#### **ORIGINAL PAPER**



## New alliances in global environmental governance: how intergovernmental treaty secretariats interact with non-state actors to address transboundary environmental problems

Thomas Hickmann<sup>1</sup> · Joshua Philipp Elsässer<sup>2</sup>

Accepted: 2 July 2020 / Published online: 10 July 2020 © The Author(s) 2020

#### **Abstract**

The past few years have witnessed a growing interest among scholars and policy-makers in the interplay of international bureaucracies with civil society organizations, non-profit entities, and the private sector. Authors concerned with global environmental politics have made considerable progress in capturing this phenomenon. Nevertheless, we still lack in-depth empirical knowledge on the precise nature of such institutional interlinkages across governance levels and scales. Building upon the concept of *orchestration*, this article focuses on the relationship between specific types of international bureaucracies and actors other than the nation-state. In particular, we investigate how the secretariats of the three Rio Conventions reach out to non-state actors in order to exert influence on the outcome of international environmental negotiations. Our analysis demonstrates that the three intergovernmental treaty secretariats utilize various styles of orchestration in their relation to non-state actors and seek to push the global responses to the respective transboundary environmental problems forward. This article points to a recent trend towards a direct collaboration between these secretariats and non-state actors which gives rise to the idea that new alliances between these actors are emerging in global environmental governance.

**Keywords** Global environmental governance · Institutional interplay · Intergovernmental treaty secretariats · Orchestration · Rio Conventions · Non-state actors

Joshua Philipp Elsässer joshua.elsaesser@uni-potsdam.de

Faculty of Economics and Social Sciences, University of Potsdam, August-Bebel-Str. 89, 14482 Potsdam, Germany



<sup>☐</sup> Thomas Hickmann t.hickmann@uu.nl

Copernicus Institute of Sustainable Development, Utrecht University, Princetonlaan 8a, 3584 CB Utrecht, The Netherlands

#### 1 Introduction

Over the past few years, it has become increasingly obvious that the resolution of pressing transboundary environmental problems constitutes a great challenge for the existing global governance framework (Biermann et al. 2012; Hale et al. 2013). With reference to the concept of planetary boundaries, it can be argued that humanity is at a critical juncture to identify new sustainability paths for the twenty-first century and beyond (Rockström et al. 2009; Steffen et al. 2015). This seems to be most prevalent in the issue-areas of climate change, biodiversity loss, and land degradation. Consequently, structural changes in global environmental governance are urgently needed both within and outside *United Nations* (UN) institutions, including fully fledged international organizations, specialized bodies and programs, as well as secretariats of international environmental agreements.

In this regard, an important process currently underway is that the bureaucracies of international institutions have started to reach out to non-state actors in order to pursue distinct policy goals. A prominent approach to conceptualize this development is through 'orchestration' (e.g. Abbott and Snidal 2009; Abbott et al. 2015). It can be understood as an indirect mode of governance whereby a given actor (e.g. international organizations or national governments) mobilizes one or more intermediaries to take influence on a certain target group (Hale and Roger 2014). Building upon that concept, the present article conceives of international bureaucracies as orchestrators that interact with non-state actors, such as civil society groups, non-profit entities, or the private sector to encourage national governments to agree on a more ambitious response to collective action problems in the realm of global environmental politics.

In this article, we focus on the institutional interactions between three intergovernmental treaty secretariats, namely the secretariats of the *United Nations Framework Convention on Climate Change* (climate secretariat), the *Convention on Biological Diversity* (biodiversity secretariat), and the *United Nations Convention to Combat Desertification* (desertification secretariat) and non-state actors. Our analysis demonstrates that all three secretariats seek to enhance the overall effectiveness of the global responses to the respective environmental problems by coordinating the myriad initiatives launched and carried out by actors other than the nation-state. In particular, the secretariats utilize different styles of orchestration to initiate and maintain joint initiatives with their non-state partners driven by the goal to catalyze international cooperation and augment the global level of ambition to tackle transboundary environmental problems. This finding underlines the general and pervasive trend towards the involvement of non-state actors into global policy-making.

Furthermore, the case studies indicate that the relationship between intergovernmental treaty secretariats and non-state actors exhibit elements of collaboration without intermediation (i.e. direct engagement) as a result of their sustained and matured relationships. All three secretariats have considerably invested in digital solutions to create databases and networks on issues related to their designated conventions. In this context, staff members of the secretariats work closely together with research institutes and business entities to create and sustain web portals with relevant data providing a public knowledge basis of the underlying environmental problems and available solutions. In this regard, our analysis highlights the dynamic interplay between international bureaucracies and their non-state counterparts. This gives rise to the idea that new alliances between intergovernmental treaty secretariats and non-state actors are emerging in global environmental governance.

The article is structured as follows. In a next step, we summarize insights of the existing literature on the interplay between international bureaucracies and non-state actors in global environmental governance. Then, we conceptualize intergovernmental treaty secretariats as orchestrators that interact with non-state actors in an attempt to pursue distinct policy goals and describe our methods of data collection. After that, we turn to the empirical analysis and explore how the three secretariats under consideration interact with non-state actors and what kind of orchestration styles they deploy to accelerate the intergovernmental negotiations on the respective transboundary environmental problem. Finally, we draw conclusions about the role and function of international bureaucracies in global (environmental) governance and highlight some avenues for further research.

# 2 The interplay between international bureaucracies and non-state actors

Numerous scholars dealing with global politics have recently devoted increasing attention to the inner workings of international organizations and studied the role and function of their bureaucracies. Some authors still question whether the administrative bodies of international regimes and organizations have any significant impact beyond that of technical assistance and services to national governments (Drezner 2007). Yet, a growing number of authors argue that international bureaucracies matter and exert autonomous influence in various domains of global affairs (e.g. Barnett and Finnemore 2004; Bauer 2006; Biermann and Siebenhüner 2009; Trondal et al. 2010; Soonhee et al. 2014; Bauer and Ege 2016). These scholars perceive international bureaucracies as actors with considerable agency and contend that they have attained important tasks in contemporary global policy-making.

The field of global environmental governance is of particular interest for analysing the evolution of international bureaucracies and their interactions with other actors. This domain has been characterized as "one of the institutionally most dynamic areas in world politics regarding the number of international institutions and actors that have emerged over the past three decades" (Biermann et al. 2009b: 9). The *International Environmental Agreement Database Project* currently comprises almost 1300 multilateral agreements and over 2200 bilateral agreements (Mitchell 2018). With the increase in actors operating in the environmental domain, we have also witnessed a strong rise in case studies focusing on the leverage of different types of bureaucracies on policy outcomes (e.g. Bauer 2006; Depledge 2007; Jinnah 2014; Widerberg and van Laerhoven 2014; Jörgens et al. 2016).

In this policy field, researchers have made considerable progress in understanding the relationship between international environmental bureaucracies and their principals, i.e. national governments (Hawkins et al. 2006). This strand of research has provided crucial insights into the growing importance of international organizations and regimes with their bureaucracies. However, the question of how these international public agencies interact with actors within the nation-state and transnational institutions has only lately attracted wider scholarly interest (e.g. Tallberg et al. 2013; Steffek 2013; Johnson 2016; Jörgens et al. 2017; Littoz-Monne 2017; Hickmann et al. 2019). This knowledge gap is important to fill given the increasingly prominent role that non-state actors have come to play in the global response to transboundary environmental problems (Pattberg and Stripple 2008; Andonova et al. 2009; Abbott 2012; Bulkeley et al. 2014; Green 2014; Andonova 2017; Hickmann 2017).

On these grounds, the present article seeks to contribute to bridging this research gap in the study of international bureaucracies by focusing on the institutional interlinkages between intergovernmental treaty secretariats and non-state actors. In particular, the article

builds upon the concept of orchestration and investigates how the climate secretariat, the biodiversity secretariat, and the desertification secretariat reach out to intermediary actors outside of the official negotiation arenas in order to raise the ambition levels and commitments of national governments to cope with the respective challenges. While it would also be interesting to study what this implies for the autonomy and independence of international bureaucracies vis-à-vis their principals, this is beyond the scope of our article. Instead, we concentrate the analysis on *how* the secretariats use their limited mandates in creative ways by interacting with non-state actors in order to advance the intergovernmental process using different styles of orchestration. By this means we seek to lay some groundwork for future work on this emergent topic. Thus, the main contribution of this article is an empirical illumination of the evolving relationship and interactions between specific types of international bureaucracies and non-state actors in the burgeoning field of global environmental politics.

#### 3 Intergovernmental treaty secretariats as orchestrators

In the past few years, several authors have considerably advanced both the conceptual and empirical literature on institutional interactions in global environmental governance. They have devoted extensive efforts to study the interplay of international institutions at the same level of governance, i.e. linkages between different international environmental regimes or their regulatory overlap with other organizations (e.g. Young 1996, 2002; Oberthür and Gehring 2006; Oberthür and Stokke 2011; van Asselt 2014). More recently, authors have started to examine interactions between institutions and actors at different governance levels and scales (e.g. Green 2014; Betsill et al. 2015; Hickmann 2016; Gordon and Johnson 2017). These scholars focus on vertical as well as transnational interlinkages between various kinds of public and private actors including network-like institutions (Hickmann et al. 2020). This article adds to this evolving scholarship and takes an explicit focus on such interlinkages by examining the interactions between intergovernmental treaty secretariats and non-state actors operating in the environmental policy domain.

A prominent approach to capture such interactions is 'orchestration', a concept proposed in a seminal article by Abbott and Snidal (2009). These two scholars claim that a new governance structure has emerged, signalling a shift away from the traditional state-centred system towards a more diverse, hybrid, and polycentric institutional landscape in which sub-national bodies and non-governmental organizations create innovative transnational norms and rules for the regulation of businesses (Abbott and Snidal 2009). In other terms, non-state and private standards are changing the global system from traditional modes of international governance towards a more heterogeneous system comprising several new forms of political authority (Biermann et al. 2009a; Ostrom 2010; Keohane and Victor 2011; Green 2014; Abbott et al. 2016; Hickmann 2017). Thus, international organizations may use these new actors and institutions to "attain transnational regulatory goals that are not achievable through domestic or international Old Governance" (Abbott and Snidal 2009: 564).

In general terms, orchestration can be understood as "a process whereby states or intergovernmental organizations initiate, guide, broaden, and strengthen transnational governance by non-state and/or sub-state actors" (Hale and Roger 2014: 60–61). Hence, the concept of orchestration moves beyond the classical sender–receiver model of conventional governance approaches. Instead, it suggests a so-called *O-I-T* model,

in which an Orchestrator uses an Intermediary to influence a certain Target group (Abbott et al. 2015: 6). The respective orchestrator has a wide range of techniques at its disposal to influence the intermediary, including assistance, endorsement, or coordination. In theory, orchestrators can choose to manage or bypass their targets. In the case of international bureaucracies as orchestrators, they can thus fulfil their policy purpose without needing "time-consuming, high-level political approval" (Abbott and Snidal 2009: 564).

International bureaucracies rely on soft modes of governance to affect global and domestic policy-making due to their lack of coercive power compared to state actors that can enforce legally binding rules. In order to exert influence or pursue certain policy objectives, the secretariats of international organizations and regimes have to use their limited mandates and capacities in creative ways. Putting orchestration theory to work, this article conceives of intergovernmental treaty secretariats as orchestrators that interact with non-governmental organizations, non-profit entities, and businesses for setting a targeted impulse in the intergovernmental negotiations and related policy dialogues to promote ambitious outcomes. These bureaucracies seem to secure transnational support from various non-state entities that are active in the respective area to put pressure on national governments (Jörgens et al. 2017). With only a few studies on secretariats of multilateral environmental agreements around, little is known about the way in which these institutions act as orchestraters in global environmental governance.

The literature on orchestration has remained largely at a conceptual level hypothesizing on why, how, and under what circumstances international organizations and bureaucracies can become facilitative orchestrators and provide material or ideational support, endorse and enhance the legitimacy of existing initiatives, or engage in knowledge production and distribution of relevant information (Abbott and Snidal 2009: 576–577). The concrete roles and functions adopted by international institutions as orchestrators vis-à-vis their intermediaries have thus far not been studied in enough detail. Against this backdrop, this article investigates the precise nature of how three secretariats of multilateral environmental agreements adopt various orchestration styles in their outreach to different kinds of non-state actors. We focus on the climate secretariat, the biodiversity secretariat, and the desertification secretariat whose origins date back to the *United Nations Conference on Environment and Development* held in Rio de Janeiro in 1992. Due to their common genesis at this conference, the three multilateral environmental agreements are also known as *Rio Conventions* (Bauer et al. 2009).

For the empirical analysis, we build upon the *method of structured, focused comparison* which is well suited for the present study due to the similar mandates of the three secretariats, their largely identical organizational structures, and shared institutional contexts within the UN system (George and Bennett 2004). Using the strategy of triangulation, we employed three methods of data collection (Rothbauer 2008). First, we did an extensive desk study of the existing scholarly work on the three intergovernmental treaty secretariats including a mapping of initiatives in which they interact with non-state actors. Second, we carried out a systematic content analysis of more than 40 official documents and reports plus online material and 'grey' literature released by the secretariats as well as their non-state partners. Finally, we identified key persons for each case study and conducted ten semi-structured interviews and expert talks with staff members of the secretariats and representatives of non-governmental organizations to trace the evolution of the different initiatives (see "Appendix").

#### 4 Intergovernmental treaty secretariats and non-state actors

For a long time, the secretariats of multilateral environmental agreements have not been regarded as relevant actors. This has much to do with their limited resources as well as with the specific problem structure of the environmental policy domain. More precisely, powerful national governments fear that far-reaching international environmental agreements will have negative consequences on their economies. For that reason, they have endowed intergovernmental treaty secretariats with relatively narrow mandates (Bauer et al. 2009). Nevertheless, in the past few years, it has become obvious that the secretariats analyzed in this study have acquired a more active role in global policy-making and considerably enhanced their interlinkages with non-state actors.

The following analysis explores several initiatives in which these international bureaucracies interact with non-state actors. After an initial screening and mapping exercise of existing interactions, we selected the most prominent initiatives allowing us to conduct three in-depth empirical case studies. By means of this selection, we have come to assess instances in which the secretariats of the Rio Conventions play diverse roles in relation to non-state actors. While some initiatives in which the secretariats are involved and work together with non-state actors can be traced back to decisions taken by national delegations in intergovernmental negotiations, others have been created by institutions active within the broader periphery of the Rio Conventions, and still others have been co-facilitated with non-state partners or even launched by the secretariats themselves. In this way, we have been able to identify and carve out different styles of orchestration employed by the three secretariats of multilateral environmental agreements.

#### 4.1 The climate secretariat: facilitating a groundswell of action

Since the first Conference of the Parties (COP) to the UN Framework Convention on Climate Change (UNFCCC) in 1995, the climate secretariat's main purpose has been the facilitation of the intergovernmental climate negotiations, the provision of technical expertise and assistance, the organization of (intergovernmental) sessions and conferences, as well as general support concerning the implementation process of internationally agreed goals and targets (United Nations 1992b). Non-party stakeholders have generally been granted an observer status, thus they have no formal voting rights in the intergovernmental negotiations.

The climate secretariat has been mandated to coordinate the participation of the constantly growing number of observers in such negotiations (Schroeder and Lovell 2012). Amongst other things, it has taken responsibility of the administration of side-events conducted by all kinds of actors in this context. By this means, the climate secretariat has created an open forum and facilitated the informal exchange between different stakeholders, thereby providing input to the intergovernmental negotiations, integrating non-state actors into the work of the Convention, and stimulating debates on a great variety of climate-related issues. While these activities can be considered as a rather technical enterprise, in the following paragraphs we examine a number of initiatives in which the climate secretariat has more recently also been involved that seek to incorporate non-state actors more directly into a policy dialogue.

#### 4.1.1 The secretariat as spearheading actor

A prominent example of such an initiative launched by the climate secretariat is the *Momentum for Change Initiative* which was officially presented to the public in 2011 (UNFCCC 2011). As envisioned by the by-then Executive Secretary Christina Figueres, the proclaimed goal of this initiative is "to shine a light on the enormous groundswell of activities underway across the globe that are moving the world towards a highly resilient, low-carbon future" (UNFCCC 2017b). To achieve this aim, the initiative recognizes so-called *Lighthouse Activities* that are described as innovative and transformative solutions addressing both climate-related aspects as well as wider economic, social, and environmental challenges in a given geographical area. According to the initiative's webpage, these particular activities are practical, scalable, and replicable examples of what societal actors are doing to cope with the problem of climate change (UNFCCC 2017b).

Interestingly, the Momentum for Change Initiative is not funded through the secretariat's regular budget as such activities would not have been covered by its mandate. Instead, the climate secretariat has established close contacts with private actors to gather financial support for the initiative. As a result, national governments could not easily object to the campaign as a staff member of the climate secretariat stated in a personal conversation (Interview 1). Since 2012, the initiative has been conferring the *Momentum for Change Awards* to particularly successful projects conducted by business and civil society actors from around the world. In the past few years, the secretariat has put considerable efforts into the further development of this initiative and established numerous partnerships with the private sector to raise public awareness on related bottom-up climate activities (UNFCCC 2014a, 2015, 2017c).

#### 4.1.2 The secretariat as co-leading institution

Another example of the climate secretariat's interaction with non-state actors is the *Lima-Paris Action Agenda* (LPAA) that was launched in 2014. Its primary goal was to boost the positive dynamic created by various events which were organized by the UN Secretary General's Office throughout 2014 and involved numerous sub-national governments, non-governmental organizations, and private companies. The LPAA was jointly released by the Peruvian and French COP Presidencies, the Executive Office of the UN Secretary-General, and the climate secretariat (United Nations 2015a). The intention of this consortium of actors was to highlight the climate engagement spanning all parts of society and to build concrete, ambitious, and lasting initiatives to decrease *greenhouse gas* (GHG) emissions and promote measures to better adapt to climate change (Widerberg 2017).

While the climate secretariat played a relatively small part in the run-up to the LPAA, it became a central advocate throughout the following year 2015. Prior to the widely celebrated COP-21 to the UNFCCC in Paris, for instance, it published a policy paper that called for the initiative's further evolution (UNFCCC 2017c). Moreover, the secretariat supervised the initiative and occupied two seats in the steering committee responsible for the initiative's strategic development and implementation. The LPAA allowed the climate secretariat to explore new territory, as it involved a diverse set of actors, including cities and regions, indigenous peoples, academic institutions, and

private investors (Interview 2). This mobilization of sub-national and non-state actors aimed at catalyzing climate action especially through demonstration effects towards the end of 2015 as well as supporting the intergovernmental negotiations of a new climate agreement.

#### 4.1.3 The secretariat as manager and information hub

The most prominent initiative of the climate secretariat to generate support from non-state actors for an ambitious negotiation outcome is the so-called *Non-State Actor Zone for Climate Action* (NAZCA). The climate secretariat launched this initiative in 2014 under the auspices of the COP Presidency of the Peruvian government. It consists of an online platform that coordinates the various climate activities of actors other than nation-states and registers their individual commitments to limit GHG emissions (Chan et al. 2015: 468). The basic goal of this initiative is to improve the visibility of climate actions undertaken by sub-national bodies and non-governmental organizations (UNFCCC 2017a). In particular, NAZCA should demonstrate how non-state climate action is rising and showcase the "extraordinary range of game-changing actions being undertaken by thousands of cities, investors and corporations" (UNFCCC 2014b). These efforts comprise GHG emission reduction pledges, renewable energy projects, internal carbon prices, and investments in green bonds.

In addition to maintaining the NAZCA platform, staff members of the climate secretariat regularly carry out consultations with different stakeholders on potential improvements of the database (Interview 3). After the initial launch of the online platform, the climate secretariat has considerably increased its efforts to create a reliable knowledge basis on existing non-state climate initiatives. As a former senior official at the secretariat noted, without the input and the expertise from research-based think tanks, such an endeavour would not be possible due to the limited resources of the climate secretariat (Interview 4). Over the time of the establishment and further development of the NAZCA platform, this indicates that the climate secretariat has started to work with non-state actors in a more direct manner. In certain fields, this has hence led to collaboration on equal footing in the pursuit of the overarching aim to enhance the global level of ambition to address climate change.

#### 4.2 The biodiversity secretariat: fostering reliable business tools

With the adoption of the *Convention on Biological Diversity* (CBD) in 1992, a permanent secretariat was established to support its principal goals. The Parties mandated the biodiversity secretariat to primarily prepare and service the meetings under the CBD, offer administrative support and produce reports for the different bodies, coordinate with relevant international institutions, and provide assistance in the implementation of the CBD (United Nations 1992a). Largely identical to the UNFCCC, non-governmental organizations have been granted merely observer status in the intergovernmental biodiversity negotiations. Nonetheless, non-state participation is of increasing importance in a "new era of enhanced implementation", as the secretariat recognizes the importance of "additional efforts as well as enhanced international cooperation and inter-agency collaboration on the scale necessary to translate the [...] objectives of the Convention into reality" (CBD 2017c).

Next to their formal involvement in the intergovernmental process, the biodiversity secretariat has therefore lately expanded its outreach to actors below the level of national governments and sought to incorporate sub-national bodies, civil society groups, and private companies actively into the global response to biodiversity loss (Rosendal 2000). In particular, the secretariat organizes special events for non-state actors, provides platforms for the exchange of information among them, and confers awards to those actors that offer promising solutions for biodiversity conservation. In the following paragraphs, we analyze several initiatives in which the biodiversity secretariat interacts with non-state actors in a way that goes to some extent beyond their treatment and facilitation as observers in the intergovernmental process.

#### 4.2.1 The secretariat as a convening body

The biodiversity secretariat has established a specifically strong relationship to the private sector and maintains close interactions with businesses through the organization of international, regional, and national workshops (Jörgens et al. 2017: 87). The starting point for this relationship goes back to a decision taken at COP-6 to the CBD when member states announced to intensify cooperation with "key actors and stakeholders, including the private sector" (CBD 2002). The biodiversity secretariat took this opportunity and issued a statement calling for further involvement of industries and businesses into the implementation of the Convention (CBD 2005). In subsequent years, the biodiversity secretariat organized the so-called *Business and the 2010 Biodiversity Challenge*, an event series which encompassed three consecutive meetings from 2005 to 2009. It started as a "small brainstorming meeting" (CBD 2018a) primarily for a small group of selected business actors and companies at the first meeting in early 2005, but steadily grew into a momentous, large-scale partnership with over 200 participants at the third meeting in 2009 (Interview 5).

Beyond the *Business and the 2010 Biodiversity Challenge*, the biodiversity secretariat has hosted several other events. Most prominently, it established the so-called *Business and Biodiversity Forum*, a platform which was established in 2014 as a parallel event to the COPs to the CBD. It brings together state representatives, businesses, civil society groups, and other stakeholders. The main purpose of the platform is to initiate and foster debates on the question how the business sector can contribute and benefit from the implementation of the targets stipulated under the CBD (CBD 2018d). Other meetings in which the biodiversity secretariat played a supporting role include the *Biodiversity and Ecosystem Finance* conference that aimed to bring together industry experts and financial institutions as well as an *International Expert Workshop on Mainstreaming Biodiversity in the Sectors of Energy and Mining, Infrastructure and Manufacturing and Processing* taking place in 2018 (Biodiversity & Ecosystem Finance 2008; CBD 2018b). To support these events, the biodiversity secretariat has been publishing a *Business Newsletter* featuring certain case studies on issues related to the nexus between biodiversity and the private sector at irregular intervals (CBD 2018c).

#### 4.2.2 The secretariat as a distributor of good practices

Following the initial integration of the business sector into the global response to biodiversity loss, member states commissioned the biodiversity secretariat in 2010 to establish "a forum of dialogue among Parties and other governments, business, and other stakeholders" (CBD 2010: 4). This was the signal for the biodiversity secretariat to set up the *Global* 

Partnership for Business and Biodiversity (Bhutani 2016: 40). In general terms, this partnership promotes the exchange of information among businesses and aims to engage the private sector with biological conservation (CBD 2017a). The different activities under the partnership are coordinated by the biodiversity secretariat. A key component is the Global Platform for Business and Biodiversity, which entails a webpage with a database and various online tools for businesses to address biodiversity loss. This platform provides various examples of good practices that intend to assist private companies mitigate their impact on biodiversity loss (CBD 2018e). In this endeavour, the biodiversity secretariat has directly worked together with companies to showcase biodiversity-friendly behaviour and in this way "catalyzed" their involvement into biological conservation (Interview 5).

In addition, the secretariat has recently put growing efforts into the compilation of listings and reports from civil society groups and business associations dealing with biodiversity at the national level (CBD 2017b). The aim of this is to support knowledge exchange processes and inform existing initiatives about potential biological conservation activities. In this context, the biodiversity secretariat seeks to create a regulatory environment by setting boundaries for what companies may or may not do and establishes conditions that assist businesses in their efforts to become biodiversity-friendly. In particular, the secretariat highlights those projects that commit themselves to recognized standards, thereby supporting the mainstreaming and harmonization of effective measures to protect and conserve biodiversity (Interview 6). To advance these processes, the secretariat maps and advances relevant standards with the help of researchers and practitioners to avoid confusion and gaps in knowledge (CBD 2017a). This suggests that the biodiversity secretariat has been trying to build up a pool of reliable business tools to deal with the problem of biodiversity loss in recent years.

#### 4.2.3 The secretariat as a co-hosting and award-giving institution

Another initiative of the biodiversity secretariat is the *Midori Prize for Biodiversity*. Together with the *AEON Environmental Foundation*, the secretariat organizes this biannual event in order to award three individuals who have made "outstanding contributions to conservation and sustainable use at local and global levels, and who have influenced and strengthened various biodiversity-related efforts, as well as raised awareness about biodiversity" (CBD 2018f). Established in 2010 at the occasion of the 20th anniversary of the *AEON Environmental Foundation* (AEON) and during the *UN International Year of Biodiversity*, the prize is funded by AEON and supported by the Ministry of Environment of Japan (Interview 5 and 7). The nominees of the award are selected under criteria based on their global contribution to safeguarding biodiversity, individual long-term viewpoints on this matter, and input to conservation and sustainable practices. The price winners receive a monetary reward of US-Dollar 100,000 dedicated to the further support of their work.

Some of the previous Midori Prize winners include Angela Merkel in her capacity as Germany's Federal Environment Minister from 1994 to 1998; Rodrigo Gámez-Lobo, President of the Instituto Nactional de Biodiversidad in Costa Rica; and Yury Darman, Director of the Amur Ecoregion Program under the World Wide Fund for Nature in Russia (CBD 2018f). The former Executive Secretary of the CBD, Braulio Ferreira de Souza Dias, stated at the second award ceremony in 2012 that "[t]he Secretariat is pleased to be a partner in the foundation and granting of the MIDORI Prize, an effective instrument that not only promotes public awareness but also encourages activities in support of the conservation and sustainable use of biodiversity" (CBD 2012). Besides the secretariat's representative

function and its role in supporting the organization of the award, staff members of the biodiversity secretariat take part in the steering committee, with the Executive Secretary acting as one of the main judges for the award (AEON 2018).

#### 4.3 The desertification secretariat: raising awareness of different stakeholders

After the adoption of the *UN Convention to Combat Desertification* (UNCCD) in 1992, the desertification secretariat was formally established and took responsibility of the support of the COPs to the UNCCD and the related subsidiary bodies. The secretariat's responsibilities include, amongst others, arranging sessions and meetings under the UNCCD, compiling and transmitting relevant information and facilitating assistance with a special focus on affected developing country Parties, and coordinating with the administrations of other relevant international institutions (United Nations 1996). To advance the implementation of the UNCCD, the desertification secretariat's mandate also comprises the active promotion of the UNCCD by building successful links between science and policy; aligning and assisting with national/regional level efforts to achieve land degradation neutrality with global targets; and improving access to information, up-scaling of good practices and capacity-building (UNCCD 2020).

Similar to the other two Rio Conventions discussed above, the different groups of non-governmental organizations have no decision-making authority within the intergovernmental negotiations taking place under the auspices of the UNCCD—but have only been granted an observer status (UNCCD 2019). Yet and also in line with the other cases studied in this article, the desertification secretariat has considerably enhanced its engagement with different types of sub-national bodies and non-governmental organizations in the past few years in order to cope with the problems of desertification, land degradation, and associated issues. According to its own account, the desertification secretariat thereby aims to "build and further strengthen partnerships with programmes and institutions that have proven capacities in the areas covered by the UNCCD" (UNCCD 2020). We explore different initiatives in which the desertification secretariat and non-state actors work together in the following paragraphs.

#### 4.3.1 The secretariat as an awareness raising body

In its outreach to non-state actors, the desertification secretariat has placed special emphasis on capacity building and knowledge provision. In particular, the secretariat has created a so-called *Knowledge Hub*, an overarching platform under which it has launched different campaigns, initiatives, and tools to direct the attention of different sub-groups of non-governmental organizations to issues, such as land degradation neutrality, sustainable land management, and coping strategies with drought (UNCCD 2018a). The origins of this platform can be traced back to COP-9 to the UNCCD and a formal request towards the UNCCD's *Committee on Science and Technology* (CST) to implement a "knowledge management system" that entails both "traditional knowledge [...] of the Convention text, best practices and success stories on combating desertification, land degradation and drought issues" (UNCCD 2009: 119). As a result, the CST forwarded this task to the desertification secretariat, which developed the preliminary architecture of the knowledge management system on the basis of a comprehensive survey.

In the further development of this initiative, the desertification secretariat extended the function of the system beyond its initially intended use as an internal working tool for

the CST and other UNCCD bodies (Interview 8). In particular, it proposed an additional, external "integrated database on UNCCD-related information, including components on scientific and technical information, reporting and review of implementation, awareness raising and areas of synergy" (UNCCD 2010: 3). In this respect, the desertification secretariat presented a digital structure and format, which offered "an organized pathway to further information relating to desertification, land degradation and drought" [which] "could also serve as a forum for electronic exchanges, networking and even training" (UNCCD 2010: 3). This section was designed to integrate external stakeholders to foster synergies, broker scientific knowledge, and enable reporting activities (UNCCD 2011). At COP-10 to the UNCCD, the Parties welcomed the upgrade of the knowledge management system (UNCCD 2012: 102). With financial contributions from various national governments, this led to the launch of the *Scientific Knowledge Brokering Portal* in 2014, which then evolved into the *Knowledge Hub* as an improved version of the initial pilot portal (UNCCD 2015a, 2015b).

At its core, the *Knowledge Hub* aims at gathering, registering, and disseminating information to "support and enhance the capacity of every stakeholder" concerned with the UNCCD (UNCCD 2018d). By collaborating with different non-state partners, the platform features a number of essential "products and pillars", such as the *Capacity-Building Marketplace*, a so-called one-stop shop to serve all matters with regard to capacity building in the view of the implementation of the UNCCD and its different associated agreements (UNCCD 2018d) or the *Great Green Wall* campaign aimed at enhancing awareness in public spheres, in international, national and local policy debates, as well as in the media and cultural sectors in order to inspire long-term public and private investment (UNCCD 2018b). Beyond that, the *Knowledge Hub* links further important initiatives to the UNCCD process, such as the *Land Degradation Neutrality Target Setting Programme*, the *Global Land Outlook*, and the *UNCCD eLibrary* (UNCCD 2018d).

#### 4.3.2 The secretariat as a knowledge broker

A further initiative launched by the desertification secretariat that involves non-state actors is the *Soil Leadership Academy*. It is a public–private partnership that seeks to equip decision-makers with comprehensive tools to guide policy processes and frameworks at both the national and regional level and achieve one essential goal of the UNCCD: land degradation neutrality. In line with one of the key outcome statements of the Rio+20 conference in 2012 "to achieve a land-degradation neutral world in the context of sustainable development" and the related sustainable development goal, it came into being as a complementary means of achieving the UNCCD *10-year Strategic Plan and Framework* in early 2014, agreed upon at COP-11 to the UNCCD (Wagner 2013). Supported by the *World Business Council for Sustainable Development*, the partnership received considerable initial funding from governmental bodies as well as *Syngenta*, a multinational enterprise operating in the agricultural sector (Interview 9).

With its first session starting in mid-2014, the program has been designed and structured as a one-year training course in a workshop format with a curriculum that is guided by the special needs and priorities of its participants (UNCCD 2018e). These include, inter alia, private companies, research institutions, and intergovernmental organizations. In particular, the *Soil Leadership Academy* targets individuals with decision-making capacity, such as ministers, director generals, other civil servants, and high-level business actors (United Nations University 2018). In addition to its main objective, the initiative seeks to

establish a network among its participants. Moreover, the general structure of the training features a simulation game character, in which participants are encouraged to apply their new knowledge at their respective spheres of influence. By this means, the desertification secretariat draws on the existing knowledge, available data, and various best practices of its institutional partners, and functions as a knowledge-broking body by providing concrete insights on ways to achieve land degradation neutrality and offering opportunities for direct cooperation among relevant actors in regions prone to desertification (UNCCD 2018c).

#### 4.3.3 The secretariat as a bridge builder between stakeholders

Another initiative launched by the desertification secretariat that involves non-state actors is the *Global Land Outlook*. Designed as a strategic communication platform, it brings together international experts and various partner organizations. The initiative was established at COP-13 to the UNCCD in relation to sustainable development goal 15, which promotes "life on land" and aims at reversing land degradation (United Nations 2015b). The *Global Land Outlook* has a two-fold objective: on the one hand, the platform intends to assess current trends on topics such as land conservation or degradation and loss, as well as to identify opportunities for sustainable land management policies at both the international and national level. On the other hand, it adopts a wider focus on issues interrelated with the Convention by bringing together diverse experts in the fields of food, water, and energy security; climate change and biodiversity conservation; urban and infrastructure development; land tenure, governance and gender; and migration, conflict, and human security (UNCCD 2018c). In this sense, the initiative aims to "outlook" into possible future scenarios of change in relation to land use.

According to the UNCCD website, the Global Land Outlook draws upon the insights from its knowledge management system and will therefore have direct linkages to the Knowledge Hub. The key publication of this initiative presents knowledge on desertification and interrelated issues and is accompanied by online reports as well as a working paper series on best practices for sustainable land management (UNCCD 2017a: 7). In cooperation with UNCCD member states and a small expert group, the desertification secretariat is currently drafting a long-term framework for the initiative, called the Global Land Index, which is meant to be used both as a communication and awareness raising tool and a conjoint mechanism connecting other land indices that incorporate bio-physical and socio-economic dimensions of sustainable land management (Acosta et al. 2017; UNCCD 2017b). The initiative is maintained through a website that is formally coordinated by the desertification secretariat. Different partners of the secretariat have contributed to the platform—including, amongst others, the Center for Development and Research, EcoAgriculture International, the Institute for Advanced Sustainability Studies, and the World Bank (Global Land Outlook 2018). At present, the Secretariat advocates for further participation of individuals and organizations in this initiative on a regular basis (UNCCD 2018d).

#### 5 Discussion

The previous analysis underscores that the three intergovernmental treaty secretariats have considerably extended their engagement with non-state actors over the past few years. Due to their restrictions in taking active roles in intergovernmental negotiations, the secretariats interact with actors other than nation-states and use them as

intermediaries in the pursuit of the overarching goal to catalyze international cooperation on transboundary environmental problems. To this end, they initiate and maintain joint initiatives with civil society organizations, non-profit entities, and the private sector and provide material and ideational support to mobilize, strengthen and steer their initiatives. We hence support the premise that these specific types of international bureaucracies can no longer be regarded as technocratic bodies that solely offer services to national governments (Busch 2009). In particular, the case studies in this article demonstrate that the secretariats of multilateral environmental agreements adopt different orchestration styles in their relation to non-state actors (see Table 1).

First, the climate secretariat has actively engaged non-state actors into a policy dialogue and had been involved in a number of initiatives which built momentum and showcased non-state actor support for COP-21 to the UNFCCC that led to the Paris Agreement in 2015. In this sense, the climate secretariat has facilitated a groundswell of climate initiatives by acting as a manager and information hub, emerging as a coleading institution, and taking on the role of a spearheading actor in its interaction with a wide range of non-state actors.

Second, the biodiversity secretariat convened a forum for dialogue between national governments and the business community with the aim of integrating companies into the implementation of the CBD. To promote this, staff members of the secretariat have lately put considerable effort into creating a pool of reliable business tools and good practices for biological conservation. In sum, by manifesting itself as a co-hosting and award-giving institution, a convening body, as well as a distributer of good practices, the biodiversity secretariat has aimed to foster biodiversity-friendly behaviour by the private sector to mitigate biodiversity loss.

Finally, the desertification secretariat brought together different societal stakeholders to establish an external knowledge management platform for promoting synergies among decision-makers from both the public and private sector. The overall aim thereby was to share information and raise awareness of the various issues regarding desertification and land degradation. In doing so, the desertification secretariat has become visible as an awareness raising body, a knowledge broker, and a bridge builder to bring in relevant non-state actors into the work of its respective convention. This shows that all three secretariats have developed individual orchestration styles that are specifically tailored to the challenges and the particular stages of the global responses to the respective transboundary environmental problems.

What is apparent in all three cases is that the interactions between the secretariats and non-state actors have steadily amplified in recent years. On the one hand, this is related to the ever-increasing number of non-state actors that propose their own solutions for issues such as climate change, biodiversity loss, and desertification since the means taken by national governments and the norms and rules prescribed in international environmental agreements have so far yielded only limited results. According to a staff member of the desertification secretariat, the rise of non-state initiatives has led to both coordination and competition amongst them, hence changing the way in which non-state actors deal with multilateral environmental agreements. This development has made collaboration with secretariats more viable with ideas put forward by several non-state actors that are now more "realizable" and better suit the agenda of intergovernmental public agencies (Interview 8). This is in line with observations made by other scholars who recognize a streamlining of approaches towards more conclusive and attainable solutions as well an overall renewed sense of awareness and willingness

Table 1 How intergovernmental treaty secretariats interact with non-state actors

	UNFCCC Secretariat	CBD Secretariat	UNCCD Secretariat
Key initiatives	Momentum for Change Initiative Lima-Paris Action Agenda Non-State Actors Zone for Climate Action	Business and Biodiversity Forum Global Partnership for Business and Biodiversity Midori Prize for Biodiversity	Knowledge Hub Soil Leadership Academy Global Land Outlook
Activities	The UNFCCC Secretariat (climate secretariat) engages sub- and non-state actors into a policy dialogue and supports the development of their initiatives to enhance the global level of ambition	The CBD Secretariat (biodiversity secretariat) maintains strong relations to the private sector through meetings, events, and multi-stakeholder forums to build up a pool of reliable business measures	The UNCCD Secretariat (desertification secretaria) seeks to strengthen the capacities of different stakeholders by spreading information, providing best practice cases, and raising awareness
Orchestration style	Facilitating a groundswell of action: the UNFCCC Secretariat acting as manager and information hub, co-leading institution and spearheading actor	Fostering reliable business tools: the CBD Secretariat acting as co-hosting and award-giving institution, convening body, and distributer of good practices	Raising awareness of different stakeholders: the UNCCD Secretariat acting as awareness raising body, knowledge broker, and bridge builder between stakeholders

to tackle transboundary environmental problems with the help of non-state actors (e.g. Betsill et al. 2015; Bäckstrand et al. 2017; Hermwille 2018).

On the other hand, many international (environmental) regimes have opened up to other kinds of actors below the central state level in order to restore the legitimacy of extant multilateral institutions (Tallberg et al. 2013; Hale and Held 2017). As our study underscores, intergovernmental treaty secretariats aim to contribute to this process and seek to foster the inclusion of non-state actors into global environmental policy-making. Thus, we see this shift in the modus operandi of the administrative bodies of multilateral environmental agreements as a possible reason for the growth in cooperative efforts between the secretariats and the broad array of non-state actors. Direct collaborations with non-state actors remain largely restricted within the boundaries of the secretariats' original mandates. But in initiatives marked by potential synergies for the secretariats and their non-state counterparts, they increasingly join forces and non-state actors bring in their resources and capabilities without third-party intermediation. Thereby, they engage in multi-actor institutional learning processes; share technical expertise; or co-organize events, workshops and training programs (Abbott et al. 2015: 14–16).

Of particular interest in this regard is that all three secretariats in focus of this article have capitalized on modern technology and digital solutions as new means available for approaching and interacting with non-state actors. In order to develop overarching, large-scale networks and databases, the secretariats have started to directly collaborate with a number of non-state actors. We recognize such partnerships for the climate secretariat with the further evolution of the NAZCA platform to the *Global Climate Action Portal* launched in 2018, the *Global Partnership for Business and Biodiversity* for the biodiversity secretariat, and the *Knowledge Hub* for the desertification secretariat. While consultants have been working with the secretariats for quite some time, in these initiatives the secretariats largely rely on the input and the expertise from research-based think tanks and other non-state actors that provide relevant data, maintain the platforms, and, most importantly, take part in these partnerships to raise awareness to the respective environmental problems (Interview 4 and 10).

This finding highlights the dynamic interplay between international bureaucracies and their non-state counterparts and indicates that this complex relationship cannot fully be captured in all its variants by the concept of orchestration. Rather, our analysis shows that we apparently witness the emergence of novel forms of *direct* collaboration between the secretariats of multilateral environmental agreements and non-state actors spurred by their common goal to accelerate national commitments and actions. We therefore contend that the orchestration concept reaches its limits when used as a lens to study the evolving interplay between different administrative bodies of international regimes or organizations and non-state actors because a clear distinction between the roles of an orchestrator and intermediaries becomes increasingly ambiguous. This underlines the set boundaries of the orchestration approach in taking instances of direct collaboration between institutions operating across governance levels and scales into account.

#### 6 Conclusion

This article has explored the institutional interactions between three intergovernmental treaty secretariats and non-state actors in global environmental governance. Building upon the concept of orchestration, the article investigated how the climate secretariat, the

biodiversity secretariat, and the desertification secretariat are reaching out to actors outside of the official negotiation arena. The analysis stresses several activities undertaken by intergovernmental treaty secretariats which go beyond their basic duties of providing technical assistance and services to national governments. In general terms, the case studies in this article underscore that the secretariats of multilateral environmental agreements aim to incorporate non-state actors in different ways into the global responses to the respective transboundary environmental problems.

More explicitly, we contend that all three intergovernmental treaty secretariats under examination made use of their available resources and developed different kinds of interlinkages with actors other than national governments. While the outreach activities of the secretariats have to some extent been backed or even initiated by decisions adopted in intergovernmental negotiations, the staff members apparently avail themselves of their political leeway and strategically interact with non-state actors to induce Parties to the Conventions to take a more ambitious stance on combating climate change, biodiversity loss, and desertification. In other words, the secretariats of multilateral environmental agreements seek to drive the intergovernmental process forward by facilitating exchanges with civil society organizations, non-profit entities, and the private sector. In particular, they assist these subgroups of non-governmental organizations to comprehend the underlying problems; provide knowledge and good practices for dealing with the related challenges; endorse, coordinate and strengthen their initiatives; and increasingly collaborate with research institutes to establish online material to publicize existing actions on the ground.

These insights challenge conventional approaches to international politics which presume that national governments are the only relevant actors in global affairs. Our results indicate that intergovernmental treaty secretariats have gained some agency through their distinct styles of orchestration vis-à-vis their non-state counterparts. In pursuit of exerting influence in global environmental policy-making, the secretariats of multilateral environmental agreements have utilized their limited mandates in creative ways (e.g. Abbott et al. 2015). At the same time, the analysis underscores the dynamic evolution of the relationship between international bureaucracies and non-state actors as it entails several recent instances of direct collaboration without the support of intermediaries, thus alluding to a bi-directional relationship that may not be captured completely by the concept of orchestration (Harbrich and Hickmann 2018). This is especially evident in the field of digital solutions and the creation of databases and networks on issues related to the three conventions. Such direct forms of interaction seem to be the result of prolonged interactions in areas marked by mutual benefits for both parties.

These findings point to promising avenues for future research. First, we warrant more in-depth knowledge on the effectiveness of orchestration in respect to the interplay between international bureaucracies and non-state actors. While this study set out to identify and compare different styles of orchestration employed by specific types of international bureaucracies, we recognize the need for both conceptual and empirical work on the question of how to evaluate the extent to which the orchestration of non-state actors translates into successful strategies that propels global responses to transboundary (environmental) problems (Chan et al. 2015). Second, we are confident that our study lays some empirical groundwork for addressing the question of whether the new functions of international bureaucracies may lead to a greater autonomy and independence from state principals (Michaelowa and Michaelowa 2017). Future research should take a closer look at the mandates of international bureaucracies to investigate where the actions of bureaucracies are explicitly backed by a direct injunction of national governments or where bureaucracies act on their own initiative by harnessing slack and arbitrary commands, or even going rogue

(Cortell and Peterson 2006). Third, we need to better understand the role of modern information and communication technology when institutions interact. More specifically, what are impacts of the availability of such technologies for the interplay between international bureaucracies and non-state actors and the implications for established conceptual and empirical literature on institutional interlinkages?

To conclude, intergovernmental treaty secretariats aim to enhance the overall effectiveness of global environmental governance by initiating and strengthening actions carried out by various kinds of non-state actors (van Asselt and Zelli 2014; Chan et al. 2015). This interplay between secretariats and non-state actors seems to partly mature towards a division of labour (Betsill et al. 2015). Taking the deficiencies of existing global governance frameworks into account, this development bears important policy implications. When it comes to addressing transboundary environmental problems, international bureaucracies can steer the initiatives of non-state actors towards coherence and good practice and at the same time benefit from their input and expertise. This is especially relevant for policy areas that exhibit collective action dilemmas, wicked problems, and diverging interests amongst powerful actors (e.g. Abbott and Hale 2014). International bureaucracies might hence mitigate political gridlock by rallying support from transnational and sub-national actors or turning to non-state actors in order to mobilize advocacy, create demonstration effects, or otherwise nudge national governments towards more ambitious international agreements (Abbott 2014). Thus, there is a great potential for the further evolution of such new alliances between international bureaucracies and non-state actors in global (environmental) policy-making.

Acknowledgements We would like to thank Jennifer Bansard, Maarja Beerkens, Frank Biermann, Jörn Ege, Harald Fuhr, Helge Jörgens, Nina Hall, Nina Kolleck, James Patterson, Philipp Pattberg, Theresa Squatrito, Ronny Patz, Andrea Liese, Lisa Sanderink, Mareike Well, Oscar Widerberg, Fariborz Zelli as well as three anonymous reviewers for valuable comments on earlier versions of this article and are indebted to our interview and dialogue partners for their time and effort to share their insights.

## **Compliance with ethical standards**

**Conflict of interest** The authors declare that they have no conflict of interest.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http://creativecommons.org/licenses/by/4.0/.

## Appendix 1: List of expert interviews and talks conducted

- Interview 1 with a Programme Officer of the UNFCCC Secretariat responsible for the Momentum for Change Initiative, 6 October 2016 in Bonn, Germany.
- Interview 2 with a Programme Officer of the UNFCCC Secretariat in the area of Strategy and Relationship Management, 6 October 2016 in Bonn, Germany.

- Interview 3 with a Programme Assistant of the UNFCCC Secretariat in the Global Climate Action Initiative, 5 October 2018 in Berlin, Germany.
- Interview 4 with a former staff member of the UNFCCC Secretariat working in the team led by former Executive Secretary Christina Figueres, 7 October 2016 in Bonn, Germany.
- Interview 5 with a staff member of the CBD Secretariat in the area of Mainstreaming, Cooperation and Outreach Support, 24 September 2018 (via Skype).
- Interview 6 with a research fellow and advisor to the German government working on topics related to biodiversity policy-making, 9 October 2018 in Berlin, Germany.
- Interview 7 with a former staff member that used to work at the CBD Secretariat in the Implementation Support Division, 5 February 2019 in Berlin, Germany.
- Interview 8 with a staff member of the UNCCD Secretariat in the area of External Relations, Policy and Advocacy, 26 October 2018 (via Skype).
- Interview 9 with a staff member of the Dutch Environmental Assessment Agency in the department of Climate, Air and Energy, 28 October 2018 (via Skype).
- Interview 10 with a former staff member at the UNFCCC Secretariat in the Non-State Actor Zone for Climate Change initiative, 28 October 2018 (via Skype).

### **Appendix 2: Cited documents and reports**

- CBD. (2002). Strategic plan for the convention on biological diversity. Montreal: CBD Secretariat.
- CBD. (2005). Business and the 2010 biodiversity challenge: Exploring private sector engagement in the convention on biological diversity. Montreal: CBD Secretariat.
- CBD. (2010). Decision adopted by the conference of the parties to the convention on biological diversity at its tenth meeting. UNEP/CBD/COP/DEC/X/2. Montreal: CBD Secretariat.
- CBD. (2012). Press release. Nominations open for the 2012 MIDORI prize for biodiversity. CBD Secretariat.
- CBD. (2017a). Mandate and structure of the global partnership. https://www.cbd.int/business/gp/structure.shtml. Accessed 4 May 2017.
- CBD. (2017b). National and regional business and biodiversity initiatives. https://www.cbd.int/business/National\_Regional\_BB\_Initiatives.shtml. Accessed 14 December 2017.
- CBD. (2017c). Secretariat role. https://www.cbd.int/secretariat/role/. Accessed 20 March 2020.
- CBD. (2018a). Business and the 2010 biodiversity challenge meetings. https://www.cbd.int/business/meetings-events/buschallenge.shtml. Accessed 20 June 2018.
- CBD. (2018b). Calendar of events on business and biodiversity. https://www.cbd.int/business/meetings-events/events.shtml. Accessed 20 June 2018.
- CBD. (2018c). CBD business newsletters. https://www.cbd.int/business/ressources/ newsletters.shtml. Accessed 8 August 2018.
- CBD. (2018d). CBD COP 12 business and biodiversity forum. https://www.cbd.int/business/meetings-events/2014.shtml. Accessed 20 June 2018.
- CBD. (2018e). Global platform on business and biodiversity. https://www.cbd.int/business/default.shtml. Accessed 8 August 2018.

CBD. (2018f). Midori prize for biodiversity. https://www.cbd.int/cooperation/midori/.
 Accessed 20 June 2018.

- UNCCD. (2009). Report of the conference of the parties on its ninth session. Bonn: UNCCD Secretariat.
- UNCCD. (2010). Committee on Science and Technology. Second special session.
  Bonn: UNCCD Secretariat.
- UNCCD. (2011). Conference of the parties. Committee on Science and Technology. Tenth session. Bonn: UNCCD Secretariat.
- UNCCD. (2012). Report of the conference of the parties on its tenth session. Bonn: UNCCD Secretariat.
- UNCCD. (2015a). Conference of the parties. Committee on Science and Technology. Twelfth session. Bonn: UNCCD Secretariat.
- UNCCD. (2015b). Conference of the parties. Committee on Science and Technology. Twelfth session. Committee for the review of the implementation of the convention. Fourteenth session. Bonn: UNCCD Secretariat.
- UNCCD. (2017a). The global land outlook (Vol. 1). Bonn: UNCCD Secretariat.
- UNCCD. (2017b). UNCCD expert workshop on a land index. 22–23 June 2017. Summary and recommendations. Bonn: UNCCD Secretariat.
- UNCCD. (2018a). About the knowledge hub. https://knowledge.unccd.int/home/about-knowledge-hub. Accessed 20 June 2018.
- UNCCD. (2018b). The great green wall. https://knowledge.unccd.int/knowledge-products-and-pillars/access-capacity-policy-support-technology-tools/great-green-wall. Accessed 20 June 2018.
- UNCCD. (2018c). Knowledge hub-topics. http://knowledge.unccd.int/topics. Accessed 20 June 2018.
- UNCCD. (2018d). Knowledge products and pillars. https://knowledge.unccd.int/knowledge-products-and-pillars. Accessed 20 June 2018.
- UNCCD. (2018e). Soil leadership academy—LDN Policy Cycle. https://knowledge.unccd.int/sites/default/files/inline-files/SLA%20approach%20to%20LDN%20Policy%20Cycle.pdf. Accessed 20 June 2018.
- UNCCD. (2019). *Civil society organizations*. https://www.unccd.int/convention/civil-society-organizations. Accessed 7 August 2019.
- UNCCD. (2020). The secretariat. https://www.unccd.int/about-us/secretariat. Accessed 20 March 2020.
- UNFCCC. (2011). Momentum for change: Launch report. Bonn: UNFCCC Secretariat.
- UNFCCC. (2014a). Momentum for change: Annual report 2013. Bonn: UNFCCC Secretariat.
- UNFCCC. (2014b). New portal highlights city and private sector climate action. Press release of the UNFCCC Secretariat, 11 December 2014. Bonn: UNFCCC Secretariat.
- UNFCCC. (2015). Momentum for change: 2015 Lighthouse activities. Bonn: UNFCCC Secretariat.
- UNFCCC. (2017a). About NAZCA. http://climateaction.unfccc.int/about. Accessed 26 February 2017.
- UNFCCC. (2017b). *Momentum for change*. http://unfccc.int/secretariat/momentum\_for\_change/items/6214.php. Accessed 3 March 2017.
- UNFCCC. (2017c). Momentum for change: Lighthouse activities. http://momentum. unfccc.int/. Accessed 4 March 2017.
- United Nations. (1992a). Convention on biological diversity.

- United Nations. (1992b). *United Nations framework convention on climate change.*
- United Nations. (1996). United Nations convention to combat desertification in those countries experiencing serious drought and/or desertification, particularly in Africa.
- United Nations. (2015a). Lima to Paris Action Agenda driving climate action forward. http://www.un.org/climatechange/blog/2015/06/lima-paris-action-agenda-driving-climate-action-forward/. Accessed 6 June 2015.
- United Nations. (2015b). *Transforming our world: The 2030 agenda for sustainable development.* United Nations.
- United Nations University. (2018). Soil Leadership Academy. https://unu.edu/projects/soil-leadership-academy.html. Accessed 20 June 2018.

#### References

- Abbott, K. W. (2012). Engaging the public and the private in global sustainability governance. *International Affairs*, 88(3), 543–564.
- Abbott, K. W. (2014). Strengthening the transnational regime complex for climate change. *Transnational Environmental Law*, 3(1), 57–88.
- Abbott, K. W., Genschel, P., Snidal, D., & Zangl, B. (Eds.). (2015). International organizations as orchestrators. Cambridge, MA: Cambridge University Press.
- Abbott, K. W., Green, J. F., & Keohane, R. O. (2016). Organizational ecology and institutional change in global governance. *International Organization*, 70(2), 247–277.
- Abbott, K. W., & Hale, T. (2014). Orchestrating global solution networks: A guide for organizational entrepreneurs. Toronto: Global Solution Networks.
- Abbott, K. W., & Snidal, D. (2009). Strengthening international regulation through transnational new governance: Overcoming the orchestration deficit. *Vanderbilt Journal of Transnational Law*, 42(2), 501–578.
- Acosta, L., Alexander, S., & Munoz, P. (2017). Land management index. Governance framework for sustainable land management. Bonn: UNCCD.
- AEON. (2018). The MIDORI prize for biodiversity 2018. http://www.aeon.info/ef/attachments/prize/midori/midoriprize\_Leaflet\_2018.pdf. Accessed June 20, 2018.
- Andonova, L. B. (2017). Governance entrepreneurs: International organizations and the rise of global public-private partnerships. Cambridge, MA: Cambridge University Press.
- Andonova, L. B., Betsill, M., & Bulkeley, H. (2009). Transnational climate governance. Global Environmental Politics, 9(2), 52–73.
- Bäckstrand, K., Kuyper, J. W., Linnér, B.-O., & Lövbrand, E. (2017). Non-state actors in global climate governance: From Copenhagen to Paris and beyond. *Environmental Politics*, 26(4), 561–579.
- Barnett, M. N., & Finnemore, M. (2004). Rules for the world: International organizations in global politics. Ithaca: Cornell University Press.
- Bauer, S. (2006). Does bureaucracy really matter? The authority of intergovernmental treaty secretariats in global environmental politics. *Global Environmental Politics*, *6*(1), 23–49.
- Bauer, S., Busch, P.-O., & Siebenhüner, B. (2009). Treaty secretariats in global environmental governance. In F. Biermann, B. Siebenhüner, & A. Schreyögg (Eds.), *International organizations in global environmental governance* (pp. 174–191). London: Routledge.
- Bauer, M. W., & Ege, J. (2016). Bureaucratic autonomy of international organizations' secretariats. *Journal of European Public Policy*, 23(7), 1019–1037.
- Betsill, M., Dubash, N., Paterson, M., van Asselt, H., Vihma, A., & Harald, W. (2015). Building productive links between the UNFCCC and the broader global climate governance landscape. *Global Environmental Politics*, 15(2), 1–10.
- Bhutani, S. (2016). Claiming benefits, making commodities. In K. Kohli & M. Menon (Eds.), *Business interests and the environmental crisis* (pp. 28–59). New Delhi: Sage.
- Biermann, F., Abbott, K., Andresen, S., Backstrand, K., Bernstein, S., Betsill, M. M., et al. (2012). Navigating the anthropocene: Improving earth system governance. *Science*, *335*(6074), 1306–1307.
- Biermann, F., Pattberg, P., van Asselt, H., & Zelli, F. (2009a). The fragmentation of global governance architectures: A framework for analysis. *Global Environmental Politics*, 9(4), 14–40.

Biermann, F., & Siebenhüner, B. (Eds.). (2009). Managers of global change: The influence of international environmental bureaucracies. Cambridge, MA: MIT Press.

- Biermann, F., Siebenhüner, B., & Schreyögg, A. (2009b). *International organizations in global environmental governance*. London: Routledge.
- Bulkeley, H., Andonova, L., Betsill, M., Compagnon, D., Hale, T., Hoffmann, M., et al. (2014). *Transnational climate change governance*. New York: Cambridge University Press.
- Busch, P.-O. (2009). The climate secretariat: Making a living in a straitjacket. In F. Biermann & B. Siebenhüner (Eds.), *Managers of global change: The influence of international environmental bureaucracies* (pp. 245–264). Cambridge, MA: MIT Press.
- Chan, S., van Asselt, H., Hale, T., Abbott, K. W., Beisheim, M., Hoffmann, M., et al. (2015). Reinvigorating international climate policy: A comprehensive framework for effective nonstate action. *Global Policy*, 6(4), 466–473.
- Cortell, A. P., & Peterson, S. (2006). Dutiful agents, rogue actors, or both? Staffing, voting rules, and slack in the WHO and WTO. In D. G. Hawkins, D. A. Lake, D. L. Nielson, & M. J. Tierney (Eds.), Delegation and agency in international organizations (pp. 255–280). Cambridge: Cambridge University Press.
- Depledge, J. (2007). A special relationship: Chairpersons and the secretariat in the climate change negotiations. *Global Environmental Politics*, 7(1), 45–68.
- Drezner, D. W. (2007). All politics is global: Explaining international regulatory regimes. Princeton: Princeton University Press.
- Biodiversity & Ecosystem Finance. (2008). Mainstreaming biodiversity & ecosystem finance. 1st Annual meeting place for financiers, corporations and the biodiversity & ecosystem communities.
- George, A. L., & Bennett, A. (2004). The method of structured, focused comparison. *Case studies and theory development in the social sciences* (pp. 67–72). Cambridge, MA: MIT Press.
- Global Land Outlook. (2018). *About the outlook*. https://global-land-outlook.squarespace.com/about/#abouttheoutlook. Accessed June 20, 2018.
- Gordon, D. J., & Johnson, C. A. (2017). The orchestration of global urban climate governance: Conducting power in the post-Paris climate regime. *Environmental Politics*, 26(4), 694–714.
- Green, J. F. (2014). Rethinking private authority: Agents and entrepreneurs in global environmental governance. Princeton: Princeton University Press.
- Hale, T., & Held, D. (2017). Beyond gridlock. Cambridge: Polity.
- Hale, T., Held, D., & Young, K. (2013). Gridlock: Why global cooperation is failing when we need it most. Cambridge: Polity Press.
- Hale, T., & Roger, C. (2014). Orchestration and transnational climate governance. Review of International Organizations, 9(1), 59–82.
- Harbrich, K., & Hickmann, T. (2018). Bridging the resource gap: Inter-organizational collaboration between the World Bank and transnational city networks. *Journal of International Organizations Studies*, *9*(1), 61–80.
- Hawkins, D. G., Lake, D. A., Nielson, D. L., & Tierney, M. J. (Eds.). (2006). Delegation and agency in international organizations. Cambridge: Cambridge University Press.
- Hermwille, L. (2018). Making initiatives resonate: How can non-state initiatives advance national contributions under the UNFCCC? *International Environmental Agreements: Politics, Law and Economics*, 18(3), 447–466.
- Hickmann, T. (2016). Rethinking authority in global climate governance: How transnational climate initiatives relate to the international climate regime. London: Routledge.
- Hickmann, T. (2017). The reconfiguration of authority in global climate governance. *International Studies Review*, 19(3), 430–451.
- Hickmann, T., van Asselt, H., Oberthür, S., Sanderink, L., Widerberg, O., & Zelli, F. (2020). Institutional interlinkages. In F. Biermann & R. Kim (Eds.), Architectures of earth system governance: Institutional complexity and structural transformation (pp. 119–136). Cambridge: Cambridge University Press.
- Hickmann, T., Widerberg, O., Lederer, M., & Pattberg, P. (2019). The United Nations framework convention on climate change secretariat as an orchestrator in global climate policymaking. *International Review of Administrative Sciences* 1–18 (Online First).
- Jinnah, S. (2014). Post-treaty politics: Secretariat influence in global environmental governance (Earth system governance). Cambridge, MA: MIT Press.
- Johnson, T. (2016). Cooperation, co-optation, competition, conflict: International bureaucracies and non-governmental organizations in an interdependent world. Review of International Political Economy, 23(5), 737–767.

2 Springer

- Jörgens, H., Kolleck, N., & Saerbeck, B. (2016). Exploring the hidden influence of international treaty secretariats: Using social network analysis to analyse the Twitter debate on the 'Lima Work Programme on Gender'. *Journal of European Public Policy*, 23(7), 979–998.
- Jörgens, H., Kolleck, N., Saerbeck, B., & Well, M. (2017). Orchestrating (bio-)diversity: The secretariat of the convention of biological diversity as an attention-seeking bureaucracy. In M. W. Bauer, C. Knill, & S. Eckhard (Eds.), *International bureaucracy: Challenges and lessons for public administration research* (pp. 73–95). London: Palgrave.
- Keohane, R. O., & Victor, D. G. (2011). The regime complex for climate change. Perspectives on Politics, 9(1), 7–23.
- Littoz-Monne, A. (2017). Expert knowledge as a strategic resource: International bureaucrats and the shaping of bioethical standards. *International Studies Quarterly*, 61(3), 584–595.
- Michaelowa, A., & Michaelowa, K. (2017). The growing influence of the UNFCCC Secretariat on the clean development mechanism. *International Environmental Agreements*, 17(2), 247–269.
- Mitchell, R. B. (2018). International Environmental Agreements (IEA) database project. https://iea.uoregon.edu/. Accessed August 8, 2018.
- Oberthür, S., & Gehring, T. (Eds.). (2006). *Institutional interaction in global environmental governance:* Synergy and conflict among international and EU policies. Cambridge, MA: MIT Press.
- Oberthür, S., & Stokke, O. S. (Eds.). (2011). Managing institutional complexity: Regime interplay and global environmental change. Cambridge, MA: MIT Press.
- Ostrom, E. (2010). Polycentric systems for coping with collective action and global environmental change. Global Environmental Change, 20(4), 550–557.
- Pattberg, P., & Stripple, J. (2008). Beyond the public and private divide: Remapping transnational climate governance in the 21st century. *International Environmental Agreements*, 8(4), 367–388.
- Rockström, J., Steffen, W., Noone, K., Persson, A., Chapin, F. S., Lambin, E. F., et al. (2009). A safe operating space for humanity. *Nature*, 461(7263), 472–475.
- Rosendal, K. (2000). The convention on biological diversity and developing countries. Dordrecht: Springer. Rothbauer, P. (2008). Triangulation. In L. M. Given (Ed.), The SAGE encyclopedia of qualitative research
- *methods* (pp. 892–894). Los Angeles: Sage. Schroeder, H., & Lovell, H. (2012). The role of non-nation-state actors and side events in the international climate negotiations. *Climate Policy*, *12*(1), 23–37.
- Soonhee, K., Shena, A., & Lambright, W. H. (Eds.). (2014). *Public administrations in the context of global governance*. Cheltenham: Edward Elgar.
- Steffek, J. (2013). Explaining cooperation between IGOs and NGOs: Push factors, pull factors, and the policy cycle. Review of International Studies, 39(4), 993–1013.
- Steffen, W., Richardson, K., Rockström, J., Cornell, S. E., Fetzer, I., Bennett, E. M., et al. (2015). Planetary boundaries: Guiding human development on a changing planet. *Science*, *347*(6223), 1259855.
- Tallberg, J., Sommerer, T., Squatrito, T., & Jönsson, C. (2013). The opening up of international organizations: Transnational access in global governance. Cambridge: Cambridge University Press.
- Trondal, J., Marcussen, M., Larsson, T., & Veggeland, F. (2010). *Unpacking international organisations:* The dynamics of compound bureaucracies. Manchester: Manchester University Press.
- van Asselt, H. (2014). The fragmentation of global climate governance: Consequences and management of regime interactions. Cheltenham: Edward Elgar.
- van Asselt, H., & Zelli, F. (2014). Connect the dots: Managing the fragmentation of global climate governance. Environmental Economics and Policy Studies, 16(2), 137–155.
- Wagner, L. (2013). UNCCD and partners launch soil leadership academy: IISD/SDG Knowledge Hub.
- Widerberg, O. (2017). The 'black box' problem of orchestration: How to evaluate the performance of the Lima-Paris Action Agenda. *Environmental Politics*, 26(4), 715–737.
- Widerberg, O., & van Laerhoven, F. (2014). Measuring the autonomous influence of an international bureaucracy: The division for sustainable development. *International Environmental Agreements: Pol*itics, Law and Economics, 14(4), 303–327.
- Young, O. R. (1996). Institutional linkages in international society. Global Governance, 2, 1–24.
- Young, O. R. (2002). The institutional dimensions of environmental change: fit, interplay, and scale. Cambridge, MA: MIT Press.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

#### Terms and Conditions

Springer Nature journal content, brought to you courtesy of Springer Nature Customer Service Center GmbH ("Springer Nature").

Springer Nature supports a reasonable amount of sharing of research papers by authors, subscribers and authorised users ("Users"), for small-scale personal, non-commercial use provided that all copyright, trade and service marks and other proprietary notices are maintained. By accessing, sharing, receiving or otherwise using the Springer Nature journal content you agree to these terms of use ("Terms"). For these purposes, Springer Nature considers academic use (by researchers and students) to be non-commercial.

These Terms are supplementary and will apply in addition to any applicable website terms and conditions, a relevant site licence or a personal subscription. These Terms will prevail over any conflict or ambiguity with regards to the relevant terms, a site licence or a personal subscription (to the extent of the conflict or ambiguity only). For Creative Commons-licensed articles, the terms of the Creative Commons license used will apply.

We collect and use personal data to provide access to the Springer Nature journal content. We may also use these personal data internally within ResearchGate and Springer Nature and as agreed share it, in an anonymised way, for purposes of tracking, analysis and reporting. We will not otherwise disclose your personal data outside the ResearchGate or the Springer Nature group of companies unless we have your permission as detailed in the Privacy Policy.

While Users may use the Springer Nature journal content for small scale, personal non-commercial use, it is important to note that Users may not:

- 1. use such content for the purpose of providing other users with access on a regular or large scale basis or as a means to circumvent access control;
- 2. use such content where to do so would be considered a criminal or statutory offence in any jurisdiction, or gives rise to civil liability, or is otherwise unlawful;
- 3. falsely or misleadingly imply or suggest endorsement, approval, sponsorship, or association unless explicitly agreed to by Springer Nature in writing;
- 4. use bots or other automated methods to access the content or redirect messages
- 5. override any security feature or exclusionary protocol; or
- 6. share the content in order to create substitute for Springer Nature products or services or a systematic database of Springer Nature journal content.

In line with the restriction against commercial use, Springer Nature does not permit the creation of a product or service that creates revenue, royalties, rent or income from our content or its inclusion as part of a paid for service or for other commercial gain. Springer Nature journal content cannot be used for inter-library loans and librarians may not upload Springer Nature journal content on a large scale into their, or any other, institutional repository.

These terms of use are reviewed regularly and may be amended at any time. Springer Nature is not obligated to publish any information or content on this website and may remove it or features or functionality at our sole discretion, at any time with or without notice. Springer Nature may revoke this licence to you at any time and remove access to any copies of the Springer Nature journal content which have been saved.

To the fullest extent permitted by law, Springer Nature makes no warranties, representations or guarantees to Users, either express or implied with respect to the Springer nature journal content and all parties disclaim and waive any implied warranties or warranties imposed by law, including merchantability or fitness for any particular purpose.

Please note that these rights do not automatically extend to content, data or other material published by Springer Nature that may be licensed from third parties.

If you would like to use or distribute our Springer Nature journal content to a wider audience or on a regular basis or in any other manner not expressly permitted by these Terms, please contact Springer Nature at