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The Reconfiguration of Authority in Global Climate Policy-Making:

*The Interplay between Bottom-Up Governance Arrangements and the
International Climate Regime*

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Abstract

In recent years, different authors have observed major shifts in the location of authority in global climate policy-making. They argue that the growing importance of non-nation-state actors in the issue area of climate change has generated a relocation of authority from state-centric multilateral treaty-making towards new modes of governance which form the basis for the global response to climate change. Many of these authors claim that multilateral treaty-making has lost much of its spark and highlight the emergence of alternative climate initiatives, ranging from *business self-regulation* over *private certification schemes* to *transnational city networks*. Scholars have conducted several case studies on these newly emerging climate governance arrangements and conceive them as new “spheres of authority” in global climate policy-making. In particular, they contend that existing modes of interstate cooperation and the authority of the international climate regime are challenged by the emergence of bottom-up climate governance arrangements. However, only little attempt has been made to thoroughly analyze the interplay between the numerous climate initiatives and the intergovernmental level. Therefore, this paper aims to address this research gap. Building upon the concept of authority, it explores the interrelationship between three different bottom-up climate governance arrangements and the international climate regime. The empirical findings presented in this paper suggest that the development of bottom-up climate governance arrangements does not lead to a loss of authority at the expense of intergovernmental decision-making in the issue area of climate change. On the contrary, many bottom-up climate governance arrangements use the international climate regime as point of reference and have adopted various rules and procedures from international agreements. Thus, this paper emphasizes the centrality of the international climate regime and demonstrates that multilateral treaty-making continues to be more important than many scholars and policymakers suppose.

1 Introduction

Over the past few years, several authors have pointed to the increasingly salient role played by actors other than the nation-state in various issue areas of global policy-making (e.g. Hewson and Sinclair 1999; Higgott, Underhill and Bieler 2000; Kahler and Lake 2003; Grande and Pauly 2005; Risse 2011). These scholars contend that *non-nation-state actors*¹ perform several functions that formerly rested solely with national governments and international institutions. This development seems to be particularly prevalent in the issue area of climate change. Due to the stalemate in the international climate negotiations, numerous alternative climate initiatives have been launched which range from *transnational city networks*, over *private certification schemes* to *business self-regulation*. A number of authors have recently argued that the emergence of these initiatives has generated a shift from state-centric multilateral treaty-making towards new modes of governance which form the basis for the global response to climate change (e.g. Bäckstrand 2008; Pattberg and Stripple 2008; Andonova, Betsill and Bulkeley 2009; Bernstein et al. 2010; Hoffmann 2011). While these scholars have conducted several case studies on the emergence of various bottom-up climate governance arrangements, only little systematic research has been carried out to explore their interrelationship with the intergovernmental level. Therefore, this paper focuses on the question *how the various newly emerging bottom-up climate governance arrangements relate to the international climate regime*. The empirical analysis in this paper builds upon three conceptual assumptions about the interrelationship between bottom-up governance arrangements and the intergovernmental level: (i) a *conflictive relationship*, (ii) a *complementary relationship* and (iii) a *dependency relationship*. These three conjectured relationships will guide the empirical analysis in this paper.

In the following sections, I first sketch the state of the art on contemporary global climate policy-making. Then, I review different theoretical approaches to the concept of authority in world politics. After that, I turn to the empirical analysis and explore the interplay between three different bottom-up governance arrangements and the international climate regime. Finally, I compare the empirical findings of the three cases, draw conclusions about the concept of authority in global (climate) policy-making and point to factors that merit attention in future research.

¹ In this paper, the term 'non-nation-state actors' refers to actors which are not part of the central government. Hence, the term embraces a wide range of different actors, including, for instance, sub-national governments, advocacy groups, non-profit organizations, business associations and individual corporations.

2 Institutional Complexity in the Issue Area of Climate Change

For many years, scholars and policy-makers considered multilateral treaty-making as the central political instrument to address the problem of climate change. Hence, after the development of significant scientific evidence that the earth was warming due to an increasing atmospheric GHG concentration in the late 1980s, much effort was put into the creation of an international climate regime.² However, in the past few years, the intergovernmental level has come under critical scrutiny. Numerous scholars and policy-makers have expressed their disappointment about the modest accomplishments achieved at the annual international climate conferences since the adoption of the Kyoto Protocol in 1997. The greatest frustration among environmentalists has probably been caused by the outcome of the 2009 *United Nations Climate Change Conference* in Copenhagen. Despite long and tedious preparations over several years and the participation of more than 120 heads of state or government, the meeting did not produce a legally binding replacement for the Kyoto Protocol as expected (or at least hoped for) by thousands of activists in and around the conference center. Instead of a breakthrough compromise, the attending national representatives could only agree upon the so-called *Copenhagen Accord* (UNFCCC 2009). This document has been described as "a political agreement that fails to go significantly beyond the original UNFCCC and that is fearfully inadequate for meeting the challenge of climate change" (Hoffmann 2011: 16). At subsequent conferences, several developing countries and emerging economies have, moreover, refused to enter into binding commitments to limit their GHG emissions, whereas a number of industrialized countries did not sign up for the second commitment period of the Kyoto Protocol. Therefore, scholars have become increasingly concerned about the lack of progress in the international climate regime (e.g. Yamin and Depledge 2004; Depledge 2006; Falkner, Stephan and Vogler 2010). Some scholars have even questioned whether multilateral treaty-making was still necessary for the resolution of the problem of climate change (e.g. Bulkeley and Newell 2010; Hoffmann 2011; Victor 2011).

Given the difficulties among national governments to agree on effective measures to cope with climate change, a variety of climate governance arrangements has emerged in the past few years, representing different ways to respond to the problem of climate change. These initiatives include both top-down and bottom-up governance arrangements. Top-down arrangements can be regarded as traditional approaches to solving global problems by

² According to the classical definition by Stephen Krasner, international regimes can be understood as "sets of implicit and explicit principles, norms, rules and decision-making procedures around which actors' expectations converge in a given area of international relations" (1982: 186).

international negotiations, which aim to shape the behavior of individual countries through legally binding multilateral agreements. These arrangements are created at the intergovernmental level by nation-states and focus on the implementation of measures within domestic settings. Examples of such arrangements are the *Clean Development Mechanism* (CDM), the United Nations collaborative program on *Reducing Emissions from Deforestation and Forest Degradation* (REDD) or the *Green Climate Fund* (GCF). Bottom-up arrangements, by contrast, do not focus on the adoption of a multilateral treaty. Apparently, these arrangements are only loosely connected to the intergovernmental process under the *United Nations Framework Convention on Climate Change* (UNFCCC). They have been initiated by a variety of non-nation-state actors, including cities, provinces, civil society groups, environmental organizations and business associations, which have different interests, goals and motivations. Prominent examples of such arrangements are the numerous climate partnerships and transnational climate networks (e.g. Bäckstrand 2008; Andonova 2010; Pattberg 2012).

The emergence of this great variety of climate governance arrangements has led to a significant increase in the institutional complexity of global climate policy-making. Recently, this phenomenon has attracted the attention of a number of authors. These scholars have developed different concepts to capture the institutional setting in the issue area of climate change. Biermann et al., for instance, have introduced a typology to distinguish between different degrees of fragmentation across the issue areas of world politics (2009). Based on this typology, they describe the area of climate change as a highly "fragmented governance architecture" (Biermann et al. 2010: 15). In a similar vein, Keohane and Victor argue that the various institutional arrangements aimed at regulating climate change can be characterized as "a regime complex rather than a comprehensive, integrated regime" (2011: 7). All of these scholars state that institutional complexity is an ubiquitous phenomenon in global policy-making which appears to be particularly pervasive in the issue area of climate change (e.g. Zelli 2011). Other scholars dealing with the same phenomenon in other issue areas use related terms, such as "regime complexity" (Alter and Meunier 2009), "clusters" (Gehring and Oberthür 2006) or "multi-level governance" (Hooghe and Marks 2003).

While most scholars agree that global climate policy-making is characterized by a high degree of institutional complexity, they are divided on the question whether top-down or bottom-up initiatives are better suited to address the problem of climate change. In general, two different groups of scholars can be distinguished. The first group builds upon insights from regime analysis (e.g. Young 1999; Helm and Sprinz 2000; Breitmeier, Young and Zürn 2006) and

focuses on climate diplomacy or centralized approaches to solve the problem of climate change (e.g. Falkner, Stephan and Vogler 2010; Keohane and Victor 2011; Kjellén 2011). Although these scholars concede that the intergovernmental process has lost much of its spark, they seek to re-conceptualize the tools and strategies of traditional state-based forms of problem-solving in order to render the international climate regime more effective. The second group of scholars emphasizes newly emerging modes of governance that are characterized by multi-actor involvement and multi-level regulation with less hierarchical forms of steering (e.g. Jagers and Strippel 2003; Betsill and Bulkeley 2006; Bäckstrand 2008; Pattberg and Strippel 2008; Andonova, Betsill and Bulkeley 2009; Bulkeley and Newell 2010; Hoffmann 2011). This group of scholars is continuously growing and has gained wide influence in research focused on global environmental politics and other issue areas within the past few years. Building on the work by James Rosenau (e.g. 1992, 1997, 2007), these authors point to authority structures beyond the intergovernmental level and argue that the emergence of bottom-up climate governance arrangements has led to a shift of authority from nation-states and international institutions towards non-nation-state actors across multiple levels of decision-making. Thus, these scholars challenge classical approaches to international politics and, in particular, traditional concepts of authority in global policy-making. Taking up this thread, the following section discusses the term authority and reviews different theoretical approaches to the concept of authority in world politics.

3 The Concept of Authority in Global Climate Policy-Making

Authority is a central though very contested concept in the literature. Scholars from different academic disciplines and theoretical backgrounds have developed diverging understandings of the term authority.³ Despite the conceptual differences, however, (at least) three interrelated characteristics are largely accepted by many authors as key features of authority. First, most scholars draw a distinction between authority and power. While there are several similarities between these concepts, the decisive difference between authority and power is that authority does not rely on the exercise of coercion (e.g. Peters 1967: 92-94). Hence, "authority involves a unique type of noncoercive command" (Lake 2003: 304). Second and in consequence, authority depends on voluntary obedience. The concept of authority entails the voluntary acceptance by an actor of certain decisions made by another (e.g. Katsikas 2010). The motive

³ For a comprehensive overview about different academic accounts on authority, see Simmons (2002).

of an actor to conform to the rules and commands by another actor is his or her "respect for certain attributes which the other actor possesses, such as knowledge, experience, or official position" (Day 1963: 259). Third and again related to the previous characteristics, most scholars share the view that authority is inextricably linked to the concept of legitimacy. Authority must contain at least a certain measure of legitimacy and, most important, has to be viewed as legitimate by the people that are subject to it (e.g. Hurd 1999). In John Ruggie's words, authority "represents the fusion of power with legitimate purpose" (1982: 382). Thus, in general terms, authority can be understood as *legitimate decision-making and problem-solving capacity of an actor that is voluntarily accepted by another (in a particular issue area)*.

3.1 CLASSICAL APPROACHES TO THE CONCEPT OF AUTHORITY

According to the neo-realist approach to world politics, the basic structure of the international system is one of anarchy, defined as the absence of an overarching authority above the level of the nation-state (Waltz 1979). In this anarchical setting, nation-states are conceived as primary actors, which have to provide for their own security and do not recognize a higher authority above them. Neo-realist scholars acknowledge that globalization and the growing importance of non-nation-state actors have led to profound changes in world politics. Nevertheless, they contend that the nation-state remains the principal actor and the sole source of authority in the international system (Gilpin 1981; Skolnikoff 1993; Drezner 2007). Neo-liberal institutionalists share several basic assumptions about the nature of world politics with neo-realist scholars. They presume that nation-states are central actors in global policy-making, which pursue their self-interests in an anarchic international system. However, the main argument put forward by neo-liberal institutionalist scholars is that nation-states can achieve stable patterns of international cooperation by establishing international institutions, which guide the behavior of nation-states (Keohane 1984). Neo-liberal institutionalists further argue that international institutions may outweigh the absence of a central authority in particular issue areas, such as international environmental politics (Ostrom 1990; Haas, Keohane and Levy 1993; Young and Levy 1999). In other words, according to neo-liberal institutionalists, international institutions under certain conditions constrain the policies of sovereign nation-states and take on an authoritative function in global policy-making (e.g. Hurd 1999).

3.2 ALTERNATIVE APPROACHES TO THE CONCEPT OF AUTHORITY

In the past two decades, the two classical approaches to world politics described above have been criticized for various shortcomings. Different authors have questioned the appropriateness of these approaches for understanding contemporary global policy-making. Many of these authors argue that both the neo-realist and the neo-liberal institutionalist approach largely ignore the fundamental role played by non-nation-state actors in world politics. This view has most prominently been formulated by James Rosenau. Analyzing the various changes associated with globalization that have occurred in the past decades, Rosenau argues that a novel thinking about world politics is needed. In particular, he claims that the radical new developments in global affairs require an ontological shift in the discipline of international relations theory (Rosenau 1992). According to Rosenau, nation-states have in the past decades "lost some of their earlier dominance (...) as well as their ability to evoke compliance and to govern effectively" (1995: 39). While he acknowledges that nation-states are still important actors in world politics, Rosenau contends that "states and governments should be posited not as first among equals, but simply as significant actors in a world marked by an increasing diffusion of authority and a corresponding diminution of hierarchy" (1999: 292). Moreover, he suggests that "a fine line needs to be drawn between treating states as the only players on the global stage and as unimportant and aged players that have long since passed their prime" (Rosenau 1999: 292). Hence, the new ontology proposed by Rosenau builds on the premise that the nation-state constitutes only one of many 'spheres of authority' in world politics, which can be of formal or informal nature (1997, 1999, 2007).

In line with Rosenau's thinking, several other scholars have provided alternative approaches to world politics which challenge traditional state-centric perspectives on global affairs (e.g. Haufler 1995; Cutler, Haufler and Porter 1999; Hall and Biersteker 2002; Rittberger and Nettesheim 2008; Green 2010a). While these approaches differ in various ways, they are all based on the assumption that the nation-state is no longer the sole source of authority in world politics. Hence, they convey the idea that various actors can acquire and exercise authority in global policy-making in a way that goes beyond traditional forms of command and control. This does not mean that alternative approaches to the concept of authority regard nation-states as negligible actors. All scholars cited above concede that nation-states are (still) important actors in global affairs. However, they argue that nation-states and international institutions increasingly interact with non-nation-state actors to address trans-boundary problems. In particular, they emphasize that nation-states to a growing extent delegate policy functions to non-nation-state actors. And they point out that non-nation-state actors have taken on

functions that formerly rested solely with the nation-state and international institutions. According to these alternative approaches to the concept of authority, the old paradigm which locates authority exclusively with the nation-state and international institutions can, therefore, no longer be maintained in the study of contemporary world politics. Thus, an increasing number of scholars put forward the argument that authority structures beyond the realm of the nation-state have emerged, which increasingly challenge the traditional authority of the nation-state and existing modes of inter-state cooperation.

4 Bottom-Up Governance Arrangements and the International Climate Regime

As stated above, several authors have highlighted the emergence of a wide range of bottom-up governance arrangements particularly in the global response to climate change. Building upon alternative concepts of authority, some of these scholars argue that non-nation state actors operating in the issue area of climate change have acquired authoritative functions in global climate policy-making (e.g. Betsill and Bulkeley 2006; Bäckstrand 2008; Pattberg and Stripple 2008; Bulkeley 2010; Hoffmann 2011). According to this group of authors, the emergence of bottom-up climate governance arrangements has led to a shift of authority from state-centric intergovernmental decision-making towards bottom-up governance arrangements. In other words, these scholars claim that the problem of climate change can no longer be perceived as a matter that is exclusively addressed by national governments at diplomatic conferences. Instead, they emphasize that different non-nation-state actors to an increasing extent take on the role of “political authorities able to design and make rules themselves, rather than merely complying with the directives of nation-states or the result of cooperation among nation-states (treaties and intergovernmental organizations)” (Hoffmann 2011: 67). This scholarly perspective conveys the idea that bottom-up climate governance arrangements contribute to solving the problem of climate change independently from the decisions taken by nation-states and international institutions. Hence, these scholars state that the authority of the international climate regime is increasingly called into question by the emergence of bottom-up climate governance arrangements.

However, the relationship between the different bottom-up climate governance arrangements and the intergovernmental level has so far not been studied in much detail. While various case studies about newly emerging climate initiatives have certainly consolidated our understanding of the role played by transnational city networks, private certification schemes

or business self-regulation in the global response to climate change, only little systematic research has been carried out to analyze the interplay between the different bottom-up governance arrangements and the international climate regime. Therefore, this paper aims to move beyond the debate about the emergence of bottom-up climate governance arrangements and analyzes the wider implications associated with this development for global climate policy-making. In particular, the paper examines the interplay of one *sub-national* governance arrangement (i.e. the ICLEI network), one *non-profit* governance arrangement (i.e. the Gold Standard) and one *business* governance arrangement (i.e. the GHG Protocol) with the international climate regime.

4.1 ANALYTICAL FRAMEWORK

To carry out the empirical analysis, I formulate three conceptual assumptions about the interrelationship between the different bottom-up climate governance arrangements and the intergovernmental level. In addition, general implications are derived for each conceptual assumption which would be observable if the respective assumption was correct (King, Keohane and Verba 1994: 28-29). A first conceptual assumption portrays a *conflictive relationship* between bottom-up governance arrangements and the international climate regime. This perspective suggests that bottom-up governance arrangements *conflict* with existing modes of inter-state cooperation in the issue area of climate change. If this assumption was right, I would expect to observe that the specific bottom-up governance arrangement departs from key features of the international climate regime and propagates norms and rules that are opposed to those stipulated in international climate agreements. A second conceptual assumption portrays a *complementary relationship* between bottom-up governance arrangements and the international climate regime. This perspective suggests that bottom-up governance arrangements *complement* existing modes of inter-state cooperation in the issue area of climate change. If this conjecture was true, I would expect to see in the empirical case studies that the respective bottom-up governance arrangement builds on key features of the international climate regime and promotes the norms and rules set out in international climate agreements. And a third conceptual assumption portrays a *dependency relationship* between bottom-up governance arrangements and the international climate regime. This perspective suggests that bottom-up governance arrangements *depend* on existing modes of inter-state cooperation in the issue area of climate change. If this presumption was valid, I would expect to find that the effective operation of the particular

bottom-up governance arrangement largely relies on the nature and scope of the international norms and rules anchored in international climate agreements. In the empirical analysis, the boundaries between these three possible relationships might not always be clear-cut. Nevertheless, the three conceptual assumptions and general observable implications are used as conceptual tools to identify relevant empirical findings (see Table 1). In particular, three different methods of data collection were used for the analysis in this paper: (i) an extensive literature review of the three bottom-up climate governance arrangements (secondary source analysis), (ii) a systematic desk study of official documents, press releases and ‘grey literature’ published by the respective bottom-up climate governance arrangement (primary source analysis) and (iii) a series of interviews and expert talks with relevant stakeholders.

TABLE 1: CONCEPTUAL ASSUMPTIONS AND GENERAL OBSERVABLE IMPLICATIONS FOR THE EMPIRICAL ANALYSIS

Bottom-Up Climate Governance Arrangements			
	<i>The ICLEI Network</i>	<i>The Gold Standard</i>	<i>The GHG Protocol</i>
<i>Conflictive Relationship</i>	<i>The ICLEI network propagates norms and rules opposed to the international climate regime</i>	<i>The Gold Standard propagates norms and rules opposed to the international climate regime</i>	<i>The GHG Protocol propagates norms and rules opposed to the international climate regime</i>
<i>Complementary Relationship</i>	<i>The ICLEI network promotes norms and rules set out in the international climate regime</i>	<i>The Gold Standard promotes norms and rules set out in the international climate regime</i>	<i>The GHG Protocol promotes norms and rules set out in the international climate regime</i>
<i>Dependency Relationship</i>	<i>Effective operation of the ICLEI network largely relies on norms and rules of the international climate regime</i>	<i>Effective operation of the Gold Standard largely relies on norms and rules of the international climate regime</i>	<i>Effective operation of the GHG Protocol largely relies on norms and rules of the international climate regime</i>

Own illustration

4.2 THE INTERPLAY OF THE ICLEI NETWORK AND THE CLIMATE REGIME

The ICLEI network was founded in 1990 with the aim to enhance local capacities to cope with environmental problems and to represent the environmental concerns of local governments at the global level (Betsill and Bulkeley 2004: 477). ICLEI asserts itself as “a powerful movement of 12 mega-cities, 100 super-cities and urban regions, 450 large cities as well as 450 small and medium-sized cities and towns in 84 countries” (ICLEI 2013a). While ICLEI’s agenda comprises a number of issues, ranging from biodiversity over eco-mobility to

resource-efficiency, most of its initiatives deal with climate change or have, at least, a close connection to climate change mitigation and adaptation measures (ICLEI 2013b).

The ICLEI network performs several functions in global climate policy-making which range from establishing concrete GHG emission reduction targets for local governments, over supporting local climate projects, to the actual reporting of local climate actions (ICLEI 2012b). The different projects launched by the ICLEI network have contributed to the implementation of the norms and rules stipulated in international climate agreements and can be conceived as complementary to the international climate regime. In particular, the ICLEI network has been influential in the development of local climate policies, which have led to quantifiable reductions of GHG emissions (e.g. Kousky and Schneider 2003; Betsill and Bulkeley 2007; Bulkeley et al. 2011). Interestingly, these GHG emission reductions were partly realized before an international regulatory framework came into force and have also been achieved in countries without binding GHG emission reduction obligations (e.g. Holgate 2007; Parker and Rowlands 2007; Romero Lankao 2007). Despite the fact that only minor GHG emission reductions have been achieved by ICLEI members, local governments can hence be perceived as pioneers in the global response to climate change.

However, the individual success stories of cities and municipalities in addressing climate change should not disguise the limited ability of most local governments to achieve significant GHG emission reductions. In particular and most relevant for the focus of this paper, it is clear that the ICLEI members depend on funds from their national governments and international institutions to implement climate projects in their communities (Bulkeley and Betsill 2003: 184; Kern and Bulkeley 2009: 324; van Staden and Klas 2010: 104). Local government representatives from different ICLEI members notice that they are highly dependent on financial flows from the central government to undertake climate projects at the local level in key sectors, such as energy management, public transportation and land use planning.⁴ In absence of an ambitious international climate agreement, national governments are not bound to climate change mitigation measures and national as well as international funding for local climate actions will remain uncertain and scarce. Consequentially, the ICLEI network has in the past few years focused its activities very much on raising the global level of ambition to reduce GHG emissions and pushed for a wide-ranging international climate agreement (e.g. ICLEI 2009, 2012a, 2012b). In particular, transnational city networks have

⁴ Personal interviews conducted on 6 December 2012 with Rodrigo Perpétuo, Belo Horizonte, Brazil; Sunil Pote, Thane Municipal Corporation, India; Yuko Nishida, Tokyo Metropolitan Government, Japan, during the 2012 Conference of the Parties held in Doha from 26 November to 7 December.

sought to enhance the ability of their constituents to access funds from global market-based instruments (ICLEI 2011). These findings suggest that the efforts undertaken by ICLEI members to address the problem of climate change at the local level are largely dependent on the existence of an international regulatory framework that obliges national governments and incentivizes private companies to reduce GHG emissions.

4.3 THE INTERPLAY OF THE GOLD STANDARD AND THE CLIMATE REGIME

The Gold Standard was established by the *World Wide Fund for Nature* and two partner organizations in 2003 to create a 'best practice' benchmark standard for the evaluation of climate change mitigation projects (The Gold Standard Foundation 2013). Basically, the Gold Standard aims to assure that the projects under its label meet certain environmental integrity criteria and deliver societal co-benefits in developing countries or emerging economies which host the projects (Andonova, Betsill and Bulkeley 2009: 65). This shall guarantee that the different project activities not only reduce or avoid GHG emissions but also promote sustainable development in developing countries or emerging economies. As of 2012, more than 750 carbon offset projects in over 60 countries had completed or were undergoing Gold Standard certification which account for approximately 65 million tonnes of avoided or removed CO₂e until 2015 (The Gold Standard Foundation 2012).

The Gold Standard has taken on different functions in global climate policy-making, including the development of guidelines for the evaluation of carbon offset projects under the *Clean Development Mechanism* and in the voluntary carbon market as well as the provision of input to the UNFCCC Secretariat (Bayon, Hawn and Hamilton 2007; Kollmuss et al. 2010). The different operational activities undertaken by the Gold Standard Foundation have contributed to the implementation of the norms and rules anchored in international climate agreements and can be conceived as complementary to the intergovernmental level. In particular, the Gold Standard assigns labels to those carbon offset projects which generate significant sustainable development benefits in the countries hosting the projects (Headon 2009; Sterk et al. 2009; Evans 2011). Interestingly, the evaluation criteria developed by the Gold Standard go beyond those established by nation-states in international climate agreements (Muller 2008; Nussbaumer 2009; Drupp 2011). This has led to the creation of innovative rules and procedures in the validation and verification processes employed in carbon offset markets. Hence, this private certification scheme can also be regarded as a pioneer in the global response to climate change.

However and most relevant for the focus of this paper, the demand for carbon offset projects under the Clean Development Mechanism that are certified by the Gold Standard depends decisively on the existence of a functioning market-based instrument to be agreed upon by nation-states at international climate conferences (Bumpus and Liverman 2008: 132). Due to the uncertainty about the continuation of the current compliance offset market, the Gold Standard has recently run into serious problems to achieve its self-defined objectives. Representatives of the Gold Standard Foundation stressed that they are in need of a larger umbrella under which they can do their work and that they rely on a regulatory scheme which generates a demand for carbon credits.⁵ Moreover, the Gold Standard for the voluntary market is largely modeled on the regulatory framework of the Clean Development Mechanism under the UNFCCC and employs many of the methodologies developed for the compliance offset market (Newell and Paterson 2010: 113; Stripple and Lövbrand 2010: 175-176). This indicates that the voluntary carbon market is closely coupled to the Clean Development Mechanism or can even be described as "acting in the shadow of the compliance market" (Lederer 2012: 533). For that reason, the Gold Standard has in recent years put much effort in improving the existing regulatory framework of the Clean Development Mechanism and pushed for the adoption of an efficient international market-based instrument (The Gold Standard Foundation 2011a, 2011b, 2012). These findings underscore that the operational activities carried out by the Gold Standard in carbon offset markets rely on international regulatory measures, particularly a reform or a redesign of the compliance offset market.

4.4 THE INTERPLAY OF THE GHG PROTOCOL AND THE CLIMATE REGIME

The GHG Protocol was jointly developed by the *World Business Council for Sustainable Development* and the *World Resources Institute* in 1998. The GHG Protocol claims to be "the most widely used international accounting tool for government and business leaders to understand, quantify, and manage greenhouse gas emissions" (The GHG Protocol 2013). The basic idea of the GHG Protocol is to support businesses and other organizations in their efforts to measure and report their climate-related impacts on the environment in order to create the necessary conditions for the reduction of GHG emissions across different business sectors (Andrew and Cortese 2011a: 134-136).

⁵ Personal interviews conducted on 5 December 2012 with Adrian Rimmer and Tanya Petersen, The Gold Standard Foundation, during the 2012 Conference of the Parties held in Doha from 26 November to 7 December.

The GHG Protocol assumes different functions in global climate policy-making, such as the provision of software and handbooks for corporate accounting and reporting, the organization of workshops to exchange experiences and the support in technical matters (Sundin and Ranganathan 2002: 138-140; Bayon, Hawn and Hamilton 2007: 118; Bulkeley and Newell 2010: 99). Through these means, the GHG Protocol aims to enable corporations to conduct an inventory of their GHG emissions and thereby achieve clarity about GHG risks and reduction opportunities (Sundin and Ranganathan 2002). The different instruments and guidelines provided by the GHG Protocol have contributed to the implementation of the norms and rules negotiated by nation-states and can be conceived as complementary to the international climate regime. In particular, the GHG Protocol has promoted the harmonization of accounting practices and strengthened the capacity of businesses to reduce their GHG emissions (Sundin and Ranganathan 2002; Green 2010b; Andrew and Cortese 2011b). Interestingly, several corporations from countries without GHG emission reduction obligations also use the instruments of the GHG Protocol to measure and report their GHG emissions (e.g. Green 2010b). Hence, the GHG Protocol can be seen as a pioneer in the global response to climate change.

However, similar to the two other bottom-up climate governance arrangements analyzed in this paper, the effective operation of the GHG Protocol depends essentially on the norms and rules of the international climate regime. According to different authors, corporations participate in voluntary accounting initiatives, such as the GHG Protocol, mainly for economic and strategic considerations (Andrew and Cortese 2011a: 134). Their key motivation for using the GHG Protocol is to gain competitive advantages and become first-movers in emissions trading or other market-based instruments for which an accurate inventory is required (Sundin and Ranganathan 2002: 142; Bulkeley and Newell 2010: 93; Green 2010b: 2). Staff members of the GHG Protocol contend that the large majority of corporations will only start accounting their GHG emissions if they anticipate the introduction of international regulatory measures.⁶ Moreover, they noticed that after the perceived failure of the Copenhagen Summit in 2009, several business self-regulation initiatives were abolished due to the lack of progress in the development of stringent international GHG emission controls. Hence, it can be argued that only if corporations expect that a legally binding international climate agreement is about to be adopted in the near to mid-term future, they will undertake measures to account their GHG emissions and prepare for their participation in

⁶ Personal interviews conducted on 2, 3 and 5 December 2012 with Peter Bakker and Thierry Berthoud, World Business Council for Sustainable Development; Beatriz Kiss, GHG Protocol Trainer; David Rich, World Resources Institute, during the 2012 Conference of the Parties held in Doha from 26. November to 7 December.

a market-based mechanism. Accordingly, the Managing Director of the GHG Protocol recently urged nation-states "to establish a long-term policy framework and clear price signals that align with the long-range investment horizons of the marketplace" (Berthoud 2012; see also World Business Council for Sustainable Development 2012). These findings indicate that the work of the GHG Protocol relies on signals from the intergovernmental level that legally binding GHG emission reduction obligations are (at least) possible in the years to come.

TABLE 2: THE INTERPLAY BETWEEN BOTTOM-UP GOVERNANCE ARRANGEMENTS AND THE INTERNATIONAL CLIMATE REGIME

		Bottom-Up Climate Governance Arrangement		
		<i>The ICLEI Network</i>	<i>The Gold Standard</i>	<i>The GHG Protocol</i>
Conceptual Assumptions	<i>Conflictive Relationship</i>	<i>No indication</i>	<i>No indication</i>	<i>No indication</i>
	<i>Complementary Relationship</i>	<p><i>The ICLEI network contributes to the implementation of norms and rules of the climate regime by developing local climate change policies which have led to quantifiable GHG emission reductions.</i></p> <p><i>These GHG emission reductions were partly realized before an international regulatory framework came into force and have also been achieved in countries without binding emission reduction obligations.</i></p>	<p><i>The Gold Standard contributes to the implementation of the norms and rules of the international climate regime by certifying carbon offset projects which deliver sustainable development benefits.</i></p> <p><i>Thereby, the criteria for sustainable development go beyond those established by nation-states in international climate agreements.</i></p>	<p><i>The GHG Protocol contributes to the implementation of the norms and rules of the international climate regime by accounting the GHG emissions from the business sector.</i></p> <p><i>Several corporations from countries that do not have GHG emission reduction obligations measure and track their emissions by using the GHG Protocol tools.</i></p>
	<i>Dependency Relationship</i>	<p><i>The ICLEI members largely rely on national funding to implement climate projects in their communities.</i></p> <p><i>In the absence of an ambitious international climate agreement, national funding for local climate actions will remain uncertain and scarce.</i></p> <p><i>Therefore, the activities of the ICLEI network are first and foremost oriented towards the intergovernmental level in order to raise the global level of ambition.</i></p>	<p><i>The demand for carbon offset projects under the CDM that are certified by the Gold Standard is dependent on an international regulatory framework.</i></p> <p><i>The Gold Standard for the voluntary carbon market is to a large extent modeled on the rules and procedures of the CDM.</i></p> <p><i>The Gold Standard Foundation aims to improve the CDM and actively pushes for new or reformed market-based instruments.</i></p>	<p><i>The effective operation of the GHG Protocol depends on signals from the intergovernmental level.</i></p> <p><i>Only if corporations expect that a legally binding international climate agreement is about to be adopted in the near future, they will undertake measures in order to gain competitive advantages.</i></p> <p><i>Representatives of the GHG Protocol have repeatedly called for clear international guidelines for the coming years.</i></p>

Own illustration

5 Conclusions

The discussion in the previous section underlined that bottom-up governance arrangements have adopted various functions in global climate policy-making. They range from the development of local climate policies, over the creation of guidelines for the evaluation of carbon offset projects, to the provision of instruments for corporate GHG inventories. The efforts taken by transnational city networks, private certification schemes and business self-regulation initiatives to address the problem of climate change contribute significantly to the implementation of norms and rules established at the intergovernmental level. The different bottom-up governance arrangements can be conceived as complementary to the international climate regime. Interestingly, the various initiatives launched by different non-nation-state actors go, in certain respects, beyond the norms and rules agreed upon at the intergovernmental level. Hence, non-nation-state actors can be conceptualized as pioneers in the global response to climate change. According to Matthew Hoffman, these initiatives can increase the confidence of national governments to adopt more ambitious GHG emission reduction commitments and develop "a broader catalytic impact on national and multilateral governance processes" (Hoffmann 2013: 9).

While this might be true, the analysis in this paper has also demonstrated that the effective operation of bottom-up climate governance arrangements is heavily dependent on the existence of an international regulatory framework established by nation-states at international climate conferences. Evidently, the different bottom-up governance arrangements have only limited operational capacities to tackle the problem of climate change *independently* from the intergovernmental level. All of the three bottom-up governance arrangements analyzed in this paper rely on the existence of international regulatory measures. Thus, unless a wide-ranging international climate agreement is adopted, bottom-up climate governance arrangements have arguably only limited scope for action to deal with the problem of climate change. While these findings cannot easily be generalized, they can be approached as illustrative examples of the interplay between bottom-up governance arrangements and the international climate regime. The findings drawn from this paper are in line with more general observations made by other authors (e.g. Kern and Bulkeley 2009; Bulkeley and Newell 2010; Stripple and Lövbrand 2010; Lederer 2012; Green 2013). These authors have described bottom-up governance arrangements as important instruments in the global response to climate change, but contend that the efforts made by non-nation-state actors to tackle climate change need to be bolstered by a top-down regulatory framework established at higher levels of government.

Put in theoretical terms, it can be argued that bottom-up governance arrangements perform various authoritative functions that formerly rested solely with national governments and international institutions. This development is representative of the multilevel nature of global climate policy-making. Indeed, it is clear that to achieve tangible GHG emission reductions, the involvement of all levels of policy-making is required. Nevertheless and most important for the focus of this paper, the development of bottom-up climate governance arrangements does not imply a weakening of the international climate regime. In other words, the emergence of transnational city networks, private certification schemes and business self-regulation initiatives in the issue area of climate change does not automatically lead to a loss of authority at the expense of the intergovernmental level. Instead, what can be observed in global climate policy-making is a *reconfiguration of authority* which may (even) reinforce the importance of the intergovernmental level. In fact, the analysis in this paper suggests that the authority of the international climate regime has been considerably strengthened through the activities undertaken by non-nation-state actors. The principles, norms, rules and decision-making procedures agreed upon by nation-states have a significant and often overlooked impact on local, non-profit and business initiatives.

This conclusion points to the need of a more nuanced perspective on the concept of authority in world politics. Alternative approaches to the concept of authority are certainly right when they argue that non-nation-state actors, to an increasing extent, acquire decision-making and problem-solving capacities which are voluntarily accepted by other actors. However, classical approaches to the concept of authority also have a point with their objection that despite the emergence of bottom-up governance arrangements, the nation-state and international institutions remain central locations of global (climate) policy-making. While the emergence of bottom-up governance arrangements epitomizes the multilevel nature of world politics, the analysis of their interplay with the intergovernmental level underscores the centrality of the international climate regime. Thus, the empirical evidence in this paper suggests that intergovernmental treaty-making continues to be more important than many scholars and policy-makers suppose.

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