

# 4

## Transnational Governance *Charting New Directions Post-Paris*

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### 4.1 Introduction

Over the past decade, a key dynamic in climate politics has been the emergence and growth of transnational climate change governance (TCCG) (Abbott, 2012; Bulkeley *et al.*, 2014), which has played an important part in the shift from the monocentric regime established by the United Nations Framework Convention on Climate Change (UNFCCC) to an increasingly polycentric system of climate change governance (Ostrom, 2010; see also Chapter 2). Transnational governance is typically understood as efforts to authoritatively steer society by a range of actors – including civil society organisations, subnational governments and companies – operating across international borders (Rosenau and Czempiel, 1992). TCCG takes on many different forms, including carbon-trading mechanisms, labelling and certification schemes, emissions registries, voluntary corporate reporting and urban planning (Andonova, Betsill and Bulkeley, 2009; Hoffmann, 2011; Bulkeley *et al.*, 2014; Hale and Roger, 2014). TCCG often includes novel arrangements, techniques, measures and interventions designed to respond to climate change. TCCG initiatives are by definition the product of ‘local’ self-organisation (where ‘local’ is understood to mean action within the context of a particular setting), and they tend to interact both with each other and with other forms of governance such as the UNFCCC and national-level arrangements (Roger, Hale and Andonova, 2017) in a process akin to mutual adjustment in polycentricity theory. TCCG has been described as a form of experimental governance (Hoffmann, 2011; see also Chapter 6), though the extent to which this is producing learning across the diverse universe of TCCG remains moot.

The emergence of TCCG and its gathering momentum through the 2000s reflected the growing engagement of a diverse array of actors with climate change, the ease of establishing transnational connections and the stalemate within the multilateral climate change regime. In some accounts, its emergence is firmly

linked to the deficit of climate governance and leadership at the level of the international regime and the nation state (Roger *et al.*, 2017). For others, TCCG as a form of governance innovation has more diffuse causes. These include: broader trends in the fragmentation of authority; diverse motivations amongst those actors who initiated climate governance, including cities, non-governmental organisations (NGOs) and corporate actors; as well as the evolution of the climate issue itself from a singular environmental issue into many diverse realms, including carbon trading, the development of new forms of energy supply, forestry and so forth (Bulkeley *et al.*, 2014). As TCCG has grown, our aggregate knowledge of the scale and scope of TCCG has increased. Significantly, several interrelated databases have been developed to map TCCG initiatives and the subnational and non-state actors that engage in them (Hoffmann, 2011; Bulkeley *et al.*, 2014; Widerberg and Pattberg, 2015; Hsu *et al.*, 2016; Roger *et al.*, 2017). Drawing on this evidence base, in this chapter we review TCCG and identify its most salient features. With the development of the 2015 Paris Agreement, we see a significant shift in the extent and positioning of TCCG. Rather than remaining a relatively marginal form of climate governance, TCCG has come to be recognised and integrated within the multilateral climate change regime complex (Hale, 2016). At the same time, TCCG provides new arenas for contesting what climate governance entails. We detail how TCCG and UNFCCC politics have become increasingly intertwined through the Paris Agreement and suggest that this evolution can be captured through an appreciation of the development of polycentric climate governance as a whole.

Regarding TCCG as part of polycentric climate governance has significant consequences for how we explore the phenomenon and evaluate its impacts and implications. Rather than analysing singular initiatives, it suggests the onus is on understanding the interactions between individual initiatives and the wider governance complex of which they are a part. In the final part of this chapter, we consider three such arenas – clean energy, carbon markets and fossil fuel divestment – and examine the forms of governance innovation that are emerging in the transnational domain. While early forms of TCCG tended to share the same ideological positioning (thus enabling the building of trust across initiatives, a key dynamic in polycentric governance), we find that the transnational arena today is characterised by both centripetal and centrifugal forces. Many TCCG initiatives now explicitly align themselves with goals and frameworks embedded in the UNFCCC regime. At the same time, TCCG is becoming a more contested political domain in which actors challenge those goals and frameworks in search of alternative forms of climate action. In conclusion, we reflect on the implications of our discussion for the development of this area of research and our understanding of polycentric climate governance.

## 4.2 Constructing TCCG: Experimenting with an Alternative Approach to Governing?

Transnational efforts around climate change in the 1990s predominantly began not as governance efforts but as attempts to influence the state-centric global response to climate change (Newell, 2000; Betsill and Corell, 2008). These actors (NGOs, corporations, regions, provinces, etc.) were actively engaged in the multilateral negotiations and considered themselves either governance takers (having to implement the directives that came from the multilateral process) or governance influencers (seeking to shift the trajectory and substance of multilateral treaty-making). One exception to this picture was found in the work of cities (see Chapter 5), which actively formed networks intended to directly govern climate change.

After the adoption of the Kyoto Protocol, many of these actors shifted towards attempts to engage in transnational climate change *governance*. In part this was because of what they saw as inadequate progress within the Kyoto Protocol itself (Depledge, 2006), but in part it was because the overarching rules created by the Kyoto Protocol (e.g. emissions trading to support the Kyoto targets) offered an enabling environment for their growth. This was noted first by those examining municipal climate governance efforts through transnational networks (Bulkeley and Betsill, 2003), but came to be seen as much more widespread (Andonova *et al.*, 2009; Hoffmann, 2011). During this period, actors began to experiment with alternative responses to the issue of climate change in ways that cut across traditional divides between actors and scales. Through these efforts, TCCG was becoming an *alternative form* of global climate governance, independent in many crucial ways from state and multilateral climate governance. By the mid-2000s, there were two coexisting and interrelated realms of the global response to climate change – the multilateral arena and an emergent TCCG arena. Initial efforts at understanding TCCG revealed that it is widespread, but also patterned in particular ways. Indeed, rather than consisting of a random assortment of initiatives only tied together by an externally imposed analytic definition, TCCG – like the broader polycentric climate governance system of which it is a part – displays self-organisation and significant order even though it is not centrally organised.

Three elements of this ordering are particularly prominent – functional, geographical and ideological. Functionally, early studies revealed that TCCG initiatives produced innovative governance arrangements, but the novelty had limits. Hoffmann (2011) uncovered four types of governance prominent in the TCCG world – networking, capacity building, voluntary action and accountable action. Bulkeley *et al.* (2014) explored these varied functions in terms of the patterns through which diverse public and private actors institutionalise TCCG initiatives and create authoritative governance arrangements. Furthermore, while TCCG

initiatives take on a wide range of climate-related issues, there is clustering around four topics: energy, carbon markets/finance, biodiversity and sequestration and infrastructure (Bulkeley *et al.*, 2014).

The geographical dispersion of TCCG initiatives is also uneven. While actors in the global North have been the dominant initiators of TCCG, this broad generalisation obscures significant regional variation in TCCG activity (Bulkeley *et al.*, 2014). Despite a large proportion (75–90 per cent) of TCCG initiatives aiming to operate in developing countries (UNFCCC, 2016; Chan *et al.*, 2018), developing country-based actors lead only a tiny fraction of these initiatives. Northern-based actors lead 70–90 per cent of initiatives (Widerberg and Pattberg, 2015; Hsu *et al.*, 2016) and 64–84 per cent of participating actors come from developed countries (Galvanizing the Groundswell of Climate Actions, 2015). Actors from Africa and Asia are particularly underrepresented (Bulkeley *et al.*, 2014; Hsu *et al.*, 2016). The role of the global South in TCCG remains a key area of ongoing research (Newell and Bulkeley, 2017; Chan *et al.*, 2018). So far it is unclear whether, as a component of the wider system of polycentric governance, TCCG delivers ‘the achievement of more effective, equitable, and sustainable outcomes’ (Ostrom, 2010: 552).

Finally, ideological patterns are prominent in terms of the underlying worldview across TCCG initiatives and legitimating discourses. What Bernstein (2002) dubs ‘liberal environmentalism’, a notion that sustainability efforts are dependent on or have to be compatible with economic growth, permeates the TCCG world (Bernstein *et al.*, 2010). In addition, TCCG initiatives follow relatively similar strategies of formal or informal institutionalisation to generate the authority to govern in the absence of the more traditional legal authority that state-based governance efforts possess.

As TCCG activities have expanded and academic interest in them has grown, analysis has shifted from examining their emergence, substance and functioning to considering the extent and kinds of impacts that TCCG initiatives have individually and collectively generated. Put simply, do they achieve their objectives? Do they have second-order effects on other actors or on national policies? A number of approaches to assessing the impact of TCCG are now available. Some focus on direct impacts (what individual initiatives accomplish themselves) measured in terms of quantitative emissions reductions goals (Widerberg and Pattberg, 2015). Others argue for a process-based evaluation (Chan and Pauw, 2014: 33) like a ‘function-output fit’ approach to assess outputs against stated goals of TCCG initiatives (Chan *et al.*, 2015: 45; see also Chan *et al.*, 2018). Much of this existing literature, however, focuses on its potential contributions rather than its actual performance and effects. For example, Michaelowa and Michaelowa (2017) analyse climate partnerships to understand whether they have design features that

would allow them to effectively mitigate emissions independently of national policies. One step closer to impact, Chan *et al.* (2018) look at what activities climate partnerships undertake to see if they are producing the kinds of outputs that are likely to lead to impact. Literature on the related area of partnerships for sustainable development suggests that effectiveness may vary considerably across TCCG initiatives (Szulecki, Pattberg and Biermann, 2011; Pattberg *et al.*, 2012).

Complementing these attempts to directly measure impacts are proposals to evaluate TCCG initiatives on the basis of indirect impacts – how much they contribute to broader transformations (van der Ven, Bernstein and Hoffmann, 2017). This approach considers that the key effects of TCCG initiatives are likely to be catalytic and political – contributing to normative change, building the capacities of political actors and altering coalition-building and conflict dynamics (see Chapter 14) – in addition to, or even instead of, quantifiable emissions reductions. Measuring indirect effects is thus a matter of monitoring the political dynamics that initiatives entail over time (Chan *et al.*, 2015). Evidence suggests that TCCG initiatives are now woven into the fabric of global climate change governance, and interact with United Nations–based multilateral treaties and national government policy systems in important ways (Betsill *et al.*, 2015) such that they provided an important foundation for the Paris Agreement (Hale, 2016). Cao and Ward (2017) even speculate that growing transnational networks created by TCCG will fundamentally alter the policy preferences of the nation states enmeshed in them. TCCG then – through experimentation, network-building and establishing trust between actors across the climate governance complex – can prepare the ground for the formal recognition and incorporation of the efforts of non-state actors under the umbrella of the multilateral regime. Rather than operating in isolation or in parallel, therefore, we suggest that we should consider the multilateral process and TCCG as part of an evolving polycentric climate governance system. We turn now to considering how this phenomenon has evolved in relation to the shifting multilateral regime and the 2015 Paris Agreement through the formation of a global climate governance complex, before examining specific developments within TCCG since Paris.

### **4.3 Reforming the Global Climate Governance Complex: Before and after the Paris Agreement**

There was a sharp expansion of attention to the role of TCCG activity in the broader regime around the UNFCCC Conference of the Parties (COP) in Paris (Hale, 2016). This increase resulted from a variety of factors, including greater mobilisation of civil society, heavier media attention and, critically, the efforts of

the United Nations and national governments to ‘orchestrate’ such actions (Hale, 2016; see also Chapter 11). This orchestration, and thus the shifting terms of engagement between the multilateral regime and the realm of TCCG, reflects an ongoing process of evolution within the multilateral regime itself. Since the 2009 Copenhagen COP, the climate regime has evolved in interesting and unexpected ways, which has been characterised as a shift from a gridlocked ‘regulatory’ regime to a ‘catalytic’ regime (Falkner, 2016; Hale, 2016; Keohane and Oppenheimer, 2016). The UNFCCC process has brought climate action from cities, companies, civil society groups and other subnational/non-state actors into its understanding of the ways in which climate change can and should be governed (Figure 4.1).

In September 2014, UN Secretary-General Ban Ki-moon’s Climate Summit brought heads of state together with business leaders, mayors and others to announce bold actions on climate. The Secretary-General’s office had spent months in advance of the summit working to orchestrate multi-stakeholder initiatives on climate change as a way to motivate countries to increase their own ambition (Hale and Roger, 2014). This dynamic was repeated two months later at the High-level Action Day at COP20, held in Lima, Peru, which provided significant impetus to existing TCCG initiatives. It was at this time that the UNFCCC, under the auspices of the Peruvian hosts, created its online Non-state Actor Zone for Climate Action (NAZCA) portal to track climate action by cities, businesses and other subnational/non-state actors. While this portal identifies the action being taken by individual actors, much of what is reported actually takes place in forms of TCCG. In parallel, the United Nations Environment Programme’s (UNEP) Climate Initiatives Platform specifically monitors transnational initiatives. This effort to track and profile subnational/non-state climate activities and TCCG initiatives on an ongoing basis has therefore been central to the attempt to organise and coordinate TCCG in relation to the multilateral regime.

Throughout 2015, the governments of Peru and France, in partnership with the UNFCCC secretariat and the UN Secretary-General, worked to mobilise additional action and initiatives from all sectors of society. This ‘Lima-Paris Action Agenda’, as the programme was called, eventually came to include more than 10,000 individual commitments, many of which were aligned to TCCG initiatives. It was declared a ‘fourth pillar’ of the Paris climate conference (alongside the national pledges, the climate finance package and the negotiated agreement itself), and cited as a critical driver of the successful outcome. Instead of being relegated to the sidelines, local and regional governments, the private sector and other actors were showcased at a series of thematic days throughout the COP, and celebrated in a star-studded Action Day. This conscious effort by international organisations and governments to bring subnational and non-state actors more

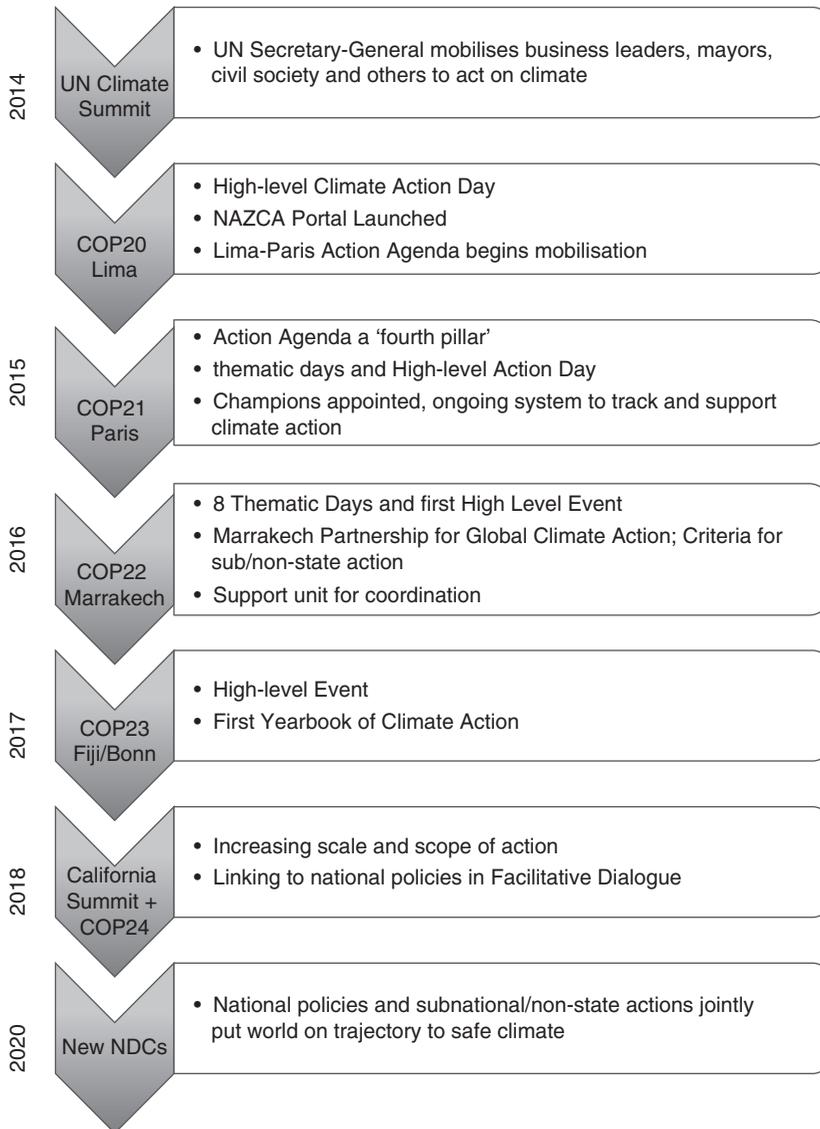


Figure 4.1 The growing role of sub/non-state climate action in the climate regime.

closely into the process was reflected and augmented by the countries meeting in Paris. In a major departure, governments in Paris instituted the NAZCA portal as an ongoing system to track, support and accelerate subnational/non-state climate action going forward. They appointed two 'high-level champions' to catalyse bottom-up climate action. They mandated that a high-level event be held at every future COP for subnational/non-state actors to announce new commitments and report on progress. And they decided to link the 'Action Agenda' to the technical

process in the negotiations through which countries consider new policy options they might adopt, so that subnational/non-state action can inform national policy and vice versa. These initiatives were further institutionalised at COP22 in Marrakech, through the Marrakech Partnership (UNFCCC, 2016), especially via the formation of a support unit in the UNFCCC secretariat to coordinate the process, bolstered by a hybrid support network envisioned to include a mix of governments, representatives of city and business networks, international organisations and other actors. This new link between the intergovernmental sphere and the subnational and transnational spheres sets, in many ways, a unique precedent in global governance.

#### 4.4 The Dynamics of TCCG Post-Paris

There is, then, an impressive level of activity within the transnational realm now being recorded that could have very significant impacts. Yet the place of TCCG within a broader polycentric climate governance system means that understanding this phenomenon requires moving beyond the analysis of individual initiatives towards an analysis of the ways in which initiatives are interacting both with one another and with other aspects of the climate regime. In short, innovation within the transnational realm can only be evaluated in terms of its position and dynamic within the broader governance landscape. Betsill *et al.* (2015) usefully distinguish between ‘divisions of labour’ and ‘catalytic’ linkages. The former refers to types of interaction where two or more organisations might be attempting to govern a specific aspect of climate change, and the question is whether and how to coordinate their activities to remove unnecessary duplication, avoid contradictions between them, and so on. The latter refers to ways in which two or more governance initiatives may create effects that interact, for example, between the information disclosure from investor initiatives like CDP (formerly, the Carbon Disclosure Project) and carbon price initiatives by governments via carbon markets. Such interactions may then create synergies, realising improvements in climate change responses beyond which each could individually achieve, or of course conflicts, with one undermining the other, with for example some economists arguing that renewable energy targets undermine carbon-pricing initiatives.

Of course, a significant problem of studying TCCG in general, but especially these interactions, is the dynamism of transnational governance. In this section, we discuss three areas where transnational governance has been changing especially rapidly and in which divisions of labour and catalytic links are visible – clean energy, carbon markets and fossil fuel divestment. Each area demonstrates how polycentric climate governance now entails the intertwining of TCCG and the

multilateral regime, but that the relationship is not singular. On the contrary, we observe both complementarities and contestation.

#### ***4.4.1 Clean Energy: Realising the TCCG Potential of the Paris Agreement?***

One area in which the nature of TCCG is shaped by its position within polycentric climate governance is around the mobilisation and governance of investments in ‘clean’ (low-carbon) energy. Already existing initiatives in this regard, such as the E8, the Renewable Energy and Energy Efficiency Partnership, the Johannesburg Renewable Energy Coalition, the Global Methane Initiative, the Green Power Market Group and the Roundtable on Sustainable Biofuels (Bulkeley *et al.*, 2014), have recently been joined by many more, partly reflecting the heightened level of ambition contained in the Paris Agreement. This ambition is reflected in the shift to talk of a ‘clean energy revolution’ – a phrase adopted by groups as diverse as the Climate Group and Greenpeace, the World Bank and many parties to the UNFCCC.

The Paris summit witnessed numerous side events proclaiming a ‘clean energy revolution’ and announcing trillions of dollars of new investment (UNFCCC, n.d.). Africa was singled out in particular, suggesting the need to increase investments to a region deprived of finance for climate mitigation to date (Lenferna, 2016). The Africa Renewable Energy Initiative, for example, aims to build at least 100 gigawatt of new and additional renewable energy generation capacity by 2020, and 300 gigawatt by 2030. The Initiative is led by the African Union’s commission, the New Partnership for Africa’s Development Agency, the African Group of Negotiators, the African Development Bank, UNEP and the International Renewable Energy Agency (IRENA). Also at the Paris summit, a new ‘billion dollar clean energy access investment opportunity’ was announced through the release of the United Nations Foundation’s Energy Access Practitioner Network’s Energy Access Investment Directory, which seeks to showcase best in the off-grid clean-energy sector globally, from successful start-ups to prominent renewable energy pioneers. The directory identifies more than a billion dollars of investment and financing opportunities presented by some 200 leading companies and organisations in the sector (Energy Access Practitioner Network, n.d.). Across this realm, several focal institutions like IRENA, the United Nations’ Sustainable Energy for All initiative and the Clean Energy Ministerial seek to integrate TCCG initiatives with national and intergovernmental policy processes.

Reshaping patterns of energy investment in this way will be essential if the world is to achieve the ambition of the Paris Agreement to keep warming below 1.5 or 2° C. TCCG has a role to play here. Within the NAZCA portal, there are close to 5,000 companies from more than 88 countries representing more than \$38 trillion in

revenue, including nearly 500 investors with assets under management of more than \$25 trillion, one-third of total global assets (Hsu *et al.*, 2015). Ultimately, private and hybrid public–private flows of investment will decisively shape the prospects of low-carbon energy transitions around the world in which what emerges from UNFCCC processes is but one driver (Newell and Bulkeley, 2017), and therefore the role of TCCG in mobilising and shaping the priorities and nature of investment assumes central importance in how climate change is governed.

#### ***4.4.2 Carbon Markets: Reviving the Potential of TCCG?***

Carbon markets are a major area of interaction between TCCG and the Paris Agreement (see Chapter 13). About 100 parties – accounting for 58 per cent of global greenhouse gas emissions – plan or consider carbon-pricing initiatives in their nationally determined contributions (NDCs) submitted under the Paris Agreement. The Agreement sought to breathe new life into carbon markets, with transnational actors such as the International Emissions Trading Association and the International Carbon Reduction and Offset Alliance and the World Bank–led Carbon Pricing Leadership Coalition (World Bank, 2014) lobbying for the inclusion of such provisions. The ‘State and Trends of Carbon Pricing’ 2016 report (World Bank, Ecofys and Vivid Economics, 2016) highlighted the (contested) rationale for this: that cooperation through an international carbon market could reduce climate mitigation costs by one-third by 2030 and that trading carbon assets can create financial flows of 2–5 per cent of gross domestic product for low-emissions countries by 2050.

The Paris Agreement serves as an anchoring device for global carbon markets by revalidating and legitimising their role through a multilateral seal of approval, aiming to send a positive signal to investors and carbon traders about the role of carbon pricing. Article 6 of the Paris Agreement allows countries to use standardised international units to achieve their NDCs and establishes a new crediting mechanism, the Sustainable Development Mechanism, under the UNFCCC’s authority. It thus provides a means to link voluntary, state and subnational carbon markets, as well as sectoral initiatives such as that of the International Civil Aviation Organization. The latter body, for example, passed a resolution to cap emissions growth in the aviation industry starting in 2021 and to offset its emissions via a global market–based mechanism (ICAO, 2016).

Article 6 does not specify particular policies that might generate these international credits, or ‘internationally transferred mitigation outcomes’, affording flexibility to countries in their choice of policy tools. At the time of writing, these provisions are under negotiation in the UNFCCC. Significantly, in terms of

'catalytic' linkages, the Paris Agreement contains provisions for 'interconnection' (Article 6). Networks and coalitions such as the G7 Carbon Market Platform or the World Bank's Networked Carbon Markets might be the vehicles through which this work of coordination or mutual adjustment will be performed. Likewise, how these markets evolve and are governed will be shaped by transnational climate actors critical of carbon markets such as Carbon Market Watch lobbying to ensure previous lessons about the failings of the Kyoto Protocol's Clean Development Mechanism (CDM) are taken into account as new market mechanisms proliferate and interconnect. In particular, there is a key role for transnational climate alliances in providing monitoring, oversight and grievance mechanisms, such as citizen redress when human rights violations occur and consultation does not take place – all issues raised (but not resolved) by the CDM Policy Dialogue four years ago (Newell, 2014).

#### ***4.4.3 Divestment: A Transnational Governance Innovation?***

Fossil fuel divestment differs from both clean energy and carbon markets in that it is both a relatively novel part of TCCG and serves to contest rather than endorse the rationale of most forms of climate governance (on divestment generally, see Ayling and Gunningham, 2015; Rowe, Dempsey and Gibbs, 2016). Efforts to shape investment in fossil fuel companies have long formed part of TCCG. Initiatives like CDP and the Investor Network on Climate Risk, for instance, arose out of interactions between environmental NGOs and institutional investors, and in CDP's case, UNEP. But from 2010 onwards, after a particular campaign at Swarthmore College in the United States, and stimulated by an article by Bill McKibben in *Rolling Stone* (McKibben, 2012) and then coordinated by the NGO 350.org, initiatives to divest from fossil fuel corporations have spread, especially across North America, but also in many other places. They have centred on universities, colleges and churches, but have included decisions by the Norwegian government pension fund and the Church of England. These take one element in the logic of investor action but orient it towards divesting from companies directly involved in fossil fuel production.

This logic is partly based on a shift in climate change political discourse that occurred from around 2012 onwards, towards an 'end of the fossil fuel era' frame, which was advocated by McKibben and became widespread in academic circles, notably with an influential article by McGlade and Ekins (2015). The 2014 Fifth Assessment Report by the Intergovernmental Panel on Climate Change (IPCC) report and the Paris Agreement itself were both widely interpreted as signalling this in more institutionalised settings. The IPCC (2014) stated that for a scenario that would have a reasonable chance of limiting warming to 2°C, 'net emissions' would

have to be zero or even negative during the second half of the 21st century. The report does not explicitly state that this entails eliminating fossil fuels entirely, but it does show that the zero- or low-carbon (with the latter excluding *all* fossil fuels without carbon capture and storage) energy sources need to be very close to 100 per cent of the energy mix by 2100 (IPCC, 2014). The Paris Agreement took up the IPCC's 'net zero emissions' frame and embedded it as a goal, whilst also assuming a role for so-called negative emissions technologies, which led many to frame Paris as the beginning of the end for fossil fuels, including Greenpeace, Al Gore, Desmog and Avaaz (Avaaz, 2015; Grandia, 2015; Naidoo, 2015; Vidal and Vaughan, 2015).

Furthermore, several reports emerged arguing that fossil fuel companies were liabilities as investments, since as governments act to limit emissions to meet the 2°C goal, this would mean in practice that fossil fuel reserves would have to be left in the ground. They represented 'unburnable carbon' and therefore 'stranded assets' (e.g. Berners-Lee and Clark, 2013; Carbon Tracker Initiative, 2014). The point for divestment activists like McKibben was that constructive engagement with fossil fuel companies was no longer possible. Existing investor initiatives had been initially framed where one of the possible outcomes was that investors would shift away from fossil fuel interests (Paterson, 2001). In practice, however, initiatives like CDP or the Investor Network on Climate Risk, or the Financial Stability Board's high-level Taskforce on Climate-Related Financial Disclosures, have ended up primarily having effects on corporate managers via the information they have generated and enabling investors to become somewhat more active in their dealing with companies they invest in – deploying 'voice' rather than 'exit' (Hirschman, 1970). But if the aim is no longer a 'low-carbon' transition but a 'zero-carbon' one, such transparency-based measures may become vehicles not merely for risk-management but for the fundamental transformation of fossil fuel companies. Correspondingly, divestment becomes a type of strategic governance activity to effect a broad delegitimation of fossil fuel companies per se, seeking to eliminate rather than reform them, and using investor power as a means to that end. As such, it is a form of TCCG that involves the investment community in direct forms of climate governance but also includes efforts to influence the fossil fuel sector.

#### ***4.4.4 TCCG and the Landscape of Polycentric Climate Governance***

Together, these three cases point to some interesting new directions in the polycentric governance of climate change. In the case of both clean energy investment and carbon markets, disparate TCCG initiatives function to extend and give substance to the aims, objectives and modalities prescribed in the Paris Agreement as

well as fill gaps concerning actors, sectors and regions poorly represented in the UNFCCC process. They do this by demonstrating, financing and implementing projects and investments that contribute to the broad aims of the Agreement. Clean energy and carbon markets are areas where there has been significant change in TCCG, and we can see very clearly how the Paris Agreement has begun to affect these areas of governance. In the former case, this is due to the enhanced ambition of the Agreement. But the latter case shows how it revived the possibility of carbon markets at the international level, but in a way which will be very different in institutional terms to the markets (and the initiatives to govern them) that emerged both within the Kyoto Protocol and in its shadow.

By contrast, fossil fuel divestment has provided a novel twist on the shape of TCCG, which could have significant interaction effects across the governance complex if its momentum continues. Bulkeley *et al.* (2014) showed that only a small percentage of initiatives within TCCG were involved in contesting dominant norms and practices, measured in terms of either the overall ideology they espoused or the types of governance activities they engaged in. Divestment, however, perhaps signals a shift in the balance within TCCG towards more radical forms of practice. If so, it fits well with Hadden's (2015) argument that was a marked shift to more contentious practices among transnational NGOs at climate summits after 2008. Such actions at summits have been mirrored not only in the divestment movement but also in direct action aimed at keeping fossil fuels in the ground, notably against new oil pipelines across North America, and fracking in parts of Europe and elsewhere; an extension of the delegitimation strategy that challenges the social license to operate of fossil fuel companies.

#### 4.5 Conclusions

After two decades, TCCG has come to be recognised as a substantive arena of climate governance in both academic and policy circles. If the establishment of TCCG was forged through, and in some senses required its distinction from, the multilateral climate process, the recent history of climate governance dominated by the creation and aftermath of the Paris Agreement has witnessed stronger interactions between these arenas as TCCG becomes both formally recognised and orchestrated by actors within the UNFCCC. However, the 'inherent messiness' of these interactions when seen alongside the known deficiencies of polycentricity (Biermann *et al.*, 2009; Jordan *et al.*, 2015) requires further research.

Despite its increased prevalence and profile, it is important to remember that TCCG remains a far from universal phenomenon. The North–South gap in both participation and action implies, for instance, that developing country–based actors do not have a similar impact on the definition of objectives. This might in turn

undermine political support for effective engagement of non-state and subnational actors in the UNFCCC, even when they play a crucial role in the provision of additional means necessary to meet targets in NDCs by developing countries. Especially when such imbalances in participation serve to lend weight to Northern framings and initiatives on climate governance, they may encounter opposition from Southern governments to their recognition and inclusion under the umbrella of multilateral climate governance. At the same time, it is important to recognise that the partiality of our picture of TCCG may be a result of how it is defined and observed, and that although our understanding of TCCG has advanced considerably in recent years, mapping and understanding the phenomenon continues to present significant challenges, which in turn creates a need for future work.

This chapter has also identified the issue of evaluating the impact of TCCG as a significant challenge. While existing studies provide helpful information regarding the process through which partnerships might have impact, we need more systematic studies of the actual outcomes and effects of partnerships to fully assess their critical role in global climate governance (van der Ven *et al.*, 2017). The most important aspect of this in relation to polycentric climate governance is to think about effectiveness in relation to the interactions across different initiatives. In a polycentric system, there are traditional forms of ‘orchestration’ of interactions between different specific sites or practices of governance (Hale and Roger, 2014), but also forms of mutual adjustment (Ostrom, 1999). These interactions and linkages are only beginning to be studied (Hale and Roger, 2014; Betsill *et al.*, 2015; Hickmann, 2015; see also Chapter 10).

While we are starting to build a picture of the kinds of TCCG innovation that have emerged in the post-Paris era, our understanding of the ways in which specific forms of TCCG are taking shape remains relatively limited. Cases of clean energy, carbon markets and divestment reveal rather different patterns and forms of interaction between the multilateral regime and TCCG initiatives, revealing both centrifugal and centripetal dynamics. For example, many of the transnational city and business initiatives now frame themselves explicitly as contributing to the Paris Agreement, rather than as alternatives to the UNFCCC process (which was not always the case). They are adopting some of the intergovernmental goals (like the 1.5°C target) and are finding frameworks for coordination through the Marrakech Partnership and elsewhere. At the same time (and to the extent that divestment becomes more widely adopted and starts to have effects on the legitimacy of fossil fuel companies), this suggests that TCCG, and by extension polycentric climate governance as a whole, may be becoming more of a contested field, where the interactions are not only functional but properly *political*. Divestment arguably constitutes a true ‘innovation’

(Jordan and Huitema, 2014) in climate governance through the delegitimation of fossil fuels, such that in some contexts, the burden of proof is on those seeking to argue why we should invest in new fossil fuel infrastructure rather than on those promoting clean energy. The conflicts over pipelines in North America or new-build coal mines in Europe and Australia seem to provide some evidence in favour of this – those promoting pipelines are subject to increasing amounts of scrutiny where the presumption is no longer automatically in favour of the construction of new high-carbon infrastructure. This revival of conflict in climate governance is a reminder that underlying the technical, almost managerial language of polycentric climate governance, as with any similar concept, are deep conflicts of interest and vision at the heart of climate change politics.

### References

- Abbott, K. W. (2012). The transnational regime complex for climate change. *Environment and Planning C*, 88(3), 543–564.
- Andonova, L., Betsill, M. and Bulkeley, H. (2009). Transnational climate governance. *Global Environmental Politics*, 9(2), 52–73.
- Avaaz. (2015). Victory! The End of Fossil Fuels Has Begun. Available at: [https://secure.avaaz.org/en/climate\\_story\\_loc/?pv=351&rc=fb](https://secure.avaaz.org/en/climate_story_loc/?pv=351&rc=fb) [Accessed 26 September 2017].
- Ayling, J. and Gunningham, N. (2015). Non-state governance and climate policy: the fossil fuel divestment movement. *Climate Policy*, 17(2), 131–149.
- Berners-Lee, M. and Clark, D. (2013). *The Burning Question: We Can't Burn Half the World's Oil, Coal and Gas. So How Do We Quit?*. London: Profile Books Ltd.
- Bernstein, S. (2002). Liberal environmentalism and global environmental governance. *Global Environmental Politics*, 2(3), 1–16.
- Bernstein, S., Betsill, M., Hoffmann, M. and Paterson, M. (2010). A tale of two Copenhagens: carbon markets and climate governance. *Millennium – Journal of International Studies*, 39(1), 161–173.
- Betsill, M. and Corell, E. (eds.). (2008). *NGO Diplomacy: The Influence of Non-governmental Organizations in International Environmental Negotiations*. Cambridge, MA: MIT Press.
- Betsill, M., Dubash, N. and Paterson, M. *et al.* (2015). Building productive links between the UNFCCC and the broader climate governance landscape. *Global Environmental Politics*, 15(2), 1–10.
- Biermann, F., Pattberg, P., van Asselt, H. and Zelli, F. (2009). The fragmentation of global governance architectures: a framework for analysis. *Global Environmental Politics*, 9(4), 14–40.
- Bulkeley, H., Andonova, L. and Betsill, M. *et al.* (2014). *Transnational Climate Change Governance*. Cambridge: Cambridge University Press.
- Bulkeley, H. and Betsill, M. (2003). *Cities and Climate Change: Urban Sustainability and Global Environmental Governance*. London: Routledge.
- Cao, X. and Ward, H. (2017). Transnational climate governance networks and domestic regulatory action. *International Interactions*, 45(1), 76–102.

- Carbon Tracker Initiative. (2014). Carbon Supply Cost Curves: Evaluating Financial Risk to Oil Capital Expenditures. Available at: [www.carbontracker.org/report/carbon-supply-cost-curves-evaluating-financial-risk-to-oil-capital-expenditures/](http://www.carbontracker.org/report/carbon-supply-cost-curves-evaluating-financial-risk-to-oil-capital-expenditures/) [Accessed 26 September 2017].
- Chan, S., Falkner, R., Goldberg, M. and van Asselt, H. (2018). Effective and geographically balanced? An output-based assessment of non-state climate actions. *Climate Policy*, 18 (1), 24–35.
- Chan, S. and Pauw, P. (2014). *A Global Framework for Climate Action (GFCA): Orchestrating Non-state and Subnational Initiatives for More Effective Global Climate Governance*. Discussion paper. Bonn: German Development Institute.
- Chan, S., van Asselt, H. and Hale, T. et al. (2015). Reinvigorating international climate policy: a comprehensive framework for effective nonstate action. *Global Policy*, 6(4), 466–473.
- Depledge, J. (2006). The opposite of learning: ossification in the climate change regime. *Global Environmental Politics*, 6(1), 1–22.
- Energy Access Practitioner Network. (no date). About us. Available at: <http://energyaccess.org/about-us/mission-and-goals/> [Accessed 26 September 2017].
- Falkner, R. (2016). The Paris Agreement and the new logic of international climate politics. *International Affairs*, 92(5), 1107–1125.
- Galvanizing the Groundswell of Climate Actions. (2015). Lima-Paris Action Agenda Independent Assessment Report (7 December 2015). Available at: [https://static1.squarespace.com/static/552be32ce4b0b269a4e2ef58/t/56673b3cb204d59deb517d8d/1449605948836/LPAA\\_Assessment\\_Report\\_7DEC15.pdf](https://static1.squarespace.com/static/552be32ce4b0b269a4e2ef58/t/56673b3cb204d59deb517d8d/1449605948836/LPAA_Assessment_Report_7DEC15.pdf) [Accessed 26 September 2017].
- Grandia, K. (2015). Agreement in Paris Paves Road for the End of Fossil Fuels. Available at: [www.desmogblog.com/2015/12/12/paris-agreement-paves-road-end-fossil-fuels](http://www.desmogblog.com/2015/12/12/paris-agreement-paves-road-end-fossil-fuels) [Accessed 26 September 2017].
- Hadden, J. (2015). *Networks in Contention*. Cambridge: Cambridge University Press.
- Hale, T. (2016). ‘All hands on deck’: the Paris Agreement and nonstate climate action. *Global Environmental Politics*, 16(3), 12–22.
- Hale, T. and Roger, C. (2014). Orchestration and transnational climate governance. *Review of International Organizations*, 9(1), 59–82.
- Hickmann, T. (2015). *Rethinking Authority in Global Climate Governance: How Transnational Climate Initiatives Relate to the International Climate Regime*. London: Routledge.
- Hirschman, A. (1970). *Exit, Voice, and Loyalty*. Cambridge, MA: Harvard University Press.
- Hoffmann, M. (2011). *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto*. New York: Oxford University Press.
- Hsu, A., Cheng, Y., Weinfurter, A., Xu, K. and Yick, C. (2016). Track pledges of cities and companies. *Nature*, 532(7599), 303–306.
- Hsu, A., Moffat, A., Weinfurter, A. and Schwartz, J. (2015). Towards a new climate diplomacy. *Nature Climate Change*, 5(6), 501–503.
- International Civil Aviation Organization (ICAO). (2016). Historic Agreement Reached to Mitigate International Aviation Emissions. Available at: [www.icao.int/Newsroom/Pages/Historic-agreement-reached-to-mitigate-international-aviation-emissions.aspx](http://www.icao.int/Newsroom/Pages/Historic-agreement-reached-to-mitigate-international-aviation-emissions.aspx) [Accessed 26 September 2017].
- Intergovernmental Panel on Climate Change (IPCC). (2014). Summary for policymakers. In *Climate Change 2014: Synthesis Report*, ed. Intergovernmental Panel on Climate Change. Cambridge: Cambridge University Press.

- Jordan, A. and Huitema, D. (2014). Innovations in climate policy: conclusions and new directions. *Environmental Politics*, 23(5), 906–925.
- Jordan, A., Huitema, D. and Hildén, M. *et al.* (2015). Emergence of polycentric climate governance and its future prospects. *Nature Climate Change*, 5(11), 977–982.
- Keohane, R. and Oppenheimer, M. (2016). Paris: beyond the climate dead end through pledge and review? *Politics and Governance*, 4(3), 142–151.
- Lenferna, G. (2016). Africa Ripe for Clean Energy Revolution. *The Herald* [Harare], 3 March 2016. Available at: [www.herald.co.zw/africa-ripe-for-clean-energy-revolution/](http://www.herald.co.zw/africa-ripe-for-clean-energy-revolution/) [Accessed 26 September 2017].
- McGlade, C. and Ekins, P. (2015). The geographical distribution of fossil fuels unused when limiting global warming to 2 °C. *Nature*, 517(7533), 187–190.
- McKibben, B. (2012). Global warming's terrifying new math. *Rolling Stone*, 19 July 2012.
- Michaelowa, K. and Michaelowa, A. (2017). Transnational climate governance initiatives: designed for effective climate change mitigation? *International Interactions*, 43(1), 129–155.
- Naidoo, K. (2015). COP21: Deal Shows the End of Fossil Fuels Is Near, Now We Must Speed Its Coming. Available at: [www.greenpeace.org/usa/cop21-deal-shows-the-end-of-fossil-fuels-is-near-now-we-must-speed-its-coming/](http://www.greenpeace.org/usa/cop21-deal-shows-the-end-of-fossil-fuels-is-near-now-we-must-speed-its-coming/) [Accessed 26 September 2017].
- Newell, P. (2000). *Climate for Change: Non-state Actors and the Global Politics of the Greenhouse*. Cambridge: Cambridge University Press.
- Newell, P. (2014). Dialogue of the deaf? The CDM's legitimization crisis. In *The Politics of Carbon Markets*, ed. B. Stephan and R. Lane. London: Routledge, 212–236.
- Newell, P. and Bulkeley, H. (2017). Landscape for change? International climate policy and energy transitions: evidence from sub-Saharan Africa. *Climate Policy*, 17(5), 650–663.
- Ostrom, E. (2010). Polycentric systems for coping with collective action and global environmental change. *Global Environmental Change*, 20(4), 550–557.
- Ostrom, V. (1999). Polycentricity – Part 1. In *Polycentricity and Local Public Economies*, ed. M. McGinnis. Ann Arbor: University of Michigan Press, 52–74.
- Paterson, M. (2001). Risky business: insurance companies in global warming politics. *Global Environmental Politics*, 1(4), 18–42.
- Pattberg, P., Biermann, F., Chan, S. and Mert, A. (eds.). (2012). *Public–Private Partnerships for Sustainable Development*. Cheltenham: Edward Elgar.
- Roger, C., Hale, T. and Andonova, L. (2017). The comparative politics of transnational climate governance. *International Interactions*, 43(1), 1–25.
- Rosenau, J. and Czempiel, E. (1992). *Governance without Government: Order and Change in World Politics*. Cambridge: Cambridge University Press.
- Rowe, J., Dempsey, J. and Gibbs, P. (2016). The power of fossil fuel divestment (and its secret). In *A World to Win: Contemporary Social Movements and Counter-hegemony*, ed. W. K. Carroll and K. Sarker. Winnipeg: ARP Books, 233–249.
- Szulecki, K., Pattberg, P. and Biermann, F. (2011). Explaining variation in the effectiveness of transnational energy partnerships. *Governance*, 24(4), 713–736.
- United Nations Framework Convention on Climate Change (UNFCCC). (2016). *Marrakech Partnership for Global Climate Action*. Bonn: United Nations Framework Convention on Climate Change. Available at: [http://unfccc.int/files/paris\\_agreement/application/pdf/marrakech\\_partnership\\_for\\_global\\_climate\\_action.pdf](http://unfccc.int/files/paris_agreement/application/pdf/marrakech_partnership_for_global_climate_action.pdf) [Accessed 26 September 2017].
- United Nations Framework Convention on Climate Change (UNFCCC). (no date). Africa Renewable Energy Initiative: Increasing Renewable Energy Capacity. Available at: <http://newsroom.unfccc.int/lpaa/renewable-energy/africa-renewable-energy-initiative-increasing-renewable-energy-capacity-on-the-african-continent/> [Accessed 26 September 2017].

- van der Ven, H., Bernstein, S. and Hoffmann, M. (2017). Valuing the contribution of nonstate and subnational actors to climate governance. *Global Environmental Politics*, 17(1), 45–56.
- Vidal, J. and Vaughan, A. (2015). Paris climate agreement may signal end of fossil fuel era. *The Guardian*, 13 December 2015.
- Widerberg, O. and Pattberg, P. (2015). International cooperative initiatives in global climate governance: raising the ambition level or delegitimizing the UNFCCC?. *Global Policy*, 6(1), 45–56.
- World Bank. (2014). 73 Countries and Over 1,000 Businesses Speak Out in Support of a Price on Carbon. Available at: [www.worldbank.org/en/news/feature/2014/09/22/governments-businesses-support-carbon-pricing](http://www.worldbank.org/en/news/feature/2014/09/22/governments-businesses-support-carbon-pricing) [Accessed 26 September 2017].
- World Bank, Ecofys and Vivid Economics. (2016). *State and Trends of Carbon Pricing 2016*. Washington, DC: World Bank. Available at: <https://openknowledge.worldbank.org/handle/10986/25160> [Accessed 26 September 2017].