SEIZING CENTER STAGE: ECOSYSTEM SERVICES, LIVE, AT THE CONVENTION ON BIOLOGICAL DIVERSITY!

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Abstract

Over the past decade, the concept of ecosystem services has become a central guiding framework for environmental conservation. Techniques of valuation, payments to protect ecosystem services, and efforts to put a price on nature increasingly characterize environmental policy. We analyze the 10th Conference of the Parties (COP-10) to the Convention on Biological Diversity (CBD) as a critical moment in the production of ecosystem services as a discourse. Through analysis of specific examples of the rollout, performance, and strategic deployment of ecosystem services, particularly as embodied in The Economics of Ecosystems and Biodiversity project (TEEB) at CBD/COP-10, we illustrate how arguments justifying ecosystem services became persuasive and compelling in the social space of the meeting. We examine the prevalence of a narrative that relies on three successive claims: (1) conservation has failed to conserve biodiversity, which has catalyzed a pending ecological crisis; (2) this crisis is caused by incorrectly priced nature and insufficient financing for conservation; and (3) the economics of ecosystem services provides the means to attract new financial flows, to neutralize political opposition, and to save biodiversity. The CBD/COP-10, we argue, provided a stage for the performance of this narrative, the alignment of actors from the private, public and non-profit sectors around ecosystem services, and the institutionalization of its tenets in policy documents and project financing—all of which worked to constitute the hegemony of ecosystem services. We conclude by asserting that, as conservationists embrace ecosystem services, at the expense of alternative models, they reproduce it as a discourse, thus constituting and reinforcing its hegemony, and the conditions that originally limited their choices.

Keywords: Ecosystem services, payments for ecosystem services, natural capital, discourse, hegemony, biodiversity conservation

Acaparando el escenario: Servicios Ecosistémicos, Vida y el Convenio para la Diversidad Biológica

Abstract

A lo largo de la última década, el concepto de servicios ecosistémicos se ha convertido en un concepto central en la conservación ambiental. Las técnicas de valoración, los pagos para proteger los servicios ecosistémicos y los esfuerzos para poner un precio a la naturaleza caracterizan cada vez más a la política ambiental. En este trabajo analizamos la 10ma Conferencia de Partidos (COP-10) para el Convenio sobre la Diversidad Biológica (CBD) como un momento clave en la producción de los servicios ecosistémicos como un discurso. A través del análisis de ejemplos específicos de lanzamiento, rendimiento y despegue estratégico de servicios ecosistémicos, tal como el Proyecto de Economía sobre los Ecosistemas y la Biodiversidad (TEEB por sus siglas en inglés), demostramos cómo los argumentos que justifican a los servicios ecosistémicos se volvieron persuasivos y convincentes en el espacio social de la reunión. Aquí examinamos la preponderancia de una narrativa que descansa en tres afirmaciones sucesivas: (1) la conservación ha fracasado en su intento por conservar la biodiversidad, lo cual ha desencadenado una crisis ecológica que estaba pendiente; (2) esta crisis fue causada por una valoración incorrecta del precio de la naturaleza y por una financiación insuficiente para su conservación; y (3) el aspecto económico de los servicios ecosistémicos provee los medios para atraer nuevos flujos financieros, para neutralizar toda oposición política, y para salvaguardar la biodiversidad. Consideramos que el CBD/COP-10 proveyó un escenario para la representación de esta narrativa, para el alineamiento de los actores provenientes de los sectores privado, público y sin fines de lucro alrededor de los servicios ecosistémicos, y para la institucionalización de sus principios en documentos políticos y en financiamiento de proyectos – todo lo cual ha contribuido a fortalecer la hegemonía de los servicios ecosistémicos. Concluimos con la aseveración de que, si los conservacionistas adoptan los servicios ecosistémicos a expensas de otros modelos alternativos, terminarán reproduciéndolos como un discurso, y de esta forma constituyen y refuerzan su hegemonía y las condiciones que originalmente limitaron sus elecciones.

Palabras clave: Servicios ecosistémicos, pagos por servicios ecosistémicos, capital natural, discurso, hegemonía, conservación de la biodiversidad

Setting the Stage

Over the past few decades, researchers from a range of disciplines have advanced what has become a prevalent conceptual framework among environmental practitioners: 'ecosystem services' (Gomez-Baggethun et al. 2010). Defined by the Millennium Ecosystem Assessment as "the benefits people obtain from ecosystems" (MA 2005: v), the concept of ecosystem services promotes systematizing, quantifying and often monetizing the values of biodiversity and ecosystem functioning. Examples of ecosystem services include increased agricultural productivity from natural pollinators, flood mitigation from intact wetlands, carbon sequestration performed by standing forests, and recreation enjoyed in a park or wilderness area. Costanza et al. (1997) estimated the total economic value of these services provided by the world's ecosystems to be around US$33 trillion: nearly double global economic output at the time of estimation.

The concept has undergone a metamorphosis in recent years from an esoteric, arcane neologism into "the central metaphor within which to express humanity's need for the rest of living nature" (Redford and Adams 2009: 785). Indeed, as proponents now contend, ecosystem services have "inspired a major transformation in the way people think about the environment. Increasingly, ecosystems are seen as capital assets with the potential to generate a stream of vital life support services" (Turner and Daily 2008: 25). This transformation in thinking has reverberated through environmental policy, funding and program implementation. Dempsey and Robertson (2012) observe how diverse and transnationally dispersed actors, from policymakers and scientists to activists and administrators, have come to think about nature in terms of the services it provides. The result, as we will discuss, is that ecosystem services have increasingly come represent "*the* way forward for conservation" (Armsworth et al. 2007, title; emphasis added).

In short, ecosystem services have come to structure the ways that many activists, policy-makers and academics think about and pursue biodiversity conservation.

How has this way of thinking and pursuing achieved such widespread currency amongst disparate communities of environmental practitioners? And how, as Robertson (2011: 2) prompts us to ask, "did we come to live in a world that is now widely seen, by policymakers at least, to be composed of ecosystem services?" To explore this question, we examine one critical site where arguments about ecosystem services were made compelling and ultimately institutionalized: the 10th Conference of the Parties (COP-10) to the United Nations Convention on Biological Diversity (CBD), which was held in Nagoya, Japan in October 2010. We use collaborative ethnographic data gathered at the CBD/COP-10 to examine the specific narratives, representational practices, institutional mechanisms and power-laden relationships through which the discourse of ecosystem services became hegemonic, transforming the policy landscape at the CBD/COP10. While a robust literature has emerged analyzing the particular institutional forms in which ecosystem services has begun to manifest, particularly with respect to payment for ecosystem service (PES) programs (e.g. Corbera and Brown 2008; McAfee and Shapiro 2010; Wunder 2007), we interpret ecosystem services more broadly as a way of thinking, a means of understanding and approaching the world, and as a lens through which to make sense of what nature *is* and what it is *for*. In other words, we analyze ecosystem services as a *discourse* (Dryzek 2005; Hajer 1997).

We begin with a brief discussion explaining and contextualizing our theoretical approach. Then, drawing on participant observation data from CBD/COP-10, we describe the performance of a three-step narrative, which emphasized: (1) conservation has failed to conserve biodiversity, which has catalyzed a pending ecological crisis; (2) this crisis is caused by incorrectly priced nature and insufficient financing for conservation; and (3) the economics of ecosystem services provides the means to attract new financial flows, to neutralize political opposition to the goals of conservation, and to save biodiversity. The production of a sense of failure and spiraling ecological crisis established the conditions under which the ecosystem services discourse became persuasive, compelling and accepted in the time and space of CBD/COP-10. We show how the meeting provided a critical stage for the performance of this narrative and for the building of alliances, ideas and institutionalized programs that together constitute ecosystem services discourse. We focus particularly on the roll-out and performance of the ideas embodied in The Economics of Ecosystems and Biodiversity project (or TEEB), and the efforts of its charismatic study leader, Pavan Sukhdev, at the meeting. Taken together, both have become influential in the rise of the ecosystem services discourse, and both are emblematic of the political and discursive work that ecosystem services can be (and is) mobilized to do. Finally, we reflect on some of the political dilemmas ecosystem services poses to conservationists.

Crazy Quilting: The Rise of Ecosystem Services

The rising influence of ecosystem services has generated tremendous debate and provoked an emerging scholarship that attempts to parse the meaning, driving factors, and implications of ecosystem services for environmental politics and governance. Both proponents and critics of the idea stress the potentially enormous implications of ecosystem services, whether auspicious or ominous, to the broad political projects associated with biodiversity conservation and development. Advocates of ecosystem services highlight its potential to strengthen arguments for protecting biodiversity, to improve tools for rational decision-making, and to operationalize an array of policy instruments such as markets or PES (e.g. Armsworth et al. 2007; Daily et al. 2009). Yet critics emphasize strategic, methodological, and ethical hazards (e.g. McAfee 2012; Redford and Adams 2009). They disparage the approach as "selling out on nature" (McCauley 2006: title), as deepening its commodification and the "hegemony of neoliberalism" (Robertson 2006, 2011), and as "ceding the natural world to the forces wrecking it […] a prelude to the greatest privatization since enclosure" (Monbiot 2012).

Our analysis contributes to a growing literature critiquing the rise of market-based environmental governance approaches broadly (e.g. Bakker 2010; Brockington and Duffy 2010; Castree 2008a, 2008b) and ecosystem services specifically (e.g. Dempsey and Robertson 2012; MacDonald and Corson 2012; McAfee and Shapiro 2010; Robertson 2011, 2007, 2006). We argue that the increasing influence of ecosystem services amongst conservationists is partly the outcome of deliberate efforts to maintain conservation as a priority amidst broader shifts in a global governance regime that is increasingly organized around market mechanisms and through non-state, private actors, which "predicate environmental protection on the promotion and maintenance of a liberal economic and political order" (Bernstein 2000: 465). In this context ecosystem services is a political project that defuses antagonisms between competing logics, agendas, and constituencies engaged in biodiversity conservation politics.

As advocates have embraced ecosystem services, they have re-articulated nature as natural capital, performing a kind of translation that re-makes biodiversity into a calculable, economic, and mutually intelligible 'boundary object' that becomes sensible between historically rival logics, thereby aligning different social worlds while simultaneously maintaining divergent meanings within each (Star and Griesemer 1989). Robertson (2006: 369) has described the discursive work required to sustain ecosystem services as "a contingent process of constructing a modernist crazy quilt of logics that, when sutured together, ostensibly provides panoptic knowledge." However, this crazy quilt of logics, Robertson emphasizes, can come apart at the seams. In this article, we illustrate the active work that this quilting requires to bring together these divergent understandings of and interests in biodiversity conservation.

Stitching together this quilt entails the circulation of particular forms of knowledge, the institutionalization of associated programs and funding, and the aligning of key actors at pivotal historical moments—moments often constituted by international meetings, the formation of key partnerships or alliances, or by the release of major reports. The rise of ecosystem services is marked by a number of such events. While the term ecosystem services predates its current popularity by some decades at least (e.g. Ehrlich and Mooney 1983; Krutilla and Fisher 1975; Westman 1977), its modern incarnation began to gain momentum toward the late 1990s. Ruhl and Salzman (2007) point specifically to the publication of three influential and extremely widely cited texts (Chichilnisky and Heal 1998; Costanza et al. 1997; Daily 1997), and the concurrent launch of Costa Rica's widely publicized national PES program (Sanchez-Azofeifa et al. 2007). Indeed, Fisher and Turner (2008) found that the research scholarship began to grow exponentially after that year. Another key publication, the 2005 Millennium Ecosystem Assessment (MA), mobilized over 1,300 expert contributors from 95 countries, and adopted as its main focus "the linkages between ecosystems and human well-being and, in particular, ecosystem services" (MA 2005: v). Coordinated by the United Nations Environment Programme (UNEP) and modeled after the Intergovernmental Panel on Climate Change (IPCC), the MA institutionalized ecosystem services in collaborative relationships, funding mechanisms, and organizational commitments mobilized by the MA's globally dispersed team of international experts. Moreover, it provided a template on which later efforts, such as TEEB and the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) could continue to build both conceptually and organizationally. TEEB was initiated in 2007 by the Ministers of Environment from the G8+5 countries to "analyze the economic benefits of biological diversity, the costs of the loss of biodiversity, and the failure to take protective measures versus the costs of effective conservation" (TEEB 2010: 3). Following the example of the Millennium Ecosystem Assessment, and under the guidance of its charismatic leader, Pavan Sukhdev, a former Deutsche Bank executive and former head of UNEP's Green Economy Initiative, TEEB had mobilized over 500 expert contributors to its cause before releasing its highly-anticipated final report at the CBD/COP-10.

Each of these crystallizing moments brought together transnational networks of practitioners—from green accountants and entrepreneurs, to environmental activists, politicians, conservation biologists, and bureaucratic elites—who discussed, refined, and institutionalized the idea of ecosystem services into forms and mechanisms encompassing international treaties, national policies, academic textbooks, commissioned reports, and commercial media (Dempsey and Robertson 2012; Ridder 2008). These networks have expanded their reach and influence and have embedded biodiversity, through ecosystem services, in broader policy discourses (Armsworth et al. 2007: 1383). At CBD/COP-10, we observed specific actors from these transnational policy networks methodically weaving ecosystem services into an array of ongoing dialogues in biodiversity conservation, including how to communicate the value of biodiversity, conservation's own institutional history, and its position in the policy process more generally, with the aim of reshaping conservation discourses.

Ecosystem Services as a Discourse

As a policy discourse, ecosystem services represents an "organized assemblage of concepts, categories, narratives, metaphors, and frames that gives structure to an arena of policymaking" (Hilgartner 2009: 201). Comprising more than simply ideas, discourses "define problems, frame tensions and choices, and create orientations toward the world that, as the discourse grows successful, become embodied in institutional structures, legal doctrine, analytical techniques, informal norms, and standard operating procedures" (Hilgartner 2009: 201). Hajer (1997) stresses the importance of 'discourse coalitions' in constructing, sustaining, and mobilizing discourses. These discourse coalitions, he argues, unite around and derive their political power from 'story-lines' that constituent actors can draw on and deploy as they engage in environmental politics, even as they maintain different interpretations of the meaning of these story-lines. Political ecologists brought to our attention in the 1990s the specific role of crisis narratives in structuring problems such that politically palatable solutions could be found (e.g. Leach and Mearns 1996; Roe 1995). Building on these scholars, although not necessarily challenging the biodiversity crisis narrative, we argue that it justified the rise of ecosystem services as a hegemonic discourse. As we will elaborate, by being all things to all people, ecosystem services has sustained a broad and growing discourse coalition, legitimating the involvement of a diversifying constituency in conservation policy, and thereby providing a scaffolding for new institutional logics, practices, and structures.

Dryzek (2005: 9) notes how discourses are suffused with political power and "can themselves embody power in the way they condition the perceptions and values of those subject to them." We draw on Gramsci's (2010 [1971]) formulation of hegemony, particularly its emphasis on power relations in society as constituted by the consent of subordinate groups alongside coercion by dominant groups, to interpret how ecosystem services became hegemonic through the CBD/COP-10. Following Igoe et al.'s (2010) application of Gramsci's analytics to conservation policy, we examine how particular ideologies and agendas are asserted and become predominate over messy political realities characterized by diverse interests and competing values, and how hegemony is sustained less through coercive force and more through the manufacture of consent. The belief that conservation must re-articulate its interests by subsuming its project into those of other more powerful and specifically capitalist agendas becomes hegemonic when it becomes so ubiquitous that it assumes "the appearance of being *the only* feasible view of how best to pursue and implement conservation goals" (Igoe et al. 2010: 19). However, as we emphasize, this requires work. As Hall (1986: 15) has stressed, "there is nothing automatic" about hegemony: it must be "actively constructed and positively maintained."

Ecosystem Services in Action: CBD/COP-10 as an Ethnographic Site

International environmental conferences, we argue, represent important political arenas for the systemic promotion, active construction and positive maintenance of conservation discourses. They con-

stitute political spaces where private, public, not-for-profit, indigenous, academic and other actors come together—through decisions, interpersonal relationships, information-sharing, and other actions—to produce international conservation governance. They bring together thousands of actors otherwise dispersed in space, and they sanction and circulate particular forms of knowledge, establish regulatory devices and programmatic targets, and structure and align public-private-non-profit relationships (Brosius and Campbell 2010; Corson et al in review; MacDonald and Corson 2012).

Hajer emphasizes the role of *performance* in discourse formation, arguing that "politics constantly needs to be enacted, and that the political process can be analyzed as a multiplicity of staged performances" (Hajer 2006: 43), requiring particular settings where this enactment can occur and where these meanings and significations can be reproduced. The contextualized social interactions constituted by international environmental meetings produce social realities, generating certain understandings of problems, structuring legitimate knowledge, and configuring new power relations (Hajer 2006). These meetings represent stages, whose theatrical dimension "plays a key part in inspiring, directing, and governing the conduct of global politics" (Death 2011: 3). The rituals attendant to these meetings enact and reconstitute certain norms, expectations, and standards of conduct before attentive, listening audiences. These rituals, we contend, structure the ways in which ideas such as ecosystem services become legitimate and accepted. At these international meetings, in both formal and informal events, the setting and staging of events shapes how authority and expertise is performed (Hajer 2005; Hilgartner 2001; Little 1995; MacDonald 2010a). As such, they offer unique and revealing windows into processes of framing, translation and sense-making, as well as the reconfiguration of power relations among key actors.

The material presented in this paper was collected as part of a Collaborative Event Ethnography (CEE) conducted from October 18-29, 2010. Launched at the 1992 United Nations Earth Summit, the CBD was established to promote the conservation and sustainable use of biological diversity, as well as the 'fair and equitable sharing' of the genetic resources encompassed in biodiversity. At its biennial COP, 191 Parties come together to review progress, identify priorities, and establish work plans toward these objectives. It has become one of the world's foremost environmental conventions and one of the largest regular gatherings of the international conservation community. Thus, it is an important vehicle through which conservation organizations, by aligning their work with COP priorities, secure organizational legitimacy in the sphere of global environmental management, maintain access to project-based funding, and translate that legitimacy and material support into a mandate to generate their programs of work (Brosius and Campbell 2010; MacDonald 2010b; MacDonald and Corson 2012). The 2010 gathering, which drew over 18,000 registered attendees from the international conservation community, reflected not only the rising influence of ecosystem services thinking amongst conservation practitioners, but it also functioned as a vehicle through which proponents of ecosystem services could propagate, institutionalize, and transform the idea into practical common sense amongst other actors.

The size and nature of a COP meeting poses considerable logistical challenges for the lone researcher, and we utilize data collected by a 17-person team of faculty, post-doctoral fellows and students, who, using the CEE method, worked together to develop research questions, conduct participant observation and key informant interviews, analyze the data and write-up the results of the COP (e.g. Brosius and Campbell 2010; Corson et al. in review; Corson and MacDonald 2012; Gruby and Campbell in press; Hagerman et al. 2012; MacDonald and Corson 2012). The CEE approach combines "rapid or time-constrained ethnographic assessment […] with institutional and organizational ethnography" in order to "capture engagements between scientific experts, decision-makers, and private sector and [non-governmental organization] NGO actors in the context of a time-condensed meeting" (Brosius and Campbell 2010: 248). We focused in particular on the many 'side events' running in parallel with the official

deliberative processes of the COP. Often hosted by NGOs and intergovernmental agencies (such as the CBD secretariat itself), side events can also be organized by national governments, indigenous and local community groups, scientific institutions, transnational organizations, and private sector actors such as individual companies or industry associations. They typically entail presentations and discussions by panelists attempting to influence the decisions of the COP, to advance a particular initiative, approach, or project, or simply to disseminate information or provide commentary on the meeting. In Nagoya, these side events served as prominent forums in which ecosystem services advocates could present, discuss, and promote ecosystem services before these crucial sets of listening audiences. The following sections analyze particular narratives we observed deployed at CBD/COP-10, and the ways in which they were mobilized by ecosystem services proponents.

Act One: Biodiversity Conservation Fails

The perception of a collective 'failure' to effectively protect biodiversity appeared across CBD/COP-10 events as a way of explaining and justifying the need to reconfigure conservation around an ecosystem services approach. This failure took multiple forms. The first was the very public inability of the CBD Parties to meet virtually any of their agreed-upon 2010 "International Year of Biodiversity" targets (CBD 2010). The second comprised a fear of failure. It was related to the meeting's timing: the CBD/COP-10 took place less than a year after the very highly anticipated and proportionately traumatizing UN Framework Convention on Climate Change (UNFCCC) in Copenhagen, where world leaders stopped short of agreeing on policies to address climate change. This setback compounded the sense of urgency, desperation, and answer-seeking tenor of the conversations that followed in its wake at CBD/COP-10. The third related to the shortcomings of established means—such as state funding, international treaties, and national programs—to protect biodiversity at the speed and scale deemed necessary. The failure to reach targets was closely connected to a perceived lack of funding to support conservation around the world, translating into the endeavor to attract new public and private financing for conservation, an effort that was intimately intertwined with a fourth failure: the ineffectiveness of traditional rationales for biodiversity protection in convincing the public, powerful decision-makers, and those blamed for biodiversity loss to find common cause with conservation.

Together these failures were woven together in a narrative that 'conservation-as-usual' had failed to deliver, despite the ecological crisis, and that drastic times called for drastic measures. This structure and framing legitimated an acceptance that biodiversity conservation required new rhetoric (i.e. arguments based on ecosystem services), new allies (i.e. elite decision-makers and apathetic publics, who would presumably be responsive to it), and new resources (i.e. increased public funding, private investment, and what were called "innovative finance mechanisms") compared to what had traditionally comprised the arsenal of conservation advocacy. The perceived shortcomings of prevailing rationales for conservation more generally were often expressed openly. Many discussions communicated a dual sense of anxiety and urgency, and would segue from failure-framing into pointed commentary explaining the need to latch onto ecosystem services approaches in some capacity, or to make ecosystem services itself an encompassing strategic and conceptual framework. The outgoing German CBD President, for example, drew attention to the conservation community's "abject failure" within the first several minutes of the opening ceremony. He then began to emphasize the economic benefits of nature and the rapid progress that had been made toward the establishment of IPBES.[1] A representative of the Canadian Forest Service, again on the first day of the conference, attributed the conservation community's collective failure—whose ecological ramifications he illustrated in somewhat stark quantitative terms in relation to forests—to their "inappropriate valuation."[2] These moments, and their repetition over the course of the conference, illustrate

1 CBD/COP-10 Opening Ceremony, October 18th, 2010

2 Side Event, 'The Role of Forests in Conservation of Global Biodiversity—from Japan to the World', October 18, 2010

the general tone and conversational conditions under which ecosystem services, packaged here as 'the new way forward,' captured the imaginations of the audiences, participants, and panelists at the COP, who saw its amorphously broad-based appeal, the legibility of its arguments to key decision-makers (Scott 1998), and its financial opportunities. Ecosystem services appeared to demoralized conservationists searching for ways to save biodiversity as 'the way forward for conservation.'

Ecosystem services became the means—by making legible the value of nature to conservation's historical adversaries—to attract new financial flows and neutralize political opposition. Discussions about alternative financing mechanisms covered a range of initiatives and ideas including state and co-financing, payment for ecosystem services, conservation trusts, carbon sequestration and trading, and biodiversity offsets and other 'innovative financing' arrangements for conservation. The goal of these new approaches was to address an identified US$35 billion financing gap between what is currently spent on conservation and what is needed to fund the expansion of protected areas around the globe (Corson et al. in review). The belief that this amount of money was necessary to achieve conservation stemmed from the narrative that, "unless we can find ways to tap into domestic transfers of money more effectively, and also to the international trade system, then it's unlikely we can get into the amount of resources that are really, really needed."[3] There was widespread acknowledgement in sessions on conservation financing that, "the CBD cannot continue to rely solely on official development assistance." [4] In short, new approaches were needed to attract new finances, and ecosystem services became simultaneously a persuasive rationale for conservation and a means of securing increased financial support for that expansion (Corson et al. in review).

Act Two: Attracting 'The Decision Maker'

Proponents of ecosystem services were frequently explicit about the target audiences of this self-conscious shift in language—audiences who ranged from the apathetic publics and electorates of the global north, to the reluctant Chief Financial Officer (CFO), to the caricature of the obstinate finance minister. One of the chief 'end users' deliberately engaged at the COP was a character whom we refer to as The Decision Maker. The Decision Maker repeatedly took the form of The Finance Minister (alongside The CFO) who needed to be persuaded by using ecosystem services (Corson et al. in review; MacDonald and Corson 2012). For instance, at one TEEB-related side event,[5] a reporter asked the Swedish Minister for the Environment if his Finance Minister would be "happy" with "prices on turtles and coral reefs." He responded that he had to use ecosystem services to reframe expenditures on nature as "protecting values" rather than as budgetary "costs" in order to create a stronger negotiating position. Similarly, a representative from the European Environment Agency elaborated at another event: "If you want to address the Prime Minister or Minister of Finance, you must produce one number. […] It's the way they work. They have budgets. They present their budgets to parliament. So you need to be in tune with the policy agenda."[6] These sorts of presentations tended to converge on the necessity of using ecosystem services as a means of establishing nature's visibility, legitimacy, and legibility in the mind of this abstracted, powerful bureaucrat.

To this effect, one of the clearest and most focused efforts by ecosystem services proponents revolved around ecosystem services accounting. Several days before the World Bank President arrived personally to formally launch the World Bank's Wealth Accounting and Valuation of Ecosystem Service (WAVES) global partnership, one of us attended a side event[7]

3 Side Event, The Role of Protected Areas in Climate Change-Financing, Ecosystem Pavilion, October 19, 2010

4 Side Event, Green Development Mechanism, October 22, 2010

5 Side Event, The Value of Ecosystems and Biodiversity to the Economy, Society, and Political Decision-Making: the TEEB Approach for Policy Makers, October 25, 2010

6 Side Event, Global Partnership for Ecosystem Valuation and Wealth Accounting: Learning from Other Initiatives and Country Experiences, October 25, 2010.

7 Side Event, Global Partnership for Ecosystem Valuation and Wealth Accounting: Learning from Other Initiatives and Country Experiences October 25, 2010.

promoting the initiative. "While we understand the importance of ecosystems within the environment community," the moderator began, "we often find it difficult to convince others, particularly our colleague economists in Ministries of Finance, planning agencies, and other institutions. These institutions can have enormous impact on environmental policy." After framing conservation's defining obstacle in this way, she segued into the World Bank's proposed solution: "So, bringing ecosystem services into the national accounts is a way of meeting them on their own terms, expressing these values in a manner they understand, and a manner in which they can use." Here, by appearing on the Finance Minister's legers next to highways, schools, and hospitals, biodiversity, as expressed in terms of ecosystem services, becomes infrastructure itself.

This panel provided a revealing glimpse into the constructed problem for which the tool was intended. It suggested that biodiversity advocates, at least, those gathered for this meeting, should be, and apparently were, increasingly prepared to meet The Decision Maker on his or her own playing field or terms. The ecosystem services accounting initiative reveals some of the political and discursive work that ecosystem services does in rearticulating nature in terms literally 'legible' to national legers. But it also reveals perhaps as much about conservationists themselves as it does about The Decision Maker it targets. As many conservationists publicly admitted in dialogues throughout the conference, the political project of conservation must adopt an accommodating posture in relation to where power resides, to the governing vision that it casts, and to the elite decision-makers who was otherwise deciding not to see, not to care, or not to fund the conservation of nature—in essence, it must yield consent to the hegemony of the neoliberal economic order.

Act Three: Making Nature Visible

TEEB study leader Pavan Sukhdev—one of the "Great Hierophants of ecosystem services" as one European official described him—became a central figure at the conference. At TEEB's 'rollout' side event, Sukhdev delivered a central argument:

> The economic invisibility of nature has, for decades, and I would say for the last century, been the cause of the losses of ecosystems and biodiversity […]. The lack of an economic lens to reflect these realities means we have treated these matters lightly and they are not center stage when it comes to policy discussions, nor center stage when it comes to business discussions.[8]

He declared to the delegates: "The economic invisibility of nature *must end*."[9] TEEB quickly became one of the 'Big Stories' of CBD/COP-10, as Sukhdev's message, asserting the necessity of rendering nature "economically visible" to key audiences reverberated throughout the side events we attended. "Side event titles changed, corridor conversations shifted, and high-level politicians struggled to reformulate their speeches in the language of ecosystem services and more specifically TEEB" (MacDonald and Corson 2012: 171). Speakers across events began using this language and sometimes his exact phrasing, as they endeavored to link their words to those of Sukhdev.

How Sukhdev partitioned and tailored his message for different audiences is key to understanding the political and discursive work that ecosystem services was mobilized to do. After laying out TEEB's conceptual framework, he explained: "our approach in TEEB is to [1] recognize value, to [2] demonstrate value, and also to describe how we can [3] capture value and not any one or the other." He elaborated:

> TEEB recognizes that there are different layers of value recognition and value demon-

8 Side Event, TEEB: The Economics of Ecosystems and Biodiversity—A Synthesis of Key Findings from Across the Study, October 20, 2010.

9 The phrase has since become a slogan for TEEB and for ecosystem services more broadly. Two years later in 2012 at the United Nations Conference on Sustainable Development in Rio de Janeiro, (i.e. "Rio+20"), we saw a variation of the phrase (i.e. "Making Nature's Values Visible") emblazoned on banners at sites across the city.

> stration and value capture. Most value recognition, for example the spiritual values and the ethical values, and the existential values of forests, and other biomes, are recognized and do not need to be economically demonstrated. There are other values which need and benefit from economic demonstration but they don't need to be captured. And then there are other values which can be captured and they don't need to be marketized.[10]

Here, ecosystem services is not synonymous merely with market mechanisms, cost-benefit analyses, or rhetorical tools—it can become, depending on the audience, each one of these different functions. For example, a Rio Tinto representative was careful to distinguish the capturable "financial benefits" related to a carbon sequestration project they had developed in Madagascar from the demonstrated "economic benefits" that were nominally greater but more diffusely accrued.[11] Likewise, even as conservationists may harbor misgivings about carbon markets, or about assigning prices to endangered species, they still rely on ecosystem services to attract broader support for conservation (Corson et al. in review; Hagerman et al. 2012). Finally, the ecologists and economists who have been so important to shepherding the concept into policy consciousness are often comfortable with the formally analytical, rational decision-making functions of ecosystem services as a way to make informed choices, but not necessarily to buy and sell nature (Costanza et al. 1997; Costanza 2006). Yet, these actors all shared one thing in common: an interest in ecosystem services, broadly defined.

Sukhdev pressed not on any one of the purposes, or 'functions,' of ecosystem services, but all of them, tailoring his presentation broadly and prudently to appeal to (while not offending) all of TEEB's diverse target audiences. He navigated and reconciled the precarious discursive space among these sets of actors by exploiting the ambiguity over what ecosystem services is and does. In this way, he was able to construct and sustain a broad discourse coalition (Hajer 1997) around an amorphous ecosystem services, using TEEB as an eclectic lure to attract diverse interests. He simultaneously represented ecosystem services as:

A. *Rhetoric*: a communications or 'public relations' toolkit for winning arguments, persuading audiences, and justifying the need for environmental protection and conservation of nature (i.e. 'recognizing value')

B. *Rational measurement*: a decision-making input for clarifying, measuring, analyzing, and optimizing trade-offs between the costs and benefits of different formulated options (i.e. 'demonstrating value')

C. *Institutional arrangement*: a structuring framework for developing and making operational a range of actual policy instruments, such as payments or markets in ecosystem services (i.e. 'capturing value')

Ecosystem services possesses a kind of slippery versatility that lends itself to a spectrum of different values, objectives and political projects, whether that entails ecosystem services as compelling argument for protecting biodiversity, as decision-making framework for parsing trade-offs, as one of a variety of specific policy instruments, or as new environmental commodity. Sukhdev strategically deploys different functions of ecosystem services to bring diverse actors into an approximately shared embrace of the solution to the biodiversity crisis. Rather than allowing ecosystem services to get boxed into any one of its three functions, which would narrow the constituencies amenable to ecosystem services, he consciously wielded ecosystem services as a sort of discursive Swiss Army Knife—suitable for any problem and for all occasions.

Take for instance the broad array of different audiences TEEB attends to as "end users," through its color-coded reports, each requiring a customized

10 Side Event, TEEB: The Economics of Ecosystems and Biodiversity—A Synthesis of Key Findings from Across the Study, October 20, 2010.

11 Side Event, Corporate Ecosystem Valuation: Business Guidance and Examples, October 27, 2010

version of the discourse: TEEB for Business (yellow), TEEB for Local and Regional Policy-Makers (red), TEEB for International and National Policy-Makers (blue), and TEEB for Ecologists and Economists (purple), all of which combined into TEEB's synthesis document (green, obviously). Sukhdev's framework of capturing ecosystem services, and if not capturing, simply demonstrating them, and if not demonstrating them, merely recognizing them, casts a fine net from which no nature can escape and in which any politics can be subsumed. This is the power of ecosystem services. It is a *chimera*, becoming to those perceiving it and desiring of it certain things, a different thing. It is made to take on various guises simultaneously, appearing differently to the biologist, to the entrepreneur, to the ministry bureaucrat, to the environmental activist, and to an increasing diversity of political actors gazing into it and asking of it different things. Ecosystem services offers to its advocates a means of weaving these disparate threads, these distinct projects, logics, and institutional and ideological formations together into an ordered, mutually legible, and crucially singular, economic narrative for making sense of nature, which depicts a world "composed of ecosystem services" (Robertson 2011: 2)—a natural habitat for *Homo economicus*. Sewing furiously at Robertson's "crazy quilt of logics" (Robertson 2006), Sukdhev came to be, while certainly not alone in this regard, one of its chief tailors in the time and space of CBD/COP-10.

The result was the expanding pervasiveness of TEEB in particular and ecosystem services in general at the COP. At one event we watched a television advertisement showing an elderly 'mother nature' knocking on a man's suburban door attempting to charge him for the ecosystem services she had been delivering to him for free.[12] Elsewhere, between sessions, we saw Brazilian lingerie model Giselle Bündchen appear on the presentation screen of the formal plenary hall to remind us of the value of biodiversity (which she noted was worth over $33 trillion). Ecosystem services pervaded dialogues ranging from conservation finance and protected areas, to climate change mitigation and adaptation, poverty alleviation, civil society outreach and corporate social responsibility, spanning ecosystems from Canadian boreal and Senegalese mangrove forests to Indonesian coral reefs and Mongolian grassland. We walked past tables spilling over with documents featuring titles such as "A Guide to Proactive Investment in Natural Capital," "Mainstreaming Ecosystem Services in International Policies," "Business, Biodiversity, and Ecosystem Services: the Interdependence Story," "Corporate Ecosystem Valuation: Building the Business Case," "Banking on Biodiversity: a Natural Way Out of Poverty," "Demystifying Materiality: Hardwiring Biodiversity and Ecosystem Services into Finance," "Paying for Biodiversity: Enhancing the Cost-Effectiveness of Payments for Ecosystem Services," and "Payments for Ecosystem Services: Some Nuts and Bolts." And of course, there were the color-coded executive summaries of the TEEB reports. In short, immersed in an atmosphere of intense and often exuberant enthusiasm over the dividends that ecosystem services could soon deliver (sometimes figuratively, sometimes literally), we spent a two-week period surrounded by individuals choosing to express their worldviews in the terms, language, and conceptual framework of an apparently ascendant ecosystem services discourse.

Nature is Dead. Long Live Nature!

We have argued that the looseness of the ecosystem services concept—its amorphously broad-based appeal and its capacity both to accommodate and translate among the different logics and interests underlying various constituencies in biodiversity conservation—is essential to its rise as a discourse. To its proponents, ecosystem services offered a strategy of political envelopment, ostensibly neutralizing contradictions between environmental conservation and the prevailing logics of scientific rationality, economic growth, social justice, and other institutional and ideological domains, by encompassing all of them. Its reproduction depends on coordinated and intensifying efforts by ecosystem services proponents to maneuver and marshal transnational policy networks by quilting new actors, new logics, new interests, and new resources into the discourse coalition's expanding

12 Side Event, TEEB 4 Me: Communicating the Value of Nature, October 25, 2012

patchwork. Through the publication and subsequent promotion of initiatives such as TEEB, itself a carefully packaged embodiment of the basic economizing logic of ecosystem services, and through the public performance of discussion and argumentation that endeavored to mainstream the concept, we observed various political actors (such as Sukhdev) altering the terms of key dialogues within international biodiversity conservation discourse.

Ecosystem services had seized center stage (often literally). The CBD/COP-10 offered a venue for the performance, in front of thousands, of a three-part narrative that: (1) underscored conservation's failure to conserve biodiversity under conditions of ecological crisis and urgency; (2) attributed this failure to incorrectly priced nature and insufficient financing for conservation; and (3) presented the economics of ecosystem services as the means to make legible the value of nature to historical adversaries to conservation so as to attract new financial flows, enlist apprehensive interests, and pacify opposing ones. For two weeks that October, the meeting functioned as a moment of 'coming together,' by assembling and immersing key actors and audiences in the social rituals of the event and by subjecting them to a structured social encounter within which ecosystem services became persuasive and compelling. The fanfare of the conference and the literally staged events on which the narrative played out created a policy peer pressure around ecosystem services, a feeling that everyone was embracing it, which both reflected and contributed to the production of an ascendant policy discourse articulated around the ecosystem services concept. In this regard, the meeting provided us, as researchers, with a unique and revealing window into the strategic sensibilities driving conservationists toward ecosystem services.

The way forward for conservation entailed meeting The Decision Maker on his or her own playing field. Ecosystem services proponents communicated to key audiences a particular vision of the political world that conservation inhabits, the opportunities and constraints that this environment imposes, and the kinds of solutions that it demands. The deployment and the basic justifications for ecosystem services at CBD/COP-10 were often couched within readings of the wider web of institutionally configured power relations that constitute contemporary global environmental governance. Thus, we characterize the rise of ecosystem services less as the result of the direct exercise of coercive power by specific actors and more as the outcome of broader, more diffuse, and cumulative ideological and institutional adjustments, which involve the coordinated consent to its hegemony by a growing diversity of interests. We see the production of the hegemonic discourse both reflected and configured as the conservation community accepts the need to conform their project to the priorities, values, and logics of what were previously understood to be oppositional interests. Ecosystem services has become hegemonic in part because it arises from a vision of the world in which power must be yielded to rather than resisted. Whether they liked it or not, conservationists gained an impression that the time for quixotic campaigns built on principle had ended and the time for pragmatic accommodation, of adhering to the rules of the game, had arrived.

Yet we also suggest that the neologism has fragmented in its practical meaning, its applications, and its very purpose. It has become a locus of contestation among different interests vying to shape its ultimate expression in policy and practice. Ecosystem services encompasses a cacophony of voices and interests, each with varying intents and ambitions for what the discourse is supposed to do. This continuing ideological tug-of-war over what ecosystem services means, what it does, and what it will become within the growing diversity of interests congregating around it reveals the discourse as potentially unstable—its configuration contingent on ongoing political struggles diffused through a constellation of networked institutions, from IPBES and the CBD to university biology departments, activist NGOs, state environmental agencies, and corporate social responsibility desks. And so we will conclude on a note of optimism. If ecosystem services does not (yet) represent the latest stage in the commodification of everything–but rather a more complex story involving a cacophony of colliding logics including but not limited to that of

capital—then the telos of ecosystem services remains a culturally, politically, and discursively moving target. It still connotes possibilities, and is, for better or for worse, subject to context and contest.

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