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Global Environmental Politics, Volume 14, Number 3, August 2014,  
pp. 41-63 (Article)



Published by The MIT Press

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# Producing Targets for Conservation: Science and Politics at the Tenth Conference of the Parties to the Convention on Biological Diversity

Lisa M. Campbell, Shannon Hagerman, and  
Noella J. Gray\*

The use of targets as statements of shared aspiration has increased in global governance,<sup>1</sup> as support for regulatory approaches to environmental protection has declined in favor of liberal and neoliberal ones.<sup>2</sup> In 2002, the parties to the Convention on Biological Diversity (CBD) committed to achieving “by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level”<sup>3</sup> through a series of targets further specified in 2004.<sup>4</sup> By 2010, failure to reach the targets was well documented and synthesized in Global Biodiversity Outlook 3 (GBO3).<sup>5</sup> It is amidst this backdrop that the CBD’s Tenth Conference of the Parties (COP10) convened to forge twenty new targets for 2020. The *Aichi Biodiversity Targets* (the 2020 Targets)<sup>6</sup> were prominent in COP10 negotiations, and the focus of various side events and lobbying efforts by nongovernment organizations (NGOs) and civil society groups (Figure 1).

\* This research was supported by the US National Science Foundation (award nos. 1027194 and 1027201). We would like to thank three anonymous reviewers for their helpful comments and suggestions. Collaborative event ethnography relies on collaboration in coordinating fieldwork, collecting and analyzing data, and thinking through meaning. This paper reflects the efforts of the larger team working on site in Nagoya. The CBD COP10 CEE team is J. Peter Brosius, Lisa M. Campbell, Noella J. Gray, Kenneth I. MacDonald, Maggie Bourque, Catherine Corson, Juan Luis Dammert B., Eial Dujovny, Shannon M. Hagerman, Sarah Hitchner, Shannon Greenberg, Rebecca Gruby, Edward M. Maclin, Kimberly R. Marion Suisseea, Deborah Scott, Daniel Suarez, and Rebecca Witter.

1. Black and White 2004; Maxwell 1999.

2. Bernstein (2001) traces these shifts as beginning prior to the 1972 Stockholm Conference on the Human Environment and solidifying at the 1992 UN Conference on Environment and Development.

3. CBD 2002.

4. CBD 2004, Annex II.

5. Mace et al. 2010; Secretariat of the Convention on Biological Diversity 2010; Wood et al. 2008.

6. CBD 2010a.



**Figure 1**

Conservation International's Target 11 campaign button (left), and Bird Life International's 2020 Targets campaign logo (right).

The 2020 Targets will influence conservation through to the next decade, via National Biodiversity Strategies and Action Plans (NBSAPs)<sup>7</sup> and actions of NGOs and governments.<sup>8</sup> The reach of targets extends to other international agreements such as the UN Framework Convention on Climate Change (UNFCCC) and the Convention on International Trade in Endangered Species.<sup>9</sup> The 2020 Targets will underwrite scientific and technical efforts to develop appropriate indicators and monitoring protocols. In short, the 2020 Targets are a newly articulated set of objects for political and scientific action.

Over time, targets become increasingly “naturalized” objects detached from the negotiations that produced them. We seek to re-embed the 2020 Targets in their production, by revealing the scientific and political arguments that were invoked during negotiations, but are masked in the final language. We illustrate how the production of CBD targets reflects and constitutes relationships within the CBD, and between the CBD and other agreements. We draw on science and technology studies (STS), specifically on ideas of coproduction, hybrids, metrological practices, and actor networks, to analyze the work done to determine targets and assert their “purity.”<sup>10</sup> We are interested in both the general issues brought to bear in this work (e.g., geopolitics, neoliberal governance), and how this work is performed in the context of the CBD's history, rules, and procedures.<sup>11</sup> Drawing on the results of a collaborative event ethnography (CEE) at CBD COP10 (see Campbell, Corson et al., this issue), we

7. CBD (2010b) directs parties to focus their Fifth NBSAPs on implementation of the 2011–2020 Strategic Plan and the 2020 Targets.

8. Corson 2011.

9. E.g. CITES 2012. See also submission by Inter-American Institute for Global Change Research to the 35<sup>th</sup> Session of the Subsidiary Body for Scientific and Technological Advice to the UNFCCC, available at <http://unfccc.int/resource/docs/2012/smsn/igo/82.pdf>, accessed April 9, 2014.

10. Latour 1993.

11. Hajer 2005.

contribute to a critical understanding of targets (and similar instruments) and their role in global governance.

## Understanding Targets: Science, Politics, and Global Environmental Governance

Natural and social scientists, lawyers, and conservationists have reflected on the CBD targets, both the problems with the 2010 effort and how to overcome them for 2020. One theme is to ensure that the 2020 Targets are SMART (specific, measurable, achievable, realistic, and time-related).<sup>12</sup> SMART targets require more, higher quality, geographically distributed data; clearly defined indicators to measure progress; and institutional mechanisms to link monitoring and decision-making.<sup>13</sup> These analyses assume the usefulness of targets. The challenges are to get them “right” and ensure progress can be monitored, measured, and acted upon.

A second less common theme of analysis questions the effectiveness of biodiversity targets. Harrop and Pritchard characterize CBD targets as “soft law,” and as vague, nonbinding, and designed for maximum flexibility.<sup>14</sup> Billé et al. consider the role that targets play in constructing what conservation is and who is responsible for it. They ask: “Whose action do they [targets] make possible, and which positions do they make undefendable?”<sup>15</sup> They recognize targets as objects imbued with political meaning. We extend this line of analysis, drawing on STS and its insights into the relationship between science, policy, and environmental governance.

New institutions to direct the actions of nation states have emerged over the past several decades,<sup>16</sup> and their authority has relied in part on their claims to scientific expertise.<sup>17</sup> The “best available science” is the desired basis for decision making, as exemplified in the CBD’s Strategic Plan that recognizes the need for “decision-making . . . based on sound science and the precautionary approach.”<sup>18</sup> In emphasizing science, these institutions seek to distance themselves from politics, and in doing so claim roles as legitimate, impartial decision makers.<sup>19</sup> Such claims assume a linear and unidirectional relationship where science (and scientific consensus) informs policy.<sup>20</sup> Though this relationship is often upheld as both ideal and possible,<sup>21</sup> many practitioners and researchers recognize it as problematic.<sup>22</sup>

12. Mace et al. 2010; Wood 2011.

13. Jones et al. 2010; Mace et al. 2010; Walpole et al. 2009; Wood 2011.

14. Harrop and Pritchard 2011.

15. Billé et al. 2010, 46.

16. Kingsbury 2005.

17. Haas 1989; Winickoff and Bushey 2010.

18. CBD 2010a, Annex/III.12.

19. Kinchy and Kleinman 2003.

20. Beck 2011; Bernstein 2001; Jasanoff and Wynne 1998.

21. See Beck 2011; Jasanoff 1990.

22. Gray and Campbell 2009; Robertson and Hull 2003.

Views on the ideal relationship between science and policy lie on a spectrum. STS scholars describe science and policy as coproduced, each contributing to the reconfiguration of the other.<sup>23</sup> In STS, this is not a problem to be fixed, but a reality to be recognized.<sup>24</sup> Products of coproduction—institutions, policies, objects—are hybrids, “social constructs that contain both scientific and political elements, often sufficiently intertwined to render separation practically impossible.”<sup>25</sup> Far from neutral, hybrids reflect and reinforce configurations of power and knowledge that contributed to their coproduction.<sup>26</sup> However, when separated from the coproduction process, hybrid objects can be mistaken as “pure” and perform a kind of anti-politics, whereby the scientific or technical masks the political.<sup>27</sup>

Metrological practices—e.g., setting and measuring standards, targets, criteria, thresholds—are key anti-political devices.<sup>28</sup> Although they may be contested while being established, they often circulate as independent, natural objects.<sup>29</sup> Decisions about what to measure necessitate further metrological work to develop standardized accounting and monitoring procedures. Because metrological practices define what warrants measurement, they “do not just reflect reality as it is. They create new realities (calculable objects).”<sup>30</sup> Though STS scholars most often cast metrological practices as anti-political, there is the possibility for “political rather than anti-political effects, shifting and opening up the space of politics.”<sup>31</sup> Miller sees such possibility in international regimes where standards of consensus mean that “different viewpoints cannot simply be ignored but must be carefully accommodated.”<sup>32</sup> One opportunity for opening up might occur when metrological practices are being negotiated.

A final insight from STS relates to actor networks.<sup>33</sup> Actor network theorists emphasize the relations among humans and nonhumans drawn together in assemblages. These networks are not merely “collections of actors,” but sets of relations and practices that “challenge traditional modes of ordering” and produce and distribute truth claims.<sup>34</sup> Scientific authority and legitimacy are not contained in any one actor, but are spread across “actors, tools, and institutions.”<sup>35</sup> Likewise, there is no single recipient of scientific information, but a “multiplicity of audiences to which knowledge must appear credible.”<sup>36</sup> This

23. Jasanoff 2004a.

24. Latour 1993.

25. Miller 2001, 480.

26. Jasanoff 2004b.

27. Ferguson and Lohmann 1994.

28. Barry and Slater 2002.

29. Miller 2001, 489.

30. Barry and Slater 2002, 181.

31. Barry and Slater 2002, 188.

32. Miller 2001.

33. Callon 1986.

34. Eden 2009, 384.

35. Winickoff and Bushey 2010, 374.

36. Miller 2001, 494.

complexity requires that researchers seeking to understand an actor network follow chains of knowledge generation, legitimation, and exchange.<sup>37</sup>

Drawing on these insights from STS, we use negotiations over the CBD's 2020 Targets to illustrate their hybrid nature. Although we interrogate how scientists, diplomats, and other delegates invoked science during negotiations, we do not attempt to evaluate the veracity of scientific claims or determine the extent to which targets are science-based. Rather, we are interested in the power of science as an idea, and what that power accomplishes. As such, we detail the ways in which the coproduction process reflects, reinforces, or challenges existing configurations of power in the CBD, and how power relations are maintained and challenged through institutional practices. In casting targets as metrolological, we analyze the "reality" they create for how conservation is defined and progress measured. Finally, by positioning the CBD and its targets as actors in a wider network, we consider politics external to the CBD as part of the coproduction process, and reflect on the kind of work the targets do within this broader network.

## Methods

The introduction to this special issue details both the COP10 meeting structure and collaborative event ethnography (CEE) as a method (see Campbell, Corson et al. this issue). Within the larger research team, our subgroup tracked the 2020 Targets. At COP10 the contact group devoted to negotiating the CBD's Strategic Plan, where the 2020 Targets were the main focus, was the most important site of study. The Strategic Plan Contact Group (SPCG) met nine times (Table 1). Meetings lasted several hours, in rooms that were often so overcrowded that observers stood in the halls outside open doors. The SPCG co-chairs reported to Working Group II (WGII) on five occasions, and final negotiations occurred in WGII. The 2020 Targets were the focus of several side events, and they were also referenced in side events devoted to other topics (e.g., protected areas); contact groups for other decisions (e.g., the marine decision); lobbying efforts by NGOs and civil society groups (Figure 1). Table 1 lists only side events focused exclusively on targets, or where the discussion of targets was substantive enough to include in our analysis. We took detailed notes at all events, as well as audio recordings and photographs when permissible.

Table 1 reflects our focus on three of the 2020 Targets, selected for three reasons. First, not all twenty targets were negotiated at COP10. SPCG negotiations began with text developed by the Working Group on the Review of Implementation of the Convention (WGRI),<sup>38</sup> in which ten of the twenty targets were "unbracketed," meaning their language had been agreed upon. Second, of the remaining ten targets, three of these—on access and benefits sharing, Article 8.j,

37. Eden 2009.

38. WGRI 2010.

**Table 1**

## Target-Related Events at COP10

*Formal COP10 Negotiations*

<i>Date</i>	<i>Session Number<sup>a</sup></i>	<i>Negotiating Body</i>
10/19	SPGC 1	Strategic plan contact group (SPCG)
10/20	SPGC 2	SPCG
10/21	SPGC 3	SPCG
10/22	SPGC 4	SPCG
10/23	SPGC 5	SPCG
10/25	SPGC 6	SPCG
10/25	WGII 1	Working group II report
10/ 26	SPGC 7	SPCG
10/26	SPGC 8	SPCG
10/26	WGII 2	WGII report
10/27	SPGC 9	SPCG
10/27	WGII 3	WGII negotiations
10/28	WGII 4	WGII negotiations
10/ 29	WGII 5	WGII negotiations

*Side Events*

<i>Date</i>	<i>Session Number<sup>a</sup></i>	<i>Title</i>	<i>Sponsor</i>
10/18	2272	Genetic biodiversity in forests, inland waters, and marine environments—targets and indicators for monitoring genetic variation for resilience and future adaptation	Swedish Scientific Council on Biological Diversity
10/19	2147	Tools for mainstreaming NBSAPs in broader development processes	CBD Secretariat
10/19	1859	IUCN—A new vision for biodiversity conservation. IUCN's position on the post 2010 targets	IUCN
10/19	1769	Protected areas—Maintaining their values and functions: The role of CBD/POWPA	IUCN
10/20	1825	Achieving the 2020 targets: protecting the right areas	Conservation International
10/20	2175	Global Biodiversity Outlook 3 and beyond	CBD Secretariat; Diversitas; UNEP-WCMC

**Table 1**  
(Continued)

<i>Date</i>	<i>Session Number<sup>a</sup></i>	<i>Negotiating Body</i>	
10/21	1805	TEEB—The Economics of Ecosystems and Biodiversity: Examples of best valuation practice from Japan and national policy findings and options	Institute for Global Environmental Strategies; UNEP-TEEB.
10/21	2125	Emergency marine rescue plan: Implementing the roadmap to recovery	Greenpeace
10/21	1786	Post 2010 trends and issues for protected areas	UNDP-GEF
10/26	1861	Nuts and bolts: Putting together financial sustainability of protected area systems	The Nature Conservancy

<sup>a</sup>Data presented in the text are referenced by session number in footnotes.

and financing—were discussed in separate contact groups and closed high-level sessions. Although we consider how these targets were invoked in SPCG negotiations, we do not analyze them in depth. Third, of the remaining seven targets, we focused on Target 3 (biodiversity mainstreaming), Target 5 (ecosystem protection), and Target 11 (protected areas). They were among the most contentious, address three of the five strategic goals of the targets package, and illustrate different elements of our theoretical interests (Table 2).

In analyzing our notes, we first coded the major themes evident during negotiations and at side events. Then we focused on content (e.g., substantive issues for the particular target), theme (e.g., perceived role for targets, political versus scientific arguments, metrological practices, policy implications, other relevant agreements), and structure of the debate (e.g., key actors associated with positions, how institutional history, rules, and procedures influence the debate). We present findings for each target and then discuss their combined meaning.

## Results

### *Biodiversity Mainstreaming—Target 3*

Target 3 is designed to meet Strategic Goal A (“Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and

**Table 2**  
Negotiating and Final Text of Targets 3, 5, and 11

No.	Negotiating text from WGI <sup>a</sup>	Final text <sup>b</sup>
3	By 2020, at the latest, incentives [, including subsidies,] harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts [and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, [consistent with relevant international obligations]], taking into account national socio-economic conditions.	By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent with and in harmony with the Convention and other relevant international obligations, taking into account national socio-economic conditions.
5	By 2020, the rate of loss and degradation, and fragmentation, of natural habitats, [including forests], is [at least halved][brought close to zero]	By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.
11	By 2020, at least [15%][20%] of terrestrial, inland- water and [X%] of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through comprehensive, ecologically representative and well-connected systems of effectively managed protected areas and other means, and integrated into the wider land- and seascape.	By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.

<sup>a</sup>WGI 2010; <sup>b</sup>CBD 2010b.

society”). It focuses on economic reform related to subsidies (Table 2). COP10 featured mostly economic tools for mainstreaming, recognizing that “economics has become the currency of policy . . . whether you like it or I like it.”<sup>39</sup> Mainstreaming initiatives like The Economics of Ecosystems and Biodiversity (TEEB) were prominent at COP10,<sup>40</sup> and their rise is the culmination of a decade-long shift in conservation towards market-based approaches and the characterization of nature as a storehouse of ecosystem services.<sup>41</sup> Formally launched at COP10, TEEB was embraced as a scientific approach to ensure that the value of biodiversity is accounted for in decision-making. The president of Conservation International (CI) described TEEB as the most important document ever written for biodiversity conservation,<sup>42</sup> and a representative from the ASEAN Center for Biodiversity suggested, “People attending the COP are already convinced about ecosystem services.”<sup>43</sup> Although some indigenous and local community representatives<sup>44</sup> and conservation biologists<sup>45</sup> resisted this “economic turn” in the CBD, overall it was widely embraced.<sup>46</sup>

TEEB’s goals are reflected in Target 3, in that removing subsidies supports the calculation of the “real” value of nature. In one side event, a representative for the German Ministry of the Environment claimed that TEEB would find its way into the CBD through the targets, and she encouraged negotiators to talk to the report’s lead author.<sup>47</sup> In another, a senior official justified IUCN’s call for a hundred-fold increase in conservation funding by 2020 by stating that, though “scary,” it would be partly achieved via Target 3; eliminating perverse subsidies will allow for a reorientation of money that is “already there.”<sup>48</sup>

In the SPCG, debate over Target 3 focused on specifying subsidies as negative incentives to be eliminated [Table 2, first bracket]; including the promotion of positive incentives [second bracket]; and implications for “other” obligations [third bracket]. The debate over the first bracket highlighted long-standing concerns of developing countries that environmental conservation should not unduly constrain development.<sup>49</sup> Even though the technical rationale for Target 3 recognizes “common but differentiated responsibilities” and the importance of subsidies for poverty alleviation,<sup>50</sup> developing countries resisted a blanket statement about subsidies. Supported by Japan, they eventually allowed subsidies to

39. Side event 1805, Table 1.

40. Hagerman et al. 2012; MacDonald and Corson 2012; Suarez and Corson 2013.

41. Berstein 2001; MacDonald 2010.

42. Side event 1825.

43. Side event 1805.

44. Corson et al. forthcoming.

45. Hagerman et al. 2012.

46. See Buscher et al. 2012, Corson et al. 2012, and MacDonald 2010, on the significance of this trend for biodiversity conservation, a field traditionally resistant to the extension of economic logic.

47. Side event 1805.

48. Side event 1859.

49. Bernstein 2001.

50. CBD 2010c, Add.1.

be specified in the text [first bracket], provided positive incentives were recognized as useful for conservation [second bracket].

New Zealand, which has eliminated subsidies in agriculture and fisheries, led those opposing a reference to positive incentives. With support from Switzerland and Australia, New Zealand insisted that if positive incentives were recognized, the target must also recognize “other” international obligations as a constraint [third bracket]. The Africa group objected on the basis that this recognition is already in Article 22 of the CBD and the language implies the CBD is subordinate to other agreements. Siding with New Zealand, Australia was most direct in assessing positive incentives: “While they may be a good thing for biodiversity, they should not distort trade.”<sup>51</sup> Throughout this discussion, the co-chair referenced the “long” debate at COP9 where the issue was resolved in favor of New Zealand.<sup>52</sup> He invoked this decision to cut short the debate, declaring the language would have to stay, but that they should try to make it as “elegant” as possible.<sup>53</sup>

The debate over Target 3 was embedded in a larger one about the economic turn. Led by the EU, and supported by Norway, New Zealand, Brazil, and others, primarily developed countries invoked TEEB as the new authority on biodiversity conservation, the “new bible.”<sup>54</sup> They described Target 3 as critical to achieving the kind of “paradigm shift” TEEB promotes,<sup>55</sup> by making “visible the invisible” and giving biodiversity a value other than zero. More generally, Brazil argued that countries have too long relied on governments to manage the environment, and emphasized the need for parties to embrace market mechanisms.<sup>56</sup> Though such mechanisms have long been promoted in broader environment and development forums, their application to biodiversity conservation is relatively new; the CBD’s 2010 targets did not include any related to “mainstreaming.”

The Philippines, along with China, Bolivia, and others, challenged mainstreaming logic. Although China questioned technical capacity, the Philippines’ objection was more fundamental:

When you look at values of biodiversity . . . You are talking economic values . . . Or are you talking cultural values? Or are you talking social values? For many of us, social and cultural values are important. . . . Biodiversity is invaluable. Are we going to be able to sell the religious value of a mountain?<sup>57</sup>

Bolivia supported the Philippines: “The main concern is that there are some values that cannot be valued economically.”<sup>58</sup> To the evident frustration of

51. SPCG 3.

52. CBD 2008.

53. SPCG 3.

54. EU delegate, SPCG 3.

55. SPCG 3.

56. SPCG 3.

57. SPCG 3.

58. SPCG 3.

TEEB promoters, the Philippines' delegate stated she was unaware of TEEB. True or not, denying awareness of it reinforces a key point about it: TEEB was proposed by Germany at a 2007 G8 meeting and funded by the European Commission, Germany, the UK, the Netherlands, Norway, Sweden, and Japan. Developed countries are the ones embracing it as the roadmap to the needed "paradigm shift."

Developing countries' resistance to such a shift may arise from genuine disbelief that market reform can save biodiversity, but also from the implications for traditional biodiversity financing. Negotiations for replenishing the CBD financial mechanism—via the Global Environment Facility (GEF)—were ongoing at the same time as negotiations over targets. Developing countries repeatedly emphasized the need for adequate financing to avoid a repeat of CBD's 2010 failure.

### *What's in a Forest? Target 5*

Target 5, listed under "Strategic goal B: Reduce the direct pressures on biodiversity and promote sustainable use," focuses on habitats (Table 2). Although this target received little attention outside of the SPCG, negotiations about it were prolonged and repetitive and required multiple meetings of a "friends of the chair" group. Although the level of ambition for reducing habitat loss [Table 2, second bracket] was part of the debate, the question of whether or not to privilege forest ecosystems [first bracket] dominated.

The EU, with peripheral support by Norway and Canada, insisted that forests be highlighted in the target because forests are essential ecosystems for biodiversity; good data on forest coverage exist, allowing for monitoring (making the target SMART); the EU contributes significantly to forest conservation, and recognizing forests will help ensure continued funding; and forests are relevant in the "climate context."<sup>59</sup>

The Africa Group, Jamaica, Mexico, Colombia, Brazil, the Philippines, Costa Rica, Malaysia, and others disagreed with privileging forests. Opposition focused first on issues of inclusivity and the relative importance of forests to different countries. The Philippines exclaimed, "We are a country of islands!"<sup>60</sup> Brazil, Mexico, Jamaica, and others offered, often sarcastically, lists of ecosystems for inclusion. Malaysia suggested the language would allow unforested countries to ignore the target altogether: "When parties go back to their governments they will say, 'look here, forests are not important to us.'"<sup>61</sup>

More fundamentally, developing countries were skeptical about who would benefit from "including forests." They argued the EU's rationale was based, not on ecological concern, but on the relevance of forests in the "climate

59. SPCG 3.

60. SPCG 5.

61. SPCG 5.

context." The relationship between climate and biodiversity was a major theme at COP10, where REDD+ was often the focus.<sup>62</sup> REDD+ refers to the international mechanism under negotiation at the UNFCCC to create incentives to reduce deforestation and degradation (REDD), as well as promoting conservation, sustainable management of forests, and enhancement of forest carbon stocks through the generation of carbon credits and associated transfer payments. The EU's interest in forests was interpreted as interest in climate policy and REDD+. Mexico decried, "This is a habitat loss target. This is not a climate change target! . . . We are polluting T5."<sup>63</sup> Brazil noted wryly, "We are always concerned when the EU gives us the impression that all they are interested in is forests,"<sup>64</sup> and the Philippines expressed suspicion: "We have a problem specifying forests . . . we are not particularly concerned to protect the EU's funds."<sup>65</sup> Even the EU's supporters reinforced the importance of climate policy and funding. Canada noted that "we are at a historical juncture [considering] climate change, so for strategic purposes, I think this is very important."<sup>66</sup>

The EU countered relentlessly that the rationale was not climate motivated, and that including forests in Target 5 recognized their value for biodiversity. If funding was at stake, then the EU argued it was traditional funding for biodiversity:

Looking at some of the contributions that our countries make to global biodiversity funding, the first two areas by far—more than 60 percent of what we actually give—[are] protected areas and forests, knowing that many protected areas are actually very much forested. . . . We do not see forests being on top of other ecosystems, but we certainly find it odd, we find it very odd, if in the Strategic Plan there were no single references to forests and if those references to forests were to be limited to the climate change debate.<sup>67</sup>

Later in the negotiations, the EU added the importance of forests as emblematic ecosystems that "attract a lot of public attention for communications."<sup>68</sup> Though certainly the loudest voice in the negotiating room for including forests, the EU delegate invoked broader support for the idea by referencing prior negotiations:

The idea to mention forests is not a crazy new idea. The initial idea came from SBSTTA. Perhaps this suggests that the importance of forests in biodiversity terms is not just by us.<sup>69</sup>

During the eighth meeting of the SPGC the co-chair cited "deadlock" and solicited one final call for suggestions. Norway responded:

62. Hagerman et al. 2012.

63. SPCG 5.

64. SPCG 5.

65. SPCG 5.

66. SPCG 5.

67. SPCG 5.

68. SPCG 8.

69. SPCG 8.

We have been very difficult with this. This is particularly important for Norway—to have a focus on forests—as [forests are] a flagship ecosystem. We are very much looking forward to see the outcome of the discussions among the ministers today, and the outcome of some other negotiations . . . then we will be very open to discuss . . . but this depends on all sorts of other things.<sup>70</sup>

Norway was one of the first to acknowledge the “overall picture,” during the eighth SPCG meeting. Whereas for the first ten days each target was negotiated independently, toward the end targets were considered in relation to each other and other COP decisions. As the co-chair of the SPCG noted when reporting back to WGII on October 29<sup>th</sup>, “there is a common understanding of building a package, step by step.”

### *What’s in a Number? Protected Areas—Target 11*

Target 11 on protected areas (PAs) is listed under “Strategic Goal 3: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity.” As a target, PAs are notable for two reasons. First, progress on Target 11 can be measured, making it relatively SMART. While information may be imperfect, the number, size, and location of most of the world’s PAs are documented in the World Database on Protected Areas.<sup>71</sup> Second, an increase in PA coverage was one of the few “successes” documented by GBO3. Thus, there is much at stake in getting the number “right” for this target. As a result, Target 11 was intensively negotiated and was the subject of numerous side events, posters, promotional materials, and lobbying efforts by NGOs and civil society groups. For example, Conservation International created its 25/15 campaign, suggesting Target 11 should call for 25 percent of terrestrial and 15 percent of marine environments to be conserved through PAs (Figure 1).

Two issues dominated negotiations: the percentage of terrestrial and marine ecosystems to be protected [Table 2, first, second, and third brackets] and the language around what type of protection would count toward the target. Although not bracketed at the beginning of COP10, this language was renegotiated.

The major conservation NGOs were active on this target, and all promoted their positions as scientific. During side events, a Greenpeace representative argued, “scientists tell us a network of 40 percent [of the oceans in MPAs] is necessary,”<sup>72</sup> The Nature Conservancy emphasized the “need for rigorous science,”<sup>73</sup> and CI detailed their ecosystem service analysis to justify a 25-percent terrestrial PA target.<sup>74</sup> While delegates at COP10 expressed divergent opinions on PAs,<sup>75</sup>

70. SPCG 8.

71. Wood et al. 2008. Database available at <http://www.wdpa.org>, accessed April 9, 2014.

72. Side Event 2125.

73. Side Event 1769.

74. Side Event 1825.

75. Corson et al. forthcoming.

NGO representatives focused on finding the “right number” for Target 11 both at side events, and as observers in the SPCG, where they were occasionally invited to speak on “technical” matters relating to Target 11. Some NGOs were also able to promote their preferred numbers through supportive state delegates. When a Friends of the Chair group reported that they had agreed to a set of bracketed percentages for further negotiation, the Costa Rican delegate, Minister of Environment and Energy until 2006 and CI’s Senior Vice President of Conservation Policy at the time, quickly said he wanted to see “25 percent for terrestrial and 15 percent for water.”<sup>76</sup> The correspondence with CI’s numbers is apparent and CI’s numbers, in turn, were justified as science-based. Other state delegates echoed the emphasis on science, whether adopting or challenging numbers provided by NGOs. The Malaysian delegate argued that Target 11 “should be science-based. Reality is the key . . . we need to grind the figures to know where we are going.”<sup>77</sup>

In spite of agreement that Target 11 should be science-based, there was little agreement on what percentage was justified by science. China suggested 6 percent would be an appropriate target for marine PAs, given current low levels of coverage.<sup>78</sup> Other delegates gasped at the suggestion. The former target for marine PAs was 10 percent, and proposing a lower number did not sit well with delegates interested in ambitious targets or MPA expansion. The Chinese delegate held firm, insisting the number be “put on the screen” along with other bracketed numbers.

While delegates emphasized the importance of having science-based targets, they were also cognizant of the future political life of Target 11. Here opinions often differed between PA “have” and “have not” states. A Canadian delegate noted:

Protected areas tend to be the litmus test of achieving biodiversity objectives. . . . I know in Canada if it [Target 11] ends up as 20–25 [percent] and we end up doing 15 [percent . . . political leaders like to meet targets—balancing all these things is a real challenge.<sup>79</sup>

However, there are many political agendas at stake. The EU delegate was quick to admonish that a low target would also be politically unpalatable:

It is equally difficult politically to justify a degree of ambition that is not of the extent that would be required to protect biodiversity . . . 20 percent is the most balanced figure and we believe that it is achievable knowing where we are now. . . . There is also credibility at stake in this regard.<sup>80</sup>

Though getting the number right dominated the discussion of Target 11, delegates also debated what constitutes a PA and PA effectiveness. Target 11

76. SPCG 5.

77. SPCG 5.

78. SPCG 5.

79. SPCG 5.

80. SPCG 5.

recognizes that conservation may be achieved by “other means” (Table 2), and this is linked to the CBD’s efforts to recognize the contributions of indigenous and local communities to conservation.<sup>81</sup> Though negotiators accepted the need to recognize “other means,” some were concerned that the net not be cast too broadly. The eventual inclusion of the descriptor “area-based,” for example, ties conservation to particular places. Although there was debate about various nonstate forms of PA governance, delegates omitted any such reference. This debate about “other means” was not isolated from the debate about the right number; at one point, a representative from CI argued that because the target would include “other means” the percentage should be higher. This calls into question not only the scientific basis of the percentage but also the perceived legitimacy of “other means.”

Developing countries, led by Mexico, often lamented the focus on a number without considering management effectiveness and financial requirements. As with Target 3, negotiations over the financial mechanism were ever present, and the co-chairs and delegates recognized implicitly and explicitly that the target would return to WGII with percentages still in brackets. For Target 11, the decision on the financial mechanism was critical, since protected areas are both measurable and *fundable* objects of conservation.

## Discussion

### *Targets as Coproduced, Hybrid Objects*

For calculating economic value, trends in habitat loss, or percentage of PA coverage, authoritative knowledge claims, mostly labeled scientific, were critical to the 2020 Target negotiations. Delegates emphasized the need for SMART targets, particularly with targets that quantified goals. Negotiators also invoked scientific authority for Target 3, when the EU and others promoted TEEB as the new authority on rational decision-making, and when CI declared economics the new science for conservation. However, scientific arguments interacted with political ones. The interaction was sometimes acknowledged, as in the case when the EU, one of the most vociferous defenders of science-based targets, embraced multiple nonscientific arguments for including forests in Target 5. The interaction was also clear in debates about Target 11. When the Chinese delegate argued for a 6-percent marine PA target, he offered a trend analysis that is technically reasonable based on current levels of marine PA coverage and rates of increase, but politically unacceptable. For Target 3, the scientific and political were more difficult to parse. When the EU and others invoked TEEB as providing the rationale for Target 3, developing countries resisted not only TEEB’s logic, but what the economic turn more generally implies for biodiversity funding. In analyzing the interaction of the scientific and political, we illustrate the

81. See also Corson et al. forthcoming.

hybrid nature of the 2020 Targets. They are neither scientific objects tainted by political agendas, nor political objects informed by science, but “social constructs that contain both scientific and political elements.”<sup>82</sup>

In spite of their emphasis on science and the need for science to inform policy, we suspect that the participants in the SPCG recognize the final targets as coproduced hybrid objects (though perhaps in different terms, e.g., as products of compromise or corruption of the linear ideal). Our concern is that when targets move out of the SPCG, their hybridity is masked. They appear as natural, independent objects, easily communicated and circulated in a flyer.<sup>83</sup> The masking of politics is a key function of metrological practices and part of our goal in analyzing the 2020 Targets is to illustrate how, rather than being neutral, the 2020 Targets reflect and reinforce configurations of power and knowledge in the CBD.<sup>84</sup> Some configurations are general. For example, developing country suspicions that TEEB will serve the interests of its G8 originators were palpable during negotiations of Target 3. Given Lahsen’s findings on climate science, this suspicion should not be attributed to “lack of understanding.”<sup>85</sup> Rather, developing countries express a very specific understanding of whose interests science serves, informed by a general geopolitical history of international relations on the economy and environment.<sup>86</sup> For a second example, the expressed anxieties of delegates about including other means of conservation toward the PA target revealed their strength of commitment to particular ways of knowing and approaches to protection, as well as to state authority, both of which are upheld in the final target.

Developing countries’ concerns about the economic turn are also CBD-specific. The CBD’s program of work has been funded via the donor replenished GEF, and increased funding for biodiversity was one of the 2010 Targets on which GBO3 reported success.<sup>87</sup> However, at COP10 donors were promoting new funding models, and the EU, the largest contributor to the CBD, was one of the most enthusiastic. In contrast, recipient countries repeatedly emphasized the need for adequate financing channeled through the GEF if the 2020 Targets were to be reached. Thus, developing countries contested targets directed at freeing up money “already there” (Target 3) and at capitalizing on interest in forests (Target 5), at least in part because of what such targets imply for how conservation is paid for and by whom.

### *Targets within the CBD*

Developing countries’ efforts to link targets to finances illustrate how targets are enmeshed in CBD history, rules, and procedures. The “overall picture” that

82. Miller 2001, 480.

83. See flyer available at [www.cbd.int/doc/strategic-plan/2011-2020/Aichi-Targets-EN.pdf](http://www.cbd.int/doc/strategic-plan/2011-2020/Aichi-Targets-EN.pdf), accessed April 9, 2014.

84. Jasanoff 2004b.

85. Lahsen 2007.

86. See Bernstein 2001.

87. Secretariat of the Convention on Biological Diversity 2010.

delegates recognized in the SPCG extends to other negotiations at COP10, but also to prior COPs. When the EU delegate was frustrated at the resistance to naming forests in Target 5, he invoked support from a prior SBSTTA meeting. When countries resisted New Zealand's language on other obligations in Target 3, the co-chair referenced a COP9 decision to discipline the debate, a decision that was not about targets but about incentive measures more generally. Although the co-chair referred to the long debate at COP9 as limiting possibilities, the COP9 decision text did not reflect the debate. Thus, the coproduction of a COP decision is also hidden, even as negotiators invoke the decision's authority to direct further negotiations.

Here, we return to the possibility that metrological practices in consensus institutions like the CBD are not always anti-political.<sup>88</sup> Negotiations in the SPCG were long and fractious, with divergent points of view expressed repeatedly. In this sense, the process of establishing the metrological practice was opened up. However, it is difficult to see the effects of this opening up in the final targets. For Target 3, although New Zealand would have preferred to exclude reference to positive incentives, it accepted this provided its bottom-line language regarding other agreements was included. For Target 5, the EU ultimately got its way on forests. Compromises were made, but the final text reflects mostly donor preferences (although we recognize donors and recipients do not divide neatly on every issue, e.g., Target 11). However, the 2020 Targets cannot be isolated from other negotiations. It is possible that the challenge to the economic turn during the SPCG helped secure a commitment to traditional funding more generally.<sup>89</sup> Although we see evidence of both opening up and closing down in the negotiations, we reassert our main point: as final products, the 2020 Targets mask those politics, and thus overall serve as anti-political objects in the global environmental governance network.

### *Targets in a Global Environmental Governance Network*

The CBD enrolls the support of, and works to make itself relevant to, a broader network. When conservation NGOs were invited to speak on Target 11, the CBD recognized their role in the network. When those organizations advised the CBD, they both affirmed the CBD's importance and influenced it. The Costa Rican delegate, who is also a CI employee, illustrates how difficult it is to attribute a particular outcome to any one actor. Authoritative knowledge is not held in any one place, but distributed throughout the network.<sup>90</sup>

The shared interests of the CBD and conservation NGOs mean they can in some cases collaborate to strengthen their mutual positions. However, the network extends beyond conservation NGOs, and the shadows of the World Trade

88. Miller 2007.

89. CBD 2010d. Pre-ambular paragraph: *Emphasizing* that any new and innovative funding mechanisms are supplementary and do not replace the financial mechanisms established under the provisions of Article 21 of the Convention.

90. Eden 2009.

Organization on Target 3 and the UNFCCC on Target 5 illustrate this. The CBD has been described as subordinate in “the wider matrix of global governance,”<sup>91</sup> and delegates’ interest in using targets to communicate effectively is part of making the CBD more relevant. The more widely CBD targets circulate, the more relevant the CBD becomes.

The success of the CBD’s targets in this regard has been mixed. On one hand, the highly visible Millennium Development Goals include the CBD’s 2010 overall biodiversity target among those for achieving environmental sustainability. On the other hand, at the 2012 UN Conference on Sustainable Development (Rio+20), CBD supporters had limited success inserting the 2020 Targets into the meeting’s outcome document, where they were referenced only twice, once in general<sup>92</sup> and once when the parties adopted the CBD’s marine PA target.<sup>93</sup> During side events at Rio+20, CBD supporters expressed frustration that more targets were not explicitly referenced,<sup>94</sup> and the inclusion of the MPA target was undermined when the Global Partnership for Oceans, an initiative spearheaded by the World Bank, committed to 5-percent MPA coverage, a target lower than the 6 percent proposed by China at COP10. Partnership spokespeople recognized this as controversial, but insisted 5 percent was reasonable.<sup>95</sup> In this case, the CBD failed to set a target that facilitated “cross domain orchestration” in the network by speaking to a “multiplicity of audiences to which knowledge must appear credible.”<sup>96</sup> Our point here is not to evaluate the impact of the CBD’s 2020 Targets on Rio+20, but to illustrate how relationships among actors in the global environmental governance network shape and motivate the workings of the CBD, how such relationships were evident during negotiations over the 2020 Targets, and how the 2020 Targets were invoked by the CBD in attempts to influence relationships further.

## Conclusion: The Work Targets Do

Targets matter because, in contrast to many other decisions produced by the COP, they are highly visible, easily communicated objects for political and technical action, with potentially wide-ranging impacts. The 2020 Targets are “put to work” in a number of ways.

First, the 2020 Targets define and reinforce a particular vision of conservation, concerned, for example, with habitats (forests) and PAs. The targets define what conservation should look like and, with GEF funding for strategic plan implementation, influence what conservation does look like. Countries are required to report on progress towards targets in their fifth and sixth NBSAPs.<sup>97</sup>

91. Harrop and Pritchard 2011, 476.

92. UN General Assembly 2012, para 198.

93. UN General Assembly 2012, para 177.

94. Author’s field notes, June 15th, Rio+20.

95. Author’s field notes, June 18th, Rio+20.

96. Miller 2001, 492.

97. CBD 2010a, Annex/V.18.

Funding for capacity building to support “the development of national targets and their integration into national biodiversity strategies and action plans”<sup>98</sup> supplements funding for implementation. Although there is flexibility to set national targets, the 2020 Targets are the model.

Second, targets define how biodiversity conservation should be accomplished. The addition of targets directed at economic mainstreaming reflects contemporary commitments to a neoliberal economy in which the market is the means for governing the environment, and the extension of this logic to biodiversity conservation.<sup>99</sup> Though not the most influential institution promoting this vision, the CBD plays its role perpetuating a hegemonic discourse of economy and environment.<sup>100</sup> Target 3 is one more element of the CBD’s contribution, via its language and resources available to support its implementation.

Third, targets reinforce the role of science in the CBD’s work. A number of targets create the need for further scientific work: to determine baselines, develop indicators, and measure progress. The work summarized in GBO3 continues, engaging partners like the World Conservation Monitoring Center and other external scientific organizations.<sup>101</sup> This work extends to the “new” science of conservation: economics. Since COP10, TEEB has released twenty-three publications, including implementation guides for three of the 2020 Targets.<sup>102</sup> In 2012 the CBD added the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), the “leading” intergovernmental body to “assess the state of the planet’s biodiversity, its ecosystems and the essential services they provide to society.”<sup>103</sup> IPBES will serve the CBD similarly to how the Intergovernmental Panel on Climate Change serves the UNFCCC. At COP11, IPBES was invited to prepare a program of work for the next global biodiversity outlook that will evaluate progress towards the 2020 Targets.<sup>104</sup> Thus, there is no shortage of actors to conduct the scientific and technical work required to meet the 2020 Targets.<sup>105</sup> More than a metrological practice, the targets are the foundation of a metrological regime.

On the surface, the targets appear to have been created at a particular place and moment in time: *the Aichi Biodiversity Targets for 2020*. As our analysis illustrates, however, they are embedded in a web of relationships and were forged according to internal and external politics that extend beyond both the moment

98. CBD 2010a, Annex/V.20.

99. Böscher et al. 2012; Corson et al. 2013.

100. MacDonald and Corson 2012; Suarez and Corson 2013.

101. E.g. following COP10 GEO BON (2011) submitted to the CBD a report entitled “Adequacy of Biodiversity Observation Systems to support the CBD 2020 Targets.” Available at <http://www.earthobservations.org/geobon.shtml>, accessed April 9, 2014.

102. All reports available at [www.teebweb.org/publications/all-publications](http://www.teebweb.org/publications/all-publications), accessed April 9, 2014.

103. IPBES website available at <http://www.ipbes.net/about-ipbes.html>, accessed April 9, 2014

104. CBD 2012a, 2012b.

105. Saith (2006) makes a similar argument about the Millennium Development Goals.

and the place. In this light, targets are anything but natural goals. Rather, they are temporary and tenuous points of stabilization within a global environmental governance network. Rather than resolving debates, the final text of the targets masks debates. As the targets move out into the wider network, they are taken for granted and evoked, to greater and lesser extents, to support further policy-making and programming in the CBD and other parts of the network. As such, targets must be evaluated not only in terms of successes or failures to meet them, but in how they define what global conservation is, how it will be accomplished, and who is responsible for it.

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