



# Fragmentation of Global Governance Architectures

## The Case of Climate Policy

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## Abstract

Most research on global governance has focused either on theoretical accounts of the overall phenomenon, or on empirical studies of distinct institutions that serve to solve particular governance challenges. In this paper we focus instead on the overall “governance architecture,” which we define as the overarching system of public and private institutions, principles, norms, regulations, decision-making procedures and organizations that are valid or active in a given issue area of world politics. Within this larger context, we analyze one aspect that is turning into a major source of concern for observers and policy-makers alike: the increasing “fragmentation” of governance architectures in important policy domains. Increasing fragmentation is prevalent in particular in the current governance of climate change, which we have hence chosen as empirical illustration for our discussion. The paper offers a first typology of different degrees of fragmentation, which we describe as integrative, cooperative and conflictive fragmentation. Based on this, we assess major scholarly literatures relevant in this debate—namely cooperation theory, environmental policy theory, and international law—and argue that all literatures offer conflicting statements regarding the relative advantages and disadvantages of fragmentation. While we conclude that on balance, fragmentation of global governance architectures brings more harm than positive effects, and that it can generally be seen as a major burden on the overall performance of the system, we also argue that different types of fragmentation have different degrees of performance, and that “integrative fragmentation” might be a realistic second-best option in a world of diversity and difference in which purely universal governance architectures are more a theoretical postulate than a real-life possibility. In the final section, we outline a number of political and institutional strategies to deal with fragmentation of governance architectures.

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## Foreword

This working paper was written as part of the Global Governance Project, a joint research programme of eleven European research institutions that seeks to advance understanding of the new actors, institutions and mechanisms of global governance. While we address the phenomenon of global governance in general, most of our research projects focus on global environmental change and governance for sustainable development. The Project is co-ordinated by the Department of Environmental Policy Analysis of the Institute for Environmental Studies at the Vrije Universiteit Amsterdam and includes associate faculty members and research fellows from eleven European institutions: Science Po Bordeaux, Bremen University, Freie Universität Berlin (Environmental Policy Research Centre), The Fridtjof Nansen Institute Oslo, London School of Economics and Political Science, Lund University, Oldenburg University, Potsdam Institute for Climate Impact Research, Vrije Universiteit Amsterdam, Vrije Universiteit Brussel (Institute for European Studies) and Wageningen University (Environmental Policy Group).

Analytically, we define global governance by three criteria, which also shape the research groups within the Project. First, we see global governance as characterised by the increasing participation of actors other than states, ranging from private actors such as multinational corporations and (networks of) scientists and environmentalists to public non-state actors such as intergovernmental organisations ('multiactor governance'). These new actors of global governance are the focus of our research group MANUS—Managers of Global Change.

Second, we see global governance as marked by new mechanisms of organisation such as public-private and private-private rule-making and implementation partnerships, alongside the traditional system of legal treaties negotiated by states. This is the focus of our research group MECGLO—New Mechanisms of Global Governance.

Third, we see global governance as characterised by different layers and clusters of rule-making and rule-implementation, both vertically between supranational, international, national and subnational layers of authority ('multilevel governance') and horizontally between different parallel rule-making systems. This stands at the centre of our research group MOSAIC—'Multiple Options, Solutions and Approaches: Institutional Interplay and Conflict'.

Comments on this working paper, as well as on the other activities of the Global Governance Project, are highly welcome. We believe that understanding global governance is only feasible through joint effort of colleagues from various backgrounds and from all regions of the world. We look forward to your response.

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## **1 Introduction**

Most research on global governance has focused either on theoretical accounts of the overall phenomenon, or on empirical studies of distinct institutions that serve to solve particular governance challenges. Only very recently have scholars begun to investigate the middle level—that is, larger systems of institutions and governance mechanisms in particular areas of world politics, which are sometimes referred to as regime complexes, clusters, or networks.<sup>1</sup> In this paper, we conceive of such clusters of norms, principles, regimes and other institutions as the “governance architecture” of an issue area.<sup>2</sup> We focus our analysis on one aspect of global governance architectures that, we argue, is turning into a major source of concern for observers and policy-makers alike: the increasing “fragmentation” of governance architectures in important issue areas of world politics. We observe increasing fragmentation in particular in the governance of climate change, and have chosen this policy domain thus as empirical illustration for our discussion.

Our investigation is driven by an apparent lack of consensus in the academic literature on the consequences of fragmentation of global governance architectures. In different strands of academic research that we outline in this paper, we find different predictions that range from a positive, affirmative assessment of fragmentation to a rather negative one. A key example is climate governance, where advantages and disadvantages of a fragmented governance architecture have become important elements in proposals and strategies for future institutional development. Several plans for a future climate governance architecture have been put forward that explicitly assert the value of fragmentation or at least implicitly accept it, while many other proposals remain supportive of a universal architecture. And yet, policy research lacks so far a conceptual framework to study fragmentation of global governance architectures.

In this paper, we attempt to help resolving this problem. We seek to (1) conceptualize the notion of global governance architecture and of different types and degrees of their fragmentation; (2) illustrate these concepts in the field of global governance in response to climate change; (3) identify three strands of academic inquiry that offer, in each tradition, different hypotheses about the relative advantages and disadvantages of fragmentation; and, in conclusion, (4) provide a brief outlook of how to deal with the fragmentation of the global climate architecture.

## **2 Conceptualizing Fragmented Governance Architectures**

In our understanding, the term “global governance architecture” refers to the overarching system of public and private institutions, principles, norms, regulations,

<sup>1</sup>. For the concept of regime complexes, see for instance Raustiala and Victor 2004.

<sup>2</sup>. Biermann 2007.

decision-making procedures and organizations that are valid or active in a given issue area of world politics. Architecture can thus be described, in other words, as the *meta-level* of governance.<sup>3</sup> The concept of architecture includes situations of both synergy and conflict between the institutions in an issue area; between the overarching norms and principles that govern these interactions; and between norms and principles that run through distinct institutions in the area, for example the principle of common but differentiated responsibilities and respective capabilities that is common to many modern institutions in the field of global environmental governance.

This concept of global governance architecture is related to a few similar terms, none of which are, however, coterminous. First, “architecture” shares with the notion of international “order” the focus on the overarching governance structures that reach beyond single institutions. Yet we see architecture as a more appropriate concept for distinct issue areas of global governance, while international “order,” in the general understanding, appears more as a reflection of the organization of the entire system of international relations.<sup>4</sup> Moreover, the concept of international “order” often implies an optimistic bias regarding the coherence and internal coordination of the international system. “Architecture,” on its part, is more neutral and accounts for dysfunctional and non-intended aspects too. Second, the concept of global governance architecture relates to the notion of “polity,” which is commonly juxtaposed (at least in the English language) with policy (the contents and consequences of political action) and politics (the processes of decision-making). In other words, polity, policy and politics differentiate the formal, substantial and procedural elements in the study of domestic political systems. Polity refers to the hardware of the political process, that is, it describes the framework within which politics generate policies. As such, the notion of polity in the domestic political context comes close to what we conceive of as the architectures of global governance.

We advance the notion of global governance architecture in particular because it allows for the comparative analysis of (the many) policy domains in international relations that are not regulated, and often not even dominated, by a single international regime in the traditional understanding. Many policy domains are at present instead marked by a patchwork of international institutions that are different in their character (organizations, regimes, and implicit norms),<sup>5</sup> their constituencies (public and private), their spatial scope (from bilateral to global) and their subject matter (from specific policy fields to universal concerns).

These situations we understand as *fragmented* global governance architectures, as opposed to universal ones. We define a *universal architecture* as a situation in which all countries of relevance in a given issue area (a) are subject to the same regulatory framework; (b) participate in the same decision-making procedures (or are at least formally represented in such procedures); and (c) agree on a core set of common commitments. (Note that a purely universal architecture could also be described by the tra-

3. O’Neill 2007.

4. Bull 1977.

5. This threefold understanding of “international institutions” is based on a definition by Keohane 1989, 3. Keohane distinguishes between implicit norms (“conventions”), explicit norms (“regimes”) as well as public and private (“intergovernmental and nongovernmental”) organizations.

ditional notion of an international regime.<sup>6</sup> However, the regime concept is less useful in conceptualizing situations of deep institutional fragmentation in an issue area, which requires as an additional overarching concept the notion of global governance “architecture.”)

If these characteristics are not given, we observe a fragmented global governance architecture. We propose to differentiate between three ideal types of fragmentation: (1) integrative fragmentation, (2) cooperative fragmentation, and (3) conflictive fragmentation.

(1) We speak of a situation of *integrative fragmentation* when the overall architecture includes (almost) all countries and is institutionalized in a way that provides for effective and detailed general principles that regulate the policies in distinct yet substantially integrated institutional arrangements. An example is the 1985 Vienna Convention and its 1987 Montreal Protocol on Substances that Deplete the Ozone Layer and its amendments from London (1990), Copenhagen (1992), Montreal (1997) and Beijing (1999).<sup>7</sup> Each amendment to the protocol adds new substances to the regulative system, including decision-making procedures on further policies on these substances. Each amendment requires ratification by governments. Since not all governments have ratified all amendments, and since only parties to an amendment can participate in the respective decision-making, the governance architecture on ozone depletion comes close to a system of five concentric circles, with the 1987 Montreal Protocol having the most parties, and then each of the four amendments having a more restrictive reach. However, all amendments are governed in every important aspect by the overarching Vienna Convention and Montreal Protocol, which serve as integrative umbrella and authority in linking the different amendments and political processes.

(2) We speak of a situation of *cooperative fragmentation* when an issue area is marked by different institutions that (a) are merely loosely integrated and/or (b) when the core institution does not comprise all countries that are important in the issue area. Policies in the same area are then defined, decided and monitored through different institutions, or through core institutions, on the one hand, and individual countries that are not part of this institution on the other. However, overall integration within the governance architecture in the issue area is sufficient to prevent open conflicts between different institutions. One example is the relationship between the United Nations Framework Convention on Climate Change (“climate convention”) and its Kyoto Protocol. The protocol is part of the larger climate convention and shares its basic principles. Yet the fact that only the protocol provides for quantified emissions reduction obligations (for industrialized countries), that the protocol includes a variety of complex new institutional mechanisms such as emissions trading, the Clean Development Mechanism and funding arrangements, and that the world’s largest greenhouse gas emitter, the United States, is party only of the convention, creates a certain degree of fragmentation within the regime. This fragmentation can be witnessed in the negotiations on a future framework for climate policy beyond the first commitment period of the Kyoto

6. Such a notion is, for instance, expressed in Stephen Krasner’s definition of regimes as “sets of implicit or explicit principles, norms, rules, and decision-making procedures around which actors’ expectations converge in a given area of international relations.” Krasner 1983, 2.

7. See United Nations Environment Programme 2007.

Protocol, which resulted in four separate negotiating “tracks.”<sup>8</sup> Given the overall integration within the convention, however, this type of fragmentation can still be conceived of as cooperative.

(3) We speak of a situation of *conflictive fragmentation* when an issue area is marked by different institutions that (a) are hardly connected, (b) have different membership, (c) have conflicting sets of principles, norms and rules, (d) have different, unrelated decision-making procedures, and (e) are driven by actor coalitions that accept, or even advance, these conflicts. As one example could be seen—as we outline further below—the relationship between the Asia-Pacific Partnership on Clean Development and Climate and the governance system under the climate convention and its protocol.

In empirical research, these ideal types of fragmentation in global governance architectures will hardly be clear-cut, and the boundaries for example between integrative and cooperative fragmentation may remain difficult to ascertain in specific cases. In addition, the three ideal types are not mutually exclusive, but can coexist to some extent within the same architecture. The three ideal types are meant, instead, to serve as a conceptual tool to advance understanding of the causes and consequences of fragmentation in global governance architectures. Crucial research questions include, for example:

1. Are the costs, or the benefits, of different types of fragmentation comparable, also in comparison with a universal architecture?
2. Are potential political, legal, and institutional solutions to problems of fragmentation comparable vis-à-vis different types of fragmentation?
3. What political strategies result in the progressing from one type of fragmentation to another?

As such, research on the fragmentation of global governance architectures is related to the current research programme on institutional interaction, interlinkages and interplay.<sup>9</sup> Yet while this research focuses on dyadic relations between distinct institutions and almost exclusively on interlinkages across issues, the concept of fragmentation of global governance architectures seeks to assist in research on the *overall institutional setting* in which distinct institutions exist and interact. The question of fragmentation of global governance architecture is thus larger than the mere focus on institutional interaction, which is but one element in the architecture research programme.

Finally, empirical research on fragmentation of global governance architectures depends on the framing of the area under investigation. The larger the analyst defines an issue area and its overarching architecture, the higher the degree of fragmentation is likely to be. If one takes the entire domain of global environmental politics—what is increasingly being referred to as “earth system governance”<sup>10</sup>—more than 700 multilat-

<sup>8</sup>. Bausch and Mehling 2007.

<sup>9</sup>. See Chambers 1998; Chamber 2001; Gehring and Oberthür 2004; Oberthür and Gehring 2006; King 2007; Young 2002.

<sup>10</sup>. Biermann 2007.

eral agreements are in force.<sup>11</sup> Most have been developed independently, cover different geographic and substantial scopes, and are marked by different patterns of codification, institutionalization and cohesion. This type of rarely integrative, often cooperative and at times conflictive fragmentation has been at issue in a large group of recent policy proposals that call for the clustering and integration of independent environmental institutions, notably through establishment of a world environment organization,<sup>12</sup> to create a more universal architecture in this field. The creation of the World Intellectual Property Organization, partially also of the World Trade Organization, are similar attempts at integrating a fragmented global governance architecture in a specific issue area. Fragmentation is even higher if one includes crosscutting policy domains. Many issues regulated by multilateral environmental agreements such as biological diversity, climate change or ozone layer depletion touch upon fields as different as health, energy security, technology, investment and trade, inducing considerable fragmentation of the overarching governance architecture. Here in particular, policy-makers have grown more aware of fragmentation. For instance, in 1998 a United Nations task force recommended that the international community should pursue stronger interlinkages between multilateral environmental institutions to facilitate synergies and promote the coherence of policies.<sup>13</sup> Another indicator for growing attention is a tendency towards explicit recognition of interlinkages in legal documents, for example between the biodiversity convention and the climate convention.<sup>14</sup> Yet fragmentation can also be observed in much narrower defined global governance architectures, and it is here where we believe that the concept of architecture will prove to be most fruitful. Especially this kind of fragmentation—between parallel policies and regimes in the same issue area—has been widely overlooked in current research.<sup>15</sup>

### **3 Governing Climate Change: An Example of a Fragmented Global Governance Architecture**

The international political response to the problem of global climate change is a prime example of a global governance architecture that is significantly fragmented, along a variety of dimensions that include elements of integrative, cooperative, and conflictive fragmentation.

The institutional core of this governance architecture is the climate convention, ratified by almost all nations. The convention lays down a number of explicit and implicit norms, such as the “ultimate objective” of climate governance to prevent “dangerous anthropogenic interference with the climate system” (article 2), the principle of common but differentiated responsibilities and respective capabilities, and the precautionary principle. In addition, the convention provides for a relatively large international bureaucracy for administrative support, data collection and policy development,

<sup>11</sup>. See Mitchell 2007.

<sup>12</sup>. See Biermann and Bauer 2005.

<sup>13</sup>. United Nations General Assembly 1998.

<sup>14</sup>. See for an overview Wolfrum and Matz 2003, 120-133.

<sup>15</sup>. Exceptions are McGee and Taplin 2006; van Asselt 2007a, b.

which developed into the organizational nodal point of the governance architecture in this area.<sup>16</sup>

The entry into force of the 1997 Kyoto Protocol to the climate convention in February 2005 has increased the level of fragmentation in the climate governance architecture. First, not all parties to the convention have ratified or accepted the protocol, notably the United States. Second, the protocol includes in-depth new regulations, from the agreement on quantified emissions reduction obligations to new flexible mechanisms, such as emissions trading and the Clean Development Mechanism. With the entry into force of the protocol, several different groups of countries can thus be distinguished: industrialized countries that have ratified the protocol and are committed to reducing their greenhouse gas emissions (by an average of five percent between 2008-2012 compared to 1990 levels); industrialized countries that reject the protocol but are developing alternative regulatory approaches (at present only the United States, after Australia's ratification of the protocol in 2007); and developing countries that have ratified the protocol but do not need to limit or reduce their emissions. These different types of commitments within the overall architecture have significantly added to the complexity of negotiations for a post-2012 regime. Starting at the 2006 conference of the parties in Nairobi, the form of a successor agreement was discussed in no less than four "tracks," whose formal titles reflect the increasing fragmentation and complexity of the negotiation system: the Dialogue on Long-Term Cooperative Action under the Convention, the Ad Hoc Working Group on Further Commitments for Annex I Parties, the Review of the Protocol under Article 9, and the Russian Proposal on voluntary commitments. The 2007 conference of the parties in Bali expanded this process, with dozens of agenda items being taken up in more than thirty contact groups and informal negotiations, and many items even having been deleted or postponed to later sessions of subsidiary bodies. Throughout the conference, delegates complained about significant overload and complications.<sup>17</sup> Yet notwithstanding this multitude of tracks, the overall level of integration of the climate convention and its protocol is sufficient to speak here of a *cooperative type of fragmentation*.

However, there are a number of additional institutional arrangements at different levels of the political system. For example, the Asia-Pacific Partnership on Clean Development and Climate from 2005 includes some of the world's current or future top carbon dioxide emitting countries such as the USA, Australia, China, India and Japan. It differs from the climate convention and its protocol in its focus on voluntary approaches and technology cooperation. Similar public-private partnerships are the International Partnership for a Hydrogen Economy, the Methane to Markets Partnership, and the Carbon Sequestration Leadership Forum.<sup>18</sup> Furthermore, the start of the European emissions trading scheme in 2005 marked the launch of another UN-independent initiative. Although based on the Kyoto Protocol, the trading scheme's start did not depend on the protocol's entry into force. Finally, there are important sub-national initiatives, such as California's Global Warming Solution Act, and private institutions that attempt to regulate issue areas relevant for climate governance, such as the Carbon Dis-

<sup>16</sup>. For a critical analysis of the influence of the climate convention secretariat, see Busch 2007.

<sup>17</sup>. International Institute for Sustainable Development 2007.

<sup>18</sup>. On the emergence of these types of agreements, see Coninck et al 2007.

closure Project or the Investor Network on Climate Risk.<sup>19</sup> Some initiatives are linked to the institutional core, such as the EU emissions trading scheme or public-private partnerships that seek to implement the climate convention. Other agreements, such as the Asia-Pacific Partnership, could well be seen in conflict with the institutional core and thus evidence of *increasing conflictive fragmentation* of the climate governance architecture.<sup>20</sup> This is one important peculiarity of the global climate architecture that has attracted little attention so far: whereas some overlap between the global climate regime and non-climate regimes are the unintended results of uncoordinated treaty negotiations,<sup>21</sup> important parts of the fragmentation in climate governance are *intentional*. The Asia-Pacific Partnership and similar proposals backed by the United States were created not out of ignorance of the global climate governance but *because* of it, at a time when the climate convention and the Kyoto Protocol were well established and in force.<sup>22</sup>

This situation has led to an extensive debate in policy, academic, business and NGO communities on how to address this increasing fragmentation.<sup>23</sup> At conferences of the parties to the climate convention and the Kyoto Protocol in 2005–2007, initial agreement has been reached at least on how to continue the negotiation of the future global governance architecture. The majority of policy proposals still appear to explicitly assume or support a universal architecture of climate governance, for instance proposals for per capita convergence or global cap-and-trade schemes.<sup>24</sup> Most require or support a continuation of a universal architecture of climate governance under the umbrella of the United Nations, including a gradual widening and substantial broadening and deepening of the governance system.<sup>25</sup> Other recent proposals, however, implicitly include the possibility of further institutional fragmentation. Reinstein, for example, has proposed starting a bottom-up process in which countries—very similar to trade negotiations—would put on the table acceptable measures in line with national circumstances.<sup>26</sup> Although this “request and offer” proposal targets all nations, it could lead to further fragmentation of the global climate architecture by creating path-dependencies and coalitions of like-minded countries that could widen the rift in climate governance rather than close it. In addition, issue-specific, sectoral agreements could also lead to further institutional fragmentation, as they would apply to sectors that are organized often along existing power structures in international politics. A transnational sectoral agreement on the cement or automotive industry could create novel coalitions of interests that may run counter to established and agreed national climate policies.<sup>27</sup> A third group of recent proposals explicitly support a fragmented or alternative architecture in

<sup>19</sup>. Stripple and Carlsson 1998.

<sup>20</sup>. Van Asselt 2007a.

<sup>21</sup>. For an overview of cases of interlinkages between climate convention/Kyoto Protocol and other institutions see Yamin and Depledge 2004, 509-543; Asselt, Gupta and Biermann 2005, 255-64 and Oberthür 2006.

<sup>22</sup>. Benvenisti and Downs 2007.

<sup>23</sup>. Van Asselt 2007b.

<sup>24</sup>. On per capita convergence see for example Aslam 2002. On global cap-and-trade, see for example Frankel 2007.

<sup>25</sup>. See Berk and Elzen 2001; Philibert and Pershing 2001; Asselt et al. 2007; Michaelowa et al. 2005; Winkler et al. 2006.

<sup>26</sup>. Reinstein 2004.

<sup>27</sup>. For a recent assessment of sectoral agreements, see Bodansky 2007.

addition to the climate convention and its Kyoto Protocol.<sup>28</sup> Proposals that fall into this category include suggestions to convince developing countries to turn away from the Kyoto framework and to adopt alternative forms of commitments, including voluntary targets;<sup>29</sup> approaches that focus on alternative, regional agreements between the United States and like-minded countries, in particular in Asia and Latin America;<sup>30</sup> proposals that suggest an “orchestra of treaties” that complements the existing climate convention;<sup>31</sup> and proposals that strengthen the role of private actors in addressing the climate change problem.<sup>32</sup>

In sum, the situation of an increasingly fragmented architecture in climate governance is likely to persist for some time. It might raise the spectre of growing conflicts among major coalitions, including increasing rifts between the European Union and the United States. There is therefore an urgent need to explore the likely consequences of fragmentation in global governance architectures in general, and in climate governance in particular. The following discussion of the pros and cons of a fragmented governance architecture intends to contribute to this urgent research agenda.

## 4 Theoretical Propositions Regarding Consequences of Fragmented Governance Architectures

We now review and discuss the state of the art in the scholarly literature regarding the promises or perils of fragmentation of global governance architectures. We analyze three bodies of literature, namely international relations and cooperation theory; environmental policy theory; and international law. In each body of literature, we find arguments that emphasize the advantages of fragmented governance architectures, as well as arguments that highlight the disadvantages and threats of fragmentation.

### *Fragmentation in Cooperation Theory*

**Advantages.** Cooperation theory provides a number of hypotheses that link fragmentation of a global governance architecture with higher performance. First, some strands of cooperation theory highlight the benefits of agreements with only a limited number of parties in complex negotiation situations, because small-n agreements are on average faster to negotiate and to agree on. Small-n agreements are rather tailor-made and reflect the interests of key players within the international arena, and may thus prove easier to implement and to comply with. In this perspective, the belated coming-into-force of the Kyoto Protocol proves the weakness of a universal approach, as the high thresholds for country representation and greenhouse gas emissions, which were thought to enhance participation, effectively prolonged ratification and entry into force. In a fragmented climate governance architecture, reductions of greenhouse gas

<sup>28</sup>. For an overview, see Aldy and Stavins 2007.

<sup>29</sup>. See Egenhofer and Fujiwara 2003.

<sup>30</sup>. See Bodansky 2002; Stewart and Wiener 2003.

<sup>31</sup>. See Sugiyama and Sinton 2005.

<sup>32</sup>. See Rinkema 2003.

emissions may thus occur earlier than in a universal architecture that includes all states. Second, some strands of cooperation theory suggest that small-n agreements within a fragmented architecture are more progressive and far-reaching than would be possible in a universal architecture. A universal architecture might include all nations and ideally even reach full compliance, yet with rules that have been watered down in negotiations. In this perspective, a so-called “narrow-but-deep” agreement that achieves substantial mitigation reductions with relatively little participation may be superior to a situation of a less demanding regime even if it has full participation and compliance (“broad-but-shallow”).<sup>33</sup> Third, some strands of cooperation theory suggest that a fragmented architecture may increase chances of side-payments. Bilateral agreements among countries may allow concessions that governments would find unacceptable to grant to a larger group of states. Such concessions could include bilateral trade concessions, the bilateral exchange of technology, or support for enhanced political influence in international organizations.

Fourth, some strands of cooperation theory suggest that a higher degree of fragmentation decreases the entry-costs for non-state actors, notably industry and business. The role of private actors and new forms of governance beyond the nation states are a key concern in recent institutional scholarship on the environment.<sup>34</sup> A network of various institutions, many of which might be public-private, could make it easier for business actors to engage in rule-making and help creating regulatory systems that are easy to implement and affordable from a business perspective. Although a fragmented global climate architecture is not *per se* more conducive to private forms of governance, the widening of participation of non-state actors could enable participation of private actors, including major industry and business actors, and thus advance the goals of climate governance.

**Disadvantages.** However, cooperation theory also provides a number of arguments that speak against fragmentation.<sup>35</sup> First, a fragmented architecture with several independent institutions and regimes will produce solutions that fit the interests only of the few participating countries. It is not guaranteed that other countries will later join. On the contrary—a certain degree of instant problem-solving through the small-n agreement might provide disincentives for third countries to engage in climate action and could further disintegrate the overall negotiation system. For example, McGee and Taplin argue that specific features of the Asia-Pacific Partnership reduce compliance incentives for parties to the Kyoto Protocol or even motivate these countries to leave the protocol based on utilitarian calculations. Evidence for this is that one party to the protocol, Canada, has joined the Partnership, and another, New Zealand, has expressed interest in doing so.<sup>36</sup> Second, a quick success in negotiating small-n agreements might run counter to long-term success, when important structural regime elements (e.g. inclusion of the principle of common but differentiated responsibilities) have not sufficiently been resolved.<sup>37</sup> At a later stage, when interest-constellations change and new situations arise, it might be difficult to reach agreement within the

<sup>33</sup>. Aldy, Barrett and Stavins 2003.

<sup>34</sup>. Falkner 2003; Jagers and Stripple 2003; Pattberg 2005.

<sup>35</sup>. Biermann 2005.

<sup>36</sup>. See McGee and Taplin 2006.

<sup>37</sup>. See Biermann 2005, Van Asselt 2007b.

international community without an existing overall agreement that includes those structural elements.

Third, cooperation theory also suggests that smaller agreements only with few like-minded countries will decrease the opportunity for creating package deals, which will minimize the overall policy acceptance and effectiveness. Fourth, and related to the third point, a fragmented architecture raises concerns of equity and fairness. Cooperation theory shows that bilateral and small-n agreements grant more bargaining power to larger and more influential countries, while large-n agreements allow smaller countries to enter into coalitions, such as the Group of 77 and China, that protect their collective interests from the interest of the larger countries. In the end, perceptions of inequity and unfairness are linked to policy effectiveness through its legitimacy—a climate governance system that is not seen as fair by all parts of the international community is likely to lack in overall effectiveness.<sup>38</sup> Fifth, from a cost-benefit point of view, although a “narrow-but-deep” approach is theoretically possible, a “broad-but-shallow” approach could be more efficient. As Aldy, Barrett and Stavins maintain, “Current understanding of the benefit and cost functions characterizing climate change suggest that the latter type of policy [broad-but-shallow] is more likely to satisfy the dynamic efficiency criterion. Since marginal emissions control costs increase steeply, a broad-but-shallow policy would result in lower overall costs.”<sup>39</sup>

Sixth, a fragmented architecture in the climate area may further complicate linkages with other policy areas. There may be possibly strong economic implications—in terms of international competitiveness—if one coalition of states adopts a stringent climate policy (e.g. binding emission ceilings), while other coalitions opt for a less rigorous way to reduce greenhouse gas emissions (e.g. voluntary pledges). This, in turn, could have severe ramifications for the world trade regime that unites both coalitions under one uniform umbrella. Connected to this observation, the lack of a concerted approach weakens the lobby of climate change issues when overlapping with other regimes. A universal climate governance architecture, on the other hand, could allow systematic and stable agreements between the institutional frameworks of the world trade regime and the climate regime. Finally, since a fragmented climate architecture decreases entry-costs for private actors, it is also conceivable that business actors use the regulatory diversity to choose among different levels of obligation, thereby starting a race-to-the-bottom within and across industry sectors.

### *Fragmentation in Environmental Policy Theory*

Similar to cooperation theory, also environmental policy theory—predominantly related to domestic policy, public administration and political science—provides different propositions on the advantages and disadvantages of a fragmented or universal climate architecture.

**Advantages.** First, some strands in environmental policy theory suggest that fragmentation and regulatory diversity increase innovation. It has been shown that regulatory competition in federal political systems can allow for the development of

<sup>38</sup>. On the link between legitimacy and effectiveness, see Andresen and Hey 2005.

<sup>39</sup>. Aldy, Barrett, and Stavins 2003, 378.

different solutions in different regulatory contexts, of which the most effective will “survive” and be diffused to other regulatory contexts, be it other federal states or other countries. Thus, fragmentation would enhance innovation at both the individual level of the firm or the public agency and in the end increase innovation in the entire system. A key tenet of this line of thought is the notion of diffusion of innovation, including innovations of policies, technologies, procedures, and ideas. This is a core element of the theory of the environmentally beneficial consequences of free trade, which would reduce artificial barriers to the free transfer of technologies and products and thus increase efficiency and innovation.<sup>40</sup> One example of this line of thought is Stewart and Wiener, who propose that the United States should initially stay outside the Kyoto framework and should seek to establish a new framework with China and, possibly, other key developing countries. This would address the world’s two largest greenhouse gas emitters and allow for experimentation of alternative international climate regulatory frameworks. The resulting regulatory competition could be beneficial, if it “takes place in some sort of a common framework, thereby avoiding a race to the bottom.”<sup>41</sup>

Second, a fragmented climate architecture might make it easier to broaden the coverage of relevant sectors. Fragmentation within the climate architecture would hence circumvent negotiation stalemates among countries in a universal agreement and make synergetic interlinkages possible. For example, the Kyoto Protocol does not yet require emission reductions from aviation and international maritime transport, whereas the European Commission has proposed to take up aviation in the EU’s emissions trading system. In other words, because there are more policy approaches, there is an increased chance that more areas that are relevant will be addressed which might not be addressed in a universal agreement because of political feasibility questions. Third, a fragmented architecture might provide for solutions that are specifically tailored for specific regions, for example regarding capacity building or data-generation and information sharing. One example is the data collection procedures under the Asia-Pacific Partnership that assist countries in submitting national reports under the climate convention and Kyoto Protocol.<sup>42</sup>

**Disadvantages.** Environmental policy theory, however, also provides powerful arguments that advise against a fragmented architecture. First, regulatory competition in combination with free trade and economic competition might result in the general decline of environmental standards, the so-called “race to the bottom.” This hypothesis has only limited empirical support regarding current environmental policies. However, proponents of a universal climate architecture claim here that the increasing *future* needs of more stringent mitigation measures will also increase costs of regulation, which will then make regulatory differentials in some sectors—for example cement—more relevant for a “race to the bottom” scenario. This problem remains a major argument in domestic contexts that raises concerns with energy-intensive industries.<sup>43</sup> A second argument could be described as fear of a general regulatory “chaos” in climate policy, but also in related areas such as energy, agriculture or transport. The absence of a universal architecture that unites all major nations in one coherent and consistent

<sup>40</sup>. Tews, Busch, and Jörgens 2003.

<sup>41</sup>. Stewart and Wiener 2003.

<sup>42</sup>. Van Asselt 2007a.

<sup>43</sup>. See van Asselt and Biermann 2007.

regulatory framework would send confusing messages to all actors. For example, investors in the Kyoto Protocol's Clean Development Mechanism have emphasized the importance of clear signals of a long-term commitment of all actors to one stable process. This may be more difficult in a fragmented climate architecture with a diversity of approaches.

A third argument from environmental policy theory is the need to maintain momentum and support in the wider public and with all relevant actor-groups. This would require a stable and coherent architecture, while fragmentation would result in the distraction of more and more actors from the core requirements of climate policy. Fragmentation and the ever-new need to find new compromises, tailor-made solutions, and new coalitions of the willing and alternative solutions would in the end largely cost time and effort. It would create a continuous system of fragmented negotiations instead of comprehensive and effective implementation.

### *Fragmentation in International Law*

We now discuss promises and pitfalls of fragmented climate governance from an international law perspective. This links to a broader debate in international law, namely the question to what extent fragmentation of international law is a positive or a detrimental development for its very future.<sup>44</sup>

**Advantages.** In some legal writing, fragmentation is seen as a positive sign of the diversity and expansion of international law, that is, that international rules are expanded to previously unregulated fields.<sup>45</sup> Over time, international law has come to cover important areas of international relations such as international commerce, human rights, and the environment. As Koskenniemi and Leino put it, "Special regimes and new organs are parts of an attempt to advance beyond the political present that in one way or another has been revealed unsatisfactory."<sup>46</sup> Fragmentation may also innovate international law. For example, the emergence of international environmental law has brought about changes in ways of complying with international law, as well as new avenues for settling disputes between states. Finally, some argue that increased specialization in international law is a way of accommodating different interests of states. As a result, governments view specialized regimes as better serving their interests and thus have stronger incentives to comply.<sup>47</sup>

**Disadvantages.** Yet, fragmentation is also seen as negative in international law, since, as Hafner observes, "Doubts could be raised as to whether international law will be able to achieve one of its primary objectives, dispute avoidance and the stabilization of international relations and, thus, achieve its genuine function of law. The credibility, reliability and, consequently, authority of international law would be impaired."<sup>48</sup> One argument often used is that the growing body of international legal rules

<sup>44</sup>. See Hafner 2000; 2004.

<sup>45</sup>. Lindroos and Mehling 2005.

<sup>46</sup>. Koskenniemi and Leino 2002.

<sup>47</sup>. Hafner 2004, 859, argues that a "less-than-global approach seems particularly necessary when different States clearly hold different beliefs about what basic values should be preserved by international regulation."

<sup>48</sup>. Hafner 2000, 341.

threatens the unity and coherence of international law, as different specific rules are created which allow international judicial institutions to come to diverging decisions.<sup>49</sup> For international environmental law, an additional challenge is posed by possibly inconsistent decision-making in different treaty bodies, which are increasingly involved in rule development. Another important drawback of the fragmentation of international legal systems has been stressed by Benvenisti and Downs, who argue that fragmentation “functions to maintain and even extend the disproportionate influence of a handful of powerful states—and the domestic interests that shape their foreign policies—on the international regulatory order.”<sup>50</sup> Powerful states thus have the flexibility to opt for a mechanism that best serves their interests (so-called “forum shopping”),<sup>51</sup> and can create new agreements if the old ones do not fit their interest anymore.

Finally, it has been argued that a fragmented international legal system could lead to (some degree of) prioritization of certain parts of international law over others, for example, the prevailing of international economic law over international environmental law or—less likely—vice versa.<sup>52</sup>

## 5 Conclusions

This paper has conceptualized the notion of global governance architectures and of different types and degrees of their fragmentation. Subsequently we have illustrated these concepts in the field of global climate governance. Based on this empirical discussion, we identified three strands of academic inquiry that offer, in each tradition, different hypotheses about the relative costs and benefits of fragmentation, namely cooperation theory, environmental policy theory, and international law. Based on a meta-analysis of current writing in these three strands of academic research, we argue that—across all three bodies of literature—the balance of evidence suggests that a uniform architecture appears to have more advantages than disadvantages.

However, in climate policy as well as in many other areas of world politics, it is not likely that universal architectures can be expected within a reasonable period. In addition, some degree of fragmentation within a largely universal architecture—what we have described in this paper as *integrative* fragmentation—is not only much less problematic than, for instance, conflictive fragmentation: it may even bring some advantages. Thus, the political strategy for climate governance should be, in our view, to turn attention towards political and institutional mechanisms that ensure that the overall architecture develops into the direction of integrative fragmentation at the very least. That is, fragmentation must remain based on a sensible division of labour; arenas and processes must be effectively coordinated; and all mechanisms explicitly linked to the UN climate regime in order to minimize institutional competition.

Such a political strategy could involve, in our view, four measures in particular. First, within the UN climate regime different processes under the convention and the

<sup>49</sup>. Lindroos and Mehling 2005, 858.

<sup>50</sup>. Benvenisti and Downs 2007.

<sup>51</sup>. See Hafner 2000.

<sup>52</sup>. See Craven 2003.

protocol must be better integrated and streamlined, and increasing instances of duplication, for instance negotiations of technology transfer in different arenas, avoided. The current negotiations leading up to a successor agreement to the Kyoto Protocol thus ought to address major topics such as deforestation, technology transfer, or capacity-building in merely one forum per topic. This holds also for the negotiations of the successor instrument itself, which are currently revolving around different forums. Here, the new Ad Hoc Working Group on Long-term Cooperative Action under the Convention, which includes the United States, appears as the most appropriate overall forum for negotiations. Second, regarding climate arrangements that are presently outside the UN umbrella, it appears imperative from an architecture perspective to at least open them up to additional members—for instance, broadening the Asia-Pacific Partnership to also include least developed countries and small-island developing states—and to ensure through formal declarations or clauses some degree of integration with the overall UN processes. Third, in order to minimize harmful forms of fragmentation, it appears vital to enhance cooperation between the overall UN climate regime and other organizations that have some, though not a central role to play. For instance, regarding adaptation, improved integration of programmes and activities between the UN Food and Agriculture Organization, the UN Convention to Combat Desertification, and the UN climate regime is important.

Finally, the UN climate regime needs to be better coordinated with non-environmental institutions in order to minimize harmful fragmentation, most importantly with regard to the World Trade Organization (WTO). Russia's ratification of the Kyoto Protocol has evidenced that linking both arenas can create additional incentives for countries to support climate policies. Better integration can help identifying similar constellations of actors. For instance, like the climate regime, the WTO is hosting discussions on the transfer of climate-friendly goods and services in the Special Session of the WTO's Committee on Trade and Environment. As long as this WTO-internal discussion is not linked to similar debates in the climate regime, a comprehensive solution is unlikely. The problem has been recognized, and in 2007, a number of trade ministers, senior trade officials and the WTO director-general met for the first time during a conference of the parties to the climate convention to discuss trade-related aspects of climate change. Yet also this meeting reflected the increasing fragmentation of the climate governance domain, with only few countries—and none from Africa—being represented.<sup>53</sup>

In sum, we see these suggestions as entry points for the further elaboration of political and institutional strategies to deal with the fragmentation of global governance architectures. Fragmentation of global governance is becoming a major concern for scholars and decision-makers alike. In this paper, we have shown that different types of fragmentation exist, and have conceptualized the debate by differentiating between integrative, cooperative and conflictive types of fragmentation. In addition, our analysis shows that major scholarly literatures relevant in this debate offer conflicting statements regarding the relative advantages and disadvantages of fragmentation. While we believe that on balance, fragmentation of global governance architectures brings more

<sup>53</sup> Following this trade meeting, several finance ministers have met for a separate two-day informal meeting. See International Institute for Sustainable Development 2007.

harm than positive effects, and that it can generally be seen as a major burden on the overall performance of the system, we also agree that different types of fragmentation have different degrees of performance. Thus, what we described as “integrative fragmentation” might be a realistic second-best option in a world of diversity and difference in which purely universal governance architectures are more a theoretical postulate than a real-life possibility. Most importantly, however, our analysis has shown that there is no consensus, neither among political scientists nor among politicians and practitioners. This calls, we argue, for a continuation of this line of work, both through more in-depth studies of fragmentation in particular policy domains and through larger comparative study programmes that reach beyond the environmental policy domain.

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