving multiple initiatives. For example, CDP operates a major reporting platform, co-founded by SBTi and RE100, and serves as an implementation partner for Project Gigaton, among others. Ceres helped catalyze Climate Action 100+, We Are Still In, and the Investor Agenda, while coordinating the BICEP coalition for corporate policy advocacy. WWF co-founded the SBTi, REBA, and We Are Still In, and is the primary implementation partner for Walmart on Project Gigaton. Coordination of efforts within the power sector have improved with the creation of REBA and AEE. At the global level, the Paris Agreement codified a number of efforts to coordinate initiatives for non-state actors under the umbrella of the Marrakech Partnership for Global Climate Action.[152] A number of recurring events, like Climate Week NYC and GreenBiz conferences, foster informal private-sector coordination.[153]

In 2014, a group of NGOs and a major climate foundation took a significant step toward greater coordination by founding We Mean Business.[154] Launched in the run-up to the 2015 climate negotiations in Paris, We Mean Business was created to amplify and better coordinate the work of its seven founding organizations and its (now) 14 network partners, most of whom have founded and are heavily involved in running private climate initiatives.[155] With the power of its partners and a substantial grant from the IKEA Foundation, We Mean Business has been able to deploy funding to support promising initiatives, integrate and aggregate NGO efforts under common communication campaigns, and create a space for the seven founding "coalition" partners to regularly interact around strategies and implementation.

Despite meaningful progress around coordination, challenges remain that inhibit the collective effort of private climate action from reaching its potential. Overlapping initiatives, for example around disclosure and reporting, expose inefficiencies and sow confusion.[156] As noted, significant gaps exist in efforts to support implementation of company commitments and related compliance. Although CDP collaborates with many researchers to provide access to its database, connections between researchers and those implementing private climate initiatives remain weaker than needed to bring an evidence-based approach to strategic decisionmaking. And despite the generosity of the IKEA Foundation and a few others, and positive new models like REBA, the private climate system has not attracted the funding support or built the business models to allow its most successful initiatives to effectively scale or to fill gaps with new initiatives. Chapter III offers a few ideas to begin to address these challenges.

* * * *

A snapshot of progress. Although it is too early to fully judge meaningful progress on science-based commitment regimes, recent reports provide a snapshot. In 2019, Arabesque S-Ray found that 53% of 3,000 global companies, collectively covering more than 75% of global market capitalization, have near-term commitments aligned with a 1.5°C global emissions trajectory. The report found longer-term strategies less ambitious, with only 20% having targets and actions needed to stay on track for this trajectory by 2050.[157]

A somewhat less rosy picture is painted by Climate Action 100+ in its 2019 annual report, which estimates that 20% of its target companies have set an SBTi-approved target or are in the pipeline to do so.[158] A 2019 study by Natural Capital Partners found that 23% of the Global Fortune 500 have made a public 2030 commitment to be carbon-neutral, use

149. *See* Abbott & Snidal, *supra* note 34, at 547-52; Beyond Politics, *supra* note 13, at 408-09.

150. *See*, *e.g.*, Chan et al., *supra* note 32; Abbott, *Orchestrating Experimentation*, *supra* note 35; Thomas Hale, *"All Hands on Deck": The Paris Agreement and Nonstate Climate Action*, 16 Global Envtl. Pol. 12 (2016); Sander Chan & Pieter Pauw, A Global Framework for Climate Action (GFCA): Orchestrating Non-State and Subnational Initiatives for More Effective Global Climate Governance (German Development Institute, Discussion Paper No. 34/2014, 2014), https://www.die-gdi.de/uploads/media/DP_34.2014.pdf.

151. *See* Chan & Pauw, *supra* note 150, at 5-6.

152. United Nations Framework Convention on Climate Change, *Marrakech Partnership for Global Climate Action*, https://unfccc.int/climate-action/marrakech-partnership-for-global-climate-action (last visited May 21, 2020). *See also* the NAZCA Portal, *at* https://climateaction.unfccc.int/ (last visited May 21, 2020).

153. Climate Week NYC, *Home Page*, https://www.climateweeknyc.org/ (last visited May 21, 2020); GreenBiz, *Events*, https://www.greenbiz.com/events (last visited May 21, 2020).

154. *See 5 Years of the We Mean Business Coalition Catalyzing Bold Climate Action*, We Mean Bus. Blog (Sept. 24, 2019), https://www.wemeanbusinesscoalition.org/blog/5-years-of-the-we-mean-business-coalition-catalyzing-bold-climate-action/.

155. We Mean Business, *Our Partners*, https://www.wemeanbusinesscoalition.org/partners/ (last visited May 21, 2020).

156. *See*, *e.g.*, Fisch, *supra* note 82, at 926 (investors continue to report dissatisfaction with existing disclosures).

157. *See Analysing the Temperature Score*, *supra* note 128.

158. Climate Action 100+, *supra* note 60, at 22.

Table 1: Examples of Initiatives Against Eight Key Functions

Motivation	Disclosure	Standard-Setting	Implementation	Policy Engagement	Tracking	Accountability	Coordination
Climate Action 100+ (Financial Sector + NGO)	Global Reporting Initiative (GRI)	Science-Based Targets initiative (SBTi)	Renewable Energy Buyers Alliance (REBA)	We Are Still In	CDP	Transition Pathway Initiative (tailored information)	We Mean Business
Taskforce on Climate-Related Financial Disclosures (TCFD) (Financial Sector)	CDP	RE100, EP100	Walmart's Project Gigaton	REBA	GRI	CDP (A List) *(engaged enforcer)*	REBA & AEE *(electricity sector)*
We Are Still In *(Business + NGO Positive Pressure)*	TCFD	New York Declaration on Forests	The Investor Agenda	Business for Innovative Climate & Energy Policy (BICEP)	SASB	Climate Action 100+ (engaged enforcer)	Prominent NGOs working across multiple initiatives & events (e.g., CDP, Ceres, WWF, The Climate Group)
Walmart's Project Gigaton (Business-to-business)	Sustainability Accounting Standards Board (SASB)	Business Ambition for 1.5°C	Climate Bonds Initiative	Advanced Energy Economy (AEE)	IIRC	Arabesque S-Ray (tailored information)	Climate Week NYC
ClimateVoice (NGO + Employee Pressure)		Low-Carbon Technologies Partnership initiative (LCTPi)	Renewable Thermal Collaborative	ClimateVoice	The Accountability Project	NGO Accountability Campaigns (e.g., divestment, fossil fuel finance report cards)	Marrakech Partnership for Climate Action
NGO Accountability Campaigns (NGO negative pressure)			Global Logistics Emissions Council	Climate Leadership Council			

100% renewable power, or be in compliance with a science-based target. This represents a nearly fourfold increase since the Paris Agreement was signed in 2015.[159]

If the signals from these reports are at least directionally accurate, the current private climate governance system is producing meaningful corporate performance even as it faces challenges in evolving toward a more coordinated, scaled up, and accountable system. Moreover, taken together, activity in these eight functional areas demonstrates a system of private climate governance that should meet basic standards of effectiveness.

B. *Does Private Climate Action Constitute a Legitimate System of Governance?*

Separate from whether it is effective by measuring up to adequate public policy, it is important to ask whether this system of private-sector climate activity is a "legitimate" form of governance. Some scholars speak of legitimacy narrowly, asking whether organizations or initiatives properly exercise power within the legal norms of society. Others speak more broadly about legitimacy as encompassing considerations such as whether participation in the system is consensual, and whether initiatives are transparent, in the interests of the participants, and follow processes and rule-making consistent with substantive democratic criteria.[160]

Using this broader framing of legitimacy, this section explores the extent to which the emerging private climate governance system, through a brief examination of selected initiatives, addresses the following considerations: (1) fair

159. Natural Capital Partners, Deeds Not Words: The Growth of Climate Action in the Corporate World (2019), https://assets.naturalcapitalpartners.com/downloads/Deeds_Not_Words_-_The_Growth_Of_Climate_Action_In_The_Corporate_World.pdf.

160. *See, e.g.*, Beyond Politics, *supra* note 13, at 384-87; Light & Orts, *supra* note 25, at 64-65; May, *supra* note 27, at 4.

decisionmaking process; (2) transparency around information and outcomes; and (3) equity and justice. These subsections do not attempt a comprehensive, empirical review of all or most private climate initiatives for their adherence to these three principles. Instead, they explore a few examples to stimulate thinking by initiative leaders and as a way to prompt future research.

1. Procedural Fairness

Over the past century, as national, international, and local governments developed the organs of administrative law, basic expectations have arisen about fair decisionmaking process. These include providing adequate notice at key steps, soliciting input on proposed decisions, publicly explaining actions, and providing recourse for unfavorable decisions. Conceptually, procedural fairness speaks to whether an initiative or action is implemented in the best interests of the participants and adequately anchored in substantive democratic principles. Practically, for private governance initiatives that do not have the force of public law, good process is critical to maintaining the consent and active engagement of participants.

The concept of procedural fairness raises the question "fairness to whom?" The two obvious groups implicated by decisions are (1) targeted participants in the initiatives (often companies or other private actors) and (2) the public at large, whose interests these initiatives, as forms of *governance*, partially serve.[161] Scholars have argued that robust public participation can serve as an alternative to the direct democratic legitimacy that private governance initiatives lack.[162]

With these concepts in mind, the following inquiry offers an approach to considering procedural fairness: do initiatives have clear, consistent, transparent decisionmaking processes that provide notice of key decisions, solicit input from the public and targeted participants, and are responsive to public comments, including complaints over decisions made?

Decisionmaking by private climate initiatives is not always verifiable by publicly available information and appears to vary greatly, as the initiatives themselves vary in form from efforts by individual companies or NGO collaborations to business trade associations. Unilateral actions by individual companies are governed internally, but those procedures are rarely described beyond basic self-reporting. That said, the CDP climate questionnaire calls for information regarding internal corporate strategies, targets, and governance, and is increasingly adding more forward-looking questions that provide some window into internal corporate processes. Some, but far from all, multi-stakeholder initiatives include descriptions of their internal governance processes on their websites.

Regarding fairness to targeted participants, some initiatives create and publish documents clearly setting forth processes that seem fair. For example, the GRI meets a high standard, laying out an extensive process in a publicly accessible area on its website called "Due Process & Development," which governs standard-setting activities and is led by the Due Process Oversight Committee.[163] CDP publishes detailed explanatory documents for potential participants regarding disclosure and reporting requirements, while also conducting annual consultations on changes to its reporting questionnaires. These consultations result in reports summarizing how CDP has considered feedback in the revised questionnaires.[164] These clear, consistent, and publicly available processes represent good practice among current private climate initiatives. Such approaches foster legitimacy for the initiatives and the system as a whole.

Even those initiatives with extensive processes for engaging stakeholders don't appear to meet all basic standards that are expected of public governance bodies. For example, the SBTi clearly maps out processes for joining the initiative and having a target approved,[165] for developing sector pathways (against which individual company targets are evaluated), for their Target Validation Protocol[166] (describing the target validation process), and for their target-setting criteria.[167] It even publishes a manual for target-setting.[168] These processes include convening corporate consultative groups, receiving input from an external technical advisory group, and holding workshops and webinars to gather stakeholder input.[169]

But the SBTi does not publish clear procedural steps for making its own decisions, nor does it hold itself to disclosing draft decisions for stakeholder review prior to finalization (though it sometimes publishes draft procedures), responding to comments received,[170] or appealing unfavorable decisions. In publishing its recent Criteria

161. As noted, private activity is considered a form of governance if it takes on roles normally played by government to advance the public interest. *See* Vandenbergh, *supra* note 5, at 147.

162. *See* Beyond Politics, *supra* note 13, at 386. When examining specific initiatives, the role of the public can be further disaggregated to look closer at subgroups like customers, NGOs, and others. *See id*.

163. GRI, *Due Process & Development*, https://www.globalreporting.org/standards/gssb-and-standard-setting/due-process-development/ (last visited May 21, 2020).

164. CDP, CDP Questionnaire Development Consultation for 2020 Disclosure, https://6fefcbb86e61af1b2fc4-c70d8ead6ced550b4d987d7c03fcdd1d.ssl.cf3.rackcdn.com/comfy/cms/files/files/000/003/000/original/CDP-2019-Consultation-Feedback-Report.pdf. CDP's process is not as clearly described, transparently governed, or publicly communicated as that of GRI, but it appears to include similar mechanisms for soliciting and responding to feedback and include process for redress.

165. SBTi, SBTi Call to Action Guidelines, TWG-INF-004, Version 1.6 (2020), https://sciencebasedtargets.org/wp-content/uploads/2018/10/C2A-guidelines.pdf.

166. SBTi, Target Validation Protocol, TWG-PRO-002, Version 2 (2020), https://sciencebasedtargets.org/wp-content/uploads/2019/04/target-validation-protocol.pdf.

167. SBTi Criteria, *supra* note 87.

168. SBTi, Science-Based Target Setting Manual, Version 4.1 (2020), https://sciencebasedtargets.org/wp-content/uploads/2017/04/SBTi-manual.pdf.

169. *See*, *e.g.*, SBTi, Sector Development Framework, TWG-PRO-002, Version 1 (2017), https://sciencebasedtargets.org/wp-content/uploads/2017/02/Sector-Development-Framework-v1.0.pdf.

170. The SBTi allows external stakeholders to petition to develop sector decarbonization pathways directly for adoption by the initiative, and provides guidance on process that must be followed. Any third-party process must include steps for responding to and integrating stakeholder feedback and the development of a stakeholder consultation report. *Id*. at 7. There is no evidence that the SBTi holds itself to these standards when it develops criteria directly.

and Recommendations, for example, the SBTi included the following caveat: "While every effort is made to keep companies informed of the latest criteria and recommendations, the initiative reserves the right to make adjustments as needed[.]"[171] In lieu of an appeal process, SBTi procedures allow a company to "request a feedback call" from the target-validation team.[172]

Member-oriented initiatives, such as trade associations incorporated under specific public law regulations, must create governance bylaws and other procedures to establish how certain decisions will be made. Under such procedures, dues-paying members have particular rights and duties to participate in funding and governing the association. With this structure and grounding in public business law, the internal operations of climate-oriented trade associations, such as REBA, the Business Council for Sustainable Energy, and AEE, do not appear to raise procedural fairness questions regarding their treatment of participants.

Even so, as both trade associations and other private climate initiatives increasingly play roles traditionally reserved for governments, they should consider how their decisions and processes engage the broader public. Some steps are commonly taken in this direction. Many initiatives employ advisory groups, which could be seen as a proxy for public participation in key decisions. Moreover, NGO involvement, particularly groups that are not in initiative leadership positions, could be seen as standing in the shoes of the broader public.[173] Even so, as discussed further in the next section, fostering greater public engagement with the institutions of private climate governance would add to its legitimacy, while likely also promoting its reach and impact.

2. Transparency of Decisions and Data

Closely related to procedural fairness, transparency of decisions and data is important for targeted participants in private initiatives, for fostering public participation and, in many respects, for the effectiveness of the system as a whole. As noted above, procedural fairness to targeted participants requires adequate process transparency. Maximizing transparency of decisions and data can build public confidence and legitimacy in the private system. Moreover, as explored in detail previously, the existing private climate governance landscape includes an underdeveloped compliance function, partially due to poor data availability. Fostering more transparency will support greater compliance.

With these concepts in mind, the following inquiry offers an approach to considering transparency: do initiatives make their decisions, data, and other information publicly available to support accountability of themselves and the actors participating in their initiatives, as well as supporting the governance system as a whole?[174]

As described in earlier sections, the private climate governance system is grounded in self-disclosure of a GHG emissions footprint, and increasingly related strategies and governance. But due to capacity limitations, these data are not always accessible to stakeholders who might use them to promote accountability and compliance, and in some cases access to these data sets require subscription fees.

A more significant challenge arises where transparency interests of participants and broader public interest may conflict. For example, where private governance relies on business-to-business contracts (as in implementing supply chain targets), the establishment of the agreement and the data regarding its implementation and compliance may not be publicly available for other actors in the system to play their roles of tracking or compliance.[175] Similar business privacy concerns may be driving a bare minimum of disclosure regarding individual company targets under initiatives like the SBTi and RE100.[176] These initiatives, and others similarly situated, likely are concerned that fewer companies would participate if more information, some of it perhaps considered sensitive by companies, needs to be disclosed.

Although in many ways transparent and fair to participants, with the rise of narratives around "science-based ambition" and "100% goals," the failure of landmark target-setting initiatives to provide more transparent and publicly accessible information on target approvals threatens to weaken the transparency and legitimacy of the overall system, particularly as target compliance periods approach between 2020 and 2025.

3. Equity and Justice

Concerns of equity and justice have opened fault lines within movements for environmental protection and climate action that have persisted for decades. Informally steered by white and wealthy organizations anchored in North America and Europe, the mainstream climate movement often has discounted concerns about the impact of proposed climate solutions on communities of color or entire nations in the global South, in the name of urgency or utilitarian arguments for the "greater good."

Private-sector-focused climate efforts are vulnerable to similar questions, given the prominent roles of multina-

171. SBTi Criteria, *supra* note 87, at 3.

172. SBTi, Target Validation Protocol, *supra* note 166, at 14.

173. *See* Beyond Politics, *supra* note 13, at 386.

174. Pattberg, *supra* note 56 (distinguished transparency *of* governance from transparency *for* governance).

175. *See* Beyond Politics, *supra* note 13, at 390-91; Vandenbergh, *The New Wal-Mart Effect*, *supra* note 26, at 962. For example, although Walmart encourages suppliers to make information public, it will not disclose a supplier's participation in Project Gigaton, any commitments made, or reporting against those commitments without the supplier's express permission. Walmart will also not audit any data provided by a supplier as part of its participation in Project Gigaton. *See* Walmart, *Project Gigaton FAQs*, https://www.walmartsustainabilityhub.com/article/project-gigaton-faqs (last visited May 21, 2020).

176. Both the SBTi and RE100 publicly disclose the companies who have set targets. Further, the SBTi requires companies to disclose their targets, SBTi Criteria, *supra* note 87, at 10, and the SBTi includes an extremely short-form description of the target on its website, once approved. But neither initiative provides even a summary of the detailed information submitted by the company and used by the initiative to justify its approval of their targets. This information often breaks down high-level aggregate targets into specific categories of emissions and basic strategies companies plan to use to achieve their target; information that would allow other participants in the system to evaluate a company's progress. Some companies choose to voluntarily disclose more details about their targets to the public, making this information potentially available in other ways.

tional corporations, the finance sector, and centrist elements of northern civil society, all of which have achieved positions of influence largely due to northern fossil fuel-based economies. As such, some exploration and active consideration of justice issues seem fundamental to the legitimacy of a private climate governance system. This is important both conceptually for legitimacy, and practically given the need for broader engagement by civil society and the public in the private climate system to support both motivation and accountability.

Scholars point to the following dimensions of environmental injustice: inequitable distribution of benefits and costs, lack of participation by marginalized communities, maintenance of structures that promote marginalization, and lack of recognition of justice as warranting particular consideration.[177] The field of private climate governance activity raises each of these risks.[178] It is also worth noting that private climate initiatives offer the potential, albeit rarely realized as yet, to provide options where governments have not addressed equity concerns. Moreover, as the Paris Agreement explicitly embraces private initiatives and those of non-state actors, an unresolved question is whether the long-standing justice orientation of international climate politics will influence or be influenced by this new integration with private-sector action.[179]

In the context of private climate activities, historical patterns and structures of injustice would be perpetuated, for example, if multinational companies based in the global North created strategies to reduce their climate footprint in a manner that disproportionately relied on action by unsupported supply chain partners in the global South.[180] Distributional and structural injustice could arise where companies seek to reduce emissions intensity through operational efficiency gains that largely result in eliminating low-wage workers. Concerns about participatory justice would arise where initiatives include few people of color or stakeholders from the global South as participants or decisionmakers. Recognitional injustice would arise where initiatives fail to even recognize equity issues for consideration, instead maintaining a singular focus on emissions.[181]

Building on these considerations, the following inquiries offer an approach to evaluating environmental justice concerns: Do initiatives consider whether their work recognizes possible justice issues, fosters engagement from a diverse and representative group of participants, and equitably distributes benefits and burdens? In other words, are initiatives designed with input from and to support stakeholders across geographies, or designed to largely work for northern, wealthier companies and communities? And do initiatives include elements that foster positive benefits for marginalized communities, or provide safeguards to reduce the risk that burdens of implementation fall largely on participants from poorer nations or economically disadvantaged communities?

The private climate governance field seems at an early stage in addressing potential environmental injustices of recognition, process, structures, and outcomes. First, in the area of participatory justice, even a cursory review of key commitment platforms reveals a marked imbalance toward companies in Europe and North America. According to the SBTi's 2019 annual report, "only 15% of commitments, and 6% of approved targets are from companies in non-OECD [Organisation for Economic Co-operation and Development] countries."[182] Although RE100 does not provide a full geographical breakdown, its participating companies have a similar profile, with more than 75% coming from North America and Europe and another 12% from Japan.[183] According to CDP's 2019 annual report, approximately 75% of companies that reported to CDP came from OECD countries. None of these initiatives call out equity considerations as a justification for addressing this disparity, though all seem to implicitly recognize the need for broader geographical diversity.

Regarding participation in governance and decision-making, these three tentpole initiatives include little representation from non-OECD countries, raising questions about the extent to which these communities have provided feedback into their strategies and theories of change.[184] It is worth noting, however, that Anand Mahindra, chair of the India-based Mahindra Group, led a major effort in 2018 to encourage companies from across the world to commit to setting science-based targets ahead of

177. *See* Luke W. Cole & Caroline Farrell, *Structural Racism, Structural Pollution, and the Need for a New Paradigm*, 20 Wash. U. J.L. & Pol'y 265 (2006); David Schlosberg, Three Dimensions of Environmental and Ecological Justice, Presentation at European Consortium for Political Research Annual Joint Sessions Workshop: The Global Ecological Crisis and the Nation-State: Sovereignty, Economy, and Ecology (Apr. 6-11, 2001), https://ecpr.eu/Events/PaperDetails.aspx?PaperID=5323&EventID=45.

178. Within the public governance context, environmental justice has played out on multiple levels. Internationally, the recognition of justice issues and the participation of developing nations has shaped outcomes and process, leading to both positive results (such as programs and financial resources to support the most vulnerable countries) and negative ones (slow process with weak requirements for national governments). At a local level, disagreements over public policy tools (like cap-and-trade systems and carbon taxes) with the potential to maintain "hotspots" of pollution in low-income communities have created distrust among justice-oriented groups, on the one hand, and other groups focused on building partnerships with political conservatives or the corporate sector on the other. Recent efforts, such as Equitable & Just National Climate Platform, have focused on creating common ground within climate civil society around justice issues. *See* Equitable & Just National Climate Platform, *Home Page*, https://ajustclimate.org/index.html (last visited May 21, 2020).

179. *See* Hale, *supra* note 150, at 20 (posing this question); Chan et al., *supra* note 32 (arguing that efforts to foster non-state actor climate initiatives within United Nations climate talks focused on large-scale and economically powerful actors and included weak linkages to social justice concerns).

180. *See* Beyond Politics, *supra* note 13, at 400.

181. Chan et al., *supra* note 32, at 137 (justice concerns raised both by underrepresentation of actors from the global South in climate initiatives and by emphasizing mitigation potential while avoiding responsibilities for, and risks of, climate impacts in developing countries).

182. *See* SBTi, *supra* note 12, at 12.

183. RE100, Annual Report (2019), https://www.theclimategroup.org/sites/default/files/dec_2019_re100_progress_and_insights_annual_report.pdf. So, no greater than 13% could come from non-OECD countries and likely less.

184. The RE100 advisory board includes no participants from non-OECD countries; the lone representative from a non-OECD country on its Technical Advisory Group is from CDP-India. The SBTi's governing board includes one person from a non-OECD country, Manuel Pulgar-Vidal, though he represents WWF, a global NGO; information on the SBTi's Technical Advisory Group is currently not publicly available. CDP Worldwide's governing board is largely from OECD countries, but appears to include two members from China and one from India.

the Global Climate Action Summit, with strong results.[185] Also, hybrid governance initiatives involving partnerships between private-sector actors and governments at various levels, by their nature, tend to have more participation in the global South.[186]

Distributional risks from multinational supply chain governance deserve special consideration, given the rise of scope 3 targets under the SBTi and a push for renewable energy in supply chains under RE100. Neither the SBTi nor RE100 includes requirements or guidance that encourages corporate participants to consider possible distributional environmental justice impacts in how companies set and implement global commitments. No expert analysis appears to have been undertaken of distributional impacts of private climate commitments, but examples of justice risks include: (1) over-allocating the implementation burden for supply chain targets onto suppliers in poor developing countries; (2) suppliers meeting emissions reductions in ways that negatively affect the health or safety of workers or communities in developing countries; or (3) even eliminating contracts with suppliers in countries where economic or policy conditions make it difficult to reach climate goals without at least exploring options to improve performance.

Some U.S. buyer companies have chosen to affirmatively support developing-country supply chain partners in implementing climate targets. In 2018, Apple launched the China Clean Energy Fund to deliver $300 million of investments to support Chinese companies within Apple's supply chain in their shift to clean energy. Although not naming justice issues directly, Apple's announcement indicated that the fund was intended to support smaller Chinese companies facing challenges in procuring renewables.[187]

In 2018, Walmart launched a platform under Project Gigaton to facilitate investments by its suppliers in developing countries to support forest protection and sustainable agricultural commodities. Under the initiative, Unilever agreed to support 200-300 local palm oil farmers in achieving sustainable certification.[188] Although representing a less direct investment by the target-setting company than the Apple example, the Walmart program demonstrates the potential for creativity in fostering both just and effective implementation of supply chain targets.

Although still limited in scope, broader awareness of the need for a justice approach to private climate action is growing among other actors within the system. In its 2019 letter to company leadership, Amazon employees called for "reduction of harm to the most vulnerable communities first," and fair treatment of all hourly and wage employees.[189] A similar letter from Microsoft employees stated that "it is essential that we secure a planet with livable conditions for *everyone*. This includes . . . [those] from the Global South and Black and Brown communities[.]"[190] In the United States, examples are emerging of companies working with frontline communities to create programs focused on climate justice. For example, in 2017, Southern California Edison and the Greenlining Institute launched a partnership to "craft and support state and local policies and programs to improve air quality for underrepresented communities and bring clean energy technology investment, 'green' jobs and job training to them."[191]

To ensure legitimacy, private climate initiatives should evaluate both their strategies and implementation efforts to identify and address primary justice risks. Moreover, new and existing private climate initiatives should look to the examples of Apple and Walmart and consider whether and how to pick up some of the proactive opportunities to fill gaps left by government inaction on equity.

Chapter III: What Barriers May Undermine Private Climate Governance and How Should Stakeholders Address Them?

As we have seen, most key functions of a public governance system already exist in the field of private climate action. There is even early positive treatment of issues of fairness, transparency, and justice, though more is needed as actors begin to appreciate the benefits and responsibilities that come with a system of governance. Nonetheless, significant barriers actively inhibit the private climate governance system from reaching its potential. Addressing some barriers will require deeper engagement from academic experts, others demand the creative talents of private and charitable finance, and still others call for unprecedented levels of coordination among leaders within the system to advance a common agenda for the next decade.

A. Barriers and Gaps

1. Limited Implementation Capacity and Weak Compliance

The field of private climate action sits at a delicaBte moment. The past decade has seen enormous growth in initiatives and corporate engagement. With the quick rise in ambitious target-setting, the current system may not have adequate capacity

185. *WEF: Mahindra Challenges All Companies to Set Science-Based Targets*, We Mean Bus. (Jan. 26, 2018), https://www.wemeanbusinesscoalition.org/blog/wef-mahindra-ceo-challenges-companies-set-science-based-targets/. *See also* Subodhlka Vohra, *India: A Breeding Ground for Science-Based Climate Action*, SBTi Blog (Apr. 23, 2019), https://sciencebasedtargets.org/2019/04/23/india-a-breeding-ground-for-science-based-climate-action/.

186. *See* Bulkeley et al., *supra* note 33, at 601 (survey of initiatives shows that initiating actors are based predominantly in the global North, but 77% of the initiatives include at least one actor and 57% have at least two actors from the global South).

187. Press Release, Apple, Apple Launches New Clean Energy Fund in China (July 12, 2018), https://www.apple.com/newsroom/2018/07/apple-launches-new-clean-energy-fund-in-china/.

188. Press Release, Walmart, Unilever and Walmart Announce Forest Sustainability Initiatives at the Global Climate Action Summit (Sept. 13, 2018), https://corporate.walmart.com/newsroom/2018/09/13/unilever-and-walmart-announce-forest-sustainability-initiatives-at-the-global-climate-action-summit.

189. Amazon Employees for Climate Justice,, *supra* note 52.

190. Microsoft Workers for Climate Justice, *supra* note 148.

191. Press Release, Edison International, SCE, Greenlining Institute Partner to Develop Community-Centric Solutions for Air Quality, Climate (June 27, 2017), https://newsroom.edison.com/releases/sce-greenlining-institute-partner-to-develop-community-centric-solutions-for-air-quality-climate.

to foster implementation of targets or provide accountability for lack of compliance. Widespread failure to meet targets and few consequences for those who don't would rightly undermine the effectiveness and legitimacy of the system.

❑ *Implementation*. With more than 8,000 companies reporting climate information to CDP, 1,000 companies likely to be in the SBTi pipeline by the end of 2020 (representing tens of thousands more within their supply chains), and hundreds setting targets under RE100 and related initiatives,[192] there is an enormous wave of new, ambitious commitments in the pipeline of the private climate system. As noted, there are strong models for fostering implementation within the current system, including Project Gigaton, Apple, and REBA.

But few companies have the capacity, influence, or corporate culture to create their own version of Walmart's Project Gigaton. No company (in history) has the market capitalization of Apple. The private climate system needs its biggest players to shoulder their large share of the implementation effort and create incentives for other companies to participate. But without more opportunities for companies to collaborate around target implementation on equal footing, implementation may falter. This could be the greatest risk facing private climate governance, and would be a major lost opportunity to the overall climate movement.

REBA is a good example of the collaborative model needed. As an incorporated trade association, its form alone sends signals to the marketplace of the prioritization of climate issues within the private sector. Moreover, with a growing dues-paying membership its business model rests on a strong foundation, adding to its likely durability and its potential for scale. By innovating its governance model to include civil society leadership, REBA sends signals to philanthropic partners and the public that this is a new kind of partnership with broader public goals. Even with these early successes, REBA remains modestly sized for the scope of its ambition in the United States; it must grow in membership and budget to play its potentially central role in fostering implementation of electricity components of climate targets and building new bridges between private action and public policy.

Other promising examples of collaborative efforts where companies and partners work together to develop solutions to difficult implementation challenges include:

- *Renewable Thermal Collaborative*, where companies, universities, and others with substantial scope 1 emissions from heating and cooling are working to develop new methods, partnerships, and "renewable and lower-carbon thermal energy solutions, including solar, bio-based energy, landfill biogas, hydrogen and more."[193]

- *Global Logistics Emissions Council*, an industry-led partnership to drive emissions reductions and enhance efficiency across global logistics supply chains through development of guidelines, testing with companies, and advocacy for industrywide uptake and aligned policy.[194]

- *REmobility*, which focuses on driving the uptake of electric vehicles in India through a collaboration of companies representing passenger and commercial vehicle manufacturers and charging infrastructure providers and civil society.[195]

In addition to driving implementation through collaborative initiatives, new models are needed for deploying capital against coporate climate strategies. Initiatives like the Global Innovation Lab for Climate Finance are piloting new instruments through collaboration between public and private investors.[196] BlackRock is preparing to launch a $500-million climate fund linked to the broader Climate Finance Partnership.[197] Other mainstream players, like S&P Dow Jones Indices, are developing tools to help the finance sector identify companies that are aligned with global targets like 1.5°C or the Paris Agreement.[198] The Climate Bonds Initiative has independently certified more than $100 billion in climate bonds.[199] These efforts include a strong focus on unlocking barriers for action and further investment in developing country markets, thus offering possible (though not certain) opportunities for climate justice. Other efforts are experimenting with links between private finance and climate solutions, including in the technology sector[200] and elsewhere.[201]

Despite increased activity, these new instruments remain in their infancy and a small share of their respective investment classes. They largely are confined to mainstream aspects of the climate transition, like larger-scale renewable energy projects or publicly regulated utilities.[202]

192. At the outset of 2020, 230 companies were accepted into RE100, 76 companies have committed to increased energy efficiency and productivity under EP100, and 68 companies have committed to increased electric vehicle use under EV100. *See* The Climate Group, *supra* note 88.

193. *See* Renewable Thermal Collaborative, *Home Page*, https://www.renewablethermal.org/ (last visited May 21, 2020).

194. *See* Smart Freight Centre, *The GLEC Partnership*, https://www.smartfreightcentre.org/en/glec-partnership/ (last visited May 21, 2020).

195. *See* World Business Council for Sustainable Development, *Emobility*, https://www.wbcsd.org/Programs/Cities-and-Mobility/Transforming-Mobility/Transforming-Urban-Mobility/Emobility (last visited May 21, 2020).

196. The Lab, *Global Innovation Lab for Climate Finance*, https://www.climatefinancelab.org/the-labs/global/ (last visited May 21, 2020).

197. *See* Simon Jessop & Sinead Cruise, *BlackRock, Partners Eye Initial $500 Million for Climate Fund*, Reuters, Jan. 22, 2020, https://www.reuters.com/article/us-davos-meeting-blackrock/blackrock-partners-eye-initial-500-million-for-climate-fund-idUSKBN1ZL0N6.

198. In April 2020, S&P Dow Jones Indices launched the first in a series of new indices tied to the Paris Agreement and the 1.5°C temperature target, starting with regional indices focused on Europe. Additional indices for companies in other markets, including the United States, are expected. *See* George Geddes, *S&P Dow Jones Indices Launches Climate Change Index Range*, ETF Stream, Apr. 20, 2020, https://www.etfstream.com/news/11117_sp-dow-jones-indices-launches-paris-aligned-and-climate-transition-index-range/.

199. Climate Bonds Initiative, *About*, https://www.climatebonds.net/about (last visited May 21, 2020).

200. *See* Princeville Capital, *Princeville Climate Technology*, https://www.princeville-capital.com/princeville-climate (last visited May 21, 2020).

201. *See* Global Impact Investing Network, *Climate Investing Track*, https://thegiin.org/climate-investing-track (last visited May 21, 2020).

202. S&P Global Ratings, Green Evaluation: Why Corporate Green Bonds Have Been Slow to Catch on in the U.S. (2019), https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/Public-research-resources/SP-Global2019-02-04Why-Corporate-Green-Bonds-

Finding innovative ways to channel private investment into efforts to meet the new wave of corporate climate targets would begin to address implementation risks.

Without broader efforts to fuel scope 2 and scope 3 target implementation, the target-setting engine driving the private climate governance system could stall or shut down, risking the reputation of participating companies and the system as a whole. The New York Declaration on Forests offers a cautionary tale. Launched with great promise in 2014, more than 200 government and private signatories committed to end natural forest loss by 2030, with specific private-sector commitments to eliminate deforestation from agricultural commodities such as palm oil, soy, paper, and beef products by no later than 2020.[203] Despite initiatives to foster implementation and good assessment partners,[204] a recent independent review by Forest 500 found that no corporate signatories were on track to meet their commitments, and few were making meaningful progress.[205]

A deep analysis of the declaration is beyond the scope of this Article, but a few lessons seem important. First, individual company action alone cannot reach global goals. Broad systems change requires an advanced set of collaborative initiatives to bring private actors together with each other to promote both private action and improved public policy.

Second, although collaboration is important, companies need to take internal steps to develop implementation strategies or risk their reputation and that of broader private action. The Forest 500 report found that five years after signing the New York Declaration on Forests, nearly one-half of the large corporate signatories had not set their own internal targets aligned with the declaration. One-quarter of big corporate signatories who had set targets had not translated those into implementation plans, nor publicly reported on progress. This risk seems particularly relevant to the current wave of science-based climate targets, where information regarding corporate implementation plans is not transparently available through the SBTi, CDP, or elsewhere.

Third, and importantly, private governance systems can effectively operate, even when corporate targets aren't reached on schedule. Although it is too early to tell, even if companies fall short, the private actors tracking progress and driving accountability could still effectively use the system that has developed around the Declaration on Forests to spur corporate behavior change through a smart compliance campaign in 2020-2021. With reporting and compliance-tailored information like the Forest 500 report and the recent launch of a coordinated accountability framework for agricultural commitments,[206] engaged enforcers could create a learning moment for the broader private climate system and the companies within it.

❑ *Accountability and compliance*. As the Declaration on Forests demonstrates, a more robust effort to hold companies accountable for climate commitments is critical for participants, funders, and the public to maintain confidence in private initiatives. Without it, the system could collapse. As noted above, there are signs of progress in this area, particularly the potential of recent engagement by financiers to shift investments and engage companies directly. Philanthropic partners have deepened their support for this priority and in 2018, the Investor Agenda launched to coordinate a sectorwide strategy, including around company engagement.[207] Climate Action 100+ offers some of the greatest potential for driving accountability through its direct engagement with companies; it will be important to watch how strongly it leans into this role.

Further innovation around compliance-tailored information could help consumers, investors, and others more easily identify companies that are setting ambitious targets and have adequate implementation plans and supplier engagement frameworks in place. For example, an existing or new initiative could develop an approach to certifying not just ambitious corporate target-setting, but an effective implementation system, including strategies, workplans, and reporting systems for addressing emissions from direct operations, purchased electricity, and supply chains. Investors, lenders, and consumers (through NGO campaigns) could signal to companies that market preference would be given to companies that are so certified.

Finally, among traditional civil society groups, it seems significant that there has not been a coordinated effort to demand that companies set and meet ambitious climate targets or provide accountability to those who have made commitments.[208] In fact in 2018, amid a public push by the United Nations system for more companies to make climate commitments ahead of the Global Climate Action Summit in California, many large membership organizations instead chose to focus their advocacy around the summit on policymakers like California Gov. Jerry Brown.[209] With 2020 a deadline for many early company targets, a coordinated civil society effort to draw attention to compliance could send an important signal through the private climate system just as com-

Have-Been-Slow-To-Catch-On-In-The-US-130219.pdf (some corporate sectors have successfully used green bonds, but nonfinancial corporate-sector green issuances lag expectations and renewables and regulated utilities are overrepresented).

203. *See* New York Declaration on Forests, *About*, https://forestdeclaration.org/about (last visited May 21, 2020).

204. Collaborative round tables with corporate and civil society participants established protocols for sustainable production, such as the Roundtable on Sustainable Palm Oil, Bonsucro, which promotes sustainable sugarcane, and the Roundtable on Responsible Soy.

205. Helen Burley, *Not on Target: The NYDF Companies Failing to Act*, Forest 500, Sept. 23, 2019, https://forest500.org/analysis/insights/not-target-nydf-companies-failing-act (providing company-specific assessments and finding all but two of 31 companies reviewed were making even "limited" progress).

206. Accountability Framework, *Home Page*, https://accountability-framework.org/ (last visited May 21, 2020) (set of common norms and guidance for supply chain commitments in agriculture and forestry addressing both environmental and human rights created by civil society representatives from both global and tropical country perspectives).

207. Seven associations representing institutional investors launched the Investor Agenda, establishing a comprehensive road map for investor influence on climate change across four areas: investment decisions, engaging with companies, prioritizing investors' own disclosure, and advocating for climate policy. Investor Agenda, *Home Page*, https://theinvestoragenda.org/ (last visited May 21, 2020).

208. *See generally* Vandenbergh, *The New Wal-Mart Effect*, *supra* note 26, at 969 (underscoring effectiveness of NGO pressure campaigns, but also ambivalence of NGOs to prioritize this role).

209. *Thousands of Protesters Challenge Democratic Governor at Climate Summit*, Guardian, Sept. 13, 2018.

panies develop their plans for more ambitious commitments for 2025 and beyond.

2. Data and Research

❑ *More and better data*. If target-setting is the engine that drives the private climate system, data is the fuel. Without accurate and usable information on climate risks, corporate emissions, targets, strategies, and implementation, the various actors within the system cannot play their roles. The rise of TCFD has provided increased attention and momentum on disclosure and reporting, including harmonizing various private reporting initiatives. Participation in self-reporting platforms is widespread (8,400 companies representing 50% of global market capitalization reported to CDP in 2019)[210] and increasing (reporting was up 17% from the previous year). But self-reporting systems fall short, including where they are needed most: when companies have an incentive to avoid reporting in detail, if at all. As noted above, although more than 50% of companies who reported to CDP claimed that they had set climate targets, less than 35% reported enough information for CDP to be able to assess those claims.

But the data needed isn't just about *whether* companies are meeting commitments, but more importantly information about *how* they do it. This includes information about the plans private actors create to meet their commitments, what barriers they confront when implementing their targets, and how they overcome them (or fail to do so). Unfortunately, as noted, this is the kind of information companies and private initiatives are less likely to share. Without this more granular implementation information, it will be hard to improve initiatives and develop better tools to accelerate action and reach scale more quickly.

This is why safe spaces where companies can collaborate and share practices and strategies, like REBA and the Renewable Thermal Collaborative, are so important. More efforts like these across all major sectors are needed as well as more publicly available data to allow external experts from think-tanks and academia to support these efforts. At present, independent and university researchers are an underused resource for the many implementation challenges that remain.

❑ *Collaboration between private climate initiatives and independent researchers*. The recent explosion of private climate activity prompts important questions, including those raised in basic terms in this Article, that are only beginning to be explored by experts:

- What motivates companies to participate in private climate action?
- Which private initiatives work well and why?
- How can corporate action be quantified in the context of actions by governments and other stakeholders?
- What are the most cost-effective emissions reduction strategies for companies to take individually? Which strategies are most likely to be supported by corporate management?
- Does direct corporate climate action make it more or less likely that companies will engage in public policy advocacy on climate change? Does this action make policymakers more or less likely to support climate laws if they don't already?
- How can future public policies be designed to build on and accelerate steps that companies are already taking toward science-based goals, rather than force entirely new corporate approaches?

Although think-tanks and some civil society organizations conduct useful research, too often stakeholders decide that speed and urgency outweigh deep consideration of these questions and others like them. But these are not merely important conceptually or to scholars; the answers are critical to informing the strategies of civil society organizations, trade associations, funders, and companies. In the absence of answers grounded in strong analytical process, stakeholders could make quick and uninformed decisions that risk wasting time and limited organizational resources. Similarly, explicit or implicit concern over unanswered questions could lead funders to withhold support for key initiatives.

In a promising model, an informal cadre of experts, both academic researchers and analysts from organizations involved in private climate action, has coalesced to address challenges to measuring the impact of private and other non-state actor climate action. The group meets periodically, explores research questions, and in 2019 published a research road map for addressing these quantification issues.[211] Similar efforts should be explored that focus on other key areas of research like supply chain implementation, the relationship between private action and public policy, and others.

3. Unjust Outcomes and Unfair Process

As noted, procedural unfairness and environmental injustice create risks to the long-term viability of a private climate governance system. These risks are not merely ones of reputation, but potentially of lower participation and the failure to reach the scale and impact needed. This is not to suggest that all private initiatives need to meet high standards of public governance. At this early stage in the evolution of the system, more research and stakeholder input are needed to determine whether and how to incorporate these considerations into various initiatives.

Even so, attention should be directed to options for improving decisionmaking to foster greater stakeholder involvement and for exploring how to expand benefits and reach to underrepresented communities and markets. Regarding the former, the applicability of the ISEAL Alliance Credibility Principles and Codes of Good Practice, which have been adopted by private environmental gover-

210. CDP, *The A List 2019*, *supra* note 80.

211. *Research Roadmap*, *supra* note 8. Subsets of the group authoring this *Nature Climate Change* article have produced reports seeking to provide preliminary quantification of key private climate initiatives. *See supra* note 6.

nance initiatives like the Forest Stewardship Council and the Marine Stewardship Council, should be explored.[212]

Regarding environmental justice, further engagement with a broader range of stakeholders in both developed and developing-country markets is likely warranted for most initiatives to build trust, explore common ground, and scope issues. Although recent efforts by some companies offer encouraging examples, the prospects for meaningful progress are unclear. Trust will likely be hard to build where companies and communities have long-standing differences. Creative partnerships with philanthropic or government funders could be needed to bridge these challenges with financial resources beyond the means of most companies or initiatives. In any event, new initiatives focused squarely on promoting justice considerations within this space should be considered, as well as modifications to initiative guidance and other criteria to limit negative impacts and foster participation.

B. Where Do We Go From Here?

Hopefully, this landscape review provides what lawyers might call a prima facie case that the current field of private climate activity constitutes an "effective" and "legitimate" system of private governance. The challenge ahead is to address barriers (those identified here and others), while generating the support and attention needed to give this body of work the best chance to take its place as one of the key strategic approaches to tackling climate change.

Here's one version of an agenda to meet this challenge:

- **A collective research agenda**. We don't know enough about what works, how much impact is likely to be achieved, and why. We particularly need to determine how to efficiently scale up new collaborative initiatives to advance implementation. Building on the example of experts on quantification, a broader effort to bring together practitioners and researchers around key issues should be strongly considered. The National Academies of Sciences, Engineering, and Medicine or the American Academy of Arts and Sciences could convene such a process, or it could be advanced by a group of interested stakeholders. If funders, academic institutions, and others align around such a research agenda, it could unleash new capacities to answer the most important outstanding questions and accelerate overall progress.

- **Effective accountability**. With 2020 milestones in many corporate targets, finance-sector and civil society leaders should explore how to improve near-term accountability, including: (1) fostering greater involvement from NGOs accustomed to public-facing corporate accountability campaigns; (2) promoting the alignment of accountability strategies among NGOs and financial-sector actors to maximize impact; and (3) leveraging current tracking platforms to drive higher quality reporting, data aggregation, and accessibility to promote and reward corporate target implementation.

- **Sustainable funding and business models**. New funding instruments are needed to bridge the gap from targets to implementation. Connecting growing investor interest in climate-friendly projects with companies that have science-based climate commitments could spark new approaches. Moreover, philanthropic funders should reconsider their general reluctance to heavily invest in civil society-driven private climate initiatives based on notions that the private sector should fund this work directly. As demonstrated, there is a significant societal opportunity teed up by the wave of corporate targets; it should not be lost due to philosophical line-drawing.

- **Connecting with upcoming efforts on federal climate policy**. With elections on the horizon in the United States in late 2020, new thinking on the future of federal climate policy is happening now. A tract of this work should focus on designing policy options that build on and accelerate steps that companies are already taking toward science-based goals, rather than inadvertently creating policies that inefficiently force entirely new corporate approaches.

- **Managing the system**. Thinking of the landscape of private climate action as a governance system can help identify functions, consider relative roles, and recognize gaps. Organizations and associations central to the functioning of the system, perhaps together with interested funders, should consider developing a joint, high-level road map, along with sector-based road maps where needed, to form the basis for ongoing coordination and gap-filling. Collaborations should be created between groups implementing initiatives and researchers to address key questions and to facilitate access to data and efficient integration of new research results.[213]

212. ISEAL Alliance, *Credible Sustainability Standards*, https://www.isealalliance.org/credible-sustainability-standards (last visited May 21, 2020).

213. *See* Bernstein & Hoffmann, *supra* note 4 (calling on leaders to design climate initiatives as experiments to promote systemwide learning); Abbott, *Orchestrating Experimentation*, *supra* note 35 (treat initiatives as informal experiments, orchestrating them to promote innovation, comparability, analysis, and systematic learning).