

# Interaction Management by Partnerships: The Case of Biodiversity and Climate Change

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## Introduction

Interaction among regimes is a prominent theme in the regime literature.<sup>1</sup> Authors studying regime interaction assume that (the effectiveness of) one regime is affected by its interaction with other regimes, whether from the same or other issue areas. For example, rules of the United Nations Framework Convention on Climate Change (UNFCCC) influence the Convention on Biological Diversity (CBD) since climate change represents an important threat to biodiversity worldwide. Various researchers are seeking to better understand how regime interaction is and can be managed, and are exploring the issue of *interaction management*.<sup>2</sup> Others have broadened the focus to also include (public-) *private steering mechanisms*.<sup>3</sup> These (public-) private initiatives play an increasingly important role in international governance, especially in global environmental politics. This broader focus is linking the regime literature more closely to the governance literature that studies issues of contemporary governance, including these (public-) private steering mechanisms.<sup>4</sup>

This article contributes to these literatures by enhancing our understanding of how (public-) private steering mechanisms contribute to interaction management. We focus on the role of *international partnerships*, strategic alliances between state, market, and/or civil society actors from more than one country. The contribution of partnerships to the governance of single environmental issues is already a topic of research,<sup>5</sup> but little is known about whether partnerships also contribute to interaction management. Moreover, only man-

1. Gehring and Oberthür 2008; Keohane, Haas, and Levy 1995; Oberthür 2002; Oberthür and Gehring 2006; Skjærseth, Stokke, and Wettstad 2006; Young 1996; and Young 2002.
2. Jinnah 2010; Oberthür 2009; Stokke 2001; and Van Asselt 2007.
3. Arts 2000; Haufler 1993; Palmujoki 2006; Okereke et al. 2009; and Pattberg 2007.
4. See, for example, Glasbergen, Biermann, and Mol 2007; and Cashore et al. 2007.
5. Bitzer, Francken, and Glasbergen 2008; Glasbergen, Biermann, and Mol 2007; and Kuindersma and Boonstra 2010.

agement of interactions among intergovernmental regimes has been studied; this analysis of private steering mechanisms also helps expand this literature.

Research on interaction management is particularly relevant where interactions are intense and their importance is recognized. Therefore this article focuses on the interactions between biodiversity and climate change, since these interactions are substantial and ever more acted upon.<sup>6</sup> We review the interaction management functions fulfilled by seven partnerships, focusing on two major topics of interaction between the biodiversity and climate change governance systems, namely biofuels and REDD+ (“reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries”).<sup>7</sup> The seven partnerships have been selected as those recognized as important initiatives by interviewees, and each fulfills several of the functions established in the literature as important partnership roles.<sup>8</sup> They thus represent strong examples of the type of interaction management performed by partnerships that the literature expects. The empirical analysis is based on 17 interviews with experts and representatives of the partnerships, and analysis of partnership documentation in the period 2008–2010.

In the next section, the concept of interaction management by partnerships is introduced. The article then analyzes the interactions between the biodiversity and climate change governance systems, after which the interaction management by the partnerships is discussed. The last section includes the article’s discussion and conclusions.

## Conceptualizing Interaction Management by Partnerships

Since its introduction in the international relations literature in the 1980s,<sup>9</sup> the concept of regimes has been heavily debated. One of the main issues has been the breadth of the regime concept. Some authors<sup>10</sup> propose a broad definition including all rules in a given issue-area,<sup>11</sup> while others<sup>12</sup> prefer a narrower definition in which a regime is a single international agreement. Raustiala and Victor name these different perspectives “elemental regimes” (the narrow perspective) and “regime complexes” (the broad perspective).<sup>13</sup> These different approaches are useful for specific types of analyses, but can also steer researchers in particular directions. A narrow regime perspective, for example, is useful for analyzing specific interactions among individual international agreements, but hinders efforts to view these agreements from a more holistic approach. A broad perspec-

6. IPCC 2002; Lovejoy and Hannah 2005; and MEA 2005.

7. UNFCCC 2008.

8. See for example Van Huijstee, Francken, and Leroy 2007.

9. See among others Keohane 1982; and Young 1980.

10. Haggard and Simmons 1987; and Rittberger 1993.

11. Krasner 1982.

12. Oberthür and Gehring 2006.

13. Raustiala and Victor 2004.

tive, on the other hand, is less useful to study the manners in which specific agreements influence each other. Both perspectives struggle with defining regime boundaries, i.e. where one regime ends and the other begins, and how regimes overlap.

This discussion has recently become even more complicated by the rise of private steering mechanisms in international sustainable development politics. Regime authors are increasingly studying this process “from government to governance,”<sup>14</sup> in which the rule-making authority of governments is being shared with market and civil society actors, sometimes in hybrid, public-private, initiatives and sometimes in purely private ones. These new (public-) private rules can have consequences for the regime concept; the broad perspective towards regimes, for example, could be widened further to include private rules. Most authors, however, choose to reserve the regime concept for intergovernmental rules, and introduce new concepts to define the total of public and private steering mechanisms, such as “governance architecture”<sup>15</sup> or “governance system.”<sup>16</sup> We use the governance system terminology, and define an international governance system as the total of all international public and (public-) private initiatives on a certain issue area.

Partnerships represent a prominent form of new governance mechanisms, which enable collaboration among the different societal sectors, government, market and civil society. They have become a popular instrument for sustainable development since the beginning of the 1990s, with their numbers growing exponentially.<sup>17</sup> Partnerships often develop to fill gaps when governments are unwilling or unable to regulate, and may fulfill various functions.<sup>18</sup> Most international partnerships are market-oriented, and use the market as steering mechanism, for example through certification standards that seek to promote sustainable production and consumption. A smaller number of policy-oriented partnerships focus on public policy, seeking to improve and complement intergovernmental policy processes.<sup>19</sup> Since partnerships usually focus on a specific issue or problem, they can play important roles in placing issues on the political agenda. During the Johannesburg World Summit on Sustainable Development (WSSD) in 2002, partnerships were especially promoted as instruments for implementation. They were also viewed as ways to involve market and civil society actors in sustainable development, in the realization that all these types of actors are necessary to achieve global sustainability goals. Given these various governance functions of partnerships, the question arises whether partnerships can play the same roles in interaction management.

We will analyze the interaction management by partnerships using three

14. Rosenau and Czempiel 1992.

15. Biermann et al. 2009.

16. Visseren-Hamakers and Glasbergen 2007.

17. Andonova 2010.

18. See for example Van Huijstee, Francken, and Leroy 2007.

19. Visseren-Hamakers, Leroy, and Glasbergen 2010.

building blocks. We start by studying the *causes* of the interactions among the climate and biodiversity governance systems. We build on Young, who states that regimes interact due to functional interdependencies (the regimes deal with issues that are related, e.g. environmental and economic issues), or due to regime overlap, when regimes are based on principles that are cross-cutting (e.g. a global regime to conserve a specific species and a regional conservation regime in a region where this species occurs).<sup>20</sup>

Secondly, we study the *interactions* themselves, following the example of Oberthür and Gehring, who analyze individual cases of interaction in which the source institution affects a target institution's effectiveness or institutional development.<sup>21</sup> These individual interactions can have a positive, neutral, or negative influence. We seek to identify individual occurrences of interaction between the climate change and biodiversity governance systems, and to establish whether this influence is positive, neutral, or negative. An influence is considered positive when the interaction fosters the development or effectiveness of the target institution, neutral when the interaction does not influence the effectiveness or development of the target institution, and negative when the interaction hinders or contradicts the goals and work of the target institution.

Finally, for the analysis of the interaction management by partnerships, we build on Stokke's<sup>22</sup> definition of interplay (or interaction) management, and define interaction management as (deliberate) efforts by the partnerships to improve the interactions among the governance systems. We differentiate among five interaction management functions:

- *Agenda setting*: Starting a debate about the interaction
- *Policy development*: Developing public or private policy for managing the interaction
- *Implementation*: Implementing measures that improve the interactions
- *Meta-governance*: Coordinating among actors from both governance systems
- *Participation enhancement*: Improving participation of relevant actors

The first three of these functions reflect the literature on the policy cycle and process<sup>23</sup> and on the functions discussed in the partnership literature. The latter two, meta-governance and participation enhancement, come from the governance literature that highlights the need for coordination and enhanced participation.<sup>24</sup> Together, these five functions represent relevant manners in which to manage interactions. Partnerships are considered successful when they improve the existing governance system interactions, changing negative interac-

20. Young, 2002.

21. Oberthür and Gehring 2006, 1, 6.

22. Stokke 2001.

23. Jann and Wegrich 2007; Pierre 2000; and Sabatier 1999.

24. See, for example, Kooiman 1993.

tions into neutral or positive ones, neutral interactions into positive ones, or strengthening positive interactions.

## **The Interactions between the Biodiversity and Climate Change Governance Systems**

The biodiversity and climate change governance systems interact due to both functional interdependencies and institutional overlap. Climate change is a threat to biodiversity, and biodiversity can play a role in combating climate change. Climate change is already affecting both terrestrial and marine ecosystems.<sup>25</sup> By the end of this century, climate change and its impacts may become the dominant driver of biodiversity loss and changes in ecosystem services.<sup>26</sup> If increases in global average temperature exceed 1.5–2.5 °C, approximately 20–30 percent of plant and animal species are likely to be at increased risk of extinction, and major changes are predicted in ecosystem structure and function, with predominantly negative consequences for biodiversity, and ecosystem goods and services.<sup>27</sup> Tropical and boreal forests, and marine and coastal zones are particularly vulnerable.<sup>28</sup> Species with limited climatic ranges and/or restricted habitat requirements and/or small populations are typically the most vulnerable to extinction.<sup>29</sup> Forests play a prominent role in the overlap between the biodiversity and climate change governance systems. Since forests harbor 50–90 percent of all terrestrial species, conserving forests contributes significantly to biodiversity conservation. Forests also play an important role in the carbon cycle, acting as reservoirs, sinks (removing greenhouse gases from the atmosphere), or as sources of greenhouse gases. Forest loss and degradation is responsible for about 20 percent of global greenhouse gas (GHG) emissions.<sup>30</sup>

In analyzing specific interactions between the biodiversity and climate change governance systems, we focus on those interactions for which the climate governance system represents the source and the biodiversity governance system is the target. We have chosen the issues which are currently most debated and on which the systems interact most intensively: biofuels and REDD+.

The development and use of biofuels are promoted to reduce greenhouse gas emissions. Depending on the type of biofuel measures adopted in the climate change governance system, the biodiversity governance system will be influenced negatively or neutrally. The influence depends on the crop that is used for the production of biofuels, management practices, land-use changes, and energy processes. The main impacts of biofuels include competition for land with other land uses including the production of food, additional GHG

25. IPCC 2007b.

26. Lovejoy and Hannah 2005; and MEA 2005.

27. IPCC 2007b.

28. CBD 2007a.

29. IPCC 2002.

30. IPCC 2007a.

emissions, deforestation, land conflicts, food prices, and water-related impacts.<sup>31</sup> Indirect impacts also prove important, as when the expansion of biofuel crop production causes producers of food crops to move to other areas, where they destroy forests to create new agricultural land. Overall, the influence is negative when climate change actors promote the use of biofuels that (directly or indirectly) compete for land use in areas important to biodiversity conservation. The influence can be neutral, however, if actors in the climate change governance system take potential negative influences on biodiversity into account when developing biofuels measures.

With REDD+, the conservation and sustainable use of forests are applied as a climate change mitigation instrument. The conservation of existing carbon pools is achieved by avoided deforestation and forest degradation. Improved forest management can also enhance carbon uptake or minimize carbon losses and conserve biodiversity. Preventing further deforestation is relatively cheap compared with other types of mitigation and is cost-effective in reducing greenhouse gas emissions.<sup>32</sup> The manner in which actors in the climate change governance system develop or implement REDD+ policy influences the effectiveness of the biodiversity governance system. Since forests harboring the most carbon are not always the most biodiverse forests, REDD+ policy targeted solely at climate change may not support forest biodiversity conservation efforts, and the influence will be neutral. If climate change actors include biodiversity aspects in the development or implementation of REDD+ policy, the biodiversity governance system is influenced positively. This latter, broader perspective on REDD+ is often described as addressing “multiple benefits,” “co-benefits,” or “additional benefits.”

## Interaction Management by Partnerships

This section discusses the main partnerships involved in the interaction management between the biodiversity and climate change governance systems on the issues of biofuels and REDD+. After briefly introducing the topic, we describe each partnership and analyze their interaction management functions.

### *Biofuels*

The main international partnerships working on biofuels are developing certification standards for sustainable biofuels and include the Roundtable for Sustainable Palm Oil (RSPO), the Better Sugarcane Initiative (BSI), and the Roundtable on Sustainable Biofuels (RSB). These partnerships manage the interactions between the climate and biodiversity governance systems by defining in detail what sustainable biofuels are in order to improve the influence of the

31. CBD 2007b.

32. Stern 2006.

climate change governance system on the biodiversity governance system. The interaction management by the partnerships can be viewed as a response to efforts by governments to promote the development of biofuels to reduce GHG emissions and improve national energy security. At the moment, biofuels are mainly produced in Brazil, the USA, and the European Union. There are two main types: biodiesel, produced from vegetable oil (e.g. palm oil), and ethanol, produced mainly from sugar cane and corn.<sup>33</sup> The analyzed partnerships have been selected because they work on one of the most heavily debated crops used for biofuels (RSPO), one of the currently most used biofuel crops (BSI), or aim to develop a general biofuel standard, not focused on a specific crop (RSB). They are presented in chronological order of their development.

The Roundtable for Sustainable Palm Oil (RSPO) was developed in 2004, before palm oil was recognized as a major biofuel crop; it has traditionally been used in the food industry. The private partnership includes over four hundred market and civil society organizations. The executive board includes representatives from industry and nongovernmental organizations (NGOs). The RSPO's primary goal is to develop and implement a standard for sustainable palm oil, a benchmark for the entire industry. The standard was adopted in 2005 and the first certified palm oil was sold in 2008. Almost four hundred thousand hectares of production area have been certified.

This partnership has been active on biofuels in several ways, fulfilling different interaction management functions. Its most important contribution has been policy development in the form of developing a certification standard. The partnership also established a working group to consider issues relating to GHG emissions relevant to the oil palm sector with the option of amending the standard to address these issues. The current standard already includes several requirements related to GHG emissions, including the criterion on land-use change that "new plantings . . . have not replaced primary forest . . ."<sup>34</sup> which supports both biodiversity and climate change goals. However, the GHG impact of these requirements is not yet quantifiable. The goal of amending the standard is to include the demand that producers should have an administration system in place, so that if a client wishes to receive the GHG figures, they are available. In this manner, the RSPO could play a role as a certification scheme for palm oil producers as part of the certification of the biofuel product chain. Other schemes would certify the rest of the chain. The RSPO also fulfills other functions in interaction management. Since member producers are increasingly becoming certified, the RSPO has started to fulfill an implementation function. The RSPO has also fulfilled the function of agenda setting by producing a position statement on bio-energy which states the "RSPO believes that the use of any . . . feed stocks should provide clear greenhouse gas benefits after considering the entire life cycle of the raw material."<sup>35</sup> It is fulfilling a meta-governance

33. FAO 2008.

34. See also Visseren-Hamakers and Glasbergen 2007.

35. RSPO undated a.

function by including partners from both the biodiversity and climate change governance systems; several companies involved in the biofuel industry have become RSPO members. The partnership is enhancing participation by developing the standard in a participatory manner and because of its high number of partners.

The Better Sugarcane Initiative (BSI) was started in 2005. It is a private partnership of almost thirty sugar producers, sugar-using food and energy companies, and NGOs. Its mission is to promote improvements in key environmental and social impacts of sugarcane production and primary processing by developing a certification standard. Continuous improvement is an important principle of the partnership, which focuses on mainstream sugar production. Like the RSPO, the BSI was not specifically set up to produce a standard for sustainable biofuel production. However, the debate on the sustainability of biofuels has become an important driver for BSI's work. The partnership has not decided on some major issues, including whether the initiative will develop into an organization that will manage the standard after it has been adopted.

BSI fosters policy development in interaction management by developing principles and criteria for more sustainable production and processing of sugar cane,<sup>36</sup> which are still under development. An important aspect of the draft standard for the interaction management of biodiversity and climate change involves preventing the conversion of natural habitat for sugar cane production. The standard aims to prevent the expansion of new sugarcane development into areas of critical biodiversity, including High Conservation Value Areas (HCVAs). This requirement was included in the standard after a public consultation period on the first draft.<sup>37</sup> Improvement of the standard through stakeholder consultation confirms that the partnership has also effectively enhanced participation.

The Roundtable on Sustainable Biofuels (RSB) formally started in 2007, after a stakeholder meeting in 2006. The roundtable is coordinated at the École Polytechnique Fédérale de Lausanne (EPFL) in Switzerland and is led by a multi-stakeholder steering board of eleven chambers, each encompassing a specific group of stakeholders, including governments, intergovernmental organizations, companies, farmers, research institutes, partnerships and NGOs. The core business of the public-private partnership is the development of a certification standard for sustainable biofuels.

The RSB has fulfilled the interaction management functions of agenda setting, policy development, and participation enhancement. The partnership has fostered agenda setting since it became active on the issue of sustainable biofuels relatively early. The RSB has also fulfilled a significant policy development function by developing criteria for sustainable biofuels. The first draft was published in 2007, and the first full version was released in 2009.<sup>38</sup> The standard in-

36. BSI 2009.

37. BSI 2008.

38. RSB 2009.



cludes the requirement that biofuels must contribute to reducing GHG emissions. This requirement is measured from “well to wheel,” thus including GHG emissions resulting from land use changes when land is converted to biofuel crop production. It also requires that conservation values be maintained or enhanced. The standard does not yet address indirect impacts from expansion of biofuel production. The RSB aimed to include these in the standard in 2010. The RSB has also improved participation through working with open working groups and organizing stakeholder processes in different regions. Interviews confirm that the partnership has not decided whether to apply the standard as a meta-standard, judging other standards that are being developed for specific crops used for biofuels (like the RSPO and BSI), or as an independent standard, used to certify different biofuel crops. Depending on this decision, the RSB could have an important meta-governance role, placing existing commodity standards into a global sustainable biofuels framework, or an implementation role, if the standard mainly becomes applicable for certification on the ground.

When implemented, the standard could fill an important gap left by the Kyoto Protocol of the UNFCCC. Under the Protocol, developed countries and countries with economies in transition (Annex I countries) have committed to GHG emission reduction targets. Since some of the major biofuel-producing countries like Brazil are not Annex I countries, their GHG emissions related to biofuels production are not considered under the Protocol. Moreover, when Annex I countries import and use these biofuels, the replacements of fossil fuels by these biofuels are fully used in their emission reduction accounting. Since the RSB considers the entire production chain of biofuels, it can fill this gap and improve the influence of the climate change governance system on the biodiversity governance system, especially if indirect impacts are included in the standard. The RSB also actively seeks recognition by market regulators, such as the European Union. In this manner, the standard could become an important tool in the implementation of public sustainability policy.

### *REDD+*

The main international partnerships working on REDD+ focus on developing markets for multiple benefit REDD+ and on influencing the intergovernmental debate on the issue. They include the Congo Basin Forest Partnership (CBFP), the Climate, Community and Biodiversity Alliance (CCBA), the Forest Carbon Partnership Facility (FCPF), and the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD). The REDD+ policy development process is part of the ongoing intergovernmental negotiations on the UNFCCC post-2012 climate regime. The issue of reducing emissions from deforestation was officially placed on the UNFCCC agenda in 2005 based on a submission by several countries, including Papua New Guinea and Costa Rica. The need for REDD+ policy was highlighted in the Copenhagen Accord, the outcome

of the UNFCCC Conference of Parties (COP) in Copenhagen in December 2009.<sup>39</sup>

The Congo Basin Forest Partnership (CBFP) was launched at the WSSD in 2002, and is a network of more than forty partners, including the ten African member countries of the Commission for the Forests of Central Africa (COMIFAC), donor countries, intergovernmental organizations, industry, research institutes, and NGOs. The public-private partnership works to improve communication and coordination among its member organizations. Goals of the partnership include providing people with sustainable means of livelihoods, and improving forest and natural resource governance.<sup>40</sup>

The CBFP sees REDD+ as an opportunity to support the ongoing work of its partners to foster the sustainable development of the Congo basin. It has successfully played an agenda-setting role by supporting the COMIFAC countries in lobbying to extend the discussion on reducing emissions from a focus on avoided deforestation to also include forest degradation. This is particularly important for the Congo basin, where forest degradation is a larger problem than deforestation. In this manner, REDD+ has also become a funding opportunity for the Congo basin forests, the second largest area of tropical rainforest worldwide, and thus an important area for biodiversity conservation. The partnership is fostering policy development and enhancing participation by supporting partners in formulating and developing REDD+ pilot activities and feeding the lessons learned into the international debate, supporting the Congo basin countries in strengthening their participation in the intergovernmental negotiations, and building capacity in the region to prepare for REDD+ mechanisms.<sup>41</sup>

The Climate, Community and Biodiversity Alliance (CCBA) was founded in 2003, and partners include NGOs and companies. Conservation International, an international NGO, coordinated the creation of the alliance. The private partnership manages the interactions between the climate and biodiversity governance systems by contributing to the development of the market for carbon credits for Land Use, Land Use Change, and Forestry (LULUCF) activities, which include REDD+. This market is still a relatively small fraction of the growing carbon market: around 21 percent of transactions in the over-the-counter (OTC) voluntary carbon market were from forestry projects in 2009.<sup>42</sup>

The CCBA has contributed significantly to interaction management through policy development, agenda setting, implementation, and participation enhancement. CCBA's core business is to stimulate markets for multiple benefit land-based carbon projects. The partnership contributed to policy development in 2005 by releasing its voluntary CCB standard for land management projects that simultaneously minimize climate change, support sustainable de-

39. UNFCCC 2009.

40. Visseren-Hamakers and Glasbergen 2007.

41. CBFP 2008.

42. Hamilton et al. 2010.

velopment, and conserve biodiversity.<sup>43</sup> By developing the standard early, the CCBA literally set the standard for multiple benefit carbon finance. The partnership has since sought to implement the standard, having twenty-one projects already validated and another twenty-seven currently undergoing validation. The partnership has also enhanced participation, especially at the project level where stakeholder participation is especially important as well as in the development of the global standard. Some verified projects combine the CCB standard with the Forest Stewardship Council (FSC) standard, a standard for sustainable forest management. Some CCB-verified projects are official projects under the Clean Development Mechanism (CDM) of the Kyoto Protocol. Under the CDM, Annex I countries can use LULUCF projects to reach their emission reduction targets. The CCBA thus enables countries to do so while addressing multiple benefits.

The Forest Carbon Partnership Facility (FCPF) is a World Bank carbon finance partnership. In 2007, the G8 Summit supported the initiative, and the FCPF was launched. Eleven developed countries and The Nature Conservancy, an NGO, have committed around US\$170 million. The public-private partnership is working to build the capacity of more than thirty-five developing countries in tropical and subtropical regions for REDD+. It aims to work on some of the most important underlying causes for deforestation, including improving law enforcement and securing land tenure and land rights, to ensure that emission reductions are sustainable.

Interviews support the conclusion that the FCPF's main contribution to interaction management is policy development through the piloting activities of the partnership. By simply starting to experiment with REDD+, producing real life experience, the FCPF enables UNFCCC parties to develop more effective REDD+ policies in the post-2012 climate change regime. Its piloting activities also play important indirect roles in enabling implementation by supporting developing countries in preparing to implement REDD+ policy. Because the partnership was one of the first to work on REDD+, it has contributed in an important manner to placing the issue on the agenda. The extent to which the FCPF will manage the biodiversity-climate change governance system interactions will partly depend on the political debate on REDD+. Because REDD+ is currently a highly political issue, the partnership has to reflect the majority view of UNFCCC parties that the key driver of REDD+ policy is climate change. Thus, the FCPF is in essence a carbon measure; "to the extent possible" the activities will be planned to also foster "additional benefits" in terms of poverty reduction and biodiversity.<sup>44</sup>

A partnership very similar to the FCPF is the UN-REDD Programme, which was launched in 2008. Its policy board includes members from the Food and Agriculture Organization of the United Nations (FAO), the United Nations

43. CCBA 2005.

44. FCPF 2008.

Development Programme (UNDP), the United Nations Environment Programme (UNEP), programme countries, donors, civil society, and the UN Permanent Forum on Indigenous Issues.<sup>45</sup> It is a public-private partnership designed to assist developing countries to prepare and implement national REDD+ strategies. Currently there are nine developing countries involved as pilot countries. Thirteen other developing observer countries are involved to a lesser extent. The governments of Norway, Spain, and Denmark have contributed US \$75 million to the programme.

The partnership has contributed to interaction management in similar ways to the FCPF, although it has had a smaller agenda setting role, since it began after the FCPF. It does, however, fulfill policy development and implementation functions by supporting the development and implementation of REDD+ policy by developing countries. Also, in its aim to ensure multiple benefits, it proactively supports the engagement of indigenous people and civil society in REDD+, thereby enhancing participation. By building experience with multiple benefit REDD+, UN-REDD enables its inclusion in a post-2012 climate change regime.

## Discussion and Conclusions

This article has analyzed how international partnerships contribute to managing the interactions between the international biodiversity and climate change governance systems. The analysis has focused on those issues on which the governance systems currently interact most intensively, namely biofuels and REDD+. This section reflects on the overall contributions of partnerships to interaction management, evaluates the gaps and limitations of their interaction management activities, and discusses the roles of partnerships, their implications, and suggestions for future research.

Most interactions between the biodiversity and climate change governance systems emerged on the agenda in 1992 in the original text of the UNFCCC. Article 4, for example, promotes the conservation of sinks and reservoirs of greenhouse gases, including forests.<sup>46</sup> However, most active interaction management by partnerships started only recently, in the wake of the emergence and exponential growth of partnerships after the WSSD in Johannesburg in 2002. Now that the partnership instrument has become more institutionalized, partnerships have become active in interaction management as soon as an issue rises on the international agenda. The CBFP, for example, a forest partnership from the biodiversity governance system, has proactively sought to manage governance system interactions on REDD+ in the realization that this relatively new issue could become a unique funding opportunity for forest conservation. Also, partnerships that were developing standards for the sustainable production of

45. UN-REDD 2009.

46. UNFCCC 1992.

commodities realized “their” commodity is or can be used for biofuels, and are including biofuel members in their partnership and biofuel aspects in their standards. Other partnerships, such as the CCBA, were developed especially to play a role in placing governance system interactions on the agenda.

Overall, the seven partnerships analyzed here have actively managed the interactions between the biodiversity and climate change governance systems. Their most frequently fulfilled interaction management function is policy development, followed by agenda setting, participation enhancement, and implementation. The partnerships have worked relatively little on meta-governance. All seven undertake policy development functions; some of the policy developed by the partnerships can be considered as contributing significantly to improving the interactions among the governance systems. Their agenda setting functions can also be considered as highly relevant in improving interactions. Several of the partnerships even undertake implementation functions. This functional differentiation differs from that usually used in the traditional NGO literature, where these actors are often considered to have mainly<sup>47</sup> or even only<sup>47</sup> an agenda setting role, while governments do the policy making and implementation.<sup>47</sup>

On the issue of biofuels, the partnerships successfully manage the interactions by fulfilling policy development functions through designing standards for sustainable biofuels, thereby defining what sustainable biofuels are in practice. The partnerships active on REDD+ have mainly fulfilled important agenda setting and policy development roles. They are ahead of the intergovernmental negotiations and seek to enable the development of a future climate change regime with a positive influence on the biodiversity governance system by feeding their real-life experiences with REDD+ into the negotiations. Thus, on both issues, partnerships have made important contributions to the management of governance system interactions. The effectiveness of interaction management by the partnerships analyzed here can be explained by the fact that they usually start as small informal organizations that are flexible and can readily adjust to changes and new opportunities. Also, by specializing on one issue they can make a relatively large contribution to that specific area of expertise. Without the partnerships’ interaction management, the development and implementation of policy to address the interactions among the biodiversity and climate change governance systems would certainly have been slower. The partnerships have created momentum for improving the governance systems’ interactions, especially the partnerships working on REDD+.

Partnerships play a unique role in interaction management, especially by initiating pilots on emerging issues. Through the partnerships, new methodologies are developed that can then be scaled up and used by others. The effect of “policy development through piloting” should not be underestimated; partnerships can be important innovative instruments in governance system develop-

47. See, for example, Willetts 1982.

ment. Another specific partnership role in interaction management involves the development of sustainability standards for managing interactions and the combined use of sustainability standards from both governance systems. For example, projects that are verified by the CCBA may also be CDM-certified and/or certified by the FSC. Different partnerships also communicate regularly to avoid overlap. Increasing efforts in this type of consolidation of or collaboration among sustainability standards may be necessary in the future, as the biodiversity and climate change governance systems continue to interact more intensely, and new standards continue to be developed.

Even though the partnerships are actively managing the interactions, and are affecting the existing interactions in specific cases, they have not prompted larger-scale structural improvements of existing negative and/or neutral influences between the climate change and biodiversity governance systems, since they are not able to prevent other actors from developing biofuels or REDD+ initiatives which do not take both climate change and biodiversity concerns into account.

Moreover, when overseeing the interaction management efforts by the partnerships as a whole, several gaps become evident. In terms of interaction management functions, meta-governance appears to be performed relatively infrequently. The underrepresentation of meta-governance could help explain why interaction management efforts have not induced deeper structural improvements. Generally, actors specialize in either the issue of biodiversity or climate change; few people actively follow both issues, and the two governance systems operate relatively autonomously. This separation enables the development of non-integral solutions. An increased effort in meta-governance, coordinating among actors from both governance systems, could overcome these boundaries by bringing a broader base of knowledge and different priorities into the discussion of issues on which the biodiversity and climate change governance systems are functionally dependent or overlap.

Another potential gap can be found in terms of focus. Many actors, including several of those analyzed here, currently focus on the conservation of forests for climate change mitigation. Thereby, the conservation of marine and other types of ecosystems may receive less attention and funding. This could decrease the effectiveness of the biodiversity governance system, which risks neglecting important types of biodiversity while focusing on improving the negative and/or neutral influences of the climate change governance system, and on finding funding for forest conservation through the climate change debate.

An important insight from the research is the fact that the different partnerships vary in the deliberateness of their interaction management activities. Some, like the CCBA, have proactively managed biodiversity-climate change interactions by purposefully developing a standard which defines what it means in practice when REDD+ incorporates both climate and biodiversity concerns. Others have managed the interactions more implicitly. The BSI, for example, has made important contributions by developing a standard for a major biofuel

crop which addresses biodiversity, among other issues. The initiative was however not solely intended to manage interactions; the BSI simply aimed to enable a more sustainable production of sugar cane by developing a sustainability standard.

All of the analyzed partnerships use the market as steering mechanism, enabling markets for sustainable biofuels through developing certification standards or developing markets for carbon credits from REDD+ activities. Although these activities represent important contributions to interaction management, using the market as a steering mechanism has its limitations. This is something that the partnerships themselves are increasingly aware of. The RSPO, for example, recognizes that "it is outside the scope of a certification scheme to determine the allocation of palm oil for food, fuel and other uses."<sup>48</sup> Also, the RSB states that "voluntary certification alone may not be the best tool to address indirect impacts, since these macro-level impacts are likely to be beyond the control of the individual farmer or biofuel producer. . . ."<sup>49</sup> A combination of public and private steering is therefore necessary for more effective interaction management, especially at a macro-level. Such public-private interplay in interaction management is already being developed. The RSB, for example, is seeking recognition by government market regulators, and is filling gaps left by the UNFCCC. The CCB standard also complements the CDM by enabling "multiple benefit" CDM-projects, and the FCPF and UN-REDD aim to inform the intergovernmental negotiations on a post-2012 climate regime. These examples represent single cases of conscious public-private interaction management. However, greater awareness of the need for public-private interplay and a more proactive sculpting of governance systems and their interactions with other systems are necessary for more effective global environmental governance.

Our findings validate regime and governance theories regarding institutional interaction, the role of private players, and interaction management. The findings also validate our conceptualization of interaction management by partnerships, since all the causes for interaction, interactions among governance systems, and functions of interaction management, as distinguished above, could be separately identified in the analysis.

Finally, the findings also support the specific approach used in the article, in which two current issues in regime and governance literature, focusing on interaction management and including the roles of private initiatives, are combined. Future research could build on the foundation built here to establish more general explanations for the roles and effectiveness of non-state actors in interaction management. In addition, more fundamental questions remain unanswered, including the consequences of the increasing role of private steering mechanisms in interaction management and in the governance of sustainable development, more generally. Important elements involve managing the bal-

48. RSPO undated b.

49. RSB 2009.

ance between environmental issues for which the market is willing to pay versus issues for which the market mechanism does not seem to be the most effective steering mechanism; ensuring more general interaction management in an era of increasing roles of partnerships, which usually focus on a specific issue; and ensuring adequate meta-governance functions in the realm of international sustainable development governance as it becomes increasingly complex.

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