# International Governance Polycentric Governing by and beyond the UNFCCC

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#### 2.1 Introduction

The adoption of the Paris Agreement in December 2015 was portrayed by then United Nations (UN) Secretary-General Ban Ki-moon as 'a resounding success for multilateralism' (UNFCCC, 2015) – after so many years of uncertainty had passed that many had begun to fear that the United Nations Framework Convention on Climate Change (UNFCCC) had become permanently gridlocked. Paris seemingly reaffirmed the centrality of the regime established by the UNFCCC in the international governance of climate change, and its ability to adapt to new challenges.

Although the UNFCCC can be viewed as a form of 'monocentric' governance (Cole, 2015; see also Chapter 7), in the three decades of intergovernmental efforts to address climate change, it has become increasingly clear that it operates as part of a polycentric governance system. Due to the physical and socio-economic interconnections between climate change and a range of other issue areas, institutional overlaps between the climate regime and other international institutions from other domains such as trade and investment, human rights, other environmental issues (e.g. ozone depletion and biodiversity loss) and specific sectors (e.g. aviation and maritime shipping) are inevitable. Scholars have variously pointed to the 'fragmentation' of international institutions in this issue area (Biermann *et al.*, 2009; Zelli, 2011a), to the existence of a 'regime complex for climate change' (Keohane and Victor, 2011) and to 'experimentalist governance' (Sabel and Victor, 2017). In essence, all these terms recognise the increasingly polycentric nature of climate governance.

In this chapter, we systematically sketch the domain of international climate change governance from the angle of polycentricity, focusing on intergovernmental multilateral institutions. We pursue two objectives: characterising this governance system as polycentric, and then discussing to what extent certain manifestations of polycentricity have already materialised in this system. With

regard to the first objective, this chapter begins by qualifying the claim that the UN climate regime is 'monocentric'. This is followed by an overview of governance through several other intergovernmental regimes and organisations. In doing so, we illustrate how international climate governance itself can be characterised in terms of the first part of the essential definition of polycentric governance offered in Chapter 1 – namely one exhibiting multiple governing authorities that function independently from each other and set rules and norms pertaining to climate change. Next, and addressing our second objective, we assess the extent to which the domain of international climate governance exhibits the suggested features of polycentric climate governance outlined in Chapter 1. The conclusions summarise our main findings.

# 2.2 International Climate Governance by the UNFCCC

Much ink has been spilt by those seeking to describe the evolution of the international climate regime (e.g. Gupta, 2014; Bodansky, Brunnée and Rajamani, 2017). We certainly know much more about its limitations (e.g. Rayner, 2010; Victor, 2011) than we did 25 years ago. We now know, for instance, that although countries can set lofty long-term objectives (e.g. the goals to keep global temperature increases to well below 2°C and to pursue efforts to stay below 1.5°C), this does not mean that when combined, the individual targets or pledges for the short and medium term made by countries will fulfil those goals (e.g. Rogelj et al., 2016). We know that differentiation between developed and developing countries has been a recurring challenge for the regime, often resulting in 'dysfunctional North-South politics' (Depledge and Yamin, 2009: 443; see also Chapter 18). We know too that although innovations in the regime have been possible, as witnessed for instance by the introduction of market-based mechanisms such as the Clean Development Mechanism, the rules of those mechanisms have had to be carefully designed to prevent countries and private actors from abusing the system (Wara, 2007). We also know that even though a compliance mechanism was incorporated into the regime through its Kyoto Protocol, it was not able to induce Canada, a country that was significantly off target and that ultimately withdrew, to comply (Zahar, 2015). We further know that reaching any agreement amongst more than 190 very diverse parties can be incredibly challenging, as was most visibly underscored by the failure to adopt the Copenhagen Accord in 2009. And finally, we have certainly learned how hard it can be to craft a regime that can keep one of the world's largest greenhouse gas emitters, the United States, fully on board.

Yet these limitations are all too often ascribed to a rather simplistic characterisation of the climate regime as 'top-down' and 'monocentric'. Specifically, the

approach adopted by the Kyoto Protocol is often wrongly referred to as a quintessential example of top-down international governance (e.g. Rayner, 2010). Under this model, legally binding targets and timetables are set to achieve a common objective in a coordinated fashion, and targets are backed by a strong system of monitoring and enforcement in the form of reporting, review and a mechanism to address non-compliance (Hare *et al.*, 2010: 601).

However, the Protocol never fitted neatly into this ideal type: its legally binding targets and timetables were not imposed 'from above', but rather based on what countries were willing to put forward at the time; the Protocol's common objective of 5.2 per cent greenhouse gas emission reductions between 1990 and 2008–2012 was simply the result of adding up those commitments. Moreover, although the Protocol strengthened the reporting and review system of the UNFCCC and put in place a compliance mechanism, the strength of either mechanism is debatable (Oberthür, 2014; Zahar, 2015). Conversely, the Copenhagen Accord is often seen as an example of a 'bottom-up' approach, characterised by limited or no global coordination, with countries' efforts based on what they are willing to unilaterally commit to, with no strong international mechanism to hold them to account (Hare et al., 2010: 609). Yet this characterisation is also overdrawn. While the Copenhagen Accord asked countries to make unilateral emission reduction pledges that were not the outcome of multilateral negotiations, the Cancún Agreements anchored the Accord's pledge-and-review system in the UNFCCC by elaborating the international reporting and review system developed under the Convention.

In short, the climate regime has always been a hybrid of top-down and bottom-up elements, though it is fair to say that elements of bottom-up climate governance – such as non-legally binding pledges – have gradually moved to the fore. The Paris Agreement both exemplifies and formalises this shift, effectively extending it out to the post-2020 period (Bodansky, 2016). Under the Agreement, countries are no longer subject to legally binding emission reductions as developed countries were under the Kyoto Protocol; instead, the system pins its hopes on a series of procedural obligations and an institutional mechanism to ratchet up national ambitions over time (Bodansky, 2016; Rajamani, 2016).

This ambition mechanism is expected to function roughly as follows: (1) a long-term temperature goal (to stay below a temperature increase of 2°C and to pursue efforts to stay below 1.5°C) and a goal of net zero carbon emissions between 2050 and 2100 determine the 'direction of travel'; (2) countries submit new pledges (known as 'nationally determined contributions', or NDCs) in five-yearly cycles; (3) new NDCs will have to go beyond previous ones and have to reflect a country's highest possible ambition; and (4) countries' efforts are subject to various types of (periodic) review, including a review of implementation through an 'enhanced

transparency framework' (see also Chapter 12); a review of compliance through an implementation and compliance mechanism; and a review of overall progress through a five-yearly 'global stocktake', starting in 2023. Through an iterative process of submitting and reviewing NDCs, it is hoped, the international community will eventually achieve the Agreement's long-term objectives.

Like the Copenhagen Accord before it, the Paris Agreement is not purely monocentric. But to what extent can the wider international climate governance architecture be considered polycentric? In a first step towards answering this question, the next section shows that the UNFCCC is not the only multilateral international institution addressing climate change.

## 2.3 International Climate Governance beyond the UNFCCC

Under the definition of polycentric governance put forward in Chapter 1, multiple centres of decision-making authority govern the same problem. In the domain of international governance, this can be observed in practice, with a variety of international institutions beyond the UNFCCC governing climate change directly and indirectly. To illustrate this diversity, this section reviews the main intergovernmental regimes that have begun to address climate change, looking specifically at international environmental, economic, human rights and sectoral institutions.

#### 2.3.1 Other International Environmental Institutions

The causes and impacts of climate change are physically intertwined with various other environmental problems. For example, biodiversity loss can be exacerbated if ecosystems cannot adapt to climate impacts. Yet ecosystems also play a key role in climate change mitigation by either releasing or sequestering carbon (CBD Secretariat, 2009). Formal acknowledgement of these interlinkages has helped to trigger a flurry of activity related to climate change in other international environmental regimes. For example, Parties to the Convention on Biological Diversity (CBD) have adopted a series of decisions addressing biodiversity–climate linkages, among others by proposing biodiversity-related safeguards that should be adopted in the implementation of REDD+ (reducing emissions from deforestation and forest degradation) (van Asselt, 2014).

There are also complex interlinkages between climate change and the problem of stratospheric ozone depletion, with some ozone-depleting substances, such as chlorofluorocarbons (CFCs), as well as its substitutes, acting as greenhouse gases. By directly tackling CFCs, the Montreal Protocol's mitigation benefits have been estimated to be larger than those of the Kyoto Protocol (Velders *et al.*,

2007). Yet some of its benefits threaten to be negated, as the Montreal Protocol offered incentives through its Multilateral Fund to switch to substitutes – first hydrochlorofluorocarbons (HCFCs) and later hydrofluorocarbons (HFCs) – that also have significant global warming potential. In the end, parties to the Protocol managed to agree on an amendment to accelerate the phase-out of HCFCs (in 2007), followed by an amendment to phase out HFCs (in 2016). The latter, achieved through the Kigali Amendment adopted in the wake of the Paris Agreement, could avoid up to 0.5°C of warming by 2050 (Xu *et al.*, 2013).

### 2.3.2 International Economic Institutions

Climate change is as much an economic as it is an environmental problem, making various international economic institutions highly relevant for international climate governance. The Group of 20 (G20), a coalition of large economies that is primarily focused on international finance and economic development, is one such institution. Its activities in the area of climate change include its 2009 pledge to 'rationalise and phase out over the medium term inefficient fossil fuel subsidies that encourage wasteful consumption', which helped raise the issue of fossil fuel subsidy reform on the international political agenda, and moved forward activities by other international organisations in this area (van Asselt and Skovgaard, 2016). In addition, the G20 has played a role in strengthening promises to provide climate finance to developing countries (Kirton and Kokotsis, 2015).

Another relevant economic institution is the international trade regime. International trade agreements have at times been viewed as constraining mitigation ambition through a 'chilling effect' on climate policies (Zelli and van Asselt, 2010), as countries may adopt a variety of climate policy measures that may impinge on international trade. And while no rules directly pertaining to climate change have been agreed under the international regime established by the World Trade Organization (WTO), international trade agreements could conceivably also contribute to climate objectives, for instance by liberalising trade in climate-friendly goods and services (Droege *et al.*, 2016).

Finally, a range of international financial institutions play an important role in tackling climate change. A prime example is the World Bank, which hosts several funds for climate change mitigation and adaptation (e.g. the Climate Investment Funds), and which has become a focal point for international initiatives to promote the uptake of market-based instruments such as the Carbon Pricing Leadership Coalition.

# 2.3.3 International Human Rights Institutions

Climate change – and policies adopted in response – can affect a wide range of human rights, from the right to a healthy environment to the right to life (e.g. McInerney-Lankford, Darrow and Rajamani, 2011). As such, the issue has been on the agenda of various human rights institutions since the late 1990s. For instance, the Human Rights Council has adopted various decisions throughout the past decade (e.g. HRC, 2015), the Office of the High Commissioner on Human Rights has advocated for adopting a rights-based approach to climate change (OHCHR, 2015), and several Special Rapporteurs have argued that addressing climate change is required under international human rights law (Knox, 2016).

Related to this are various international institutions addressing refugees and migration. Although the labelling of people subject to climate-induced displacement as 'climate refugees' or 'climate migrants' remains controversial (Mayer, 2016b), the mandate of two of the main international institutions governing refugees – the United Nations High Commissioner for Refugees and the International Organization for Migration – was expanded to include climate-related issues (Hall, 2016).

## 2.3.4 International Transport Institutions

The international climate regime covers greenhouse gas emissions from all sources in principle, but it singles out two sectors because their emissions take place, in part, beyond the territorial boundaries of states: international aviation and maritime shipping. Aviation emissions are still small but growing rapidly, mainly due to the increasing demand for air travel (Lee *et al.*, 2009), while shipping emissions are also forecasted to grow without any additional measures in place (IMO, 2009). The Kyoto Protocol (Article 2.2) requested developed countries to negotiate new rules to regulate the sectors through their respective international organisations, the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO). A similar call was not repeated in the Paris Agreement, but it is likely that any action to address the emissions of these so-called bunker fuels will emanate from the two specialised organisations (Martinez Romera, 2016).

Although progress in both organisations was slow for many years, ICAO eventually adopted a series of measures, including a global goal of improving annual average fuel efficiency by 2 per cent and an aspirational goal of keeping global carbon emissions from 2020 onwards at the same level (i.e. ensuring carbonneutral growth). In October 2016, within a year of the adoption of the Paris Agreement, the organisation adopted a market-based mechanism – the Carbon

Offsetting and Reduction Scheme for International Aviation – to offset emissions growth in the sector from 2020 onwards.

Like ICAO, the IMO has adopted a series of measures to address shipping emissions. Following a series of studies, members adopted the mandatory Energy Efficiency Design Index for new ships in 2011, as well as the Ship Energy Efficiency Management Plan for all ships. The measures are expected to yield a significant effect on greenhouse gas emissions, with an IMO study estimating an annual reduction of carbon dioxide emissions of 13–23 per cent compared to business as usual between 2020 and 2030 (Bazari and Longva, 2011).

# 2.4 Polycentricity in International Climate Governance

The previous sections show that the domain of international climate governance is characterised by multiple institutions governing the same problems. This section now turns to our second objective. We discuss to what extent the five propositions on implications of polycentricity put forward in Chapter 1 – local action, mutual adjustment, experimentation, building trust and overarching rules – have materialised in the domain of international governance.

#### 2.4.1 Local Action

The first proposition suggests that local action will take off in a polycentric governance system. A key question here is: do international regimes (notably the UN climate regime) drive this development (and, if so, how), or does local action emerge fully from the bottom up?

Some suggest that the international climate regime is a driver of climate initiatives at other levels of governance. For instance, observing a 'substantial increase in climate legislation and strategies' between 2007 and 2012, Dubash *et al.* (2013: 662) speculate that 'the international negotiating process may have exerted some influence'. They specifically refer to the Copenhagen Conference of the Parties (COP), which led to a variety of new emission reduction pledges by states (see Chapter 3). Studies of transnational climate governance initiatives likewise document how the number of initiatives has increased since the mid-2000s – a period characterised by dissatisfaction with the limited progress made under the UNFCCC, and thus negative signals from the global level (Hoffmann, 2011; Bulkeley *et al.*, 2014; see also Chapter 4). Hickmann (2017: 445) suggests what is taking place is a reconfiguration of authority, in which 'the effective operation of transnational climate initiatives relies on the existence of an international regulatory framework created by national governments'. These various studies offer some evidence – at an aggregate level – that the international climate regime

helps to drive action at other levels of governance, which is a slightly different dynamic than what is assumed in polycentric thinking.

However, the causal mechanisms behind this assertion deserve more attention, particularly with respect to actions by non-state and subnational actors. For some non-state actors, Green (2008) has suggested that their actor involvement may be a consequence of *delegation* – in her case, of specific tasks to ensure the functioning of the Kyoto Protocol's Clean Development Mechanism. By contrast, Abbott has argued that a key mode of governance through which the international regime can steer national governments and non-state actors is that of *orchestration*, with one actor (i.e. the orchestrator) enlisting other actors (i.e. intermediaries) to achieve its governance goals (Abbott, 2012; see Chapter 11). Taking his work forward, Hale and Roger (2014) show that international organisations such as the World Bank have indeed played a key role as orchestrators of new climate initiatives.

Whether and for how long the UNFCCC – the COP or the secretariat – has been an orchestrator is an open question (though they could be; see Chapter 11), but it is undeniable that climate action by non-state and subnational actors has become an important part of the intergovernmental discussions before and after the adoption of the Paris Agreement (see also Chapter 4). Before Paris, the role of non-state and subnational action came into the spotlight through a new technical examination process, known as the Non-state Actor Zone for Climate Action (NAZCA), which registers non-state and subnational commitments, and the establishment of an 'Action Agenda' to encourage and support new initiatives. The Paris COP strengthened the connections between international governance on the one hand and non-state and subnational climate governance on the other. Although the Paris Agreement itself says remarkably little about non-state and subnational action (Chan, Brandi and Bauer, 2016), the decision adopting the Agreement encourages such action by prolonging the technical examination processes up to 2020, calling for an annual 'high-level event' to take stock of non-state action and announce new initiatives, and appointing two 'high-level champions' to ensure the successful execution of existing non-state actions as well as encourage new actions (UNFCCC, 2016a).

In short, the international regime has exerted at least *some* influence on the emergence of national, private, subnational and transnational climate governance. But how much influence it exerts – especially compared to other possible driving factors, such as competitiveness or moral concerns, reaping co-benefits, etc. (Jordan *et al.*, 2015) – and through precisely what causal mechanisms remains unclear.

## 2.4.2 Mutual Adjustment

The next proposition is that units will develop collaborations with each other, leading to 'mutual adjustment'. This raises the question: to what extent can we observe such spontaneous collaboration in the domain of international governance? And if so, why and how does it take place?

To our knowledge, the phrase 'mutual adjustment' – i.e. activities to order the relationships among governing units (Ostrom, 1972) – has not been applied or explored in the context of international institutions directly or literally, but we see clear parallels with a long-standing body of literature exploring how and with what effects international institutions interact with each other (e.g. Young, 2002; Oberthür and Gehring, 2006; see also Chapter 10). Specifically, mutual adjustment could in principle take the form of what Oberthür (2009) calls 'interplay management' – a term with admittedly monocentric connotations – which can be carried out unilaterally through individual institutions, but also jointly by the various institutions involved.

A first indication of mutual adjustment is the awareness displayed by drafters of other agreements through the making of cross-references to other treaties. Indeed, Kim (2013: 988) suggests this is evidence of a 'rather cohesive polycentric legal structure that forms the backbone of the international environmental governance system'. For instance, drafters of the UNFCCC were well aware of the potential overlap with the ozone regime when they limited the scope to 'greenhouse gases not controlled by the Montreal Protocol' (e.g. UNFCCC, Article 4.1(b)). They also acknowledged the overlap with international trade rules when they suggested that '[m]easures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade' (UNFCCC, Article 3.5). As mentioned earlier, the Kyoto Protocol explicitly singled out ICAO and the IMO to address aviation and shipping emissions. And, more recently, the Paris Agreement (preamble) called on its parties to 'respect, promote and consider their respective obligations on human rights'.

However, mutual adjustment goes well beyond what is specified in the constituent treaties of each regime. It can also be shaped by decisions taken by the governing bodies of different regimes. Parties to the CBD, for example, have adopted a series of decisions on biodiversity and climate change. Some of those decisions were taken in response to ongoing developments on issues of importance for biodiversity conservation in the UNFCCC, notably the development of rules on REDD+ (van Asselt, 2014). In turn, by conducing bargaining amongst great powers, several intergovernmental arrangements helped enhance the legitimacy of UN climate negotiations and reinvigorated the political dialogue therein.

An example is the G20 summit in Hamburg in July 2017, which reaffirmed the support of 19 members for the Paris Agreement in spite of the announcement by the United States of its withdrawal (see also Chapter 19).

Other possible forms of mutual adjustment include the coordination of scientific research, such as collaboration between the scientific bodies of the climate and ozone regimes, and cooperation between the bureaucracies of regimes, such as the Joint Liaison Group bringing together the secretariats of the Rio Conventions (van Asselt, 2014).

We can thus observe mutual adjustment in practice to some extent. Yet this small sample does not tell us much yet about *why* mutual adjustment takes place. There are no comprehensive studies explaining the drivers of mutual adjustment, though the role of some actors in specific cases has been highlighted. For instance, efforts to link climate change and human rights in the UNFCCC came at the insistence of small island developing states and several non-governmental organisations, who grew weary of the lack of progress under the UNFCCC and instead preferred working through human rights institutions (Limon, 2009). Moreover, following continued advocacy by various human rights bodies and actors, the Paris Agreement referred to a range of human rights in its preamble (Mayer, 2016a). In the case of the climate—biodiversity regime overlap, Jinnah (2011) suggests that actors in the biodiversity regime — including the CBD secretariat and its leader-ship—played a key role in ensuring that the new rules developed under the climate regime would include adequate biodiversity safeguards, mobilising support for decisions taken by the CBD COP.

By contrast, the impacts of climate change (policies) on biodiversity have not received any sustained attention from the decision-making bodies (van Asselt, 2014). This shows that adjustment is not always 'mutual', and points to the potential existence of cases that do not confirm this proposition. Likewise, there are a series of cases where relationships between the UNFCCC and other intergovernmental arrangements were marked by competition and delegitimation, for instance the now-defunct Asia-Pacific Partnership on Clean Development and Climate (van Asselt, 2014; see also Chapter 19).

While polycentric governance theory cannot fully explain variations in mutual adjustment, let alone the absence or opposite thereof, international relations scholars referred to a series of theoretical traditions to make sense of differences across inter-institutional relations. Scholars like Keohane and Victor (2011), Stokke (2012), Van de Graaf (2013) and Zelli (2011b) drew largely on neo-liberal institutionalism to explain the strategic behaviour of actors across institutions such as forum-shopping or creating rivalling institutions that better suit their interests. Whereas such rationalist approaches have their strengths in analysing institutional conflicts, other theoretical frameworks, especially those

building on functionalist or differentiation theories, are better suited for explaining incidents of mutual adjustment and cross-institutional synergy. Gehring and Faude (2013), for instance, expect that institutional competition may ultimately lead to optimisation in goal attainment and hence to new functional divisions of labour. Such approaches notwithstanding, the different literatures can still do more to build on each other and to root the study of inter-institutional relations more theoretically.

## 2.4.3 Experimentation

The third proposition suggests that experimentation can spur governance innovation and learning. This raises the question: to what extent is international climate governance conducive to experimentation?

The international climate regime is not commonly viewed as a source of experimentation. On the contrary, it is usually seen as a rigid and inflexible approach to the governance of a wicked problem. As Cole (2015: 115) puts it, for instance, the UNFCCC 'seems remarkably resistant to change, let alone replacement'. However, just as the characterisation of the UNFCCC as purely monocentric is incorrect, it is also too simplistic to suggest that the international climate regime cannot lead to experimentation in governance. Indeed, governance experiments have emerged from the regime itself. The Kyoto Protocol's market-based mechanisms are a case in point: they offered the first attempt to establish an international market for trading emission reductions (see also Chapter 6). More recently, the development of rules for REDD+ under the UNFCCC can be viewed as a way to try a novel approach to a problem – deforestation – that has for decades defied international solutions.

The broad approach to climate governance the Paris Agreement signifies (and seeks to encourage) can also be labelled experimental, since a larger spectrum of measures can now be tried out by a much wider array of parties, and because outcomes are to be systematically assessed. Some have accordingly labelled the Agreement's pledge-and-review approach a 'high stakes experiment' in multilateral cooperation (Doelle, 2016). Some of the features of the Agreement – such as the global stocktake – are a novel way of assessing the impact of the regime, and could provide opportunities for parties and other actors to learn about what works and what does not. However, to what extent these features will truly result in governance innovation and encourage learning among states and non-state actors remains to be seen.

# 2.4.4 Building Trust

The fourth proposition suggests that polycentricity will help build trust. One question in this regard is: how do intergovernmental institutions act as a 'trust catalyst' (Dorsch and Flachsland, 2017)?

For international cooperation, the UNFCCC can probably be viewed as *the* key institution for trust-building. It helps engender trust through the establishment and maintenance of relationships between various actors (Vogler, 2010). Although hard to measure, the ongoing interactions between government officials, business leaders, civil society representatives, scientists and other actors taking place under the umbrella of UNFCCC meetings at least twice a year arguably help build trust among these actors. It can be hard to build trust in a multilateral institution given the number of participants involved. Some have suggested that 'minilateral' institutions – involving a limited set of participants such as major emitters – could overcome this problem (see also Chapter 19). However, minilateralism may also erode the hard-earned trust of participants in the multilateral institution if the minilateral forum is set up to undermine the goals and principles of the multilateral venue (van Asselt, 2014).

One way in which international regimes can help build trust is through their mechanisms to monitor and evaluate the extent to which parties live up to their commitments. In this regard, the infrastructure for reporting and review (i.e. their transparency arrangements) established by the UNFCCC, and refined over the years, is of crucial importance (Aldy, 2014). Following the Paris Agreement, all countries should report on their emissions, as well as the actions taken to implement their NDCs. Moreover, and equally important for building trust, reporting and review also covers the provision of climate finance (Roberts and Weikmans, 2017).

Existing transparency arrangements continue to face problems that may hamper the assessment whether trust is warranted or not. For instance, the reporting record is still patchy – particularly due to capacity challenges in developing countries – and the reviews often abstain from evaluative judgments about a country's performance because they are deemed 'too political' (Gupta and van Asselt, 2017; see also Chapter 12). Nonetheless, the transparency arrangements offer a carefully crafted overview of countries' greenhouse gas emissions and the policies put in place to address climate change. In doing so, they help instill trust and confidence that parties are at least implementing their commitments.

The international climate regime could further act as a trust catalyst by helping to monitor and evaluate the progress made by the variety of governance experiments by non-state and subnational actors (Stewart, Oppenheimer and Rudyk, 2013; Ostrom, 2014). The 2016 Marrakech Partnership – the most recent incarnation of

the Action Agenda under the UNFCCC – offers an indication that it may do so by tracking progress through the NAZCA platform (UNFCCC, 2016b). However, there is a risk that too much oversight may have the counterproductive effect of stifling the emergence of new initiatives and/or undermining the performance of existing ones (Chan *et al.*, 2015).

# 2.4.5 Overarching Rules

The last proposition examined here suggests that local initiatives work best when bound by a set of overarching rules that specify goals and/or allow for resolution of conflicts. One of the questions here is: do international institutions put in place such rules and, if so, what form do they take?

Oberthür (2016: 11) notes that the goals and objectives of the UNFCCC can be said to play a key role in the development of an overarching set of rules for the whole governance system. While originally the UNFCCC's broad goal was to 'stabilize greenhouse gas emissions at a level that would avoid dangerous anthropogenic interference with the climate system' (UNFCCC, Article 2), this proved too general; hence, over time, more specific guidance has had to be issued. Initially, this was done through the gradual embrace of the 2°C goal, although this particular goal did not emanate from the UNFCCC as such – the European Union and the Group of 8 (G8) played a key role in promoting the objective well before its inclusion in the Copenhagen Accord (Jaeger and Jaeger, 2011). More recently, however, the Paris Agreement has offered even more guidance, by not only promoting the goal to stay well below 2°C but also adding the 1.5°C goal.

The goal of achieving net zero carbon emissions during the second half of this century also offers further specificity with regard to the 'rules of the game'. In addition to these overall goals, core principles of the UNFCCC could be said to form an overarching set of rules. This includes, for instance, the principle of 'common but differentiated responsibilities and respective capabilities', pointing to the need for leadership by those who are more responsible for the climate problem as well as better capable of dealing with it (in terms of e.g. financial resources) (Rajamani, 2013).

However, the extent to which these goals and principles truly guide efforts by other actors and institutions in the broader system of polycentric climate governance remains rather unclear. For instance, although the 2°C goal has been embraced by several non-state initiatives (van Asselt, Huitema and Jordan, 2018), the manner in which such initiatives have sought to differentiate between developed and developing countries has been variable (Castro, 2016).

Perhaps more importantly, it remains debatable which types of rules should be considered when exploring this proposition. This is particularly challenging to

identify in case the core norms of different international institutions are in tension with each other – as in the case of the international trade and climate regime (Zelli and van Asselt, 2010). Moreover, it can be questioned whether rules that are crafted through an intergovernmental negotiation process necessarily constitute the rules for the whole polycentric governance system. Although non-governmental actors play a role in the development of rules under the UNFCCC – e.g. through lobbying or the provision of expertise – the rules discussed here are ultimately designed by and for states.

#### 2.5 Conclusions

This chapter has shown that the domain of international climate governance displays some of the features of polycentric governance. With reference to the definition outlined in Chapter 1, we can observe multiple decision-making units (i.e. various intergovernmental regimes) that have overlapping jurisdictions and that are not in a hierarchical relationship with each other.

Focusing more specifically on some of the propositions put forward in Chapter 1, there are indications that actions at lower levels of governance are driven by the international level, but we still cannot say to what extent international institutions drive local action compared to 'local' drivers (but see Chapter 9), and further understanding is needed of the specific mechanisms through which international governance drives action by non-state and subnational actors. Moreover, actors involved in different international regimes seek to manage areas of overlap through activities that amount to 'mutual adjustment', but there is a dearth of research on why mutual adjustment occurs in some cases but not in others. The international climate regime can also be said to be the source of some international governance experiments and, more broadly, be seen as setting the stage for governance experiments at other levels (van Asselt et al., 2018). The regime may further act as a 'trust catalyst' by offering a venue for regular deliberation and establishing a system for reporting and review. However, its trust-building capacity is primarily limited to state-based actions, as its transparency arrangements do not extend to actions by non-state and subnational actors. Finally, while an overarching set of rules can be said to have emerged through the UNFCCC, it has been made first and foremost by states for states. The extent to which there is a set of overarching rules applying to all actors in the system of polycentric climate governance – as well as the contents of those rules – remains an open question.

In conclusion, researchers need to move well beyond the idea that there is or has ever been a single 'monocentric' international climate regime. International climate governance emanates from a variety of international regimes, suggesting that this domain in itself is already polycentric. Moreover, as this chapter has shown, the

domain of international governance at least partly confirms some of the propositions on polycentric climate governance. What is still needed, however, is a better and more systematic understanding of how exactly international regimes – and the UNFCCC in particular – function in relation to the other domains within the broader polycentric governance system, and where the limits of the suggested positive implications are. A polycentric perspective suggests that existing work conducted by international policy researchers on the linkages within and between other domains be accelerated.

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