Valuing Nature to Save it? The Centrality of Valuation in the New Spirit of Conservation

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Sylvain Maechler[1] & Valérie Boisvert[2]

Abstract

For thirty years, advocates of the economic valuation of nature have been claiming that it contributes to making the ecological crisis more tangible. The valuation framing fosters a shared vision of nature as capital amenable to management and protection. Yet, this approach has been scarcely applied in practice and has therefore not yielded tangible conservation outcomes. Why is economic valuation of nature consistently presented as a panacea in the absence of the slightest evidence to that effect? Beyond conventional answers—policy path dependency, alignment with the dominant balance of power—we propose to analyze the centrality of nature valuation in conservation discourses using the notion of valuation-centrism forged from Gibson-Graham's capitalocentrism. By valuation-centrism we mean a system of discourse and knowledge that subverts all exit strategies from the ecological crisis into valuation practices, that reinforces hegemonic capitalist representations of nature, and that thwarts the imagining of "other natures".

Keywords: Biodiversity, Natural capital, Valuation, Expertise, Discourse, Pluralism

[1] sylvain.maechler@unil.ch
[2] valerie.boisvert@unil.ch

Introduction

> *Valuing nature is not a debate anymore … This is a universal imperative.*
> *We value anyway, this is how the world operate … We spend our life valuing.*
> *Money is the language that people share.*[3]

These were some of the messages displayed to the participants of the first "We Value Nature 10-day challenge", an event consisting of forty-four "practical sessions and small challenges"[4] dedicated to the promotion of the economic valuation of nature "to make valuing nature the new normal for businesses".[5] The general tenor of this political project is to "measure what matters" so as to "make nature count" or to "make nature's values visible" in order to "mainstream the values of natural capital into decision-making" (TEEB 2010).[6] According to its promoters, if displayed as "natural capital" and valued in monetary terms, nature would be accounted for in all daily economic decisions, by farmers in the Global South as well as financial analysts in the City of London. The uptake of this idea was demonstrated again recently in the umpteenth report on the topic, commissioned by the UK Treasury: "[w]e are all asset managers. Whether as farmers or fishermen, hunters or gatherers, foresters or miners, households or companies, governments or communities, we manage the [natural] assets we have access to in line with our motivations, as best as we can" (Dasgupta 2021, 35). For the past ten years, the realization of this project has been embodied in *natural capital accounting,* which is a malleable combination of accounting, statistical, economic, and ecological techniques for counting and measuring nature, with the promise of designing, supporting, and recording the progress of environmental policies.

Natural capital accounting is often framed as a technical field requiring the production of categories, classification systems, measurement tools, economic models, and standards that help transform nature into an asset class embodying its "true value". This is what the International Organization for Standardization is engaged in with its publication of a standard describing the steps of monetary valuation (ISO 14008) (Maechler and Graz 2020). Many

[3] Field notes: We Value Nature 10-day challenge, March 11–24, 2021.
[4] https://wevaluenature.eu/10-day-challenge [accessed March 23, 2023].
[5] https://wevaluenature.eu/About [accessed March 23, 2023].
[6] http://teebweb.org/ [accessed March 23, 2023]. "Making nature's values visible" is the slogan of the TEEB (The Economics of Ecosystems and Biodiversity) initiative.

comparable exercises have been carried out, but the standards they lead to are seldom used outside of so-called "case-studies", i.e. isolated instances of practical implementation, frequently invoked but never in detail, to lend tangibility and reality to the concept of nature valuation. Expectations of conservation through such economic valuation techniques have not been realized over the years—even in the view of their strongest supporters: "We've been hearing the same thing for ten years, but things aren't really moving forward", as a participant in one of the many conferences on this theme put it.[7] It would therefore be reductive to consider the development of standards for nature valuation and accounting as a mere technical issue and to focus only on its material impacts. The effective execution of the natural capital accounting agenda has been hampered by formidable obstacles, acknowledged by its proponents as shown by Dempsey (2016).

Most scholars who address nature valuation, its aims, and its instruments frame it as either a first step in a larger project of market-driven conservation (Bayon and Jenkins 2010; Dasgupta 2000; McNeely 1988; Pearce and Moran 1994) or neoliberal conservation (Büscher et al. 2012), depending on whether they endorse or intend to expose it. Critics of the commodification of nature often argue that monetary valuation marks an unequivocal hold of capitalism, neoliberalism, and the market on nature (Fuentes-George 2013; Gómez-Baggethun and Ruiz-Pérez 2011; Robertson 2012). The promises made by the advocates of natural capital accounting and more generally of nature valuation are dealt with as if they were going to materialize. Yet research has highlighted how and to what extent nature resists commodification (Boisvert et al 2013; Bigger and Robertson 2017; Dempsey and Suarez 2016; van Hecken et al 2018), and the lasting disconnect between theory and practice in the economic valuation of nature (Foyer et al 2017; Stevenson et al 2021; Sullivan 2017). As stressed by Dempsey (2016, 233), economic valuation of nature and more specifically natural capital accounting is "at once a totalizing mainstream discourse, and one that exists on the margins of political-economic life, on the outside of many flows of goods, commodities, and state policies". Ecosystem complexity does not allow for the reductionism of a single metric, whatever it may be. Valuing nature raises fundamental theoretical, methodological, and ontological challenges that extend far beyond a simple lack of financial resources, knowledge, expertise, institutional capacity, or political will (Bartkowski et al 2015, Farnworth et al 2015). There are limits to the integration of nature into the realm of economic calculation and its transformation into a set of manageable risks

[7] Field notes: Informal conversation, European Business and Nature Summit (EBNS 2019), November 7–8, 2019, Madrid, Spain.

(Maechler and Graz 2022). While practical conservation decisions rely only marginally on economic valuations of nature (IPBES 2022), why do these valuations figure so prominently in conservation policy narratives?

The reasons why certain approaches to nature protection remain hegemonic despite their lack of uptake and their failure to deliver the promised results (Secretariat of the Convention on Biological Diversity 2020, 12-17) are still largely a research blind spot. In the following pages, we explore this question through a case study of natural capital accounting, situated within the larger history of nature valuation. Monetary valuation is predominant in the latter, but not exclusive, in that critiques and alternatives have always been articulated alongside mainstream economic approaches (Dempsey and Robertson 2012; IPBES 2022; Vatn and Bromley 1994). This pluralism may have been critical in setting up valuation as an essential step toward conservation, including to those who stand for connections to nature and worldviews hardly reconcilable with market principles and ideology. Hence, while we focus on initiatives aimed at capturing the value of nature in monetary terms, we believe it essential to put them in a broader perspective. Building on J. K. Gibson-Graham's feminist economic geography, their diverse economies research program and their concept of "capitalocentrism" (Gibson-Graham 2006; Gibson-Graham and Dombroski 2020; Healy and Gibson-Graham 2019), we propose to consider conservation policy narratives as instances of *valuation-centrism*. Through this neologism we have coined, we mean a system of discourse and knowledge that subverts all exit strategies from the ecological crisis into valuation practices, and that thwarts imagining "other natures".

This paper draws on more than two decades of research on valuation metrics and procedures in ecological economics, international biodiversity negotiations, and the economics of biodiversity. It relies primarily on an in-depth analysis of natural capital accounting and nature monetary valuation expertise, based on documents (featured case studies, methodological reports, outreach documents), an ethnography of nature accounting meetings (participant observation of 16 events between November 2017 and November 2022), and semi-structured interviews with participants from various networks, projects, and platforms dedicated to natural capital accounting and nature valuation.

After presenting our theoretical framework, we describe how representations of nature as capital amenable to valuation emerged in the 1990s, were mainstreamed in the 2000s through

international assessments of the global environment, particularly through business-oriented expertise platforms, and have been widely diffused and maintained under the heading of natural capital accounting by a network of actors led by the Natural Capital Coalition since the 2010s. We then show through two contrasting examples—the Dasgupta Review and IPBES assessments—how the promise of protecting nature by unfolding and measuring its values is being revived.

J. K. Gibson-Graham's Diverse Economies: Demystifying Capitalism to Make "Other Worlds" Possible

J. K. Gibson-Graham is the pen name of Katherine Gibson and the late Julie Graham, under which they outlined their diverse economies research agenda in a 1996 book entitled *The End of Capitalism (As We Knew It): A Feminist Critique of Political Economy* (with an updated edition: see Gibson-Graham 2006). This program is inspired by a broad set of contributions in humanities and social science: anti-essentialist Marxian political economy, post-structural feminism, ecological humanities, and science and technology studies. They notably defend the thesis of "capitalocentrism", a term they forged to capture the centrality of capitalism in economic representations and its resulting reinforcement. With this neologism, formed by analogy with the phallocratic discourse in which woman is the same, the opposite, or the complement of man, they aim to show that, through the prism of mainstream economic representations and imaginations, "capitalism has no outside" (Gibson-Graham 2006, xxiii). They point out that, in the context of capitalocentrism, "capitalism which is actually a specific economic form becomes the very model or definition of economy. By virtue of their differences from capitalism, all other forms of economy fail to conform to true economic specifications. In a way that is entirely familiar but nevertheless theoretically quite intractable, difference is rendered as 'absence' or lack rather than as autonomous being" (Gibson-Graham 2006, 35). They underline that capitalocentrism is obviously supported by those who explicitly and deliberately support the visions it carries, but that paradoxically perhaps it is also a trap in which its opponents are caught. It "deadens the imagination of 'other worlds' and shuts down politics" (Healy and Gibson-Graham 2019, 1181). Through symbolic and discursive representations, capitalocentrism renders "the capitalist economic system as so dominant […] that people assume it is insurmountable" (Gibson-Graham and Dombroski 2020, 1).

Accordingly, Gibson-Graham follow the objective of theorizing and therefore making visible "existing noncapitalist economic organizations and practices" (Gibson-Graham 2006, xxxiii). Attached to the performativity of knowledge, they claim that "research makes some things 'more real' by the very act of focusing on certain objects or relations, by developing language with which to identify and distinguish these objects or relations, and by devising discursive framings that situate these objects and relations in hierarchies of meaning" (Gibson-Graham and Dombroski 2020, 8). They explore post-capitalist alternatives, which they believe involve new subjectivities and modes of collective action, and above all building on "what we [already] have here at hand" (Gibson-Graham and Dombroski 2020, 3), rather than inventing new languages and practices. This includes self-managed cooperatives and community finance, economies of care, or alternative currencies. They therefore argue that "other worlds" are possible based on the existing one through ontological reframing, re-reading for difference, and cultivating creativity (Gibson-Graham 2006).

We find this approach particularly enlightening for dealing with the valuation of nature and its current incarnation in natural capital accounting. As already mentioned, despite repeated attempts, nature resists its commodification; its capitalization remains incomplete. Yet, irrespective of its state of completion, the characterization of nature as capital always involves revealing and measuring its values. Likewise, alternative conservation schemes are framed in terms of values understood in a very inclusive sense. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) experts refer to all disputes related to biodiversity loss, its causes and the conservation measures envisioned as "value" conflicts,[8] which appear as a neutralized and mitigating substitute for land use conflicts, resource grabbing, dispossession, and ecological interference, among other forms of radical dissent. Accordingly, all the recommended solutions involve nature valuation, which leads us to label this configuration as "valuation-centrism", in analogy with capitalocentrism. The valuation of nature as a prerequisite for its effective management is so forcefully and obviously posed as a premise for conservation that it is not questioned as such; debates may focus on forms of accounting, classification systems, valuation methods, but not on the underlying project of valuing nature. This view is far from self-evident. It implicitly presumes that human activities in general, or certain categories of actors in particular degrade ecosystems due to a lack of

[8] According to Pascual et al. (2017, 9), "the word 'value' can refer to a *principle* associated with a given worldview or cultural context, a *preference* someone has for a particular state of the world, the *importance* of something for itself or for others, or simply a *measure*."

legible information, as if biodiversity loss were the outcome of free and rational choices and not the unintended effect of structurally constrained practices. It depends on whose values count, whose rights and interests prevail, and, ultimately, for whom nature is valued and accounted for (Maechler 2022). Focusing on the measurement of values distracts from the more fundamental and divisive issues of recognizing, framing, limiting and renegotiating rights over nature which should be confronted if biodiversity loss is to be halted (Takacs 2020).

We contend that the centrality of valuation in any inventory enterprise is analogous to the centrality of capitalism in economic representations. The hegemony of this framing, with its effects of selection and amplification of certain variables, knowledge, and dynamics, and the correlative eviction of others, is not questioned at all. In practice, it perpetuates the capitalist illusion that valuing and accounting for nature can save it, and eclipses intangible and incommensurable values, and "other natures"—a concept analogous with the "other worlds" beyond capitalism invoked by Gibson-Graham.

Towards Valuation-centrism

Counting Nature to Make Nature Count? Economics and Nature Valuation

The economic valuation of nature was originally based on theoretical justifications. It was developed in the early days of environmental economics by researchers who wanted to convince policy makers of the benefits of investing in nature conservation and fully incorporating environmental concerns (Randall 1988). Indeed, according to standard economic theory, economic agents base their decisions on prices, which summarize all the relevant information. They cannot make optimal choices if all the values they should include in their calculations are not reflected in the price system. Such is the case for climate change (Randalls 2011) and other environmental issues (Pearce, 1994), which would therefore only need to be expressed in monetary terms to be fully captured, thereby achieving optimal environmental outcomes. Environmental economist David Pearce, whose role as a broker of economic concepts in the political sphere has been widely recognized, was instrumental in bringing this concept into the public debate (Convery 2007; Simpson 2007). In the context of the 1987 Brundtland Report "Our Common Future" and the subsequent 1992 Rio Earth Summit, states committed to translate the vague notion of sustainable development into more concrete actions. David Pearce was commissioned to make recommendations for the UK government. With his colleagues Anil Markandya and Ed Barbier, he produced the report *Blueprint for a Green Economy* (1989),

followed by *Greening the World Economy* (1991), *Measuring Sustainable Development* (1993), and *Capturing Global Environmental Value* (1995). In these reports, the authors distil economic knowledge for the general public and draw up rules and recommendations tailored for policy makers with a true talent for popularization and a definite sense of formula and metaphor. Pearce notably disseminated the concept of natural capital, whose proper valuation and further integration into national accounts would, he argued, make sustainable development actionable (Åkerman 2003). In *The Economic Value of Biodiversity* (1994), co-authored with Dominic Moran, he argues for the monetary valuation of nature as a means of convincing people that conservation can be economically sound. He also draws attention to the need to ensure that local communities have access to a sufficient share of revenues from conservation to cover the associated opportunity costs. In a pragmatic vein, he therefore pleads for the use of monetary arguments to ground and guide conservation policies (Pearce 1994). This is a departure from economic orthodoxy, whereby monetary valuation reveals nature to market forces and hence enables it to be governed effectively. For this reason, Pearce stands less as a theoretician than as an instigator of what has come to be regarded as economic common sense in relation to nature conservation. Pearce and his colleagues were commissioned as experts by the World Bank and the OECD and were involved in the International Panel on Climate Change (IPCC) which contributed to a wide dissemination of their views and framing of environmental issues. Indeed, natural capital accounting and the economic valuation of nature have since featured high on the agenda of these organizations (OECD, 2018) and in their spheres of influence and countries of intervention, particularly in the Global South (World Bank Group, 2019). As many environmental economists in international institutions—particularly the World Bank and OECD, but also the United Nations Environmental Programme (UNEP) and Eurostat—were trained in environmental science and engineering in the United Kingdom during the 2000s, they were exposed to this particular form of applied economics and took part in its diffusion (Boisvert and Foyer 2015, 6). According to Simpson (2007, 92), Pearce's contribution to the economics of biodiversity has deeply influenced "both economists who developed an interest in biodiversity and conservation practitioners who came to appreciate the importance of economics". The latter, who had no direct interest in theoretical economic concerns, retained that expressing values in monetary terms made them tangible and intelligible to policy makers and the public. Valuation as a practice has thus spread beyond the circles of economists who initially advocated it, taking on new meanings and rationales. Nature valuation has become part of the tactical repertoire of contention of conservation biologists and other scholar activists with a strong commitment to conservation.

Indeed, producing numbers to raise awareness of nature conservation and assert human societies' reliance on nature has become the new pragmatism since the early 2000s (Spash 2009). The work and networks of Robert Costanza, one of the initiators of ecological economics, have been decisive in this respect. Ecological economics, which emerged as a critique of mainstream environmental economics at the end of the 1980s, had in part been built around a critique of the monetary valuation of nature (Vatn and Bromley 1994). An important aspect of the early research agendas in ecological economics was the search for pluralistic valuation procedures and alternative metrics to money to account for the values of nature. Yet, from the end of the 1990s, some scholars distanced themselves from this critical program, judging it too divisive and doubting its policy relevance. Arguing that the urgency of the ecological crisis required a rapid response and that "money talks", they embarked on global monetary assessments, completely detached from theoretical debates in economics. Thus, with the declared purpose of convincing policy makers to undertake proactive conservation policies, Costanza and his colleagues published—in 1997, in *Nature*—an estimate of the global value of natural capital and ecosystem services, based on rough typologies of ecosystems and associated services, the generalization of a few localized monetary estimates, and the compilation of various studies. They justified this endeavor on the grounds that nature's values would not be "fully 'captured' in commercial markets or adequately quantified in terms comparable with economic services and manufactured capital", which would be a reason for disregarding them in policy decisions (Costanza et al 1997, 253). Their estimation of the global value of nature (US$ 33 trillion per year) had more than 30'000 times by May 2023, according to Google Scholar, which makes this article the most influential publication in ecological economics.

Both their results and the methods used have been fiercely debated and contested, as has the overall project itself. Its critics saw it as nothing less than an attempt to put a price on the planet, testifying to a total loss of sense of proportion (Norgaard and Bode 1998). However, these criticisms, widely shared among ecological economists, have not had much resonance beyond the academic sphere. The practice of global ecosystem assessments has considerably expanded in the 2000s (Costanza et al 2014; Daily 1997). Whatever their disciplinary background, their authors view their contribution to be primarily advocacy, not economics. They generally insist that their estimates should not be equated with prices, and that their intention is not to commodify nature, but simply to make it visible (Balmford et al 2002).

The localized practice of environmental monetary assessment, originally confined to public policy design and implementation, has thus gradually assumed a whole new scope. While it remains a central subject for various theoretical strands dealing with nature in economics, the valuation of nature is also inscribed in different perspectives and rationales, which materialize in other arenas, at other scales and are carried by various interest coalitions.

Mainstreaming and Globalizing Nature Valuation: The TEEB Initiative

The mainstreaming of natural capital accounting and monetary estimates into conservation science and policy arenas, forming the globalizing project we call valuation-centrism, was completed with the global assessments of ecosystem services in the early 2000s.

The *Millennium Ecosystem Assessment* (MEA) was a major moment in rallying scientists to the project of valuing nature. It was an institutional response to the demands of scientists and policy makers involved in the work of the international conventions on biological diversity and desertification, who lamented the lack of an assessment process comparable to the IPCC. Formally launched in 2000 by the then UN Secretary General Kofi Annan, the assessment process was supported by international organizations, designed under the scholarly authority of world-renowned scientists, and involved 1'300 authors from 95 countries representing all relevant disciplines. Both this multiple endorsement and the expertise engineering have ensured its legitimacy and the dissemination and adoption of its results without much controversy. Indeed, as has been observed for comparable assessments, the final report and the summary for policy makers result from successive scientific, political, and diplomatic compromises, aimed at providing a scientifically well-established and policy-relevant consensus view on the subject under study. Consequently, discordant voices are neutralized before the reports are circulated (De Pryck 2021). The MEA (2005) took up and thereby instituted the representation of nature as capital, essential to human well-being thanks to the production of ecosystem services already put forward by Costanza et al (1997). While stressing the importance of demonstrating the economic value of ecosystem services and developing techniques for representing stocks of ecosystem services in national accounts, the MEA stopped short of recommending the widespread use of market mechanisms for conservation. The dependence of human societies on the environment was largely expressed in biophysical terms. The experts did not go so far as to produce a global monetary estimate of the values of nature.

This step was taken with the launch of an initiative called *The Economics of Ecosystems and Biodiversity* (TEEB). It was decided at the Potsdam G8(+5) environmental ministers' meeting in 2007, with the prospect of studying the "economic significance of the global loss of biological diversity". This initiative was intended to engage economic and financial actors in the international conservation agenda, through arguments and forms of legitimization that would resonate with them. To this end, Pavan Sukhdev, Chief Economist at Deutsche Bank, was entrusted with the leadership of the initiative because of his business connections and his ability to speak to people from different social backgrounds. As noted by MacDonald and Corson (2012, 170), "Sukhdev's position as a finance capitalist, rather than an economist, is important, for example because he represents a form of 'real world' expertise that qualifies him as distinct from the arcane world of economics, and already aligned with the decision makers that environmental organizations seek to access".

The TEEB initiative, hosted by UNEP in Geneva has yielded several reports publicly presented at the 2010 Conference of the Parties to the Convention on Biological Diversity in Nagoya. This initiative, which enjoyed scientific authority thanks to the networks of experts involved and its links with UNEP and the Convention on Biological Diversity, was above all a communication effort. It has resulted in an intensive production of slogans, aphorisms, and the display of adages attributed to management gurus reassuringly familiar to the target audience—e.g., "you can't manage what you can't measure"—reducing the political agenda of conservation to an injunction: "make nature's values visible". The TEEB initiative has thus propagated conservation scripts centered on valuation, interpreted in the narrow sense of monetary valuation, and seen as the first step towards necessary natural capital accounting. It also provided new allies and voices to valuation-centrism.

Indeed, beyond the messages conveyed, the major feature and achievement of this initiative was to have involved the target audience of its reports in their production. The Business and Enterprise report, one of the most widely commented upon, urged companies to integrate natural capital into "corporate planning, accounting and reporting" (TEEB 2010, 9), requiring its prior valuation. Produced by a hybrid community of 114 stakeholders from 75 organizations including researchers, business representatives, and economists from national and supranational environmental administrations, it was coordinated by Joshua Bishop, Chief Economist at the International Union for Conservation of Nature (IUCN), with experience partnering with multinational oil and building materials companies. His position at the junction of two worlds

has enabled him to build the community whose formation was one of the major outcomes of the TEEB initiative. The language of natural capital valuation has penetrated the previously unexplored realms of corporate governance and reporting and, in the process, has gained a new source of legitimacy through its integration into corporate greening strategies. This business-oriented component has endured, transforming in 2014 into an independent network, the Natural Capital Coalition (NCC).

Performing Nature Valuation: The Natural Capital Coalition

The creation of the NCC set up by the World Business Council for Sustainable Development (WBCSD) and the IUCN in 2014 marked a significant surge in valuation-centrism. Presented by its proponents as a continuation of the TEEB initiative, it was intended to engage in the practical implementation of natural capital accounting, as reflected in its founding document, the Natural Capital Protocol (NCC 2016), which provides a roadmap for organizations wishing to embark on this journey. This platform appears, however, above all as a place for staging nature valuation in the form of natural capital accounting. Its sparse and scattered practical achievements are celebrated as the first stirrings of developments to come. Its meetings are organized as performances, orchestrated around a few charismatic leaders, deemed inspiring according to the canons of the public they address (Aykut et al. 2022). They are intended to be horizontal, and collaborative and to develop a strong sense of belonging among participants.

The NCC's activities are partly funded and facilitated by the European Union (EU) and its institutions which strongly support natural capital accounting projects. For instance, the 2019 *Green Deal* mentions the importance of "support[ing] businesses and other stakeholders in developing standardized natural capital accounting practices within the EU and internationally" (European Commission 2019, 17). Successive programs have been adopted in this respect: "We Value Nature" under Horizon 2020, from 2018 to 2021,[9] and more recently, the "Aligning accounting approaches for nature" project".[10] As early as 2007, the European Commission had set up a dedicated platform called EU Business @ Biodiversity Platform (EU B@B). The latter organizes the "European Business and Nature Summit" (EBNS), which since 2014 takes place during the "European Natural Capital Week" and is the annual meeting point of the NCC members.

[9] https://cordis.europa.eu/project/id/821303 [accessed March 23, 2023].
[10] https://ec.europa.eu/environment/biodiversity/business/align/index_en.htm [accessed March 23, 2023].

The NCC's stated vision was to bring together all potentially relevant parties – various experts, providers of packaged accounting solutions, and users – and to put them on an equal footing, without assigning them distinctive roles. Horizontal and informal communication among individual experts is assumed to prevent authoritative postures, the assertion of institutional positions, and the expression of opposition. This format of engagement and communication based on the sharing of information was expected to foster a community of peers and a common language, without the need for substantive consensus.

Despite this aspiration to be as horizontal as possible, the NCC is mainly driven by a few influential personalities who were already active in the TEEB initiative and whose careers are marked by circulation between international environmental NGOs, UN-related organizations, private companies and their umbrella organizations, and national and supranational administrations. Sometimes holding several positions at the same time, they also often develop specialized consultancy activities in their own name. The circulation of these natural capital accounting brokers between different environment-related arenas promotes the circulation of narratives, language, and framings. Pavan Sukhdev is probably the most emblematic example in this regard. After leading the TEEB initiative and then UNEP's Green Economy Initiative, he became the President of WWF in 2017. He is also the founder and CEO of a consulting firm specialized in natural capital accounting, GIST Advisory, which has offices in Geneva, London, Mumbai, and Singapore.

Overall, the natural capital community is not very diverse. Industrial companies, which were the intended target audience of the NCC, represent only 18% of its members, while consultants account for almost half of its membership. Only nine (out of 142) are international consultants with offices across continents[11]. Among them are the so-called "Big Four" (EY, Deloitte, KMPG, PwC). While they pioneered the development of natural capital accounting methods in the early 2010s, including in relation to TEEB, their current involvement with NCC is more of an honorary or patronage role. Their contributions are received with deference, their comments are taken up, and the placement of their respective logos on reports is believed to serve as a token of credibility. However, they do not actively participate, leaving it to the many smaller consultancies. The latter share case studies, which are embellished and elevated to success

[11] Counted by the authors, data derived from: https://capitalscoalition.org/the-coalition/ [accessed August 2, 2022].

stories at events that are staged to elicit enthusiastic reactions from the audience. Repeating these stories over and over again in multiple formats and variations creates the impression of a bubbling cauldron of projects and ideas, fueled by the regular production of progress reports, leading in turn to the organization of events to publicize them.

The frenetic pace and profusion of outreach conjures up the image of an extremely dynamic topic that occupies and saturates nature conservation debates in several political arenas. Discordant voices and aspirations to promote other natures than that which can be seen by capital cannot be articulated (Robertson 2006). Actors who might be tempted to engage with alternatives are captured by the NCC's agenda and framing of the issue, which they come to see as the most pragmatic. As summarized by a UNEP staff member, referring to natural capital accounting "is policy relevant… It is important for fundraisers and policy makers who are familiar with it".[12]

A coalition has formed around natural capital accounting and is deploying intense activity and media presence to call this subject into existence. The proliferation of initiatives, events, and platforms dedicated to natural capital accounting poorly conceals its lack of uptake. Paradoxically perhaps, calls for a monetary valuation of nature are all the more vocal, and displays of excitement all the more intense, as the support of the most influential economic actors is moderate. Without prevailing in practice, or precisely because of this, the monetary valuation of nature is consistently presented as a pillar of nature conservation. This discourse is difficult to challenge as it is future oriented and based on promises, not on tangible facts that could be tested. It also draws its strength from its ability to absorb both supportive and critical or alternative proposals.

Valuation and the "New Spirit of Conservation"[13]

The Dasgupta Review: "We Are All Asset Managers"

The 2021 release of *The Economics of Biodiversity: The Dasgupta Review*, mentioned in the introduction, was an important moment in reaffirming this framework. Its coordinator, Partha Dasgupta, is a renowned resource economist who collaborated with David Pearce in the 1990s and unsurprisingly makes the same kind of arguments. In essence, the report asserts and intends

[12] Interview: UNEP/TEEB employee, May 8, 2019, Geneva, Switzerland.
[13] Derived from Boltanski and Chiapello's book *Le nouvel esprit du capitalisme* (1999).

to demonstrate that nature is a capital and provides services, until now largely free of charge and therefore unnoticed, but on which humankind critically relies for its survival. Written in the first-person plural, the report's headline messages engage the reader in sharing its analysis and agenda, and communicate the notion of a common and undifferentiated responsibility, with the effect of not stigmatizing anyone. "We" are all called upon to realize that through our use of and dependence on nature, "we" are unknowing asset managers. It is time to recognize this reality and invest in the conservation of ecosystems. The monetary valuation of nature is presented as an eye-opener, which compels action and makes it impossible and culpable to continue pleading ignorance. It would thus have an unparalleled performativity. The report combines observations on the importance of ecosystems, with which it is hard to disagree, with proposals to place the economic valuation of nature at the heart of any conservation project. Consequently, these proposals take on the appearance of obvious common sense, not only to experts, but to everyone and anyone. The novelty of the findings and proposals is overdramatized, as if the economic register were completely new to environmental policies. Past efforts to protect nature based on ecological or cultural considerations and justifications focusing on other natures are altogether eclipsed. The discourse is forward looking and explicitly based on economic vocabulary and rationale. It emphasizes the unique and historical character of the moment.

These messages—with their ambiguities and undertones—were emphatically echoed by the celebrities invited to speak at the public launch of this Treasury report: Prince Charles, then Prime Minister Boris Johnson, and the famous wildlife presenter Sir David Attenborough.[14] They were abundantly taken up on social media under the hashtag #dasguptareview and relayed within networks that chose to perceive it as a decisive support for their action, such as NCC.[15] The Executive Director of UNEP, Inger Andersen, commented: "Nature is our most precious asset. When economists are saying to value it or face ruin, it's time to listen".[16] The report has been well received, far beyond the circles that traditionally support widespread monetary valuation of nature, as noted in an article by Catrin Einhorn in the *New York Times* entitled

[14] The launch of the report was broadcast live and can be found here: https://wwwe.youtube.com/watch?v=e2QDOeKH0DE [accessed March 23, 2023].
[15] https://capitalscoalition.org/the-coalition-responds-to-the-release-of-the-dasgupta-review/ [accessed March 23, 2023].
[16] https://www.independent.co.uk/climate-change/opinion/covid-nature-biodiversity-economy-climate-change-b1796888.html [accessed March 23, 2023].

"They Want to Start Paying Mother Nature for All Her Hard Work".[17] The article does not offer any explanation or judgment on this broad unanimity, but it does point out, through the use of the indeterminate pronoun "they", that it is becoming difficult to identify the call for monetary valuation with a specific community. The close association between the evidence of ecosystem degradation and the economic solutions put forward makes it nearly impossible to challenge the latter without being accused of inaction in the face of the former. It is particularly challenging, for instance, for the IPBES which coordinates a vast independent international network of experts representing multiple disciplines, to put forward worldviews, cultures, disciplines, and knowledge systems other than those enshrined in this dominant framing.

Towards a Possible Pluralization of Valuation Repertoires? IPBES Values Assessment

As outlined above, the focus on values and valuation is not always or inexorably part of a neoliberal conservation scheme based on market expansion. Since its inception in 2012, IPBES has defended the need to pluralize values and valuation processes to reflect diverse knowledge systems and worldviews, including those of indigenous peoples and local communities, and the many ways of understanding and connecting with nature (Pascual et al 2017, Hughes and Vadrot 2019). In their recent *Methodological Assessment Report on the Diverse Values and Valuation of Nature*, experts identify 50 possible distinct approaches to valuing nature and its "contributions to people" (IPBES 2022). They point out that an extremely limited number of these approaches are used with any frequency, with instrumental values that can guide green growth being preferred, while alternative pathways such as Earth stewardship, degrowth, or nature protection are hardly taken up. The experts point out that this consistently reaffirmed focus on monetary and market values could further exacerbate socio-environmental conflicts and prevent the transformative change. They stress that "more equitable and sustainable policy outcomes are more likely to be achieved when decision-making processes recognize and balance the representation of the diverse values of nature and address social and economic power asymmetries among actors" (IPBES 2022, 32). IPBES, whose authority and scientific expertise are increasingly recognized, is thus a site for the articulation of an alternative agenda, of plural conservation pathways, emphasizing the diversity of values and relationships to nature—not unlike J. K. Gibson-Graham's diverse economies program.

[17] https://www.nytimes.com/2021/02/02/climate/dasgupta-report-biodiversity-climate.html [accessed March 23, 2023].

The centrality and legitimacy of valuation as a framing of discussions on nature conservation are reinforced by the great plasticity and polysemy of this notion, which is open to various interpretations. In the same way that contemporary capitalism has partly incorporated its critics (Boltanski and Chiapello 1999), the promoters of natural capital accounting refer to the conclusions of the IPBES assessment—which is totally counter-intuitive given their content—to reassert their position. Although the content of the two reports is substantively different, the reactions to the IPBES press release on the *Values Assessmen*t were strikingly similar to those that hailed the release of the Dasgupta Review. The main message that Inger Andersen has chosen to take away, is that "Political & economic decisions largely ignore nature's true value."[18] In the same vein, the NCC reports that IPBES calls for "integrating the value of nature across decision-making."[19] The simple use of the word "value" in the singular in both cases is however in total contradiction with the spirit of the report and grossly distorts its meaning.

Conclusions

The economic valuation of nature has been presented for several decades as the way to ensure conservation. It has shaped the way conservation policy, and more specifically biodiversity policy, is conceived, discussed, negotiated, designed and funded, not unlike the way climate policy has been shaped by the presentation of climate change as a matter of economic cost-benefit analysis (Randalls 2011). Yet, perhaps more than for climate change and cost-benefit analysis, practical decisions for biodiversity conservation continue to rely only marginally on the economic valuations of nature (IPBES 2022). The centrality of economic valuation in the discourse contrasts with the frequently renewed observation that it is little used in conservation practices (Dempsey 2016; Foyer et al 2017; Stevenson et al 2021). The absence of an empirical basis for confirming the appropriateness of monetary valuation of biodiversity for conservation purposes does not allow to deny it either. A striking and lasting disjunction can thus be observed between conservation practices and the discourse marked by what we have called valuation-centrism, based on Gibson-Graham's concept of capitalocentrism. Valuation-centered conservation narratives remain prevalent and little contested in spite of, or precisely because of, their lack of materialization.

[18] https://twitter.com/andersen_inger/status/1546480728787111936 [accessed March 23, 2023].
[19] https://twitter.com/CapsCoalition/status/1546517564976762881 [accessed March 23, 2023].

As we have shown, the monetary valuation of nature was first advocated by economists drawing on theoretical arguments that it would allow for the full integration of nature's values into economic calculations and strategies, thus enabling market-based conservation. This view has been widely criticized for the excessive and misplaced confidence it puts in the regulatory powers of the market. Such criticism is one of the founding tenets of ecological economics, although some of its proponents have come to embrace the virtues of monetary valuation for advocacy purposes. The latter see money as a language intelligible to all, which can convey a sense of the importance of the biosphere by showing that it contributes far more to welfare than the economy. For the same reasons of alleged instant intelligibility, global conservation organizations have relied on monetary valuation in the form of natural capital accounting to enlist business and financial institutions and broaden the constituency for conservation. In this context, the valuation of nature is emptied of any theoretical content, depoliticized, and deliberately blurred to elicit consensus and support. It appears above all as a pretext for creating and sustaining momentum for biodiversity, driven by a natural capital community that is extremely active in social media and saturates the conservation communication space with its slogans.

The valuation of nature has probably become a major component of international expertise and discourse on nature conservation because of these multiple orders of justification, arenas and actors that support it. As we have noted, the dominant approaches to the monetary valuation of nature have invariably been contested in the different social spaces in which they were articulated. Pluralistic or alternative views have been put forward to bring forth metrics other than money, non-instrumental values, the subaltern values of indigenous peoples or local communities. The prevailing feature of conservation discourses is less the promotion of a particular type of value or mode of valuation than the assertion that the recognition of nature's values in general should be central to any successful policy.

Although highly disconnected from practice, valuation-centered narratives do have effects. They are instrumental in focusing attention and funding on certain research questions, with analytical knock-on effects that lead to compounding and accumulating ignorance about "other natures" and alternative conservation pathways. They create enclaves of "undone science" (Hess 2016). The exclusive focus on accounting for objectivized nature's values tends to obscure the more fundamental and political issue of whose values are recognized and enshrined through law and conservation policy. As the IPBES values assessment points out, recognition

of the plurality of values is only a first step, rarely surpassed, towards the structural "transformative change" that would be required to halt biodiversity loss (IPBES 2022). The main drivers of global anthropogenic biodiversity loss are, in rank order, changes in land and sea use, followed by direct resource exploitation, pollution, and further down the list by climate change and species introduction (Jaureguiberry et al., 2022). Obviously, revealing the economic values at stake in the destruction of biodiversity-rich ecosystems is not enough to settle inherently political conflicts nor to determine who should have the right to participate in decisions affecting conservation.

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Sylvain Maechler holds a PhD in political science from the University of Lausanne, entitled "Accounting for Nature: Risk, Uncertainty, and the Global Political Economy of the Ecological Crisis". He is currently a visiting scholar at the Institute of Political Science at the Goethe University Frankfurt thanks to a postdoctoral fellowship from the Swiss National Science Foundation. His research lies at the intersection of global environmental governance and international political economy and focuses on the way contemporary capitalism faces the global ecological crisis, particularly through the economic valuation of nature and other measuring, accounting, and market-based instruments. He recently published "*Accounting for Whom? The Financialisation of the Environmental Economic Transition*" (New Political Economy, 2022).
ORCID: 0000-0002-4107-2698
Twitter: @SylvainMae

Valérie Boisvert is a full professor of ecological economics at the Institute of Geography and Sustainability of the University of Lausanne (Switzerland). Her work focuses on the political economy of biodiversity. The development of biodiversity-related markets is one of her main research topics. She is interested in the construction of institutional arrangements, the economic qualification of their objects and the transactions to which they give rise, in a perspective of ecological economics, mainly inspired by institutionalism and economic sociology.
ORCID: 0000-0003-3449-7150

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