



## Journal Article

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**Publication Date:**

2013-03

**Permanent Link:**

<https://doi.org/10.3929/ethz-b-000064249> →

**Originally published in:**

The Review of International Organizations 8(1), <http://doi.org/10.1007/s11558-012-9149-6> →

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# A closer look at the information provision rationale: Civil society participation in states' delegations at the UNFCCC

Tobias Böhmelt

Published online: 2 September 2012  
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**Abstract** The previous literature contends *inter alia* that states may welcome the participation of civil society groups in global environmental governance due to their provision of information. The following research takes this argument as a starting point for a closer examination of its validity within the international climate change regime (UNFCCC) and, specifically, with regard to civil society involvement in states' negotiation delegations. First, the author theoretically unfolds the information provision argument from a demand, i.e., state perspective along the bureaucratic quality of a country, the salience of a negotiation issue, and regime type. From this foundation, secondly, new data on the composition of states' negotiation delegations in the UNFCCC is analyzed. The results seem to indicate that the information provision mechanism is unlikely to apply in the context under study. The paper, thus, concludes by providing alternative explanations.

**Keywords** Global environmental governance · Climate change negotiations · State delegations · Civil society participation · Information provision · UNFCCC

**JEL Codes** C01 · D7 · D8 · F51 · F53 · L31 · Q5

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This article has been written in the context of the *Swiss National Research Program on Democracy in the 21st Century*. Previous versions of it have been presented at the 2010 Annual Meeting of the American Political Science Association in Washington, DC (September 2–5) and the 2011 Annual Meeting of the International Studies Association in Montréal, QC (March 16–19). Thomas Bernauer, Rob Franzese, Tina Freyburg, Vally Koubi, Helen Milner, MJ Peterson, and Gabriele Spilker gave insightful comments that helped to improve the manuscript. Bianca Oehl and Gwen Tiernan provided excellent research assistance. Finally, I thank the anonymous reviewers and the journal's editor, Axel Dreher, for their feedback and encouragement. The replication material for the empirical analysis in this article and the codebook for the employed data can be found at the journal's website: <http://www.springer.com/social+sciences/journal/11558>.

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**Electronic supplementary material** The online version of this article (doi:10.1007/s11558-012-9149-6) contains supplementary material, which is available to authorized users.

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## 1 Introduction

The last decades have seen a significant rise both in the involvement of civil society actors in global environmental governance and their interaction with official actors such as states (e.g., Risse-Kappen 1994; 1995; Weiss and Gordenker 1996; Charnowitz 1997; Clark et al. 1998; Keck and Sikkink 1998; Dryzek 2012; see also Raustiala 1997; 2001; Newell 2000; Arts 2005; Gulbrandsen and Andresen 2004; Betsill and Correll 2001; 2008). Research and academic institutions, labor groups, and also companies or trade-lobbying organizations, i.e., non-governmental organizations (NGOs)<sup>1</sup> broadly defined, increasingly and actively intervene in issue areas that traditionally have been under the exclusive responsibility of states. Perhaps in the most conspicuous form, civil society groups attend conferences and international negotiations as official members of state delegations (e.g., Clark et al. 1998: 13f; Clark 1995: 595; Steffek and Nanz 2007: 21).<sup>2</sup> During the climate change regime negotiations, for example, ‘more members of NGOs served on government delegations than ever before, and they penetrated deeply into official decision-making’ (Mathews 1997: 55).

Nevertheless, states may deny this particular form of participation of civil society as it could constrain their sovereignty and might threaten their dominant position in negotiations (Clark et al. 1998: 10; see also Clark 1995; Stasavage 2004; Bloodgood 2011: 104). International negotiations primarily remain an inter-governmental affair and states keep the prerogative to determine which non-governmental actors may participate. Consequently, civil society groups are often denied access to policy-making processes at these fora or are only allowed to participate as observers, i.e., they are not permitted to express their positions during the negotiating process per se (Weiss and Gordenker 1996; Raustiala 1997; Betsill and Corell 2001: 70; Thomann 2007).<sup>3</sup> Under these circumstances, civil society actors are excluded, possibly from the most crucial stages of international negotiations (Thomann 2007: 78; see also Gulbrandsen and Andresen 2004: 59; Oberthür et al. 2002: 134; Steffek and Nanz 2007: 11). In other words, despite the observation that some states consider the participation of civil society in their delegations, they are generally reluctant to allow non-governmental actors in their delegations, since these could constrain their

<sup>1</sup> Following Steffek and Nanz (2007; see also Castiglione 1998; Keck and Sikkink 1998), I consider as civil society all those actors (groups) that pursue interests in global governance, but do not belong to or are affiliated with official governmental entities. This approach possibly employs the broadest definition by also including business associations or corporations. Also, the terms ‘non-governmental actors/organizations/groups,’ ‘non-state actors,’ and ‘civil society’ are used interchangeably in the following.

<sup>2</sup> This does not imply that participating in state delegations is the exclusive avenue for exerting influence or that access to delegations always and necessarily induces access for civil society to higher levels of decision-making (Betsill and Corell 2001: 67; see also Stroup and Murdie 2013; Bernhagen 2012: 2; for a comprehensive overview of the study and roles of NGOs in global governance, see, e.g., Bloodgood 2011: 95ff). I claim, however, that it is one potential (and perhaps a sufficient) avenue for doing so. In consistence with that, Biermann and Gupta (2011: 1857ff) emphasize that the inclusion of civil society actors in international negotiations constitutes an important facet of those negotiations, while Gulbrandsen (2008) is particularly interested in the ‘privileged access’ of non-governmental actors (see also Sell and Prakash 2004: 151).

<sup>3</sup> Björkbom (1999: 406) illustrates this in the case of transboundary air pollution: ‘NGO pressure in the negotiating room has [...] had but a marginal influence on the results of the negotiations. This is partly due to the fact that NGOs could only act as observers.’

sovereignty and also impede their position in negotiations. Thus, it is not obvious *ex-ante* why we actually observe these patterns of governmental-civil society interaction (Biermann and Gupta 2011: 1856).

However, the previous literature predominantly argues here that it is the expertise and provision of information by non-governmental groups (e.g., Hansen 1991; Keck and Sikkink 1998; Bloodgood 2002; 2011; Burstein and Hirsh 2007: 177; Bernhagen 2012), which gives states the necessary incentives to grant civil society access to negotiations in the form of participating in delegations (Albin 1999; see also Bernauer and Betzold 2012).<sup>4</sup> It is assumed that there is an information asymmetry between official actors and civil society (Austen-Smith 1997), and governments might then gain from including civil society representatives in their delegations (which these are likely to demand in exchange), because the latter have an advantage in providing policy advice, scientific expertise, and information about constituency views that governments could lack regarding the issue at hand (Raustiala 1997; 2001; see also Princen 1994; Betsill and Corell 2001; 2008; Yamin 2001; Sarewitz 2004; Hall and Deardorff 2006; Bernhagen 2008: 85f; Biermann and Pattberg 2008). International environmental negotiations are highly complex, and decision-makers need information to enhance their understanding of a problem in question and the implications of various policy alternatives under consideration (Raustiala 1997; 2001; Keck and Sikkink 1998; Betsill and Corell 2001: 74; Gemmill and Bamidele-Izu 2002; Steffek and Ferretti 2009).

In more detail, first, civil society groups are frequently better positioned than governments to provide policy advice and expertise of a technical or scientific nature. Non-governmental organizations dedicate a considerable amount of their resources and efforts to gathering and disseminating information, and have 'built-up expertise in many of the scientific, economic, and social and technical disciplines relevant to sustainable development' (Yamin 2001: 157; Gough and Shackley 2001; Esterling 2004; Stroup and Murdie 2013). Furthermore, civil society provides negotiators with 'access to competing ideas from outside the normal bureaucratic channels' (Gemmill and Bamidele-Izu 2002; see also Raustiala 1997: 727f; Gulbrandsen 2008: 101). Second, civil society representatives can also provide information about the positions and preferences of the electorate. Governments may lack knowledge on constituency views and interests, which in turn may decrease their chances for re-election. Civil society organizations could be closer to the grass roots and have local-level capacity (Bernhagen 2008: 85; Bloodgood 2011: 101; Vabulas 2011: 9), and thus have the ability to fill this gap. Hall and Deardorff (2006: 71) emphasize accordingly that 'interest groups that enjoy comparative advantages [...] in obtaining private information about constituency views can use it to persuade legislators that electoral self-interest lies in taking group-friendly positions' (see also

<sup>4</sup> This pertains to the rationalist contributions to the literature, which concur that the participation of civil society in any international setting can be explained by states' need for information that those non-state actors can provide (Gulbrandsen 2008: 100). This is supposed to hold true for the states assembled in an international organization as a collective actor, or for single states when composing their official delegations, as in my case. However, while this paper primarily represents a test, and in the end a challenge to, the predominant explanation of this phenomenon in the context of the climate change negotiations, thereby following Popper's (1959) approach of falsifiability, I explicitly acknowledge that other explanations exist (see also Keck and Sikkink 1998). I will return to this issue in the conclusion below.

Hansen 1991; Burstein and Hirsh 2007: 175).<sup>5</sup> Eventually, both mechanisms of providing information decrease state actors' level of uncertainty about the consequences of their actions and also improve negotiators' bargaining positions.

As a result, the literature contends that if governments are unable to collect this information themselves, they might approach civil society groups, which are involved in such policy research and offer such information, evaluation, and expertise (Princen 1994: 34ff; Raustiala 1997: 726f; Albin 1999: 377; see also Raustiala 2001; Hall and Dearth 2006). Betsill and Corell (2001: 87) agree in that 'the provision of knowledge and information is the key resource for influence' (see also Betsill and Corell 2008; Gerdung 2004). In exchange, meeting the requirements of civil society groups to participate in global environmental governance—or granting them access to national delegations as it is the focus of this research—might then be a relatively cheap cost for obtaining information (Albin 1999: 377). Vabulas (2011: 5) argues the same when pointing out that 'many NGOs stand ready and waiting to provide expertise, because they also gain benefits from formal relations' with states (see also Bloodgood 2011: 98). These benefits may entail 'an increased organizational legitimacy' or a 'new forum for promoting their ideals,' e.g., membership in states' delegations (see also Betsill and Corell 2001: 74). In turn, states will have incentives to 'establish formal relationships with NGOs in order to capitalize on [...] expertise' (Vabulas 2011: 9).

The following research takes this argument as a starting point for a closer examination of the validity of this rationale within the international climate change regime (UNFCCC) and, specifically, with regard to civil society involvement in states' negotiation delegations here. Previous research seems to merely assume that civil society generally has an information advantage over states, and that the latter will perceive this as beneficial. While this might be the case for developing countries that lack resources, it is not entirely plausible *ex-ante*, for example, that the information provision mechanism should work for developed countries. Burstein and Hirsh (2007: 178) similarly state that 'theorists who highlight information provide enough evidence to make their hypotheses plausible [...], but no more.' Hence, we still lack thorough empirical studies, which makes it difficult to infer systematic claims about the validity of the information provision mechanism in global environmental governance (Betsill and Corell 2001: 68; Betsill 2006: 185). The following study seeks to address this within the UNFCCC context.

Against this background, first, I present a theoretical framework that disaggregates the information provision rationale along factors that are likely to explain the demand-side, i.e., states' incentives within the information provision nexus: a) the bureaucratic quality of a country, b) the salience of a negotiation issue, and c) a country's regime type. I choose this strategy with a focus on the demand side primarily because information provision as such cannot be examined or measured directly (see Kennan and Wilson 1993: 96; Sloof 1998: 248; Bernhagen 2012: 2). Also, states and their governments keep the prerogative to determine which civil society groups may participate, and existent approaches such as the Boomerang

<sup>5</sup> While this second mechanism primarily stems from the literature on lobbying in American politics, Bloodgood (2011) demonstrates that it applies to the context of civil society lobbying in global governance as well (see also Sell and Prakash 2004: 149).

model 'privilege the agency of NGOs and do not consider why states would sometimes institutionalize' the relationship to civil society actors (Vabulas 2011: 1).<sup>6</sup> Based on my theoretical framework, I derive a set of testable hypotheses, which contend that if the information provision rationale applies in my context, civil society involvement will be more apparent in states' negotiation delegations at the UNFCCC of those nations that have low bureaucratic quality, face a salient negotiation issue, or are more democratic. Afterwards, I test the theoretical rationale in a quantitative framework by using newly collected time-series cross-sectional data on the participation of civil society groups in state delegations in the UNFCCC regime for 1995–2004. In order to extend the scope of my research, I also examine civil society participation more closely by distinguishing between group types (i.e., environmental NGOs and business lobbying groups) and re-estimate the core models. In total, the results indicate that the information provision mechanism is unlikely to apply for civil society involvement in states' UNFCCC delegations. I thus finish the article by providing alternative explanations, as well as with a comprehensive discussion of the avenues for future research.

## 2 Disaggregating the Information Provision Mechanism for Civil Society Involvement in Negotiation Delegations: Theoretical Expectations

### 2.1 Bureaucratic Quality

State delegations in international environmental negotiations are generally not comprised of politicians as such, but bureaucrats from ministries. One of the 'core services' of a bureaucracy is the ability to collect and manage information (Hendrix 2010: 274). Thus, if a government can rely on a high-quality administration that is capable of developing and disseminating information, this basically serves one fundamental purpose: information can effectively be gathered on specific environmental issues, which in turn decreases the uncertainty about possible consequences, and—due to the superior level of information—ultimately gives the governmental delegation a bargaining advantage in negotiations. This advantage can then be used to strike deals more effectively in the sense that they are closer to the delegation's ideal policy position.

As a result, if the information provision mechanism holds true in my context, a high-quality state bureaucracy is unlikely to require the input of civil society actors at the UNFCCC, since it can fulfill the decisive task of information provision on its own.<sup>7</sup> On the other hand, we would expect higher demands for civil society in countries having a weak and low-quality bureaucracy. In this case, state officials are less likely to effectively gather and analyze the information, which is crucial for any bargaining process. Hence, rational thinking suggests

<sup>6</sup> That being said, considering also supply-side arguments would arguably provide a more comprehensive picture. However, this is beyond the scope of my paper and actually prevented due to data limitations. I will discuss this issue in the conclusion again.

<sup>7</sup> In addition, a state having an effective bureaucracy would also try to avoid being constrained by other policy preferences that are then induced if civil society actors are allowed in its delegation (see Salamon and Anheiner 1991; Bratton 1990).

that these governments then seek to ‘borrow’ information-disseminating capacity from other actors (see Habeeb 1988; Pfetsch and Landau 2000; Clark 1995: 597), which ultimately means that countries with a low-quality bureaucracy are likely to seek to compensate for this by including civil society actors in their delegations at the climate change regime (see also Steffek and Nanz 2007: 21). For example, in the case of the UNFCCC, the Republic of Vanuatu—a small island nation located in the South Pacific—tends to appoint NGO representatives who are especially skilled in environmental law to its delegation (Mathews 1997: 55). This leads to the first hypothesis:

**Hypothesis 1:** If the information provision mechanism holds true in this context, the lower the bureaucratic quality of a country, the higher the civil society involvement in its negotiation delegation at the UNFCCC.

## 2.2 Negotiation Issue Salience

The information provision mechanism—and, in turn, countries’ willingness to consider non-governmental actors in their delegations at the UNFCCC—may also pertain to the degree to which a negotiation issue impinges upon a state’s best interests. Sprinz and Vaahtoranta (1994: 79) contend in the case of environmental quality that ‘the worse the state of the environment, the greater the incentives to reduce the ecological vulnerability of the state.’ In other words, the higher importance a given issue has for a country, the more likely it is that it seeks to ‘exploit’ any possibility for addressing this problem effectively (Clark 1995: 595). The inclusion of civil society actors in state delegations may provide such an opportunity if the information provision mechanism is valid: these groups function as comparably cheap information providers and experts with valuable knowledge that can further reduce uncertainty. As Wisner (1999: 4) puts it: where civil society has specific expertise, ‘its capabilities increase certainty.’ Ultimately, both mechanisms of the information provision argument as summarized in section 1 are likely to apply for issue salience.

Put differently, if subscribing to this argument, we should expect countries that perceive negotiation issues as more salient to be more likely to include non-state actors in their negotiation delegations, because they have an interest in obtaining more information for improving their bargaining position (see Raustiala 1997; 2001; Yamin 2001; Gough and Shackley 2001; Esterling 2004; Stroup and Murdie 2013) and there is also greater public demand for more effective policies that adequately address the issue in question (see Hall and Deardorff 2006; Vabulas 2011). Conversely, states that perceive an issue to be of little importance are likely to face lower domestic audience costs, and will also have less incentives to incorporate civil society actors in their delegations as emphatically addressing such an issue through exhausting all possibilities is not perceived as necessary. This lack of demand and the rationale that civil society actors would then not contribute to the overall knowledge or bargaining position, but would instead impose restrictions on a negotiator’s sovereignty and flexibility (Clark et al. 1998; see also Clark 1995; Stasavage 2004; Bloodgood 2011: 104), should make it less likely that non-governmental organizations are invited to join state delegations at the UNFCCC.

In sum, if states perceive civil society groups as effective information providers and the negotiation issue is highly salient, they are more likely to have strong incentives to make use of any information resource that seems promising in addressing a bargaining issue effectively. As a result, it is (also) more likely that these countries have even stronger incentives to satisfy the demands of their domestic audience:

Hypothesis 2: If the information provision mechanism holds true in this context, the higher the salience of the negotiation issue for a country, the higher the civil society involvement in its negotiation delegation at the UNFCCC.

### 2.3 Regime Type

The previous argumentation, in particular civil society's ability to provide information about the electorate's preferences, leads to the concept of accountability. Bueno de Mesquita et al. (2003) argue that the size of a leader's winning coalition and electorate influence accountability, and that when leaders' level of accountability is higher, they are more likely to have strong incentives to avoid foreign policy failure (see also Bueno de Mesquita et al. 1999).<sup>8</sup> This incentive is driven by a leader's primary goal of retaining office. The size of both the electorate and the winning coalition is generally larger in democracies than autocratic regimes.

If the information provision mechanism does hold in my research context, there are at least two ways that make it more likely that democratic, i.e., more accountable, countries have a higher involvement of civil society actors in their delegations. First, the core of Bueno de Mesquita et al.'s (1999; 2003) theory contends that more accountable regimes have a higher interest in avoiding foreign policy failure and achieving public policy success due to the rationale of staying in power. Similar to the argument on the salience of an issue, this suggests that the higher the accountability/level of democracy of a regime, the more likely its delegation will tap into any possible assistance for achieving bargaining success. Civil society actors provide information, expertise, and evaluations that can reduce uncertainty significantly, and can thus increase the chances of achieving negotiation outcomes that are closer to the ideal policy position of a delegation (see also Bernhagen 2012: 3).

Second, the winning coalition, as the crucial part of a country's electorate, will also seek to be informed about foreign policy success and failure in order to be able to reward or punish a leader afterwards. Important here are independent mass media, NGOs, and also business lobbying groups or firms, which are more active in democratic regimes and have more opportunities to provide information to the public audience. In turn, this information provision—facilitated by civil liberties such as freedom of speech or press freedom in democracies (see Bättig and Bernauer 2009; Payne 1995)—enables citizens to be better informed by non-governmental actors about state policies and international negotiations and to freely express their opinions about these issues (see Lateef 1992). Citizens can then impose higher audience costs on policymakers who renege

<sup>8</sup> For my purposes, foreign policy failure constitutes bargaining failure or not addressing a negotiation issue properly.



on electoral promises (Slantchev 2006; see also Hansen 1991; Hall and Deardorff 2006; Burstein and Hirsh 2007; Bloodgood 2011; Vabulas 2011).

In short, the winning coalition, which is likely to demand the inclusion of civil society groups in UNFCCC negotiations, is larger in democracies than in autocracies. Democratic elites seek to satisfy this out of the compulsion to stay in office. Due to the exact same rationale, the government itself will seek to consider civil society participation because of its information provision and expertise. Ultimately, we should expect a higher level of non-governmental activity in more democratic state delegations:

Hypothesis 3: If the information provision mechanism holds true in this context, the more democratic a country is, the higher the civil society involvement in its negotiation delegation at the UNFCCC.

### 3 Research Design

#### 3.1 Data

For empirically testing the validity of the information provision mechanism and the derived hypotheses in the context of states' delegations at the UNFCCC, I operationalize civil society involvement using newly coded data on countries' delegation membership composition during the climate change negotiations. More specifically, my data collection efforts focused on the participation of civil society actors in states' official delegations for the Conferences of the Parties (CoPs) of the UNFCCC. Here, civil society groups are defined as NGOs, business groups, firms, companies, etc., i.e., essentially all actors involved in a state delegation that do not belong to official entities such as governments, embassies, or inter-governmental organizations (Arts 2005; Steffek and Nanz 2007; see also Castiglione 1998; Keck and Sikkink 1998). This approach consequently excludes 'government-oriented NGOs' that receive funds from or are under the control of official state organizations, and treats pro-environment organizations and actors such as business lobbying groups equally.<sup>9</sup>

The monadic data cover the time period 1995–2004, i.e., all CoPs until the end of 2004, while the unit of analysis is the delegation-year for a specific CoP.<sup>10</sup> I consulted the UNFCCC website<sup>11</sup> for the CoP participants in order to obtain the data, and all corresponding documents essentially follow the same structure: a) list of parties (i.e., state delegations and participants—either official or civil society

<sup>9</sup> The information provision rationale does not explicitly make a distinction between those different groups (see Burstein and Hirsh 2007: 183). However, my data allow distinguishing between them. I will return to this issue below when re-estimating the models for 'disaggregated' civil society actors. For a more detailed description as well as a comprehensive summary of the data structure and the variable list, please consult the codebook in the [online appendix](#).

<sup>10</sup> Data collection started with the first CoP in Berlin 1995 and ended with the 17th CoP in Durban 2011. However, the succeeding analysis only covers the period 1995–2004, since I lack data for some explanatory variables after 2004.

<sup>11</sup> [http://unfccc.int/documentation/documents/advanced\\_search/items/3594.php?such=j&keywords=%22conference%20reports%22&meeting=;%22%28COP%29%22#beg](http://unfccc.int/documentation/documents/advanced_search/items/3594.php?such=j&keywords=%22conference%20reports%22&meeting=;%22%28COP%29%22#beg).

representatives—therein); b) observer states; c) UN bodies; d) IGOs; e) observer organizations. For this project, the category of primary interest is a), and those delegations were coded along civil society participation. For the vast majority of actors, it could clearly be identified whether they belong to governmental bodies or to civil society groups (and, accordingly, to which civil society organization). If this was not possible, however, those cases were set as missing and, hence, drop out of the analysis.<sup>12</sup>

These new data may allow the examination of various issues in the context of UNFCCC negotiations that simply could not be addressed via existing data sources. Thus, before coming to the actual empirical analysis, some descriptive patterns are demonstrated that—although arguably suggestive—emphasize how the data bear considerable promise in opening up new avenues for further research on international negotiation dynamics. Figure 1 shows that the yearly average level of civil society inclusion in countries' negotiation delegations is fairly consistent over time. More specifically, the figure includes the median band of a *count variable measuring the number of non-governmental actors in each delegation* between 1995 and 2004. Taking some minor deviations into account, this band ranges in the interval [0.4; 1.2]. Figure 1 also comprises the 'top-5' countries in terms of civil society inclusion within their delegations. Although thorough claims are not made at this point, the figure might offer some preliminary support for the validity of the information provision mechanism in the context of UNFCCC state delegations as, e.g., the vast majority of the countries with very high levels of civil society participation are seen as democratic in the time period under study.<sup>13</sup>

### 3.2 Dependent Variables and Methodology

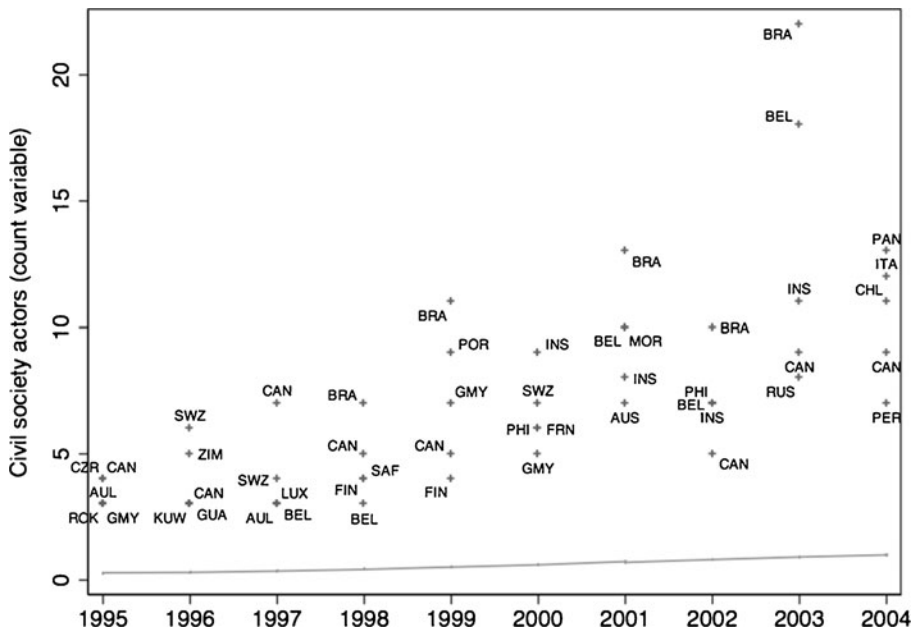
My research focuses on information provision from civil society groups and how this is related to states' decisions to consider these actors for their delegations at the UNFCCC. A simple dichotomous item is therefore employed for whether national delegations see any civil society participation (1) or not (0) for the first model estimations, and then a count variable measuring the number of any non-governmental actors in each delegation. For example, the total size of the Canadian delegation to the first CoP in 1995 was comprised of 27 delegates, with four of them belonging to civil society groups.<sup>14</sup> The binary variable therefore receives a value of 1, and the count item is coded as 4 here.

The dichotomous nature of the first dependent variable suggests a logit/probit setup while a Poisson/negative binomial estimator seems the correct choice for modeling the variance in the second dependent item. Figure 2 emphasizes, however, that both civil society participation and the count item civil society actors are characterized by a huge over-dispersion of zeros: about 75 % of observations do not include civil society actors in their delegations. Regular models would then overestimate the probability and frequency of the 'non-zero events,' which motivates

<sup>12</sup> Missing values comprise only 0.57 % and 0.97 % for the binary dependent variable and the count item, respectively.

<sup>13</sup> Additional graphs describing the data patterns are included in the [online appendix](#).

<sup>14</sup> In more detail, these groups were a) the Sierra Club of Canada, b) the Pembina Institute, c) the Canadian Association of Petroleum Producers, and d) the Canadian Electrical Association.



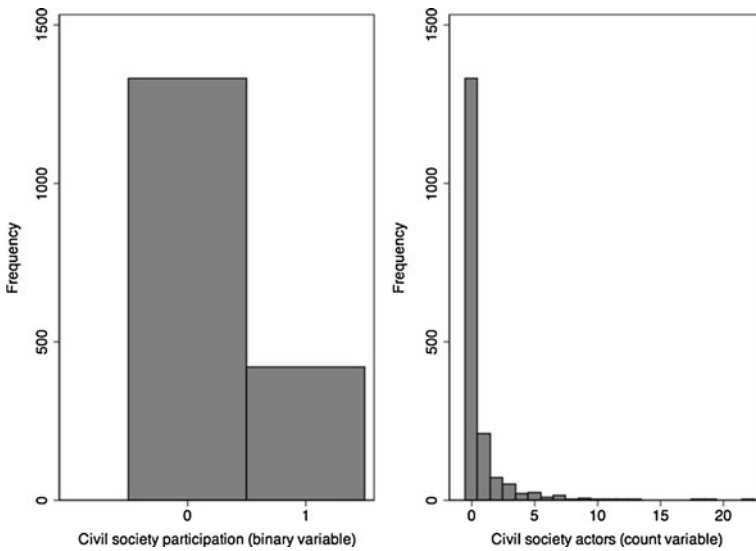
**Fig. 1** Median band with ‘top-5’ countries of civil society participation at the UNFCCC, 1995–2004. Solid line signifies median band. Crosses list ‘top-5’ country-delegations in civil society participation per year. Country abbreviations follow Correlates of War project (Singer 1988)

the use of a rare-events logit for the first calculations and a zero-inflated negative binomial regression thereafter.<sup>15</sup> I also employ robust standard errors clustered on country to account for intra-group correlations, and model existing temporal dependencies by including a ‘civil-society-years variable’ and different sets of cubic splines (Beck et al. 1998). This approach acknowledges that a country’s consideration of civil society actors might depend on its delegation composition in previous years.

### 3.3 Explanatory Variables and Control Items

I disaggregated the information provision mechanism along three factors. The first focuses on the quality of a country’s bureaucracy, for which the Political Risk Services Group’s (PRSG) International Country Risk Guide (Howell 2012) is employed. These data comprise one variable that—based upon expert assessments—measures the bureaucratic quality of a country on a 0–4 scale, with higher values standing for more effective bureaucratic capacities. More specifically, ‘high points are given to countries where the bureaucracy has the strength and expertise to govern without drastic changes in policy or interruptions in government services.’ Here, ‘the bureaucracy tends to [...] have an established mechanism for

<sup>15</sup> For a comprehensive presentation of the rare-events logit estimator, see King and Zeng (2001a; 2001b). For a comprehensive presentation of the zero-inflated negative binomial estimator, see Long (1997: 244). Moreover, the Vuong test demonstrates that the zero-inflated version is superior to the standard negative binomial regression model. Finally, a likelihood ratio test compared the zero-inflated negative binomial model with a zero-inflated Poisson regression, and indicates that the former estimator is more suitable.



**Fig. 2** Histograms of *civil society participation* and *civil society actors*

recruitment and training. Countries that lack the cushioning effect of a strong bureaucracy receive low points because a change in government tends to be traumatic in terms of policy formulation and day-to-day administrative functions' (Howell 2012: 7; see also Hendrix 2010).

The second factor pertains to the salience of an issue. In the context of the UNFCCC, countries' willingness to include civil society actors in their negotiation delegations should reflect the degree to which they are vulnerable to climate change and global warming. Following recent research (Mendelsohn et al. 2006; Srinivasan 2010), I operationalize salience by geographical location and income. With regard to the first item, a dichotomous variable is applied for members of the Alliance of Small Island States (AOSIS), since countries belonging to this organization are especially threatened by the effects of climate change and global warming (Fredriksson and Ujhelyi 2006: 19) and the vast majority are simultaneously relatively poor and underdeveloped nations, i.e., they may lack the necessary resources for obtaining information needed in UNFCCC negotiations. Under these circumstances, there could be incentives for 'borrowing' resources, expertise, and other skills from non-governmental groups (Betzold 2010). If the information provision mechanism holds true, we would expect that this variable has a positive impact on the participation of civil society groups in national delegations.

With regard to the second salience item, I measure income by *GDP per capita* using extended data based on Gleditsch (2002) that contain information until 2004. I use a logged version of this variable to account for its skewed distribution and standardize the logged *salience—income*.

The third information provision hypothesis claims that more accountable, i.e., democratic countries are more likely to have more civil society actors in their delegations. Therefore, the *polity2* variable from the Polity IV project (Marshall and Jaggers 2002)

is employed, which ranges from  $-10$  (full autocracy) to  $+10$  (full democracy). Since these data omit values of microstates, I impute missing information with data taken from Gleditsch (2008).<sup>16</sup>

Other factors that may influence the dependent variable must also be controlled for in order to avoid potential omitted variable bias. Furthermore, including alternative determinants of negotiations' civil society participation also addresses possible selection effects, since only certain types of delegations are likely to see the participation of civil society. First, it may be the case that the strength of a country's civil society is a key influence as well (see, e.g., Kau and Rubin 1982).<sup>17</sup> A strong civil society may be able to establish leverage over governments (see Binder and Neumayer 2005: 530), which may be used to push them toward granting civil society access to negotiation delegations, even in the absence of strong governmental incentives for doing so in the first place. I operationalize the level of civil society strength by the number of (inter-) national environmental NGOs (ENGOs) registered in each country using data from the World Environment Encyclopedia and Directory (Europa Publications 1994; 1997; 2001).<sup>18</sup> These data, however, suffer a great deal from missing values. They omit a number of NGOs in several countries and do not include non-governmental groups that may have been active in the time period of concern, but ceased to exist before publication of the Directory (Binder and Neumayer 2005: 531). Hence, for country-years that do not have information on ENGOs from the Directory, I obtained data from Bernauer et al. (2013) who compiled ENGO data from the International Union for Conservation of Nature (IUCN). Also, Binder and Neumayer (2005) collected data on ENGOs themselves, which are incorporated as well. Finally, the remaining missing data were addressed with linear imputation techniques suggested in Gleditsch (2002; also Honaker and King 2010).<sup>19</sup>

Moreover, state delegations vary significantly in the number of involved delegation members. For example, the mean delegation size of the U.S. is about 71, while the Bahamas sent only two delegates to the CoPs on average. Since large countries are more likely to have larger delegations, I consider the logged version of a population variable (Gleditsch 2002) to control for these different scales. Similarly, albeit differently, big and 'important' countries should be less willing than small ones to include civil society representatives in their delegations (see Neumayer 2002: 150). The former are generally better able to provide necessary staff and resources for international negotiations and are, in turn, even more reluctant to constrain themselves by additional

<sup>16</sup> Alternatively, I considered the *W/S* measure from Bueno de Mesquita et al. (2003) in unreported models. However, this does not affect my results.

<sup>17</sup> Kau and Rubin (1982) primarily argue that the number of non-governmental groups represents the strength of a civil society. Riddell (2003), on the other hand, contends that the amount of financial resources available also influences this. Due to the lack of data, however, I focus on the number of groups.

<sup>18</sup> Due to the lack of data, the strength of all civil society is thus assumed to be 'symmetrically' mirrored by the number of environmental organizations in a country: both 'environmental-friendly' organizations and business groups are assumed to be equal in size and, hence, it is sufficient to consider the former variable only (Bernhagen 2008: 94; Binder and Neumayer 2005: 535). Furthermore, a possible objection to this operationalization is that fewer groups represent a stronger civil society in the sense of being more concentrated and, hence, more able to exert political pressure. I will return to this collective action argument when interpreting my findings.

<sup>19</sup> Due to these techniques, the remaining amount of missing data on *civil society strength* comprises 6.37 % only.

**Table 1** Basic information of variables

Variable	Obs	Mean	Std. Dev.	Min	Max	VIF
Civil society participation	1750	0.240	0.427	0	1	–
Civil society actors	1742	0.613	1.703	0	22	–
Bureaucratic quality	1357	2.279	1.134	0	4	1.40
Salience—income	1813	0	0.950	–2.215	2.884	1.00
Salience—AOSIS membership	1794	0.184	0.388	0	1	1.14
Democracy	1621	3.849	6.672	–10	10	1.30
Civil society strength	1753	12.100	27.909	0	261	1.78
Population	1814	8.628	2.073	2.932	14.074	1.44
Major power	1884	0.041	0.198	0	1	1.65

policy preferences that may be induced by considering non-state groups for their delegations (see Roberts et al. 2004: 25). A dichotomous major power variable is employed from the Correlates of War project (Singer 1988).

Table 1 summarizes the basic information of the variables of interest. Note that the variation inflation factors (VIFs) demonstrate that the explanatory factors do not suffer from multicollinearity. In other words—and perhaps contrary to initial expectations—there is not much overlap between, for example, the highest performing bureaucracies and democratic regimes.

#### 4 Empirical Core Findings

First, I present the rare-events logit model (Table 2).<sup>20</sup> To further assess the implied magnitude of my findings, Table 3 summarizes the predicted probability of seeing civil society participation in a UNFCCC delegation for the minimum and the maximum value of each explanatory measure while holding all other variables at their means (or modes for dichotomous variables).<sup>21</sup>

Before moving to the core explanatory variables, I briefly discuss the control variables. First, the most unexpected finding stems from *civil society strength*, which has a negative estimated effect (significant at 5 %), although the overall impact is

<sup>20</sup> In order to ensure the robustness of these findings, I changed a variety of model specifications and re-ran the estimations for both the rare-events logit and the zero-inflated negative binomial models again. First, the dichotomous variable on major power status might undercut the significance and size of the bureaucratic quality and salience variables. Hence, unreported models do not include this control, but the results essentially do not depend on whether the major power variable is considered or not. Second, the strength of a country's civil society incorporates information that was obtained through imputation techniques. These techniques may introduce noteworthy problems, however, since, for example, values are unlikely to be missing at random. To consider this, all models were estimated again, relying only on those observations that were directly observed by the IUCN and/or the Directory only. Again, the core results stay the same.

<sup>21</sup> The predicted probabilities were computed via a Bayesian approach, using the entire probability distribution of a variable's coefficient to approximate the expected value of  $Pr(Y=1|x)$ , without conditioning on the point estimate of the coefficient. The confidence intervals were estimated via simulations ( $N=10,000$ ).

**Table 2** Civil society participation in UNFCCC national delegations, 1995–2004

	Model 1	Model 2	Model 3	Model 4
Bureaucratic quality	0.282 (0.104) <sup>c</sup>	0.227 (0.102) <sup>b</sup>	0.352 (0.107) <sup>c</sup>	0.308 (0.104) <sup>c</sup>
Saliency—income	0.507 (0.068) <sup>c</sup>		0.491 (0.072) <sup>c</sup>	
Saliency—AOSIS membership		−1.630 (0.440) <sup>c</sup>		−1.182 (0.429) <sup>c</sup>
Democracy	0.030 (0.018) <sup>a</sup>	0.044 (0.019) <sup>b</sup>	0.041 (0.019) <sup>b</sup>	0.050 (0.020) <sup>b</sup>
Civil society strength			−0.006 (0.003) <sup>b</sup>	−0.006 (0.003) <sup>b</sup>
Population			0.326 (0.071) <sup>c</sup>	0.282 (0.073) <sup>c</sup>
Major power			0.125 (0.449)	−0.005 (0.421)
Years	−1.110 (0.157) <sup>c</sup>	−1.136 (0.154) <sup>c</sup>	−1.036 (0.157) <sup>c</sup>	−1.084 (0.155) <sup>c</sup>
Spline 1	−0.010 (0.013)	−0.011 (0.013)	−0.008 (0.013)	−0.010 (0.013)
Spline 2	−0.101 (0.034) <sup>c</sup>	−0.111 (0.034) <sup>c</sup>	−0.096 (0.035) <sup>c</sup>	−0.106 (0.034) <sup>c</sup>
Spline 3	0.086 (0.058)	0.094 (0.058)	0.080 (0.058)	0.087 (0.057)
Constant	−0.705 (0.250) <sup>c</sup>	−0.636 (0.247) <sup>c</sup>	−3.995 (0.754) <sup>c</sup>	−3.498 (0.764) <sup>c</sup>
Obs	1248	1226	1229	1207
Wald $\chi^2$	159.28 <sup>c</sup>	125.09 <sup>c</sup>	175.36 <sup>c</sup>	144.73 <sup>c</sup>

Rare-events logit regression. Standard errors in parentheses and clustered on country

<sup>a</sup> significant at 0.1 level, <sup>b</sup> at 0.05 level, <sup>c</sup> at 0.01 level (two-tailed)

rather small. One explanation, based upon a simple collective action argument, may be plausible in explaining this finding. Larger groups are more difficult and more costly to organize (Buchanan and Tullock 1962; Olson 1965; Chamberlain 1974) and organizational costs increase with group size, especially via actors' preferences. The larger a group of civil society actors trying to participate in state delegations, the more likely it is afterwards that a state delegation is characterized by greater heterogeneity of interests (see Snidal 1994). In turn, more civil society actors could make it more difficult, both for governmental actors and civil society groups, to reach any agreement on the participation of civil society actors in UNFCCC negotiation delegations in the first place (Bernauer et al. 2013; see also Clark 1995: 598). Furthermore, *major power* does not seem to determine whether countries include non-governmental actors in their UNFCCC delegations or not. Different model specifications do not

**Table 3** Civil society participation in UNFCCC national delegations: Predicted probabilities

	Model 1		Model 2		Model 3		Model 4	
	Min	Max	Min	Max	Min	Max	Min	Max
Bureaucratic quality	15.50 %	35.90 %	18.60 %	35.90 %	13.40 %	38.40 %	15.60 %	38.40 %
Saliency—income	10.30 %	59.90 %			10.60 %	58.70 %		
Saliency—AOSIS membership			27.70 %	7.50 %			27.20 %	10.90 %
Democracy	18.80 %	29.30 %	17.30 %	32.90 %	16.60 %	30.30 %	15.80 %	32.90 %
Civil society strength					27.90 %	8.80 %	29.20 %	8.80 %
Population					9.60 %	61.70 %	11.90 %	58.50 %
Major power					25.90 %	29.20 %	27.20 %	27.80 %

Predicted probabilities of *civil society participation* are shown for each independent variable when moving from the minimum to the maximum. All other variables held at their mean values (or modes for dichotomous variables)

alter this result, while excluding this variable from the calculations has no crucial impact on the other variables either. The item on a country's population has the expected positive sign and is highly significant, though. The larger the population of a state, the more likely it is that civil society is part of its negotiation delegation.

With regard to the core explanatory variables, Tables 2 and 3 entertain some doubt on the validity of the information provision mechanism for civil society participation in states' UNFCCC delegations. In terms of the first factor, especially those countries with low bureaucratic capacity should be more likely to include civil society actors in their delegations as the lack of resources might be addressed by borrowing power from non-governmental actors. Tables 2 and 3 demonstrate, however, that this is unlikely to apply. The marginal impact of a one standard deviation change in *bureaucratic quality* increases the likelihood of non-governmental actors in national delegations by about 0.29 standard-deviation units on average. More substantially, the probability of seeing civil society participation is about 15.78 % when *bureaucratic quality* is held at its minimum, while it increases to 37.15 % if this item is raised to its maximum. In other words, states with higher bureaucratic quality—i.e., countries that have the resources to acquire and analyze information effectively—are actually more likely to include non-state groups in their UNFCCC delegations than those states that lack bureaucratic expertise. Consequently, in this context, the primary incentive for these states cannot be information provision and the expertise of civil society.

Second, the impact of an issue's saliency does also not support the information argument for my research focus. The less important a country perceives the negotiation issue—either measured by high state income levels or non-membership in AOSIS—the higher the chances that non-governmental actors will be included in state delegations. When moving toward the highest value of *saliency—income*, for example, the predicted probability increases on average to 59.3 %. This is an impressive change given the low baseline probability of about 10 % at the minimum of this variable. Similarly, AOSIS members have a significantly lower probability



(9.2 % on average) than non-AOSIS states (27.45 %) of having civil society aboard their delegations. In sum then, particularly those countries that would be expected to exploit any information resource available due to a salient negotiation issue are much less prone to consider civil society actors in their UNFCCC negotiation delegations. As a result, other mechanisms than the information provision of civil society must be at work here.

Coming to the regime type of states, the coefficient of *democracy* has a positive and significant sign. The predicted probability for the onset of civil society participation increases by about 14.2 %-points when we move from the lowest to the highest value of *democracy*. Put differently, a country's incentives to consider the inclusion of civil society in its national delegation is likely to be higher in democracies as these kinds of regimes are more accountable to their winning coalitions. Hence, this result actually seems to support the information provision argument for civil society access to states' UNFCCC delegations. However, doubts are raised against this conclusion when examining the involvement more thoroughly via the zero-inflated negative binomial regression in Table 4.

More specifically, the results of the second stage in Table 4 essentially mirror the findings from Tables 2 and 3 above. High-quality bureaucracies not only increase the likelihood of civil society representatives' participation in national delegations, but also their number. Further, high-income countries and non-members of the AOSIS group have a significantly higher number of non-state actors in their delegations. Finally, the expected change in *civil society actors* (log) for a one-unit increase in *democracy* is 0.022 on average. At first sight, this seems to be consistent with the information provision claim and the findings from above. Note, however, that *democracy* is insignificant in the second stage of Table 4, while it is the only substantive variable in the first stage. Therefore, *democracy* essentially derives its explanatory power in Tables 2 and 3 from predicting the excessive amount of zeros in the data. In other words, it seems unreasonable to uphold the third hypothesis as true and that this provides support for the information provision mechanism within the context of states' UNFCCC delegations, since these findings and especially Table 4 only demonstrate that democracies are less likely *not* to consider civil society actors in their negotiation delegations. I believe, however, that this points to an avenue of alternative explanations other than the validity of the information provision argument for civil society involvement in state delegations at the climate change regime.

## 5 Extending the Scope: ENGOs vs. Business Lobbying Groups

As stated in footnote 9, the existing literature on the information provision rationale does essentially not distinguish between different kinds of civil society actors. In other words, and from the demand-side perspective, governments place little importance on the actual source of information (see Sell and Prakash 2004) as long as they receive information that decreases uncertainty and improves their bargaining position (see Burstein and Hirsh 2007: 183). In turn, this source, whoever it may be, might request and be granted access to the negotiation table. Thus, the previous analyses, which cast doubt on the validity of the information provision logic for civil society participation in states' UNFCCC delegations, do not distinguish between, e.g.,

**Table 4** The number of civil society actors in UNFCCC national delegations, 1995–2004

	Model 5	Model 6	Model 7	Model 8
<b>Count Equation</b>				
Bureaucratic quality	0.362 (0.150) <sup>b</sup>	0.296 (0.149) <sup>b</sup>	0.549 (0.123) <sup>c</sup>	0.500 (0.130) <sup>c</sup>
Saliency—income	0.425 (0.083) <sup>c</sup>		0.346 (0.109) <sup>c</sup>	
Saliency—AOSIS membership		-1.781 (0.377) <sup>c</sup>		-0.965 (0.416) <sup>b</sup>
Democracy	0.011 (0.027)	0.025 (0.029)	0.020 (0.024)	0.030 (0.026)
Civil society strength			-0.010 (0.004) <sup>b</sup>	-0.010 (0.006) <sup>a</sup>
Population			0.419 (0.119) <sup>c</sup>	0.422 (0.103) <sup>c</sup>
Major power			-0.617 (0.459)	-0.650 (0.540)
Constant (count)	-0.768 (0.395) <sup>a</sup>	-0.575 (0.391)	-5.243 (1.151) <sup>c</sup>	-5.129 (1.049) <sup>c</sup>
<b>Inflation Equation</b>				
Bureaucratic quality	0.166 (0.230)	0.115 (0.233)	0.387 (0.258)	0.309 (0.267)
Saliency—income	-0.232 (0.257)		-0.352 (0.311)	
Saliency—AOSIS membership		0.746 (0.629)		0.908 (0.711)
Democracy	-0.086 (0.037) <sup>b</sup>	-0.086 (0.038) <sup>b</sup>	-0.083 (0.041) <sup>b</sup>	-0.089 (0.040) <sup>b</sup>
Civil society strength			-0.019 (0.024)	-0.009 (0.025)
Population			0.042 (0.154)	0.092 (0.145)
Major power			-1.092 (0.679)	-0.984 (0.831)
Years	2.254 (0.297) <sup>c</sup>	2.228 (0.268) <sup>c</sup>	2.106 (0.411) <sup>c</sup>	2.208 (0.307) <sup>c</sup>
Spline 1	0.015 (0.015)	0.017 (0.016)	0.013 (0.017)	0.016 (0.018)
Spline 2	0.201 (0.050) <sup>c</sup>	0.209 (0.050) <sup>c</sup>	0.192 (0.059) <sup>c</sup>	0.210 (0.054) <sup>c</sup>
Spline 3	-0.154 (0.073) <sup>b</sup>	-0.165 (0.075) <sup>b</sup>	-0.146 (0.082) <sup>a</sup>	-0.162 (0.081) <sup>b</sup>
Constant (inflation)	-2.769 (0.772) <sup>c</sup>	-2.520 (0.697) <sup>c</sup>	-3.402 (1.482) <sup>b</sup>	-3.820 (1.593) <sup>b</sup>
Obs	1240	1218	1221	1199
Log pseudo likelihood	-1241.299	-1214.664	-1190.025	-1168.779
Wald $\chi^2$	40.68 <sup>c</sup>	50.60 <sup>c</sup>	72.20 <sup>c</sup>	55.63 <sup>c</sup>

Zero-inflated negative binomial regression. Standard errors in parentheses and clustered on country

<sup>a</sup> significant at 0.1 level, <sup>b</sup> at 0.05 level, <sup>c</sup> at 0.01 level (two-tailed)

NGOs and business lobbying groups. However, it seems plausible that it is worth extending the original information provision theory by making this distinction (e.g., Gulbrandsen 2008: 100; Bernhagen 2012: 3, 16; see also Sell and Prakash 2004). For example, Keck and Sikkink (1998: 2) contrast business lobbying groups with other advocacy organizations in that the latter ‘are motivated by values rather than material concerns.’<sup>22</sup> Accordingly, in this section I disaggregate civil society participation along these two crucially different and mutually exclusive non-governmental types: NGOs and business lobbying organizations.

In more detail, I theoretically justify this approach along the following lines. First, governments may be more likely to seek information from and give access to like-minded civil society groups. For instance, Hall and Deardorff (2006: 76) study lobbying efforts in the U.S. Congress and conclude that ‘legislators will be lobbied by like-minded public interest groups,’ precisely due to the reason that their information provision helps in re-assessing and confirming own policy positions or re-election efforts. From a different perspective, i.e., the supply side, this is also in the interest of civil society groups as they compete for access (Gulbrandsen 2008; Sell and Prakash 2004: 145f), while preferring to lobby their allies (e.g., Brownars and Lott 1997; Albin 1999: 377; Baumgartner and Leech 2001; Bloodgood 2011: 100). If subscribing to this argument, ‘environmental-friendly’ states are more likely to seek information from and grant access to NGOs, while laggard states in the UNFCCC may be more sympathetic toward business lobbying groups. This is in line with what Gulbrandsen (2008: 102) calls the ‘political-institutional approach.’ According to this, we would expect more stringent environmental regulations by a country ‘in which environmental stakeholders had wider access to the science-policy dialogue.’ Hence, Gulbrandsen (2008: 102) calls for the examination of a ‘broad range’ of interest groups and stakeholders in order to achieve a more thorough understanding.

Second, however, this reasoning relies on the assumption that business lobbying groups generally prefer less environmental regulation over stricter rules. While it may be that ‘stronger’ environmental laws in general and deeper commitments in the UNFCCC in particular create opportunities for business, Bernhagen (2008: 83) points out that ‘such cases are rather rare.’ According to Dryzek (2000: 142), ‘policies that damage business profitability—or are even perceived as likely to damage that profitability—are automatically punished by the recoil of the market.’ Hence, business lobbying groups indeed prefer less environmental regulation and, in fact, they ‘attempt to wield political influence by affecting policy-makers’ beliefs about the consequences of policy’ (Bernhagen 2008: 85; see also Sell and Prakash 2004: 150).<sup>23</sup>

To recap, it seems plausible to further disaggregate the preceding analyses along different kinds of civil society actors, since these represent diverse interests and preferences both at the demand and supply side. If lumped together, the proclaimed effects may cancel each other out, leading to biased

<sup>22</sup> Similarly, Sell and Prakash (2004: 168) state that ‘firms are a category of institutions that seek to generate (perhaps even maximize) profits and in which shareholders are the ultimate claimants of this residual. On the other hand, NGOs do not seek to generate such residuals.’

<sup>23</sup> Ultimately, business lobbying organizations may even exaggerate predictions and information about the costs of UNFCCC regulations exclusively to obtain access to state delegations (see Bernhagen 2008: 86).

estimates and the false conclusion that the information provision rationale does not apply for states' delegations and civil society participation therein at the UNFCCC. Therefore, I now disaggregate the data described above in order to create two new count variables. While the first item counts the number of ENGOs in a state's UNFCCC negotiation delegation, the second counts the number of business lobbying groups therein. These different kinds of non-governmental organizations were identified by the mission statement and/or by stated interests of each organization.<sup>24</sup> Based upon these new measures, I re-estimate the core models (Models 7–8) again. Given the theoretical rationale in this section, I expect that issue salience and democracy have a positive impact on the number of ENGOs in their delegation (and a negative effect on the count of business lobbying groups) if the information provision holds for the UNFCCC, while the sign for the bureaucratic quality measure is somewhat unclear: both high-quality and low-quality bureaucracies (and their governments) could be sympathetic toward either kind of civil society organization. It, thus, remains an empirical question that has to be addressed. The results are summarized in Table 5.

Two findings evolve as particularly striking. First, the coefficients, their size, and their significance levels in Models 9–10 are virtually identical to Table 4. Second, however, most variables and actually all core explanatory items lose their predictive power in Models 11–12, i.e., those estimations that solely focus on business lobbying groups. In other words, this additional analysis provides further support that we must reject the rationale of the information provision argument for the inclusion of ENGOs in states' delegations at the UNFCCC. That being said, my findings remain inconclusive in terms of those civil society groups that represent business interests. The information provision logic then may or may not work for these types of civil society organizations within the UNFCCC for states' negotiation delegations. Either way, nevertheless, it seems more likely, even when employing a disaggregated analysis of civil society group type, that alternative mechanisms are at work when studying countries' behavior toward civil society actors in their delegations at the climate change regime. I will address these in the following section.

## 6 Conclusion

The previous literature *inter alia* argues that civil society's provision of knowledge and information can create incentives for states to grant these actors access to international environmental negotiations. A theoretical framework has been presented that disaggregates the information provision rationale from a state perspective along the bureaucratic quality of a country, the salience of the negotiation issue, and regime type. In one of the first quantitative studies to examine this, I then analyzed newly collected data on state delegations in the UNFCCC from 1995 to 2004.

<sup>24</sup> Generally, this information could be retrieved from the respective website of each organization. The exact coding rules can be found in the [online appendix](#). If it remained unclear whether a civil society group was either 'pro-environment' or represented business interests, it was dropped from the data, however.

**Table 5** Environment vs. business lobbying groups in UNFCCC national delegations, 1995–2004

	Model 9 (Environment)	Model 10 (Environment)	Model 11 (Business)	Model 12 (Business)
<b>Count Equation</b>				
Bureaucratic quality	0.602 (0.123) <sup>c</sup>	0.551 (0.141) <sup>c</sup>	0.373 (0.533)	0.381 (0.531)
Salience—income	0.409 (0.091) <sup>c</sup>		0.199 (0.202)	
Salience—AOSIS membership		-0.829 (0.338) <sup>b</sup>		-2.521 (2.400)
Democracy	-0.006 (0.019)	0.002 (0.019)	0.045 (0.058)	0.046 (0.065)
Civil society strength	-0.010 (0.004) <sup>c</sup>	-0.009 (0.010)	-0.017 (0.011)	-0.020 (0.011) <sup>a</sup>
Population	0.360 (0.096) <sup>c</sup>	0.403 (0.083) <sup>c</sup>	0.532 (0.351)	0.522 (0.364)
Major power	-0.320 (0.461)	-0.766 (0.434) <sup>a</sup>	-0.223 (1.314)	0.217 (1.118)
Constant (count)	-5.058 (0.975) <sup>c</sup>	-5.265 (0.885) <sup>c</sup>	-6.198 (5.141)	-6.049 (5.433)
<b>Inflation Equation</b>				
Bureaucratic quality	0.492 (0.266) <sup>a</sup>	0.361 (0.406)	0.033 (0.814)	0.039 (0.813)
Salience—income	-0.161 (0.376)		-0.352 (0.251)	
Salience—AOSIS membership		0.711 (0.621)		-1.188 (3.175)
Democracy	-0.108 (0.044) <sup>b</sup>	-0.106 (0.040) <sup>c</sup>	-0.068 (0.055)	-0.077 (0.069)
Civil society strength	-0.022 (0.021)	-0.005 (0.056)	-0.060 (0.046)	-0.071 (0.079)
Population	-0.051 (0.146)	0.059 (0.162)	0.287 (0.562)	0.308 (0.633)
Major power	-0.913 (0.684)	-1.281 (0.727) <sup>a</sup>	2.465 (1.517)	1.710 (1.547)
Years	2.291 (0.505) <sup>c</sup>	2.141 (0.406) <sup>c</sup>	1.451 (0.476) <sup>c</sup>	1.591 (0.470) <sup>c</sup>
Spline 1	0.020 (0.018)	0.022 (0.018)	-0.120 (0.193)	-0.108 (0.158)
Spline 2	0.213 (0.068) <sup>c</sup>	0.210 (0.066) <sup>c</sup>	0.081 (0.116)	0.108 (0.121)
Spline 3	-0.179 (0.089) <sup>b</sup>	-0.182 (0.089) <sup>b</sup>	0.253 (0.523)	0.209 (0.467)
Constant (inflation)	-3.085 (1.433) <sup>b</sup>	-3.514 (2.037) <sup>a</sup>	-1.408 (1.738)	-1.517 (8.373)
Obs	1217	1195	1217	1195
Log pseudo likelihood	-994.704	-977.327	-500.625	-495.113
Wald $\chi^2$	85.34 <sup>c</sup>	67.50 <sup>c</sup>	19.65 <sup>c</sup>	33.18 <sup>c</sup>

Zero-inflated negative binomial regression. Standard errors in parentheses and clustered on country

<sup>a</sup> significant at 0.1 level, <sup>b</sup> at 0.05 level, <sup>c</sup> at 0.01 level (two-tailed)

The results indicate that the information provision mechanism is unlikely to apply in the case of UNFCCC state delegations: the consideration of civil society inclusion does not appear to be rational searches for maximally effective information that will help delegations achieve desirable negotiation outcomes. In fact, states that are most likely to consider civil society actors for their delegations are those that can rely on a high-quality bureaucracy and do not perceive an issue as salient, and thus are least in need of expertise and information provision. In terms of democracies, although Tables 2 and 3 seemed to initially support the information provision claim for the UNFCCC context, the results from the zero-inflated negative binomial regression highly question its validity and actually point to alternative explanations. An additional analysis that distinguished between ENGOs and business lobbying groups in states' UNFCCC delegations did not question this conclusion.

More specifically, it appears more reasonable that democracies will consider civil society participation, since they are used to consulting with organized non-governmental groups at a domestic level anyway (see Bernauer et al. 2013). At an international level, democracies simply follow this principle. Similarly, democracies might want to include non-state actors in their negotiation delegations to fend off civil society criticism and to increase their ability to 'sell' international negotiation outcomes to domestic audiences (see, e.g., Stasavage 2004). Also, civil society actors can enhance political responsiveness and democratic accountability (Fox and Brown 1998) by signaling to domestic audiences that states credibly commit to climate change commitments (Vabulas 2011; Grigorescu 2007; see also Simmons and Danner 2010). Although there is increasingly the perception that international politics suffer from a democratic deficit (see, e.g., Nye 2001; Steffek and Nanz 2007), the interests of the public may then be aggregated and expressed through civil society actors which, in turn, safeguards public freedom (Clark et al. 1998: 2; Fox and Brown 1998; see Gulbrandsen and Andresen 2004: 59f; Oberthür et al. 2002: 134). As a result, organized civil society has the potential to function as a 'transmission belt' between domestic citizenry and the institutions of global governance (Steffek and Nanz 2007: 3). However, both of these alternative explanations are unrelated to civil society's potential provision of information, but rather with a symbolic recognition of non-state actors, undertaken mostly out of principle or in order to increase the (perceived) level of legitimacy and commitment. Arguably, the shortcoming of my approach lies in the fact that I cannot confirm the applicability of these alternative approaches with certainty, although I can reject the validity of the information provision rationale in my context. That being said, my setup could constitute a 'most-likely case:' global environmental governance and particularly the UNFCCC are cases where the involvement of civil society has been strongly pronounced and may, thus, have long featured a very high level of civil society participation (Newell 2000; see also Dryzek 2012: 105). Since I did not obtain empirical support for the information provision rationale in the context of UNFCCC delegations, it may be unlikely that this can be applied generally. Evidently, however, this conclusion remains subject to a more thorough empirical analysis than that I could present here.

With regard to bureaucratic quality, a potential explanation might be that states with a low-quality bureaucracy even lack the capacity to identify, address, and attract non-governmental actors for their delegations. Countries with weak and low-quality bureaucracies often have very few resources and/or are unwilling to spend much of what

resources they do have on civil society actors. Since adding civil society actors to a delegation typically means at least paying for their expenses, the information provision rationale cannot explain why such a country would want or be able to pay for civil society participants any more than additional governmental delegates. Ultimately, these kinds of states have a lower propensity to include civil society in their delegations.

Finally, and in terms of the salience of a negotiation issue, my results mirror previous comparative research (e.g., Stasavage 2004) arguing that states might be reluctant to engage with civil society when the stakes are particularly high in an issue area, since there are sovereignty costs involved in sharing sensitive and strategic information with non-state actors, and more participation may decrease rather than enhance the likelihood of successful bargaining outcomes. All these alternatives seem indeed plausible explanations for the findings presented here. However, and as indicated, the research design does not allow for a direct observation of these mechanisms behind the postulated relationships. Therefore, future research might want to study more thoroughly whether these rationales actually apply either in the context of states' delegations at the UNFCCC or other international institutions.

Against this background, the main contribution of this paper has been to theoretically unfold the information provision mechanism and empirically test its validity in the case of civil society participation in states' UNFCCC negotiation delegations. That being said, many important questions remain, four of which are briefly outlined here. First, as stated, further research could address the proposed alternative explanations. Especially research areas such as theories on collective action and its related problems might prove to be useful here.

Second, this article also introduced new data on countries' delegation compositions in the UNFCCC regime. Future research might seek to move ahead through compiling new data on other regimes as the UNFCCC addresses a relatively specific field of international law. Previous work has shown that participatory arrangements are scarce in the fields of finance and security issues, for example, but these are different from environmental politics or the UNFCCC in particular. This also would give rise to the expectation that openness depends not only on issue salience but also on the costs of losing secrecy that is supposedly higher in negotiations on trade, finance, or security matters.

Third, the data employed in this paper also examined *which kind* of civil society actors participate in state delegations. However, it remains unclear *why* it is so, since my approach could only reject the validity of the information provision rationale in my context for either ENGOs or business representatives. The data presented in this work may be useful for addressing these and other related questions.

Finally, I examined the validity of the information provision argument in the context of states' UNFCCC delegations from the demand side, i.e., a state perspective. The underlying assumptions behind this treatment are that civil society actors are constantly able to provide information and expertise as well as are also willing to participate in delegations (i.e., seek high-level access to official actors). While this seems plausible and is likely to hold true on average (see, e.g., Albin 1999; Betsill and Corell 2001; Hall and Deardorff 2006; Bernhagen 2008; Gulbrandsen 2008; Vabulas 2011), exceptions might exist. For example, not all civil society groups have an equal amount of resources for conducting scientific research and providing information to states; also, some civil society organizations, e.g., Greenpeace, are reluctant to give up their independent status by being part of state delegations (see

Keck and Sikkink 1998: 31; Sell and Prakash 2004: 148, 169; Vabulas 2011: 10) and it seems unlikely that non-governmental groups with starkly different preferences want to be represented on state delegations (see Crawford and Sobel 1982; Lohmann 1995). In other words, while this research's focus on the demand side was able to increase our understanding of states' willingness to include civil society in their delegations at the UNFCCC, it may be worth examining the supply side, i.e., civil society characteristics and incentives as well and more thoroughly than it was possible in this study. Accordingly, Risse-Kappen (1995) highlights the importance of internal characteristics such as resources, strategies, and leadership skills in relation to structural factors, e.g., domestic structures and transnational institutions, in influencing the policy impact of civil society groups (see also Albin 1999: 382f; Sell and Prakash 2004: 169; Stroup and Murdie 2013). Due to the current lack of data covering a broad set of actors and years on this, however, more data collection efforts seem necessary to address this issue more effectively (see, e.g., Bernhagen 2012: 16).

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