Change of Players, Change of Game: How States Got Left Behind on Climate Change

https://www.e-ir.info/2019/11/05/change-of-players-change-of-game-how-states-got-left-behind-on-climate-change/

CHARLOTTE HULME, NOV 5 2019

This article has been shortlisted for the 2019 E-IR Article Award

The New Global Players

In September 2019, Amazon, America's third largest company by market value ($916B), announced plans to be carbon neutral by 2040. During the announcement, reflecting on scientists' predictions about climate change from five years prior, CEO Jeff Bezos stated, 'Those predictions were bad but what is actually happening is dire.' The previous month, in an NPR interview, former Shell Oil President John Hofmeister was asked why oil majors like Shell, BP, and Exxon opposed the Trump Administration's announced rollback of Obama-era methane emissions regulations. He explained that 'regulations that protect the water, the land and the air…are essential for the [fossil fuel] industry to be successful down the road. That's changed in the last 20 years. And so it's necessary for the industry to recognize that this is the way it's going to be, and it is the way it should be.' Meanwhile, in 2017, Walmart, America's largest company by revenue ($514B), announced the 'Project Gigaton initiative that aims to reduce CO2 emissions globally by one billion metric tons before 2050,' which would be 'equivalent to taking over 211 million cars off of U.S. roads and highways for a year.'

While Donald Trump's presidency — which as of this writing has seen the repeal or attempted repeal of 85 environmental rules and regulations — has drawn heightened attention to the climate mitigation efforts of U.S. companies, around the world there appears to be a widening disparity between how states are responding to climate change and how non-national actors — ranging from companies to cities — are approaching it. Indeed, at the September 2019 UN Climate Summit, while countries made milquetoast promises of climate action or no promises at all, some of the 'interesting pledges that were made,' notes one commentator, 'were made by cities, made by states, made by companies, agricultural companies, and big transportation companies.'

Strikingly, some of the non-national actors that are responding to climate change have the resources to rival most states. Indeed, in 2016, a *Foreign Policy article,* observing that the 'cash that Apple has on hand exceeds the GDPs of two-thirds of the world's countries,' suggested that Pew, which frequently asks respondents whether states like China will eclipse the US as a superpower, might consider 'widening its scope of research—for corporations are likely to overtake all states in terms of clout.' By one 2016 study's count, if the world's 100 wealthiest entities were attending a meeting, there would be only 31 states in the room; the remaining entities would be corporations like Walmart, Volkswagen, and Shell, and subnational actors like California, which in 2018 pulled ahead of the UK to become the world's fifth largest economy, and Texas, whose $1.6 trillion economy puts it on par with Russia, just behind Canada, and ahead of South Korea.

Just as significantly, some of these ultra-wealthy non-national actors have not only the resources but also the geographic scope of interests to rival most countries. Indeed, a 2016 *Harvard Business Review* article urged multinational companies to adopt 'what can best be described as a corporate foreign policy,' given the increasing unlikelihood of 'the strategic status quo' being maintained by 'neat balances of power or unbreakable promises of foreign policy assistance from superpower states' (Chipman 2016) To consider an example at the subnational level,

California is a truly global actor. Indeed, former Governor Jerry Brown arguably had a *de facto,* climate-focused foreign policy; consider how in June 2017, 'Chinese President Xi Jinping broke long-standing protocol by meeting one-on-one with Brown, a sitting governor and not a national head of state, to discuss how to cooperate on climate change.'

The Xi-Brown meeting is illustrative of a changing dynamic in global politics: that to advance their interests amidst the vulnerabilities and opportunities embedded in new threats such as climate change, powerful non-national actors, whether states like California or Fortune 500 companies, are decreasingly looking to countries to lead the way. Fifty years after political scientists like Robert Keohane and Joseph Nye identified new, non-national actors in global politics and inaugurated the study of transnational relations, pioneers of the field would be surprised to discover that some of these actors would come to have not only the capacity to 'alter relationships between governments,' as they anticipated, but also the capacity — and interests — to *themselves* play a significant role in addressing certain global issues that governments are unable or unwilling to confront themselves (Keohane and Nye 1971: 336).

Empty Seats at the Table

In the context of climate change, select non-national actors, having the unprecedented ability to play a role in addressing this global issue, also appear to have a willingness to do so that would have been difficult to imagine a decade ago. This essay explains how, with some states opting out of "sitting at the table" to contribute to addressing the issue — a choice vividly illustrated by Donald Trump's empty chair during the climate session of the 2019 G-7 summit — other powerful actors, including companies, have "taken a seat" at the table of global players.

In doing so, select non-national actors have participated in a process whereby they have come to an unanticipated consensus about both the end toward which they are heading (the low-carbon future) and how to get there (what kinds of investments and actions are needed). In other words, despite inaction or inadequate action by key states, the new players have come to an agreement about the "game" and its "rules."[1]

This agreement, or consensus, is the mechanism on which a remarkable development has hinged. While states traditionally have been understood as the actors that "define the future" in terms of which global challenges matter and how they will be met, with other actors then determining how best to pursue their interests in light of that future's constraints and opportunities, states today, although retaining their political authority, increasingly share that "defining" role with select non-national actors.

How States Benched Themselves in the Climate Game

Since 1990, the Intergovernmental Panel on Climate Change has warned that climate change represents a major global threat requiring international cooperation. In the two decades that followed, states pursued the "Kyoto model" of addressing climate change, predicated on the 1997 Kyoto Protocol, which was based on mandatory emissions caps for industrialized countries. The model unraveled, largely due to the U.S. failure to ratify, and by the 2009 Copenhagen Climate Conference, which produced only a lukewarm general statement, it became clear that the Kyoto approach was doomed. With the 2015 Paris Agreement, mandatory emissions targets were eliminated in favor of "nationally-determined contributions" to the goal of limiting additional global warming to 2, if not 1.5, degrees Celsius; unsurprisingly, this voluntary model was attractive and the agreement secured 195 countries' support.

By 2018, however, only seven countries had undertaken actions compatible with the 2 degree Celsius scenario (and of these, only two, Morocco and the Gambia, had adopted behaviors compatible with a 1.5 degree Celsius scenario), and, as the *New York Times reported*, 'even if every country did manage to fulfil its individual pledge, the world would still be on pace to heat up well in excess of 2 degrees Celsius (3.6 degrees Fahrenheit) over preindustrial levels, the threshold that world leaders vowed to stay "well below" in Paris because they deemed it unacceptably risky.' Meanwhile, prospects for climate progress by key governments have worsened since Paris; for example, despite the acclaim they have received for their "climate leadership," today China is still using almost half of the world's coal, and in 2018 India emitted 5% more carbon dioxide than in 2017 due to rising coal usage.

Today, the problem is not simply that powerful states have proven unwilling to take adequate climate action. Experts argue that even if all states were to recognize that they have an interest in addressing climate change, the severity of the problem now is such that they no longer have the *ability* to act alone, without appreciable additional efforts by private actors, to 'substantially reduce the risk of catastrophic climate change.'

Coming to Consensus, Despite the Odds

Despite the dearth of national climate action since the Paris Conference, a growing number of non-national actors appear to doubling down on the bet that the low-carbon future is inevitable given the imperative of addressing climate change. In 2017, scholars observed a growing number of American corporate emissions reductions initiatives occurring 'in the past several years despite the growing recognition that national and international processes will not yield major legislation or new regulations in the United States or, following the Paris agreement, major additional international commitments to reduce emissions for the pre-2025 period' (Vandenbergh and Gilligan 2019: 150). The We Are Still In coalition, launched in 2017, now includes 3,500 representatives from U.S. states, cities, and businesses, representing '120 million Americans and $6.2 trillion of the US economy,' which have committed to behave in ways that are compatible with the terms of the Paris Agreement, regardless of the withdrawal announced by the Trump Administration. Initiatives like We Are Still In, experts have commented, 'suggest that many firms have reaffirmed or increased their emissions reduction commitments in the face of a declining risk of near-term government regulation' (Vandenbergh and Gilligan 2019: 150).

To consider an example beyond the US, as Germany's long-lauded *Energiewende* (energy transition) stumbles at the national level over such critical unresolved issues as phasing out coal, which in 2017 still represented 40% of Germany's electricity generation, and while the country is poised to overshoot its 2020 emissions reductions targets by 8 percentage points, which translates to 100 million tons of carbon dioxide, a growing number of German cities are banning diesel and committing to run on 100% renewables; while the US has the most cities and regions (98) aiming for 100% renewable energy, Germany ranks second, with 71. Meanwhile, German companies in emissions-intensive industries gradually are adopting behaviors indicative of a growing recognition of the costs of failing to adapt to the low-carbon future. For example, a 2017 report found that 53 companies in Germany were using or planning to use an internal carbon price (a tool that puts a monetary value on emissions, which then guides investment decisions); among those already using one were the Big Three automakers (BMW, Daimler, and VW) as well as industrial heavyweights such as BASF and Thyssenkrupp, while Siemens and Allianz were among those anticipating using one.

The conventional wisdom tells us that self-interested companies would never do more than is legally required to cut emissions, so what explains this kind of behavior?

Over the course of the last decade, some of the world's most powerful companies have come to a consensus that the low-carbon future is ineluctable given the need to address climate change (this is the "game"), and that certain kinds of behaviors are necessary for success in this new future (these are the "rules"). Guided by a shared understanding of the game and the rules, these companies are acting in a way that is entirely consistent with self-interest if they believe that states no longer have the ability or willingness to independently address certain global issues impacting the private sector.

We can make the claim that these companies now agree about the low-carbon future being "the only game in town" because above the noise of countless examples of companies still engaging in fossil fuel-driven activities, we hear virtually no serious argument against, or proposed alternative to, this future. As the former director of strategy and energy policy for a German power company summarized it during our 2018 interview, 'If you go back ten years, there was a variety of views as to where the energy system was going in the long term. And that variety of views was driven by different views on technology, how real the threat of climate change was, and how politicians may or may not react to it. What we've seen over [the last] ten years is that diversity of views disappearing.'[2]

We also can claim that powerful companies now generally agree about the kinds of behaviors consequently required, or the "rules" of the game, because even the kind of companies that we would assume would not be particularly

eager to move toward a low-carbon future, given that their businesses consist of high-carbon activities, are behaving in ways that align with it—or are under increasingly heavy pressure to do so. For example, the "RE100" is a list of 100 companies that have committed to buy 100% renewable power, and it includes not only companies like Apple, Google, Facebook, and Walmart, but also companies in high-carbon industries, such as General Motors (the world's fourth largest passenger car manufacturer), Tata Motors (India's largest car manufacturer), and Dalmia Cement (one of the leading cement makers in a country, India, where 70% of the buildings that will exist by 2030 have yet to be built, significant here because buildings contribute 40% of global emissions). As I write this article, 200 institutional investors with a total of $6.5 trillion in assets under management have just called on 47 of the largest U.S. corporations 'to align their climate lobbying with the goals of the Paris Agreement, warning that lobbying activities that are inconsistent with meeting climate goals are an investment risk.' Whether allocating capital or advocating for policy, aligning your company's behaviors with the low-carbon future, some of the world's most powerful financial players now insist, is not optional, but an imperative. It is a rule of the new game.

Locking in the Low-carbon Future

How did the debate about the low-carbon future effectively vanish? Or, borrowing the name given to the product that becomes the *de facto* standard setter in an industry and causes erstwhile alternatives to fall away, how did this future become the "dominant design?"

To begin with, certain companies have taken risks, whether to mitigate perceived risks or capitalize on perceived opportunities, and have behaved as first movers, undertaking "self-constraining actions" even if their peers have not constrained themselves in the same way or to the same degree. By definition, self-constraining behavior may feature the logic of lock-in and self-reinforcement, which simply means that behaviors can become durable and entrenched because they are relatively difficult and costly to reverse.[3] The distinct power of behavior with this logic is that by constraining an actor from changing course once it has embarked down a certain path, it has greater "signaling significance" compared to an action lacking these features. In other words, if a powerful company undertakes an action with lock-in/self-reinforcement features — say, committing to and beginning to implement plans to buy only renewable energy, like the companies on the RE100 — this has the potential either to lead others "at the table" of global players to reevaluate where climate change ranks in *their* interest sets, or to lead some of those whose seats were initially empty (so low did climate change rank in their interest sets to begin with) to join the group. In short, because of their special logic, these kinds of actions can have an outsize influence in leading other powerful actors to join the "meeting" for fear that the new "dominant design" is being created without their input—and potentially to their detriment.

In short, self-constraining climate actions by first movers can behave as early accelerants of consensus; that is, they accelerate the narrowing of the debate about what game it is that actors are playing. While this argument may appear intuitive, and although in hindsight it is easy to judge that a certain company acting as a first mover "inevitably" would bring others along, in fact the influence of a first mover is never a given; simply because there is an actor willing to take a risk and bet on a certain future does not mean that others will agree with its bet.

The debate about the game and its rules continues to narrow as more non-first movers begin reconsidering where climate change ranks in their interest sets and begin adopting behaviors that reflect this reconsideration. Over time, the "rules" become clearer and more fixed—necessary for true consensus, because even if all players think they are playing the same game, if there is no agreement on the rules then they effectively are playing different games.

Agreement by Accident?

This agreement about the low-carbon "game" and some of its "rules" is a surprising outcome, or one that we would not have expected given that many powerful companies have assessed that there has been little near-term risk of bold national climate regulation and have seen little consumer demand for low-carbon products. In this sense, we can call the consensus *emergent*, a word used to describe an outcome that would not have been anticipated given the initial attributes of the actors in question. In other words, an emergent outcome is one where the whole appears to be greater than the sum of the parts.

The emergent dynamic becomes clear if we look at data about how companies have thought about climate change over the course of the last decade. Again, in looking for emergence, we are simply looking to see whether we likely would have anticipated agreement about the "game" and the "rules" given companies' individual initial attributes, including their assessments of the near-term relevance of climate change to their businesses.

The best data source for this task is a London based non-profit called CDP (formerly the Carbon Disclosure Project), which since 2009 has compiled data from questionnaires submitted by thousands of companies worldwide, including information about their perceptions of climate-related risks and opportunities pertaining to categories such as regulation and changing consumer behavior (i.e., will customers pay more for, or even demand, low-carbon products?) In essence, the CDP data tells us how worried companies were about climate change or how excited they were about climate-related business opportunities in any given year, and why.

The CDP data reveals that some of the companies that number among the "first movers" on the low-carbon future have reported the *least* worry about climate-related risks and the *least* sense of climate-related opportunity. For example, since Apple began participating in CDP surveys,[4] it has reported perceiving *no* risks — in the short, medium, *or* long term — tied to changing consumer behavior, and opportunities only in the long term; meanwhile, while Apple acknowledged the *possibility* of climate regulation, each year it also has noted that this hypothetical regulation 'may result in small energy price increases' that would have but a 'minimal effect' on its financial position.[5] Nevertheless, since 2014 it has used 100% renewable energy to power its data centers and in 2018 bought sufficient renewable power to cover the entire company's energy usage.

Similarly, consider the case of General Motors, which was not an outstanding first mover like Apple but which now is on the RE100 list. As of 2011 and 2012, among the top 100 companies ranked on the Global Fortune 500, General Motors was one of the most *uncertain* about climate change posing risks or presenting opportunities through the medium-term. But by 2016 and 2017, it was one of the most *certain.* It is striking that General Motors finally perceived climate change as *highly* important at the very moment when, with Donald Trump's election, Big Business had very little to fear in terms of national climate regulation in the US. Although it is true that as of 2017, General Motors' number one market became China, which has enacted relatively tough emissions standards, it is also true that the US is still a vital market for the company, and the U.S. regulatory and policy landscape carries tremendous weight. Thus, this dramatic change — from being almost totally uncertain to highly certain that climate change is very salient to the company — cannot be convincingly explained by a decisive move toward climate regulation by all the most important states. And, crucially, it also cannot be explained by consumer demand; in fact, in recent years, Chinese and American customers have not just failed to demand hybrids or electric vehicles—they also have demanded more SUVs.

What the cases of Apple and General Motors illustrate is the gap, or the apparent disjunction, among three things: first, the climate-related risks and opportunities many individual companies perceived 5-10 years ago; second, the very mixed global picture of climate regulation in the intervening years (not to mention minimal consumer demand for low-carbon products); and third, the outcome, and current state of affairs, of there being a general agreement about the inevitability of the low-carbon future and about the kinds of behaviors and investments required as a result.

If all or most companies initially assessed that climate change posed serious risks or presented significant opportunities in the not-so-distant future, or if they had since been similarly subject to aggressive climate regulation and/or high consumer demand for low-carbon products, then any consensus that has come about could be explained simply as the combination of their risk and opportunity assessments, or as the simple result of everyone facing similar pressure from consumers and regulators. In this situation, the whole would equal the sum of the parts. In other words, it would be a non-emergent outcome to find a general agreement about the "game" and the "rules" if all the players initially either had similar beliefs about the salience of climate change or were told what the game and rules were by regulators and consumers.

But in reality, the players began with very different beliefs about climate change, and they were not told what the game or the rules were—and yet they ultimately have come to a consensus. Thus, since this result cannot be distilled down to the individual actors, it instead needs to be explained as an emergent outcome, coming about through their

interactions, and specifically, through their participation in a diffuse, decentralized process of consensus formation.

What is the significance of the emergent dynamic underlying the consensus about the low-carbon future being inevitable given the imperative of addressing climate change? It underscores that even improbable actors — including powerful companies with vested interests in the status quo and/or little initial sense that a particular issue poses significant risks or presents significant opportunities to them individually — can come to a shared understanding about the issue through a diffuse and decentralized process. Through ongoing, informal interactions, actors can come to reprioritize an issue within their interest sets until, despite the lack of a centralized actor or institution guiding them into alignment, there is something strongly resembling general agreement among them.

Change of Players, Change of Game

New players — particularly those non-national actors with the resources and scope of interests to rival most states — has meant a new climate game. We would be hard-pressed to find any serious argument against the low-carbon future, and an ever-expanding cohort of non-national actors is behaving in a way that reflects this reality.

To be sure, it is hard to overstate the damage done by states that are unable to take adequate climate action, unwilling to prioritize action, or downright hostile to action, and there is no non-national *substitute* for the state given that only it has regulatory authority. But, simply put, these states also cannot "hold the world hostage" to the kind of future that leaders like Donald Trump envision. This is because the new players, including companies with the economic clout and geographic scope of interests to rival most states, have come to a consensus about the low-carbon future and are acting or beginning to act accordingly. We do not know whether this will be enough to keep additional global warming to levels that will keep the earth habitable while states continue to delay responding to climate change as the singular risk that it is. But we *do* know that the more that the new players become invested in the low-carbon game, or the more they bet on this future, the more that states will be left behind and appear increasingly outside the "conversation" about climate change.

The new players did not set out to change the game, but they did, through a diffuse process of consensus formation. Such a process can unfold when first movers prompt others to worry that the new "dominant design" is being created to their detriment. Even companies that individually are not particularly worried about climate-related risks in their immediate context may begin undertaking certain actions to ensure that they do not get left behind, and a cycle ensues: action accelerates the narrowing of the debate about the low-carbon future and strengthens the sense of general agreement, which leads to more action, and so on.

Climate change may be a unique transnational risk, but how non-national actors are responding to it offers general lessons for our understanding of global politics in the 21st century. Although states retain political authority, having proven that they either cannot or will not play their traditional roles in responding to certain global risks, select non-national actors have come into the cohort of global consensus makers. When Keohane and Nye wrote the pioneering scholarship on transnational relations, the new, non-national actors they identified in global politics were significant insofar as states "at the table" recognized them and their influence. Today, the question is not if states will recognize the new actors, but rather if states will appreciate that these actors now are at the table regardless of whether they do.

Notes

[1] I am indebted to Professor Tyler Pratt for pointing out that my ideas about consensus could be captured by the "game" and "rules" concept.

[2] I conducted all interviews for this project on an anonymous basis so that interviewees could speak freely about their current and former companies. Upon request I am happy to share interview transcripts. Interview by author. London, November 11, 2018.

[3] On lock-in and self-reinforcement as mechanisms underlying "path-dependent policy interventions," see Levin,

Cashore and Auld 2012.

[4] Apple's reporting first appears in the 2014 CDP dataset, which covers January-December 2013; it has reported each year since.

[5] CDP datasets are available here.

References

Chipman, John. 'Why Your Company Needs a Foreign Policy.' *Harvard Business Review* (2016): 36-43.

Keohane, Robert, and Joseph Nye, "Transnational Relations and World Politics: An Introduction," *International Organizations* Vol. 25, No. 3 (1971), p.336.

Levin, Kelly, Benjamin Cashore, Steven Bernstein, and Graeme Auld, 'Overcoming the tragedy of super-wicked problems: constraining our future selves to ameliorate global climate change,' Policy Sciences Vol. 25, Issue 2 (2012).

Vandenbergh, Michael, and Jonathan Gilligan. Beyond Politics: The Private Governance Response to Climate Change. Cambridge: Cambridge University Press, 2019.

About the author:

Charlotte Hulme is a political science Ph.D. candidate at Yale University, where her research focuses on the role of non-national actors in addressing transnational challenges. Her work also explores questions about the nature of grand strategy in the 21st century in light of new global actors and challenges, and she recently published an article on this topic in *The Strategy Bridge.* Other interests include statehood and security in Africa, and in 2018 she co-authored an article on the Islamic State in Africa with Dr. Jason Warner of West Point. Charlotte is a proud graduate of Cambridge University and Wellesley College.