Cultivated ties and strategic communication: Do international environmental secretariats tailor information to increase their bureaucratic reputation?

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, other non-profit entities, and the private sector. This article extends the state of research by investigating whether and how secretariats try to strengthen their reputation within their respective policy regimes through information provision and alliance building. Based on reputation theory, the article argues that ties cultivated with stakeholders as well as appearance and presentation of information are decisive in this regard. Methodologically, the study implements a mixed methods design that combines a quantitative survey with social network analysis, and qualitative content analysis of interviews with stakeholders within the climate and biodiversity regime. We show that the secretariats of the Convention on Biological Diversity (CBD) and the United Nations Framework Convention on Climate Change (UNFCCC) maintain relationships with a wide range of state and non-state actors to enhance their reputation. Moreover, different types of actors receive different types of information from the two secretariats studied. Our findings reveal that both secretariats use their limited resources for investing strategically into networks with different types of actors (in the broader transnational policy network), either via the tailored provision of information or through strategic networking with multipliers. They also indicate that reputation does not simply depend on characteristics of bureaucracies, but also on framework conditions and different communication strategies.

Introduction

Research on the role and importance of international treaty secretariats for the outcomes of multilateral agreements has advanced considerably over the past years (e.g., Bauer, 2006, 2009; Busch, 2009; Conliffe, 2011; Depledge, 2005, 2007; Jinnah, 2011, 2014; Jörgens et al., 2017; Kolleck et al., 2017; Saerbeck et al., 2020; Siebenhüner, 2009; Well et al., 2020). International treaty secretariats, and international public administrations (IPAs) in general, are seen as autonomous and influential actors in world politics and are no longer only understood as epiphenomena of state power and interests. They are regarded either as self-interested actors using information asymmetries to their advantage vis-à-vis their principals, namely the nation states, or as agents of the global common good who at least partially act beyond national interests (Saerbeck et al., 2020). Against this backdrop, scholars have studied the role of international bureaucracies in multilateral negotiations by inquiring whether, how and to what degree they exert influence on international policy-making (see, for example, Barnett & Finnemore, 2004; Bauer, 2006, 2009; Bauer et al., 2012; e.g., Bauer & Ege, 2017; Busch, 2009; Jinnah, 2014; Johnson, 2016; Jörgens et al., 2016; Saerbeck et al., 2020; Tallberg et al., 2013).

While research on IPAs has focused on their formal and informal autonomy of action (Bauer & Ege, 2016), their administrative styles and strategies (Knill et al., 2019), their expertise (Busch et al., 2020), their financial and other resources (Patz & Goetz, 2017), and their position within communication networks (Saerbeck et al., 2020), one potential source of influence has found only very limited attention so far: bureaucratic reputation. Scholars argue that a public administration's unique reputation and the ties it cultivates with different actors are relevant sources of bureaucratic power, autonomy, and influence, which allow an organization to enlist political support and, ultimately, help to ensure its survival (Busuioc & Lodge, 2016; Carpenter & Krause, 2012; Maor, 2015). A bureaucracy's reputation is shaped by external perceptions of its roles, its capacities, and its performance by networks of multiple audiences (Carpenter, 2010, p. 45; Gilad et al., 2015, p. 451) which in turn are affected by the strategic development and cultivation of relationships with other actors (Gilad et al., 2015, p. 454). One relevant dimension in this regard is the amount of expertise or expert knowledge attributed to a bureaucracy (Busuioc & Rimkutė, 2020, p. 1259; Maor, 2015, p. 21). This "reputation for expertise" (Herold et al., 2021) is particularly relevant in the case of IPAs whose tasks and mandates are usually more limited than those of their national counterparts and who, as a consequence, rely heavily on their issue-specific knowledge and technical expertise as a means of influencing international policy outputs (Ege et al., 2021).

That said, the literature on bureaucratic reputation itself is still in its beginnings. It has so far focused mainly on the national level (see, for instance, Carpenter, 2010; Gilad et al., 2015; Krause & Douglas, 2005; Maor et al., 2013; Maor & Sulitzeanu-Kenan 2013), with first studies on the EU level (e.g. Busuioc, 2016; Busuioc & Rimkutė, 2020; Overman et al., 2020) and, very recently, for international bureaucracies (Busch et al., 2021; Herold et al., 2021). One question that has not been researched empirically is to what extent international "agencies protect their reputations by responding to their multiple audiences" (Maor, 2015, p. 21). Maor (2015) notes that there is a particular need for research on the "reputational considerations of (…) agencies that operate in policy domains where enforcement is not part of the agency's core mission" (Maor, 2015, p. 31), which is the case with most IPAs. Empirical assessments of the extent of information exchange between international treaty secretariats and stakeholders of the respective regimes as well as of the nature and perceived quality of the information exchanged have yet to be provided [1]. Finally, existing research on information

dissemination by secretariats has hardly ever taken on the perspective of the targets, i.e., those actors which international treaty secretariats provide information to.

Considering the overall scarcity of empirical research on bureaucratic reputation, the present article searchs for answers to the question of whether and how international bureaucracies try to foster their reputation amongst stakeholders in their respective policy areas through information provision and alliance building. Applying the perspective of bureaucratic reputation, it studies if bureaucracies selectively tailor the information they provide to other actors in accordance with the specific informational needs of their various audiences. More precisely, it examines how international treaty secretariats provide information to the stakeholders of two multilateral environmental conventions, the United Nations Convention on Climate Change (UNFCCC) and the Convention for Biological Diversity (CBD). The article maps the interorganizational ties between the two secretariats and convention stakeholders, as one factor that can shape the bureaucracies' reputation.

To answer our questions, we use a mixed-methods design. In a first step, we apply social network analysis (SNA) to study the secretariats' ties with state and non-state actors and to map the actors who receive information from the climate and biodiversity secretariats. In a second step, we examine the type of information provided by the two bureaucracies and how the quality of this information is perceived by different actor types. This allows us to draw first conclusions about the extent to which this information is tailored to the needs of different groups of recipients. In a third step, we analyse the transcripts of own qualitative expert interviews to determine whether the secretariats try to actively provide information tailored to the information needs of different actor types in an attempt to strengthen their bureaucratic reputation. The case study design allows us to detect patterns of information provision and to contribute to the literature on climate and biodiversity governance, to the growing body of literature on international public administrations and international secretariats as well as on bureaucratic reputation. Our paper is structured as follows: the next chapter provides an overview of the changing perception of international treaty secretariats' communicative ties and their reputation as reliable providers of expert knowledge in the scientific literature, followed by a chapter on stakeholders' expectations regarding information provided by international treaty secretariats. After describing the methodology, we present the two case studies, including the results of the SNA as well as the analysis of the survey data and the interviews. We conclude with a discussion of our findings and indicate avenues for future research.

The changing conception of information in (international) public administration research: from information asymmetry to bureaucratic reputation

From its beginnings, (international) public administration research has been concerned with the political control of bureaucracy and the degree to which bureaucracies can exert autonomous influence on world politics and policies. In this debate, two theoretical approaches to the role of bureaucracies have been especially prominent: principal-agent approaches and sociological institutionalism (Bauer & Ege, 2016, p. 1021; Bauer & Weinlich, 2011, pp. 254–256; Busch, 2014, p. 49). While principal-agent theory analyses relationships in which one or several actors (the principals) delegate tasks to others (the agents), and

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[1] What comes closest in this regard is the recent work by Busch, Liese and colleagues, who analyse the de jure and de facto expert authority of different IPAs in selected policy domains (Busch et al., 2020; Busch et al., 2021; Herold et al., 2021).

focuses on questions of how international bureaucracies as agents gain autonomy from the nation states that constitute their principals and how to measure this autonomy (Bauer et al., 2012, pp. 30–31), sociological institutionalism highlights the inevitable autonomy inherent in bureaucratic organisations (Ege & Bauer, 2013). This allows shifting the research focus to the question of how international public administrations interact with their environment. In these models, administrations gain autonomy because they know, amongst others, how to exploit information asymmetries to their advantage.

Giving meaning to information, bureaucracies are said to be able to shape social reality, prompt action, and exert cognitive influence. For example, Barnett and Finnemore (2004) argue with reference to Max Weber that bureaucratic power includes control over information (meaning bureaucrats have information that others do not have) but also the ability to transform information into knowledge, that is, to structure perceptions. However, recent studies show that scientific, technical, and political expertise about climate, environmental, and energy related issues are not confined to a small group of actors anymore, with academics, consultants, and specialist practitioners in abundance across the world (e.g., Jevnaker & Saerbeck, 2019). International environmental negotiations, such as the negotiations under the climate and biodiversity conventions are no longer characterised primarily by information asymmetries and by a scarcity of expert knowledge. A multitude of domestic and international bureaucracies, international organizations, scientific institutes, and non-governmental organizations (NGOs) with varying interests and preferences engage within the issue-specific global policy regimes, which are characterized by a multi-sectoral and a multi-actor network structure. These different types of actors compete with one another in the provision of policy-relevant information. This also applies to international treaty secretariats that were established to support state and non-state actors in subsequent rounds of issue-specific negotiations within multilateral treaty regimes through the provision of technical, legal, and procedural expertise – as well as normative and diplomatic knowledge (Bauer, 2006; Gehring, 2012).

Against this background, there is a need to re-conceptualize the exchange of information between international secretariats and treaty stakeholders. The concept of bureaucratic reputation offers one way to do so. In general, the concept is an analytic expression of the relationship between bureaucracies and their external audiences, in which the respective bureaucracy protects its reputation by responding to the pluralistic interests and expectations of its addressees [2] (Maor, 2015, p. 21). According to Carpenter (2010), external audiences may assess bureaucracies with varying prioritization on four different dimensions of reputation, namely technical competences (i.e., subject expertise), performative capacities, procedural appropriateness, and moral considerations (cf. also Busuioc & Rimkutė, 2020, p. 1259). This article focuses on the first dimension of bureaucratic reputation – subject expertise. Since international environmental secretariats usually have few executive competencies and very limited budgets, scientific and procedural expertise within a particular issue-area have been found to constitute their single most important sources of bureaucratic autonomy and influence (Ege et al., 2020, 2021; Xu & Weller, 2008). In a recent critique of the scientific literature on IPAs, Christensen and Yesilkagit (2019, p. 955) point out that "(w)hether an organization is recognized as possessing analytical skills and capacity is a key dimension of bureaucratic reputation" and call for studies that "trace the scientific reputation of IPAs". In this regard, the reputation-based approach suggests that the appearance and presentation of information and in particular the degree to which the provided expert information meets the information needs of the bureaucracy's audiences strongly matter for bureaucratic influence (Busuioc & Lodge, 2016, p. 252).

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[2] This implies that satisfying one audience can mean perturbing another (Carpenter & Krause, 2012, p. 27).

When it comes to the specific example of international treaty secretariats, we know that both state and non-state actors generally value information provided by these IPAs as sources of superior and impartial expertise (Barnett & Finnemore, 2004; Derlien et al., 2011). We also assume IPAs to have the means to deliver such expertise as scholars have shown that treaty secretariats provide policy relevant information to negotiators despite a narrow formal mandate that emphasizes its logistical and informational role (Hickmann et al., 2019; Jörgens et al., 2017; Kolleck et al., 2017).[3] Consequently, when communicating and cooperating with different types of actors in order to guarantee the successful realisation of the measures agreed upon, the secretariats strive to act in a balanced and impartial way (e.g., Well et al., 2020 for the climate secretariat). The exchange of information takes place through a close cooperation with the chairs or presidency of multilateral negotiations (Depledge, 2007; Saerbeck et al., 2020), through a secretariat's position at the center of the transnational communication flows that surround official multilateral negotiations (Jörgens et al., 2016; Saerbeck et al., 2020), and through attempts to reach "out to private actors and institutions, collaborating with them, and supporting and shaping their activities" (Abbott & Snidal, 2010, p. 315; see also Abbott et al., 2015; Hickmann & Elsässer, 2020; Saerbeck et al., 2020).

Anticipating stakeholders' information needs

We argue that the climate and biodiversity secretariats aim to obtain a unique reputation as information providers, which includes an assigned value as a provider of expert knowledge as well as the ability to cultivate diverse ties to the stakeholders of the given conventions.[4] We also expect both secretariats to take into consideration the specific information needs of these stakeholders to increase stakeholders' propensity to utilize information made available by the respective treaty secretariat. To strengthen their reputation among different groups of actors, the climate and biodiversity secretariat need to provide tailored information to these different groups. The underlying rationale is that influence seeking actors will turn to those whom they expect to have the necessary and most relevant information at hand (Böhmelt, 2013; Nasiritousi et al., 2016). The secretariats need to know or anticipate the specific information needs of different types of actors to develop their reputation vis-à-vis these actors.[5]

We deduce expectations regarding the information needs of different actor groups, namely parties/governments, NGOs, research institutes, business organizations, and intergovernmental organizations (IGOs), from the different roles that these groups play in the climate and biodiversity regime (cf. Kuyper et al., 2018, p. 4 for different roles of non-state actors in the climate regime). The role of state actors is to negotiate and agree on decisions on the further development and implementation of the conventions at COPs. Busch (2009, p. 247) suggests that government representatives use information provided by secretariats primarily because this information is needed to take informed decisions in multilateral negotiations. Since secretariats have intricate knowledge of past and current negotiation dynamics and of the issues debated, state actors might likely value their viewpoint and the

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[3] The secretariats' formal mandate is to support the Conference of the Parties (COP) and the subsidiary bodies of the respective convention both, logistically and procedurally, and to assist the chairpersons during COP-related negotiations as well as during preparatory meetings for the COP (Jörgens et al., 2016). Secretariats might strive to extend or work around these formal mandates (Well et al., 2020).

[4] In this article, we distinguish the following types of information provided by the secretariats: procedural information, policy options, and scientific and technological know-how. In the survey, we further included the category "no information". As research on the provision of information by the UNFCCC secretariat is still developing, we also included the category "other information" to gain additional information.

[5] Besides tailoring information to the specific information needs of different types of actors, IPAs may also actively attempt to shape these needs. They can do so by actively feeding their own problem definitions, their policy preferences, and information which they regard as particularly relevant into multilateral negotiations or the public debates that surround these negotiations. Jörgens et al. (2017) refer to this strategy as "attention-seeking".

information they release. As such, we expect **governments** to be interested in procedural information, policy options, and scientific and technological know-how provided by the secretariats.

Regarding the different roles – or governance profiles – of non-state actors, we primarily follow the empirically derived findings of Nasiritousi and colleagues' study on the roles and governance profiles of non-state actors in global climate policy (Nasiritousi et al., 2016). A governance profile is the combination of governance activities such as raising awareness, influencing decisions or proposing solutions that a non-state actor is perceived to perform at the group level and for which it has gained recognition by other actors (Nasiritousi et al., 2016, p. 112). While valuing Nasiritousi's and her colleagues' systematization as a useful heuristic device, we are aware that the authors describe ideal types, of which we expect to see variations (cf. Lövbrand et al., 2017, p. 596). What is important, however, is that different actor types have at least partially distinct information needs to which secretariats need to adapt in order to provide tailored information and sustain their specific reputation vis-à-vis these stakeholders.

For environmental **NGOs**, the analysis by Nasiritousi et al. (2016) revealed a solid governance profile across different activity categories, while they are especially strong at raising awareness and representing public opinion (cf. also Betzold, 2013 on the stronger reliance of environmental NGOs on strategies of outside advocacy compared to actors from businesses and industry; Rietig, 2011). As many NGOs focus on representing public opinion and promoting civil society participation and public support for climate action and increasing transparency of the climate negotiations (Betsill, 2015; Chasek et al., 2018, pp. 89–98), we expect NGOs to be interested primarily in information about concrete policy options as well as progress made in the negotiations, i.e., procedural information. Since only few NGOs enter the discussions of scientific and technological details that are undertaken in the subsidiary bodies of the UNFCCC, we assume that – compared to state actors – they are less interested in scientific and technological know-how provided by secretariats.

Research institutions provide impartial expertise, evaluate consequences, and propose solutions as they contribute to capacity building and negotiation facilitation (Nasiritousi et al., 2016). When suggesting evidence-based solutions or offering analyses, research institutions are widely recognized as neutral authorities (Rietig, 2014). At times their role might also extend to normative authorities. Their expert knowledge lends authority to particular policy positions, helping to substantiate a stakeholder's preferences in cases of political contestation (Boswell, 2008). As such, we expect research institutions to be interested in secretariat information on policy options as well scientific and technological know-how to evaluate consequences of decisions that have (or have not) been taken by the COPs and to propose further solutions on how to implement decisions or come closer to achieving the objective of the respective convention.

The governance profile for **actors from businesses and industry** is particularly strong in influencing decisions, policy makers, and agenda setting (cf. Betzold, 2013 on inside advocacy of business groups). In contrast to environmental NGOs, they are weak when it comes to raising awareness or representing marginalized voices. The governance profile reflects their main focus on private interests instead of public goods (Nasiritousi et al., 2016; cf. also Vormedal, 2008). We assume that business actors are interested in procedural information as well as policy options to be able to influence the agenda and outcomes. At the same time, they are also interested in scientific and technological know-how provided by secretariats, as they often use scientific-technical arguments to argue against policy options that they oppose.

The main governance activities of observer **IGOs** in international negotiations, if they take specific action apart from observing the process, are to influence the agenda and decisions, according to the mandate their member states give them. This aim is matched with several of the main tasks of treaty secretariats, including the organisation (and facilitation) of the negotiations, the preparation of drafts for decisions, proposals, resolutions or negotiating texts, and the coordination of the work with other relevant international bodies. To fulfil the governance activities that Nasiritousi et al. (2016) identified as central for IGOs, they need procedural information.

Table 1 shows the main stakeholder groups surveyed in this article as well as their expected interest in the three types of information.

Table 1. Information needs of different actor types, based on existing literature

| Actor type	Desired type of information		
	Procedural information	Policy options	Scientific and technological know-how
Governments	strong	strong	strong
NGOs	strong	strong	medium
Research institutions	low	medium	strong
Business and industry	strong	strong	medium
IGOs	strong	low	low

Methodological approach

To examine the exchange of information and the reputation of the climate and biodiversity secretariat, we draw on a three-step, systematic empirical analysis based on social network analysis (SNA), descriptive quantitative analysis, as well as qualitative content analysis of semi-structured interviews. To build a detailed picture of the secretariats' networks as well as the types and quality of information provided by the secretariats to UNFCCC and CBD stakeholders, data has been collected via a large-N online questionnaire. The online survey was sent to stakeholders of the two regimes, which were identified based on participant lists of previous conferences of the parties. For each organization, the survey targeted one person. Additionally, we used a snowball technique based on the answers of respondents to identify further important actors. Both questionnaires were accessible online between September 2015 and March 2016 and reminders were sent twice to those who did not respond. We received 738 (sometimes partial) responses for the UNFCCC and 847 for the CBD.

SNA focuses on social relationships between actors, and network structures, instead of actors' individual attributes. It constitutes an ideal approach to examine a relational concept such as reputation, which is the focus of this study (cf. Overman et al., 2020 on the importance of direct contact for a nuanced assessment of a bureaucracy's reputation). We applied techniques of descriptive SNA to assess the position of the climate and biodiversity secretariat and its ties to other actors within their respective regime. The social networks of the two secretariats depicted further below draw on the following question of the online survey regarding information provision: "Which organizations did you receive trustworthy information from during the last 12 months?".[6] While we use complete network data for the descriptive centrality measures, we apply ego-centric network data to depict the two secretariats and their ties with other stakeholders.

The survey also included closed questions on the type (procedural information, policy options, scientific and technological know-how, as well as other and no information) and quality (relevant and reliable [7]) of information provided by the climate and biodiversity secretariat, respectively. The questions were posed to all respondents, regardless of whether they mentioned the respective secretariat in the aforementioned SNA question. Thus, these results reflect the general opinion of stakeholders and not only the perception of those who mentioned the secretariats as a particularly important source of information. Asking stakeholders about the type and quality of information provided by the climate and biodiversity secretariat allowed us to obtain data that is presumably less prone to subjective bias than data gathered from interviews with bureaucracies' staff members. [8] For the UNFCCC, we received valid answers by 305 respondents regarding the type of information and the quality of information they received. For the CBD, we received responses from 436 survey participants. Figures 1 and 2 show the number of responses by actor type. The response rates for the survey are rather low, particularly for some actor types, such as business, which presents a main limitation of our study and was considered in the interpretation of our findings. The variation in the response rate might be explained by the nature of the question. Some stakeholders might be unwilling to disclose with whom they exchange information, as well as the type and quality thereof.

Figure 1 and Figure 2. Number of responses by actor type for UNFCCC and CBD
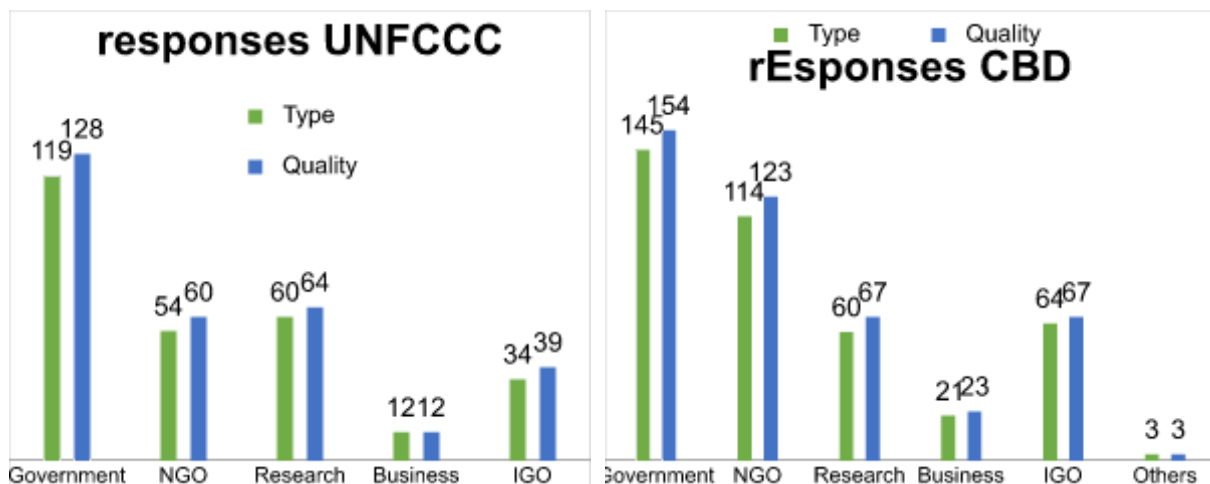
Last, semi-structured expert interviews were chosen as an adequate tool to gain further insight into this topic, since they can detect both specific as well as context-related knowledge and address both the practical and discursive consciousness of the interviewees (Meuser & Nagel, 2009, p. 472). [9] For the UNFCCC, we conducted 23 interviews with secretariat staff (e.g. staff concerned with communication and outreach, strategy, data and analysis, finance, technology and capacity building, legal affairs, and administrative services), party stakeholders (e.g. representatives of different public authorities and agencies at the local, regional, and national levels) and non-party stakeholders (e.g. members of IOs, research organizations, NGOs, and business representatives). For the CBD, we conducted 14

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[6] The SNA question on information exchange was answered by 296 stakeholders for the UNFCCC and by 302 for the CBD.

[7] It should be noted that not checking the box for a certain UNFCCC body does not imply a negative judgement regarding the reliability or relevance of information, but might also indicate indifference.

[8] As such, our study addresses the critique of, for instance, Bauer et al. (2012), who state that research on international bureaucracies draws largely on anecdotal evidence with "scholars still struggl[ing] to conceptualize their insights in an adequately systematic manner" (Bauer et al., 2012, p. 38).

semi-structured expert interviews with representative of the CBD secretariat and party and non-party stakeholders (see description above). The interviews were conducted between 2015 and 2018. Each of the interviews lasted approximately one hour. Interviewees were queried, among other things, whether and, if so, with whom they mainly cooperate and exchange policy-relevant information. Stakeholders were also asked to indicate the role and importance of the secretariat within the UNFCCC and CBD realm as well as the relationship they entertain with secretariat staff. Members of the secretariats, on the other hand, were requested to describe the ways they interact with stakeholders to provide issue- specific information and eventually build relationships. This allows us to better understand and retrace the methods employed by the secretariats to foster the provision of information.

In combining these different data sources and approaches, we aim to overcome their individual shortcomings. Whereas the descriptive centrality measures of the SNA form a base for understanding the secretariat's role in comparison to other actors, the low response rate of the survey is an obstacle for robust SNA, since they can be sensitive to missing data. The descriptive quantitative analysis of information type and quality supplied by the two secretariats offers important insights into the stakeholders' perceptions. Even though the number of responses varies by stakeholder group, this data constitutes a sound basis on which we built with the semi-structured interviews with stakeholders and secretariat staff. Using these different methods and data sources, allows us to paint a more comprehensive picture of how the secretariats adjust their information provision to the needs of the different stakeholders. [10]

In the following, we first present the results of our SNA using two descriptive SNA centrality measures. This allows us to derive the relative position of the secretariats and the informational ties they cultivate with other actors within the respective regimes. We then analyse the variance in the types of information provided by the secretariats. Subsequently, we zoom in on how convention stakeholders perceive the quality of secretarial information, namely its relevance and reliability. Last, we present the findings of our qualitative analyses.

Climate Secretariat Case Study

Cultivated Ties

Figure 3 shows the egocentric network of the climate secretariat, meaning that it only includes those actors who responded that they exchanged information with the climate secretariat. The figure illustrates that the climate secretariat is an important partner for all types of UNFCCC stakeholders, as state and non-state actors (businesses, NGOs, research institutions, and IGOs) are almost equally represented.

For the measurement of the centrality of the nodes or actors, we first use *degree centrality*, which measures how many connections an actor has within a specific network. It provides an indicator of an actor's popularity, importance, and potential influence within a network

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[9] Specific knowledge relates to an expert's own actions concerning the policy processes in the UNFCCC and CBD, while context-related knowledge refers to the actions of others, such as stakeholders that are active in the wider context of the UNFCCC and CBD.

[10] As pointed out, we assume that the secretariats seek to enhance their bureaucratic reputation by tailoring information to stakeholders. It should be noted that secretariats might also have other strategic reasons to provide tailored information. However, these different reasons do not exclude one another. In addition to strengthening their bureaucratic reputation, secretariats at the same time are likely to aim moving the negotiations to a successful conclusion. Hence, from our results we cannot infer that the climate and the biodiversity secretariat are providing tailored information to stakeholders to only increase their bureaucratic reputation.

(Borgatti et al., 2018, p. 192). Second, we use *eigenvector centrality*, which measures how well an actor is connected to other well-connected actors (Borgatti et al., 2018). To obtain a high eigenvector score, it is not necessarily important to have many connections, but rather ties to other well-connected, and as such, influential actors. For both centrality measures, the climate secretariat obtained the highest scores within the overall network (for the complete results, see Appendix 1). [11] The findings of our SNA indicate that the climate secretariat cultivates ties with all different types of UNFCCC stakeholders. Moreover, it provides information to actors who are well connected themselves and, in turn, provide information to many other actors.

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[11] Further details on the SNA of the UNFCCC are provided in *blinded citation*.

Figure 3. The climate secretariat's egocentric network
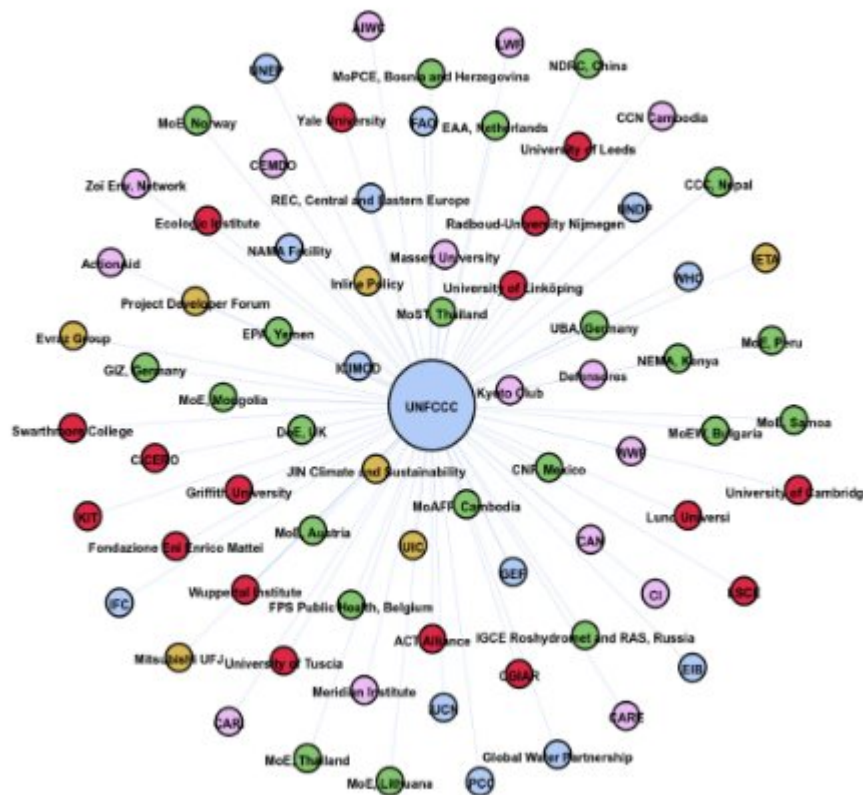
Note: *The network was created with Gephi, using the Fruchterman-Reingold layout. The nodes' colours represent the actor type: blue= international organizations, green= government, red = research, pink = NGOs, orange = business.*
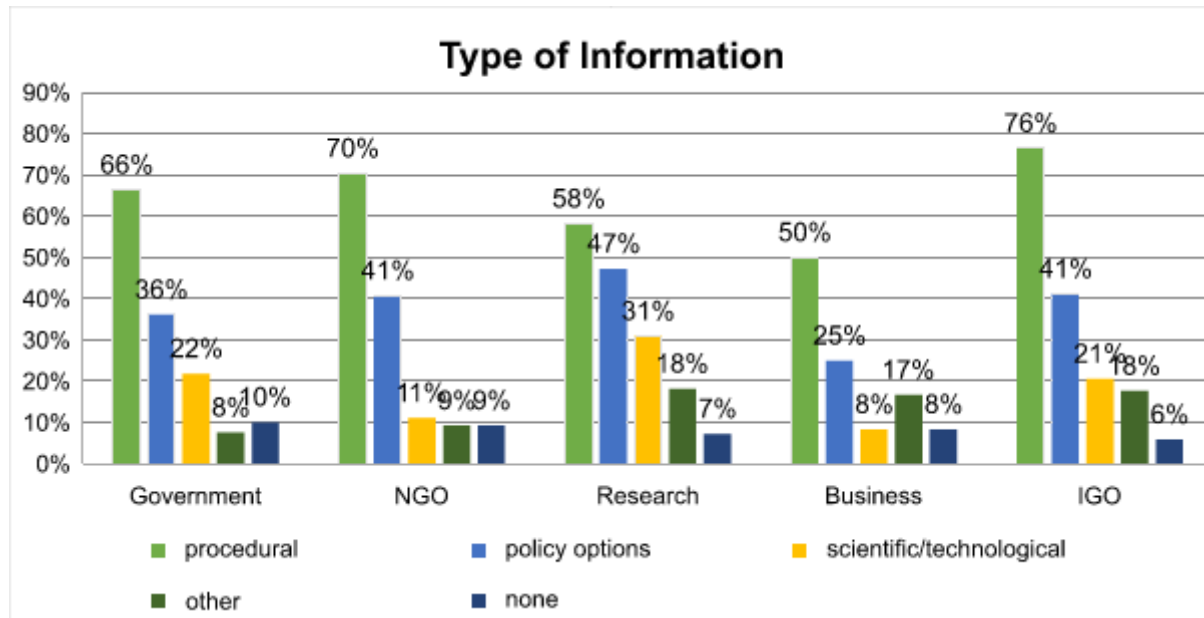
Types of information provided by the climate secretariat

Based on the governance profiles identified by Nasiritousi et al. (2016) as well as on our survey among UNFCCC stakeholders, we seek to substantiate a key theoretical assumption of bureaucratic reputation research – namely, that bureaucracies try to strengthen their reputation by responding in a differentiated manner to the plurality of information needs of their audiences (Maor, 2015).

Figure 4 provides an overview of stakeholders' responses in the abovementioned questionnaire regarding the types of information provided by the climate secretariat. It shows that, in line with its mandate, the secretariat primarily provides procedural information to state and non-state actors. For research institutes this value is more than 10 percentage points lower than for IGOs and NGOs, and 8 points lower than for governmental actors, which corresponds to our expectations derived from their governance profile. In line with our expectations, NGOs and business actors stated more often than other types of actors that they did not receive scientific and technological know-how, while research institutions did receive this type of information most often. For business actors we expected a higher share of procedural information. However, it should be noted that only 12 business actors answered the survey, which is why these results need to be interpreted with caution and may not be fully representative for business actors in the climate regime. IGOs did receive policy options

and scientific and technological know-how close to the average among the actor groups, which does not confirm our expectations that they should be less interested in these types of information. To sum it up, our results deviate from our expectations strongly for business actors and partially for IGOs (cf. also Table 2 in the Discussion and Conclusion section).

Figure 4. Types of information provided by the climate secretariat according to different actor types


Nevertheless, the results provide first indications that the information provided by the climate secretariat varies according to actor type. Yet, this difference does not necessarily reflect a deliberate selection by the secretariat of the information provided to different actor types, but could also result from the diverging informational demands of the different groups of actors. In the next steps, we aim to provide additional evidence that the secretariat anticipates the information needs of its addressees to provide information tailored to their specific governance profiles in an attempt to strengthen its bureaucratic reputation.

Perception of quality of information provided by the climate secretariat

To obtain a more detailed picture of how the quality of information is perceived by different actor groups, stakeholders were asked whether the information they receive from the climate secretariat is considered reliable and relevant for their work. We expect a significant share of positive answers regarding the relevance of the information provided if the secretariat shares information tailored to the needs of the various actor groups. We consider this a necessary, but not a sufficient condition. Reliability is also crucial for the use of externally generated information, as it is a reflection of the trustworthiness of the information provider.

Figure 5 shows the findings from the stakeholder survey on how different actor groups judge the relevance and reliability of information provided by the climate secretariat.

Figure 5. Perceived quality of information provided by the climate secretariat to different actor types
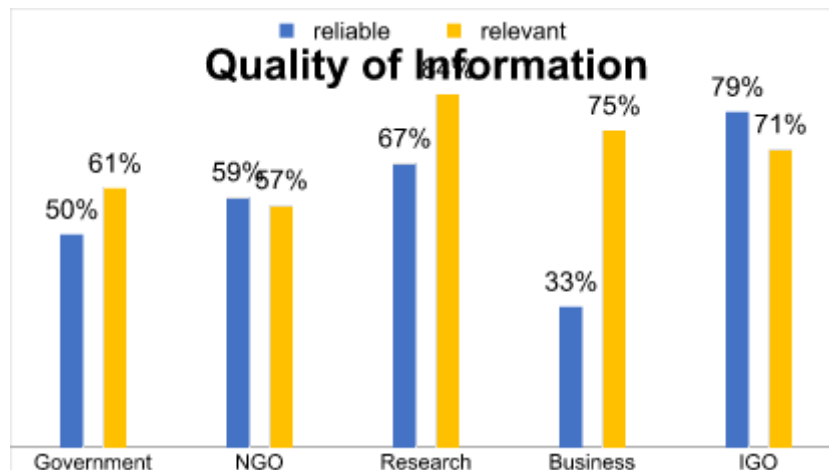
While the perception of the relevance and reliability of the information provided by the climate secretariat differs somewhat between the actor groups, the information provided was rated as relevant and reliable by 65 percent and 57 percent of all respondents, respectively. These findings provide further evidence that the climate secretariat is probably able to address different types of actors according to their various information needs. Then again, a "better fit" of information types received with regard to the governance profile does not correspond with higher ratings for the relevance and reliability of information. It is interesting to note that government representatives attribute rather low values to the relevance and reliability of information provided by the secretariat, even though as parties, one would expect them to be in the centre of the secretariat's attention. An explanation for this finding might be that governments are more critical about the secretariats' activities, compared to other actor groups, and believe that the secretariat should be more of a "servant" for parties than it currently is. In general, the mid-level values for reliability and relevance of all actor groups can probably be explained by the heterogeneity of addresses (even within the actor groups) and the fact that information is not provided specifically to individual stakeholders due to their sheer number, all of which makes it impossible for the secretariat to answer to the expectations of every single stakeholder. As all survey respondents could answer this question, regardless of whether or not the climate secretariat provided information to them, some respondents could also have refrained from ticking the boxes and thus contributed to lower values for the perceived reliability and relevance of information provided.

The relationship between the climate secretariat and different types of actors

To shed more light on the secretariat's motivation and strategies of disseminating information, we conducted 23 semi-structured interviews with secretariat staff and stakeholders. Overall, the interviews echo the aforementioned results of our SNA and our survey. They confirm that state actors interact with members of the climate secretariat beyond the mere facilitation of negotiations. One member of the climate secretariat states: working with party members is "like any business: You got clients and you try to (…) understand their needs, to understand their priorities (…) to serve them better" (Interview 1). We find that members of the secretariat are well aware of the fact that their extent of interaction with state actors depends on the secretariat's reputation for being trustworthy: "if the parties do not trust us that we are doing our job in an impartial way, it would be catastrophic" (Interview 1). According to the interviewees, the secretariat tries to provide non-sensitive information in a "strictly neutral" (Interview 6) fashion so as not to "prejudice the

outcome" (Interview 6). However, although state actors articulated their satisfaction with and appreciation of the secretariat's work in our interviews (Interview 7), the extent to which they classify information provided by the secretariat as useful to their work varies (Interviews 3, 8, 9,10, 11, 14).

Focusing on the relationship between the climate secretariat and non-state actors we find that the climate secretariat actively promotes interaction with non-state actors (Interview 2). Defined as "anybody who is not a governmental actor and wants to contribute to the process" by a member of the secretariat (Interview 6), the climate secretariat supports and encourages the engagement of non-state actors operating at different levels, even beyond the global climate governance regime (Interview 5). Interaction often takes place via participation in the convention's institutions like the Adaptation Committee and other initiatives such as the Lima Paris Action Agenda and the Technical Expert Meetings (Interview 6). The climate secretariat also actively extends its network of focal points to, for example, youth organizations (Interview 4). Put differently, it interacts with stakeholders "from any level, be it local government, NGOs, universities, the private sector or national ministries" (Interview 12).

Understanding the different needs of stakeholders is crucial for a successful, as a member of the climate secretariat points out: "the information needs depend on the type of stakeholder; businesses have different questions than the NGO community" (Interview 6). As non-state actors are assumed by the secretariat to be generally less interested in information about the negotiating process itself and rather seek to understand the interaction between the parties and the underlying political questions, the secretariat tends to give information on the progress and obstacles to the negotiations as well as "the possibilities for a successful outcome" (Interview 6). Non-state actors themselves highly appreciate the efforts of the climate secretariat. At an exclusive meeting between non-party stakeholders and members of the climate secretariat at COP 23, many non-state actors thanked the climate secretariat for all its work and for giving them "the opportunity to be heard, not only in the corridors, but also in an open dialogue" (Interview 13).

All in all, the climate secretariat provides information to non-state actors so that they may better understand "what climate change means on the ground in different areas" (Interview 6). As another member of the climate secretariat states: "my job (…) is to bring together stakeholders, like NGOs, science, different levels of decision-makers, experts of every potential kind, and involve them into discussion that the parties have" (Interview 1). We find that the climate secretariat not only holds a unique reputation, but also succeeded in cultivating diverse ties to and building alliances with different actors.

Biodiversity Secretariat Case Study
Cultivated Ties

Figure 6 depicts the egocentric network of the CBD secretariat. Similar to the UNFCCC, the network of the CBD contains both state and non-state actors. The SNA enables us to reveal the centrality of the CBD secretariat within the network. It scores highest for both degree and eigenvector centrality in the overall network (see Appendix 2 for the results table). The secretariat occupies a central position and is well connected to other potentially influential actors.

Figure 6. The biodiversity secretariat's egocentric network
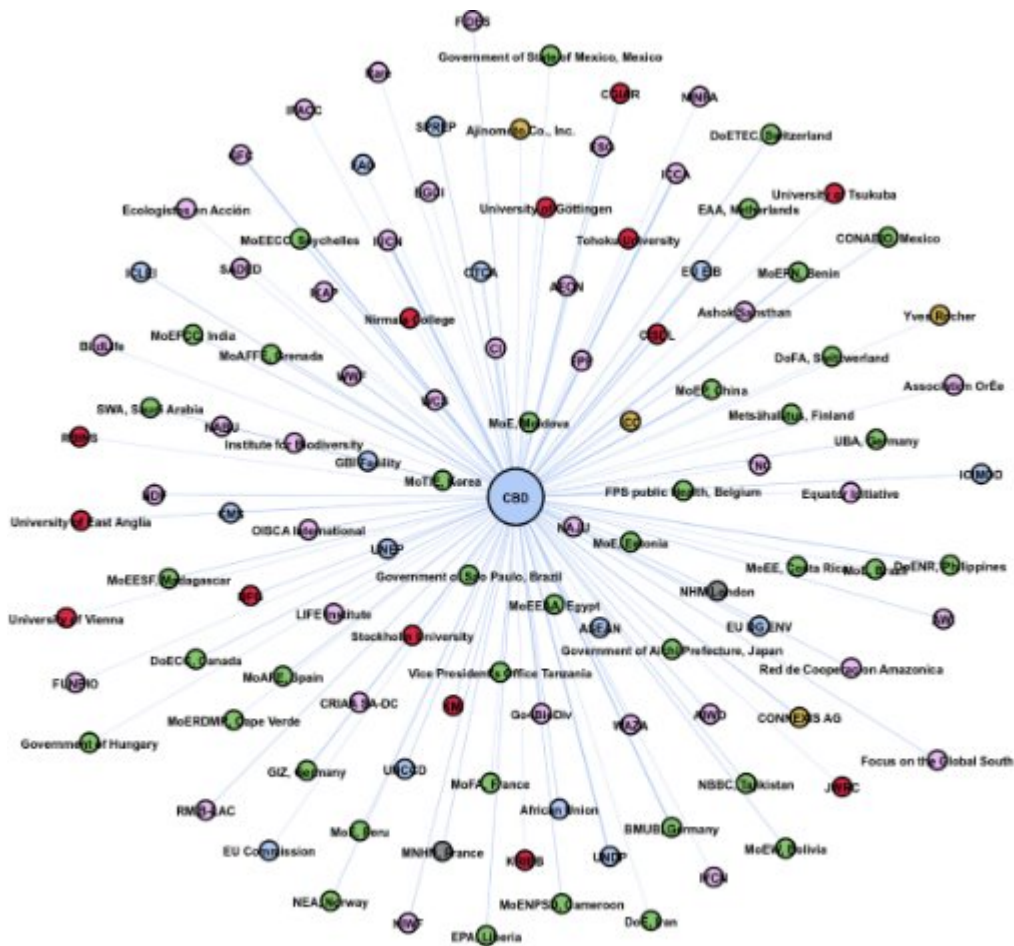
Note: *The network was created with Gephi, using the Fruchterman-Reingold layout. The nodes' colours represent the actor type: blue= international organizations, green= government, red = research, pink = NGOs, orange = business.*

Types of information provided by the biodiversity secretariat

Figure 7 illustrates stakeholders' responses regarding the types of information provided by the biodiversity secretariat. In line with its mandate, the biodiversity secretariat primarily provides procedural information to state and non-state actors – similar to the climate secretariat. Yet, we would have expected a higher share of procedural information received by IGOs and NGOs. Also, the fact that NGOs received policy options less often than all other types of actors and that IGOs received policy options to a similar extent to governmental actors and more often than other types of actors does not correspond with our expectations derived from their governance profiles.

Compared to the climate secretariat, the share of stakeholders' responses declaring they received scientific and technological know-how was higher for the biodiversity secretariat, while the share for procedural information was generally lower.

Figure 7. Types of information provided by the biodiversity secretariat according to different actor types
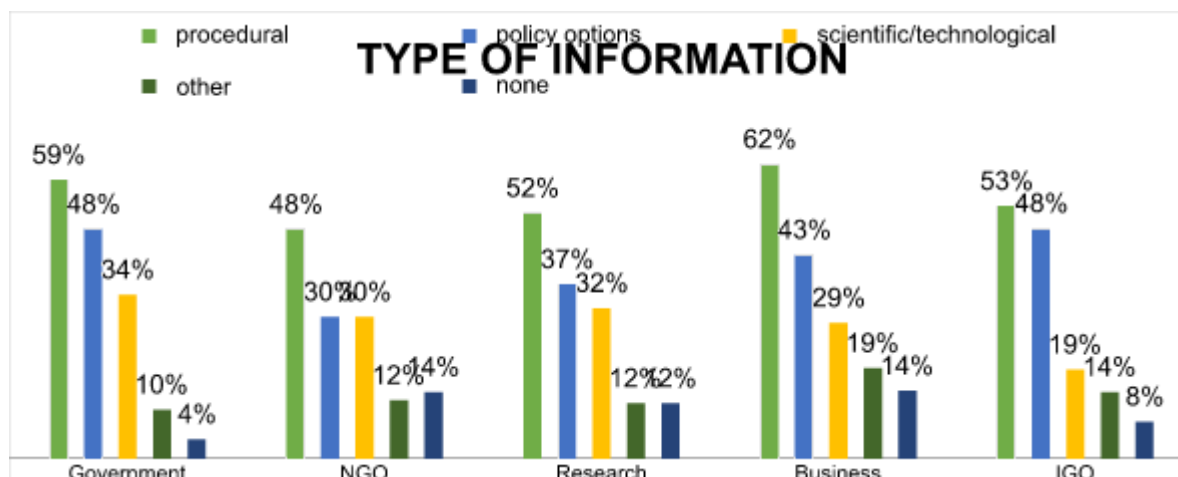
All in all, the findings deviate mainly for IGOs and NGOs from our expectations regarding differences in information provision by the biodiversity secretariat to different types of actors (cf. Table 2). In the next step, we check whether these results also influence the perceived quality of information provided by the biodiversity secretariat.

Perception of quality of information provided by the biodiversity secretariat

Figure 8 shows the number of positive answers by CBD stakeholders regarding the perceived relevance and reliability of information provided by the biodiversity secretariat.

Figure 8. Perceived quality of information provided by the biodiversity secretariat to different actor types
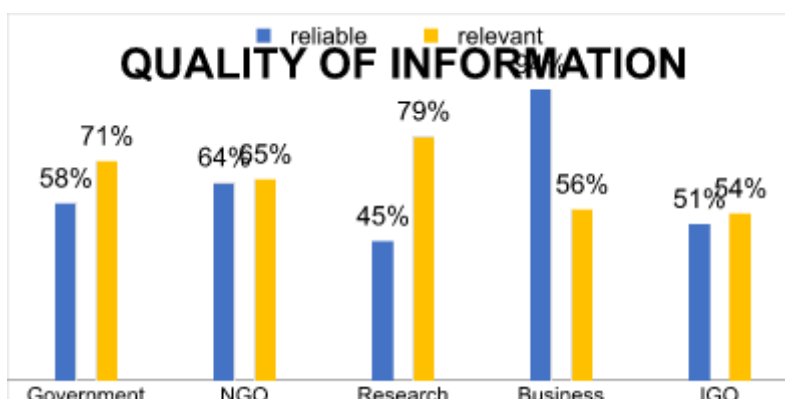
On average, 67 percent, respectively 57 percent of all respondents rated the information provided by the biodiversity secretariat as relevant and reliable. For business actors, however, 94 percent of the respondents rated the information as reliable, a result which is 30 percentage points higher than for the second highest value (64 percent for NGOs). Similar to the findings regarding the climate secretariat, the results do not indicate any clear trend, that relevance and reliability were more often ticked by governmental actors, scholars or business representatives, i.e., those actor groups which received information better tailored to their expected information needs according to their governance profiles.

In comparison with the results for the climate secretariat, NGOs and government representatives labelled the information provided by the biodiversity secretariat as relevant and reliable more often, while research institutes and IGOs rated the information of the climate secretariat as relevant and reliable more often.

The relationship between biodiversity secretariat and different types of actors

Interviews suggest that members of the biodiversity secretariat interact with state and non-state actors alike. As one member of the biodiversity secretariat states regarding the exchange of information with state actors: the secretariat does not "go [into negotiations] with a blank page, but [it] makes suggestions how to frame, how to make it work [and] give[s] parties options what they could agree on" (Interview 17). Reminding "parties for what they have come [and] how far they have already come" in difficult negotiations (Interview 17), the biodiversity secretariat contributes to ongoing negotiations by pointing out benefits of cooperation and by suggesting substantive or procedural solutions to negotiation deadlock. If (new) delegates lack detailed understanding of specific negotiation items, the secretariat explains them the main issues to them while also alerting them that "they may not get a hundred percent of what they want" (Interview 18). Members of the biodiversity secretariat also engage with governmental representatives at the national level to help them "establish the (…) strategy and the national action plan" (Interview 16). These activities have paved the way for the compilation of national long-term visions, which in turn helped to advance negotiations at the international level (Interview 21).

Members of the biodiversity secretariat also engage with non-state actors, as they are believed by members of the secretariat to be more cooperative and ready to leave national interests aside (Interview 21). They are also often said to be better organized than governmental organizations, which experience high turnovers in staff responsibilities (Interview 17). Organizing workshops fostering cross-national exchange of experiences and best-practice examples (Interview 18, 19 and 21) it contributes to capacity building (at the local and regional level).

Members of the biodiversity secretariat also collaborate with research institutions and universities, providing letters of recommendation, so they might successfully apply for funding (Interview 21). They also work together with international organizations such as the United Nations Educational, Scientific and Cultural Organization (UNESCO), the Food and Agriculture Organization (FAO), the United Nations Environment Program (UNEP), the World Meteorological Organization (WMO) as well as the UNFCCC to gather and/or distribute information. The secretariat's stated aim is to engage with these bodies in issue-specific debates in order to increase support for and advance the negotiations under the CBD (Interview 15, 17, 18, 20 and 23). Regarding businesses, members of the biodiversity secretariat comment that, whilst cooperating closely with organizations such as the International Chamber of Commerce (ICC), they often rely on external partners to deal with businesses, such as the 'Business and Biodiversity Global Partnership', which fosters the exchange between national and local organizations and businesses (Interview 22).

Overall, members of the biodiversity secretariat (directly and indirectly) cultivate ties and build alliances with state and non-state actors. However, the secretariat members did not directly mention that they tailor information to the distinct information needs of actor groups. Instead, due to limited resources, they prioritize relationships that bring long-term multiplier effects into the process (Interview 21). Providing stakeholders with "linkages [which help] to establish and create partnerships" (Interview 21), the secretariat encourages these actors to become reliable and committed partners to the CBD. As such, the biodiversity secretariat succeeds in strengthening its reputation.

Discussion and Conclusions

In this article we set out to analyse whether and how international environmental secretariats try to foster their reputation within their respective policy regimes through information provision and alliance building. We drew on the concept of bureaucratic reputation, which assumes that a bureaucracy's reputation is shaped by external perceptions of its role, capacities, and performance (Carpenter, 2010, p. 45; Gilad et al., 2015, p. 451). One dimension that matters in this regard relates to the appearance and presentation of information, and in particular, how information is received by different audiences (Busuioc & Lodge, 2016, 252, 260). Our analyses confirm this argument and show that in order to strengthen their reputation within issue-specific policy networks, bureaucracies try to anticipate their stakeholders' information needs and tailor information accordingly.

In this article we have addressed two research gaps in reputation research identified by Maor (2015, p. 31). We have applied the concept of bureaucratic reputation to the international level to explore empirically to what extent bureaucracies aim to protect or strengthen their reputation by responding in a differentiated manner to their multiple audiences. Moreover, our study contributes to the literature on climate and biodiversity governance as well as IPAs and international treaty secretariats more generally. Existing research (cf. Jörgens et al., 2017) suggests that international treaty secretariats actively seek to feed their own problem definitions and recommendations into the negotiations. In doing so, they stretch their formal mandates and attempt to influence the substantive policies that are being negotiated and formulated during and between intergovernmental meetings under the conventions. In this article we have emphasised the role of bureaucratic reputation as a fundamental basis for such a course of action.

To bring the above-mentioned strands of research together, an SNA based on survey data was complemented with a descriptive quantitative analysis and qualitative interviews for a three-step systematic empirical analysis. The mixed-methods approach enabled us to show that in line with our expectations, the biodiversity and the climate secretariat cultivate ties with a wide range of state and non-state actors of the broader transnational policy network (cf. Table 2). Interviews for the climate secretariat case study further confirmed that different roles of stakeholders participating in the regime do indeed come with different expectations regarding information provision. In line with this finding, we found that different types of actors receive – at least to a certain extent – different types of information from the two secretariats studied. The climate secretariat is aware of the distinct information needs of different stakeholder groups and tries to provide customized information to meet these demands. The biodiversity secretariat, on the other hand, seems to prioritize relationships that bring long-term multiplier effects into the process. This could be interpreted as a sign that the biodiversity secretariat is currently less able to provide information adjusted specifically to the needs of different actor groups, possibly due to a lack of resources. This could be an issue of organizational effectiveness. However, it could also be a strategic decision of the biodiversity secretariat to use a different communication strategy when it comes to information provision.

Table 2. Comparison of expectations regarding information needs of different actor types and findings of types of information provided by the climate and biodiversity secretariat to these actor types

Actor type	Desired type of information (based on existing literature)			Type of information provided by the climate secretariat			Type of information provided by the biodiversity secretariat		
	Procedural information	Policy options	Scientific and technological know-how	Procedural information	Policy options	Scientific and technological know-how	Procedural information	Policy options	Scientific and technological know-how
Governments	*strong*	*strong*	*strong*	*strong*	*strong*	*medium*	*strong*	*strong*	*strong*

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NGOs	strong	strong	medium	strong	strong	low	medium	medium	strong
Research institutions	low	medium	strong	low	strong	strong	medium	medium	strong
Business and industry*	strong	strong	medium	low	low	low	strong	strong	strong
IGOs	strong	low	low	strong	strong	medium	medium	strong	low

Results in red deviate clearly from our expectations (e.g. low instead of strong), results in orange deviate to a lesser extent (e.g. low instead of medium)

* Low number of respondents (n=12) for business actors regarding information provided by the climate secretariat strongly limits the representativeness of the results for business actors in the climate regime.

However, some limitations should be noted. One limitation relates to the profiles derived from the existing literature on the information needs of different types of actors. Typologies always imply some form of simplification. For instance, not every actor can be clearly assigned to one of the ideal actor types. Rather, there are also degrees of simplicity. This also applies to the results of our study. For example, we did not estimate the interest in policy options of IGOs with the greatest certainty, but recognize uncertainty in inferring their information needs from their governance profile. In other studies, numerous scholars have pointed out the significant differences within groups of actors in the climate regime (Lövbrand et al., 2017, p. 596; cf. also Vormedal, 2008 for the heterogenity of business actors) and have identified experience of stakeholders in the negotiations as an important variable to explain the use of insider strategies such as influencing decisions, policy makers, and agenda setting, regardless of whether the actor is an NGO or a business actor (Betzold, 2013, p. 315). Therefore, the availability of solid data on information needs would have been preferable for this study – and the collection of such data would be an interesting field for future research. On this basis, our findings could be supported and at the same time the results of Nasiritousi et al. (2016) as well as of other scholars working on governance profiles could be sharpened and refined.

Second, comparing our expectations with the information provided by the two secretariats posed a certain challenge as it remained difficult to distinguish between the active provision of tailored information by the secretariats and stakeholders potentially gathering specific types of information according to their needs. For the climate secretariat, the number of business actors in the survey was very low, which hinders us to draw any clear conclusions for this actor type. That is to say, we do not know if the discrepancy between our expectations and findings exists in reality or stems from the non-representative sample. Moreover, we did not systematically consider whether the secretariats structurally possess one type of information more often than another (e.g., whether it is easier for them to provide procedural information compared to policy options). Nevertheless, our results provide first evidence regarding our expectations about the diverging information needs of different actor groups as well as provision of tailored information. Future research based on additional data could corroborate or alter our findings, amongst others, regarding the formulation of expectations related to the provision of policy options.

When it comes to the future research agenda, our article constitutes a first empirical study that adopts a bureaucratic reputation perspective for the study of IPAs and international environmental secretariats more specifically. Our analyses show that in order to strengthen their reputation within issue-specific policy networks, bureaucracies try to anticipate their stakeholders' information needs and tailor information accordingly. Yet, our focus has been quite narrow, as we analysed one element (tailored information) of one dimension (technical

conduct) of the concept of bureaucratic reputation. Still, we argue that our paper's findings do not only contribute to the established research on IPAs and the behaviour of international regulators and stakeholders within the international climate and biodiversity realm, but also to the literature on bureaucratic reputation, as it delivers a novel understanding of the processes through which the secretariats potentially strive for influence via, for example, organizational ties and targeted communication to multiple audiences in governance regimes which are characterized by a multisectoral and multiactor network structure. Future studies could build on these empirical findings and contribute to the further development of the dimensions (and elements) on bureaucratic reputation.

Taking on the perspective of those actors who international treaty secretariats provide information to allowed us to re-conceptualize the exchange of information between international treaty secretariats and treaty stakeholders. For example, Abbott and colleagues (Abbott et al., 2015; Abbott & Snidal, 2010) conceive international organizations and their secretariats as "orchestrators" who follow a complementary strategy of "reaching out to private actors and institutions, collaborating with them, and supporting and shaping their activities" to achieve their regulatory goals and purposes (Abbott & Snidal, 2010, p. 315). However, studies of international organizations as orchestrators do not always draw a clear distinction between the broader international organization and the IPA as the permanent administrative bodies within it. They often fail to demonstrate that the outreach to private or sub-national actors that characterizes orchestration is not mandated or encouraged by the international organizations' member state governments, but an autonomous initiative of the secretariat. By focusing on international treaty secretariats, we are able to explore one potential strategy that IPAs eventually employ to provide policy relevant information to decision-makers. In this regard, the tailoring of information could be understood as part of orchestration, adding to the recent work of, for example, Herold et al. (2021) and Christensen and Yesilkagit (2019), by looking at it as a secretariats' resource such as staff, budget, and authority. As such, our findings also contribute to a recent body of literature studying the role of IPAs as policy entrepreneurs or possibly policy brokers at the interface of public policy analysis and public administration.

Additional research is also required to shed light on the explanatory power of various factors that could explain the incongruent findings of our two case studies. We believe that our results suggest that bureaucratic reputation is also dependent on framework conditions, not simply on the characteristics and strategies of bureaucracies. If the latter alone would have explained the findings, we should have received similar results for both secretariats. As this has not been the case, future research should shed light on the explanatory power of various factors that are conceivable for the findings presented in this paper: the design of the individual conventions, the orientation and work of the secretariats themselves (cf. Biermann & Siebenhüner, 2009), more homogeneous groups of actor types in the policy field of biodiversity, or the political salience of an issue (cf., for instance, Böhmelt, 2013). As an example: The biodiversity secretariat's strong political stance (Siebenhüner, 2009) might explain why stakeholders from research institutes have labelled the information provided by the biodiversity secretariat less often as "reliable" compared to other actors. For these stakeholders "reliable information" might stand for impartial and objective knowledge and expertise – something that research institutes associate with their own work (Nasiritousi et al., 2016). Probably research institutions set higher standards for information that they perceive as reliable.

Coming back to the changing role of international treaty secretariats, our results support the argument that the climate secretariat is gradually moving from a rather neutral and instrumental role in international climate governance to playing a proactive and influential

role (cf. Saerbeck et al., 2020). That is to say, the climate secretariat is able to broker information of different kinds within the UNFCCC stakeholder network between state and non-state actors. It connects with other well-connected actors, meaning that it provides information to actors who, in turn, provide information to many other actors. A similar development is probably also ascertainable for the biodiversity secretariat as both secretariats make a deliberate choice to use their limited resources for investing strategically into networks with different types of actors (in the broader transnational policy network) to facilitate and dynamize negotiations. While they use different communication strategies, both establish strategic links to actors other than the formal negotiation parties and possibly strive to exceed their role as mere providers of process-related information.

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Appendix

Appendix 1. Top 25 actors within the UNFCCC network

Degree Centrality				Eigenvector Centrality		
1.	UNFCCC	IO	74	1.	UNFCCC	IO	1
2.	WRI	Res.	25	2.	UNDP	IO	0.739246
3.	OECD	IO	16	3.	UNEP	IO	0.608862
4.	EU	IO	15	4.	GIZ, Germany	Gov.	0.449656
5.	OECD IEA	IO	15	5.	WWF	NGO	0.404074
6.	CIFOR	Res.	15	6.	IPCC	IO	0.395886
7.	City of Hyderabad, India	Gov.	13	7.	WRI	Res.	0.360341
8.	IISD	NGO	13	8.	CAN	NGO	0.354782
9.	Germanwatch	NGO	13	9.	FAO	IO	0.35439
10.	World Bank	IO	12	10.	IETA	Bus.	0.30298
11.	MoE, Mexico	Gov.	12	11.	City of Hyderabad, India	Gov.	0.295566
12.	BMUB, Germany	Gov.	11	12.	UBA, Germany	Gov.	0.285839
13.	IIED	Res.	11	13.	EU	IO	0.239561
14.	CIRAD	Res.	11	14.	MoE, Peru	Gov.	0.228009
15.	EU Commission	IO	10	15.	Wuppertal Institute	Res.	0.227358
16.	MoEE, Sweden	Gov.	10	16.	GEF	IO	0.22069
17.	WMO	IO	10	17.	Inline Policy	Bus.	0.22008
18.	TNC	NGO	9	18.	BMUB, Germany	Gov.	0.216897
19.	MoEESDSP, France	Gov.	9	19.	NAMA Facility	IO	0.214831
20.	University of Copenhagen	Res.	9	20.	MoE, Austria	Gov.	0.214698
21.	Perspectives	Res.	9	21.	IUCN	IO	0.205043
22.	IDDRI	Res.	9	22.	OECD IEA	IO	0.195044
23.	IAEA	IO	9	23.	IISD	NGO	0.194476
24.	Government of South Africa	Gov.	9	24.	REC	IO	0.188704
25.	MoEF, Indonesia	Gov.	8	25.	CGIAR	Res.	0.186217

Appendix 2. Top 25 actors within the CBD network

Degree Centrality				Eigenvector Centrality		
1.	CBD	IO	99	1.	CBD	IO	1
2.	IUCN	NGO	80	2.	IUCN	NGO	0.684108
3.	UNEP	IO	68	3.	MoEFCC, India	Gov.	0.577347
4.	MoEFCC, India	Gov.	60	4.	WWF	NGO	0.481865
5.	WWF	NGO	37	5.	UNEP	IO	0.461485
6.	GIZ, Germany	Gov.	32	6.	EEA	IO	0.375849
7.	CGIAR	Res.	27	7.	BirdLife	NGO	0.328367
8.	UNEP	IO	27	8.	CI	NGO	0.303197
9.	EU Commission	IO	20	9.	UNESCO	IO	0.289108
10.	GEF	IO	20	10.	UN	IO	0.273561
11.	Go4BioDiv	NGO	20	11.	IPBES	IO	0.271153

12.	SPREP	IO	19		12.	MoE, Finland	Gov.	0.266781
13.	BirdLife	NGO	18		13.	EU Commission	IO	0.260991
14.	DoECC, Canada	Gov.	18		14.	TERI	Res.	0.253199
15.	CI	NGO	17		15.	DoETEC, Switzerland	Gov.	0.235159
16.	COMIFAC	IO	17		16.	ETC Group	NGO	0.217421
17.	FAO	IO	17		17.	GEF	IO	0.205425
18.	ICIMOD	IO	15		18.	BFI	IO	0.199617
19.	MoEWNR, Kenya	Gov.	15		19.	FAO	IO	0.199431
20.	IAVH	Res.	15		20.	WI, India	Gov.	0.175832
21.	MoE, Japan	Gov.	14		21.	NBA, India	Gov.	0.175137
22.	LPF	NGO	14		22.	UNEP	IO	0.172269
23.	MoE, Finland	Gov.	13		23.	World Bank	IO	0.171119
24.	World Bank	IO	13		24.	ZSL	Res.	0.170654
25.	DEA, South Africa	Gov.	12		25.	FoE	NGO	0.156061