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The Convivial Conservation Imperative: Exploring “Biodiversity Impact Chains” to Support Structural Transformation

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12.1 Introduction

News on the state of the environment does not seem to be improving. Despite some holding on to “conservation optimism,”¹ the general conclusion in the academic and policy literature is that global biodiversity, the global climate and the state of other environmental indicators are bad, and getting worse (CBD, 2020; European Environment Agency, 2019; IPBES, 2019; Lenton et al., 2019; Newbold et al., 2016; Tucker et al., 2018; Watson et al., 2016; WWF, 2018). This has resulted in growing calls for transformative change in the way we govern biodiversity, and the environment more broadly (Bennett et al., 2019; Scoones et al., 2020). Making incremental, adaptive changes to the current system and structures is no longer considered sufficient to move us to a sustainable future; rather, deeper, more *fundamental* transformation is needed (Blythe et al., 2018). In relation to biodiversity conservation, an important example of this new emphasis is the 2019 Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) report, which argues that “nature can be conserved, restored and used sustainably while simultaneously meeting other global societal goals through urgent and concerted efforts fostering transformative change” (IPBES, 2019: 7). The report realizes this is not easy, but insists:

Since current structures often inhibit sustainable development and actually represent the indirect drivers of biodiversity loss, such fundamental, structural change is called for. By its very nature, transformative change can expect opposition from those with interests vested in the status quo, but such opposition can be overcome for the broader public good. (IPBES, 2019: 9)

Clearly, “transformative change” is an extremely complex proposition, and precisely what it means is widely debated and contested (Brown et al., 2013; Scoones et al., 2020). The IPBES (2019: 9) report, however, provides many suggestions, including a particularly important one: “A key constituent of sustainable pathways is the evolution of global financial and economic systems to build a global sustainable economy, steering away from the current limited paradigm of economic growth.” The European Environment Agency, likewise, states that economic growth should no longer be pursued at the expense

¹ www.conservationoptimism.org.

of the environment and urges governments to “deliver transformative change in the coming decade” (European Environment Agency, 2019: 10).

Coming from major international reports, these are not just “regular” transformative suggestions; they are *radically* transformative suggestions that go to the roots (“radix”) of the problem of contemporary unsustainability.² Demand for such change is echoed by a growing number of civil society groups, networks and social movements battling the myriad environmental and social conflicts caused by unfettered economic growth and consumption.³ And while the global COVID-19 pandemic had many governments and institutions scrambling to get back to “normal,” it also amplified the demands for transformative change. The key questions, then, become: How do we act on these demands and suggestions? What do they imply for environmental governance and biodiversity conservation?

In this chapter, we support and advance arguments for a fundamental *structural* transformation that envisions radically different institutional and societal structures. This view is in line with the current volume and increasingly shared by many calling for transformative change (e.g. Chaffin et al., 2016; Martin et al., 2020; Massarella et al., 2021). At the same time, many actors still believe that transformative change can happen without directly and explicitly challenging the capitalist underpinning of contemporary institutional and societal structures (Feola, 2020). We argue that many of the solutions put forward for transforming biodiversity conservation follow this belief. More specifically, we argue that even seemingly “radical” new approaches, such as “neoprotectionism” (focused on creating space for protected areas) and “new conservation” or natural capital approaches (championing the use of market-based mechanisms to integrate people and nature) are not actually transformative. Although they call for radical shifts – both in symbolism and how we govern biodiversity on a global scale – they do not sufficiently address or challenge the main driver of biodiversity loss: the neoliberal capitalist model that dominates our global political economy. In fact, by not responding holistically and critically to the global challenges we are facing, including currently disturbing authoritarian trends in global governance systems and an increasing concentration of corporate governance, these proposals for transformative change may even set us back.

We therefore argue that the only way to properly conceptualize transformative change is to combine radical reformism in the short term with an intermediate to long-term vision for fundamental *structural* transformation that directly challenges our contemporary capitalist political economic model and its newfound turn to authoritarianism. In doing so, we emphasize, following Scoones et al. (2020), that our structural approach can and should be seen in conjunction with – not necessarily against – what they call systemic and enabling approaches that focus more on complex system change and values and actions of different actors. The latter, however, can only gain (appropriate) direction through a critique of the dominant political economy and hence why we emphasize *structural* transformation. In what follows, we contribute to the current volume by presenting a vision for structural

² O’Brien et al. (2013) define this as moving from processes of circular change (repeatedly adjusting the existing system) to axial change (moving to a new way of thinking and being).

³ See <https://ejatlas.org/about>.

transformation under the banner of “convivial conservation.” Convivial conservation is a vision, a politics and a set of transformative governing principles that moves biodiversity governance beyond market-based mechanisms and a central focus on protected areas (PAs). We outline and analyze these three elements and propose the idea of “biodiversity impact chains” (BICs) to operationalize some of the transformative governance aspects of convivial conservation in practice.

BICs, in essence, aim to *politicize* transformative environmental governance by drawing more concrete connections between differentiated actors, and their variegated impacts on biodiversity, in a highly uneven conservation field. This allows us not only to understand that those with the largest footprints must change their lives the most in order to redress biodiversity loss, but also that spatial proximity to conservation areas should be of less concern to conservation action than is often the case (see also Chapter 14 of this volume). BICs, therefore, help us to gain a clearer view of the structural pressures on biodiversity, and how these need to be mediated or challenged in order to achieve structural transformation. In the penultimate section of the paper, we develop this perspective in more detail in order to explain, in the conclusion, how a convivial transformation may be our most realistic chance to respond positively to the global biodiversity crisis. First, however, we summarize the arguments for fundamental structural transformation and what we believe this should entail.

12.2 Authoritarian Currents and the State of Biodiversity (Conservation)

As is apparent from the preceding discussion, the necessity for fundamental transformation is becoming increasingly obvious in global environmental governance circles and, indeed, within global governance more generally. As shown by many other chapters in this volume, most environmental indicators around climate, oceans, biodiversity, forests and more are so alarming that even most mainstream commentators now call for forms of change beyond mere nudges within the general parameters of the current system. Much evidence from the current transformations literature could be presented here, but for an overview we refer to Chapters 1 and 4 in this volume and Massarella et al. (2021). What we want to add is a more sociological analytic, namely that the mainstream system in which global environmental governance approaches have been operating is increasingly leading to forms of authoritarian populism and right-wing extremism. Prominent examples include the recent Trump regime in the United States, the Bolsonaro regime in Brazil and the Modi regime in India, among others (Kiely, 2021; Saad-Filho and Boffo, 2021). All of these regimes articulate narrow versions of both nation and nature, to the extent that Indigenous and other minority groups are frequently cast as the enemies of national economic progress, often violently so. Indeed, one key constant across these regimes is that they have come to power with the support of major extractive industries and have, in turn, unapologetically exercised their power in support of these industries to directly attack and dismantle forms and institutions of environmental protection that stand in their way (Kiely, 2021; McCarthy, 2019; Saad-Filho and Boffo, 2021).⁴

⁴ Another indicator for this on the global scale is the rise, over the past twenty years, of the killing of environmental defenders; see: <https://bit.ly/3ld8EEG>.

We argue that these worrying trends need to be acknowledged and challenged directly for transformative conditions to arise (Mason, 2019). After all, as Polanyi (1957) argued as far back as the 1950s, the rise of authoritarianism is the ultimate response to the threat that social and environmental protection poses to the continued advancement of neoliberal capitalism. As crises of capitalism are increasingly accompanied by crises of legitimation (of the continuation of “business-as-usual”), authoritarianism offers a solution to both. This “authoritarian fix” allows for capital accumulation to continue by removing barriers to the exploitation of natural resources and labor, while simultaneously removing the need for legitimation (Bruff, 2014: 125; Poulantzas, 1978). Thus, it is hardly coincidental that many of the new authoritarians have sought to undermine or withdraw from global institutions focused on climate change mitigation, at the precise moment of a growing political tension between environmental protection and economic business-as-usual. The dissolution of restrictions on agriculture and mining have gone hand-in-hand with a denial of the scientific truth of environmental degradation, and widespread attacks on agencies producing spatial data on deforestation and defaunation (Neimark et al., 2019). By undermining protections at all levels, new authoritarian regimes thus act to sustain a capitalist economy that demands continuous growth in order to remain stable (Büscher and Fletcher, 2020). From this perspective, the fight against environmental catastrophe is also a fight against authoritarianism, given how the latter is directly implicated in the defense of the current capitalist political economy (Kiely, 2021; McCarthy, 2019; Saad-Filho and Boffo, 2021; Scoones et al., 2018).⁵

Given this context and these threats, it is little surprise that many in the conservation community feel great anxiety and pressure. And while they do often agree that transformation is needed, it seems very difficult to break out of the neoliberal consensus-mold many organizations embraced in the 1980s and 1990s. As documented in the literature (Adams, 2017; Fletcher, 2014; MacDonald, 2010; MacDonald and Corson, 2012), since the 1980s conservation organizations have increasingly conformed to the general, consensus-oriented “sustainable development” models that have thoroughly neoliberalized biodiversity conservation (Fletcher et al., 2019). Indeed, Büscher (2013) identifies consensus and anti-politics as two of three foundational elements of a general neoliberal conservation politics that pervaded the 1990s and early 2000s (with “marketing” being the third). Since the late 2000s, and especially triggered by the 2007/2008 financial crisis, the international political context has changed rapidly, leading – *inter alia* – to the abovementioned authoritarian developments. One would expect that, from the imperative to oppose these forces, a more political and less consensus-oriented approach to environmental governance would ensue. Yet, this has only marginally proven to be the case thus far.

For example, the WWF flagship Living Planet report, released two days after Bolsonaro was elected in November 2018, calls for a “new global deal for nature and people” and urges “decision-makers at every level” to “make the right political, financial and consumer choices to achieve the vision that humanity and nature thrive in harmony on our only

⁵ Some may argue that eco-authoritarianism is the only way out of the failure of liberal-democratic societies to prevent environmental catastrophe, but it should be clear from our line of argumentation that we are adamantly against such an approach.

planet.” To operationalize this “ambitious pathway,” WWF, together with other organizations, will launch a new research initiative based around “systems modelling” to help “us determine the best integrated and collective solutions and to help understand the ‘trade-offs’ we may need to accept to find the best path ahead” (WWF, 2018: 8). Similarly, the European Environment Outlook 2020 paints a grim picture of prospects for European biodiversity and argues that its “message of urgency cannot be overstated.” At the same time, it states that “transformative change will require that all areas and levels of government work together and harness the ambition, creativity and power of citizens, businesses and communities” (European Environment Agency, 2019: 7; 17). On a superficial level, this may be correct, but it leaves out which businesses, types of activities and communities (such as the oil, coal, infrastructure, large-scale agriculture and other communities) will inevitably have to “lose” (that is, to *degrow, and rapidly so*) in order to reach a more sustainable overall state.

To a degree, we can understand that conservation and government organizations want to be careful politically. But a big problem with this conciliatory, mainstream approach is that it is easy to ignore for alt-right and authoritarian (-leaning) politicians and movements, and their corporate backers. Another problem is that it often does not lead to more political or politicized action to demand structural change, and may – unintentionally – lead other actors to take politicized action into dubious terrains of increasingly militarized, even ecofascist, forms of environmental protection that often further marginalize local communities (Duffy et al., 2019). As a result, we have seen more direct-action movements such as Extinction Rebellion, Fridays for Future and others rapidly take center stage in environmental politics, while, from within the conservation community, we have also seen more radical alternatives emerge to challenge mainstream approaches.

Two of the more prominent conservation communities espousing discontent at the status quo are “neoprotectionists” and “new conservationists.” New conservationists have been quite radical in a sense, as they have started criticizing the key elements on which the global conservation movement has been built since the nineteenth century: protected areas and the ideas of “pristine” nature and wilderness. Instead, they suggest a full integration of conservation into dominant, capitalist political economic systems for conservation to stand a chance in the future and maintain or retain legitimacy (Kareiva et al., 2012). In this way, they build on a growing trend within mainstream dominant approaches to conservation, represented, among others, by the Capitals Coalition, which aims to turn nature and natural resources into a form of “capital” that can be traded on markets and used to offset more regular forms of development (Fletcher, 2014; Fletcher et al., 2019).

Yet another community of conservationists – “neoprotectionists” – strongly contest the new conservationists. Neoprotectionists believe that the new conservation strategy would not only be the death of conservation, but of the entire planet (Wuerthner et al., 2014; 2015; Wilson, 2016). Basing their conservation objectives and strategies on conservation biology science, neoprotectionists believe that to ensure long-term viability of an ecosystem, nature must be set aside from the influence of people (Locke, 2015). Such ideas have important lineages to colonial conservation strategies, in which fences, fines and ideas about “pristine wilderness” were crucial tools to evict people from protected areas and to keep them out. According to neoprotectionists, we need to go back to protected areas and wilderness

protection, but on a scale hitherto unseen. Some even argue that only if at least half the planet becomes a system of nature reserves can the ecological processes critical to human and planetary survival persist (Wilson, 2016).

Since earlier versions of these movements were suggested, they have also morphed, nuanced and developed. Neoprotectionist approaches, for instance, have reduced their emphasis on “protected areas only” somewhat to focus also on other conservation measures. They have also given more attention to social goals related to conservation, seemingly embracing a “social turn” that aims to bridge nonhuman nature and people (Ellis, 2019; Locke et al., 2019). While inclusion of Indigenous knowledge in conservation is now discussed by neoprotectionists (Locke, 2018), it still remains quite vague, with sparse and somewhat superficial references to land rights and integration of Indigenous knowledge in policymaking, while separating humans from nature via protected areas is maintained (Locke, 2018). It is unclear how this emergent “social turn” will manifest and be integrated into neoprotectionist visions on protected areas, a concern further highlighted by recent research finding that protecting half of the Earth might negatively affect over one billion people and result in widespread social and environmental injustices (Schleicher et al., 2019). Of particular importance, climate mitigation and adaptation are now widely discussed and tentatively integrated into protected area targets in order to accommodate broader regimes, such as around the sustainable development goals (SDGs). In this regard, Dinerstein et al. (2019) proposed a “Global Deal for Nature” including half Earth approaches that they believe should be paired with the 2015 Paris Climate Agreement.

Clearly, the debate on biodiversity governance is dynamic, diverse and rapidly changing in response to ongoing socioecological dynamics. Within these diverse dynamics, however, two core issues remain central: how to relate people to the rest of nature and how to situate conservation vis-à-vis the political economy of neoliberal capitalism. And despite more recent iterations that nuance earlier and more radical proposals to mix people and nonhuman nature through “natural capital” valuation, or separate people and nature on an unprecedented global scale, it is doubtful whether the dominant options currently on the table can provide a productive way forward. As argued in Büscher and Fletcher (2020), none of the current approaches will provide the fundamental structural transformations needed, as they do not directly confront the drive for continual accumulation of capital at the heart of the neoliberal capitalist economy. Neither do they sufficiently engage with the social injustices that have historically plagued both protectionist and market-based approaches to environmental governance (Martin et al., 2013). Nor do they take into account the vast differences in ways of knowing nature, environmental values and perspectives on what makes “good governance” (Sikor et al., 2013). We therefore need a different approach to transformation that can bring about the “substantial, profound and fundamental change” required (Massarella et al., 2021). We outline one pathway to transformative change through the alternative approach of convivial conservation.

12.3 Convivial Conservation: Vision, Politics, Governance

Convivial conservation emphasizes the vision, politics and governance mechanisms needed for a realistic, *structural* transformation of biodiversity protection. This is because convivial

conservation is founded on a political ecology approach that is critical of contemporary capitalism, the global and unsustainable political economy it has spawned over the last centuries and the recent increase in global authoritarianism (Büscher and Fletcher, 2020). This makes convivial conservation itself a political economic approach to environmental governance, characterized by questions such as: How can we understand political economy and international development from the perspective of integrated socioecological dynamics around biodiversity? Or, how can a concern for biodiversity become central to the ways we (need to) rethink the relationship between political economy and development generally? And how does this lead to the implementation of concrete policies and measures at all levels that are sustainable, equitable and just? In short, convivial conservation is a critical-constructive approach that, contrary to practice-oriented, consensus and neoliberal approaches, bases its strategy on a critique of the structural context within which actors and organizations maneuver.

While a fuller elaboration of the convivial conservation vision has been published elsewhere (Büscher and Fletcher, 2020), it can be summarized as a postcapitalist, political economic approach to conservation that aims to integrate and reconnect people and nature in landscapes across different scales, spaces and times. The convivial conservation vision functions within the broader transformative vision of degrowth: an overall quantitative downsizing of economic throughput to ecologically sustainable levels coupled with widespread wealth redistribution to make this reduction “socially sustainable” (D’Alisa et al., 2015; Hicks et al., 2016; Holland et al., 2009; Kallis, 2011; Raworth, 2017; Wilkinson and Pickett, 2010). Within these overarching contexts, convivial conservation defines specific parameters for a fundamentally different form of conservation that does not separate people and nature. This means that protected areas and urban centers, as the two quintessential “end-points” of traditional human–nature dichotomies, have to be connected more, with the ultimate aim of achieving a better balance between human and nonhuman lives and needs across urban and rural spaces.

Convivial conservation envisions five fundamental shifts for conservation: moving from protected to promoted areas; from a framing of saving nature to one of celebrating human *and* nonhuman nature; from touristic voyeurism to engaged visitation; from a focus on spectacle to a focus on everyday environmentalisms and from privatized expert technocracy to common democratic engagement (Büscher and Fletcher, 2020: 163–174). In line with the themes of the book, this chapter focuses on how this vision is also a politics and form of governance. Central to convivial conservation is the fact that it politicizes conservation – meaning that it explicates the interests of different actors and how they may or may not be compatible, and always function within broader frameworks of power. Convivial conservation, therefore, is not focused on achieving consensus and does not believe that all actors with widely differential interests can or want to come together to promote biodiversity conservation. Rather, it conceptualizes biodiversity conservation as a *political struggle* caught up in histories and contexts of power that provide structural and agentic challenges and barriers. In this struggle, commonalities need to be sought and created, but not at the expense of the overall *political* direction of the convivial conservation vision, which, as mentioned, entails (moving toward and encouraging) degrowth, wealth redistribution and,

ultimately, postcapitalism. In this sense, convivial conservation also aligns with environmental justice movements that conceptualize political struggle as an imperative part of radical transformation (Pellow, 2017; Temper et al., 2018).

This brings us, finally, to governance, or the way that actors steer, direct and influence affairs in particular directions. Governance mechanisms include, among others, legal regimes, state and other forms of organization, (formal *and* informal) institution-building or breaking, and more, in both material and discursive forms. What constitutes biodiversity governance is very broad and encapsulates a wide range of actors, activities and approaches. However, the concept of “transformative governance” established in Chapter 1 of this book is more specific, and it is this concept that is at the center of convivial conservation. Transformative biodiversity governance is understood as a product of deliberate and political acts that directly challenge embedded power structures, dominant agendas and framings, and mainstream approaches to conservation (see Chapter 1). In order to disrupt embedded hierarchies and power structures and bring about this transformative governance, we must first critically interrogate the (historical and contemporary) framings, responsibilities and roles of different actors within biodiversity conservation.

Table 12.1 provides a heuristic basis for such an analysis, depicting our conceptualization of four broad categories of conservation actors and organizations. We regard rural lower classes (category 4) as those actors who often live in or with biodiversity and who (still) depend on the land for subsistence, especially in tropical countries. They are often (seen as) poor and the ones who have least contributed to global problems of biodiversity loss (historically and contemporarily). Yet they are most often targeted in conservation interventions and forced or “incentivized” to change their livelihoods to meet biodiversity targets. Category 3 actors comprise urban, semiurban or semirural middle and lower classes

Table 12.1 *Generic categorization of classes important for conservation*

1. Upper classes	<ul style="list-style-type: none"> - Political, economic and other elites, inherited wealth - At the helm of the global capitalist system - Multiple properties, including in wealthy urban neighborhoods and (biodiverse) estates or areas
2. Land-owning capitalist classes	<ul style="list-style-type: none"> - Commercial farmers, large plantation or otherwise productive landowners - Responsible for / implicated in much land-use change, soil depletion, biodiversity loss, etc.
3. Middle and lower classes	<ul style="list-style-type: none"> - Urban, peri-urban, peri-rural working classes - Non-subsistence: dependent on wage labor, market-based commodity consumption
4. Lower rural classes	<ul style="list-style-type: none"> - Rural/forest communities, residents, dwellers - Partially or wholly dependent on subsistence activities - At the bottom of global capitalist system

(source: Büscher and Fletcher, 2020: 182).

throughout the world, who are not directly land-dependent for subsistence and who participate and rely on local and global labor and consumer markets. Through their consumption and place in global markets, they do heavily influence biodiversity in many places, but are often not part of or specifically targeted by conservation interventions, except as potential donors.

Category 2 actors are land-owning capitalist classes such as major capitalist farmers and/or landholders for large agro-industry. They are often targeted by conservation, not as part of community-based interventions, but as partners in the conservation effort or as targets of (so-called) activist interventions or forms of resistance. In many places (Indonesia, Brazil, Central Africa and so forth), these classes are also part of violent frontiers of land conversion, and hence difficult to target and engage with (Campbell, 2015). Finally, category 1 actors comprise the global upper classes that are, politically, economically or otherwise, at the helm of the global capitalist system (often referred to as the “transnational capitalist class”; see Sklair, 2001). These elite actors are often both urban and rural – owning multiple properties, including in rich residential areas in cities to be close to elite political-economic circles, but also with second, third or even more properties in rural, semirural and biodiversity-rich spaces, including large estates and private reserves (Holmes, 2012). Upper-class elites are often recruited as funders or included on boards of conservation organizations, but rarely targeted as part of conservation initiatives aiming at behavioral or livelihood change, as they are often either seen as unreachable or as doing good for the environment through their philanthrocapitalism or other forms of conservation-related charity (including through the privatization of nature/parks, etc.). Hence the upper classes have a strange double role, as they are at the helm of the system that keeps the pressure on biodiversity intense and high, while also considered either untouchable or even to be championing conservation through their large donations to conservation causes, NGOs and more (Edwards, 2008; Ramutsindela et al., 2011).

While empirical reality is much more complex than this table can depict, its point is that currently dominant conservation paradigms focus mostly on category 4 actors in terms of whose lives need to change. Convivial conservation would change this and target actors according to their differential responsibilities and accountabilities in relation to both the direct and indirect impacts of their actions on biodiversity, as well as the relative power these actors possess within broader structures of capital accumulation. Paraphrasing Moore (2016), it is about identifying, targeting and “shutting down the relations” that produce biodiversity loss, not just about geographical proximity.

In this way, we might reverse the model of “polycentric” governance proposed by Ostrom and others (e.g. Ostrom and Cox, 2011). In this standard model, governance is seen to start with local people and then must consider their embeddedness within overarching structures of governance with which they must contend to assert their space for self-governance. In our vision, by contrast, effective conservation governance would start by addressing actors in these superordinate levels in order to first target their actions, then work down toward the local people in direct contact with the biodiversity in question. In this way, the pressures exerted on local conservation initiatives can be proactively addressed at their source rather than merely retrospectively in relation to their impacts.

We should clarify that this governance model pertains only to the ways that conservationists frame and confront threats to conservation, not to how decision-making regarding effective conservation should proceed. The latter must embody deeply democratic forms of engagement in which local actors, those generally affected heaviest by conservation measures, *are* placed at center stage (see also Chapter 8). A convivial conservation politics, therefore, must simultaneously center local people as key decision-makers in conservation planning and decenter them as the central targets of interventions aimed at fostering behavioral change. This analysis gives rise to a number of questions, and in a short chapter it is not possible to work out all the details of the convivial conservation vision and the politics it necessitates. Our analysis does, however, point to the need for transformative governance mechanisms that disrupt this conservation class structure, “trigger regime shifts” and ultimately alter the “structures and processes that define the system” (Chaffin et al., 2016: 400).

We have previously put forward some suggestions for transformative governance mechanisms, including a program of historical reparations directed at category four actors, developing “integrated conservation landscapes” that prioritize human and nonhuman coexistence (Büscher and Fletcher, 2020), and alternative finance mechanisms such as “conservation basic income” for those living close to areas of high biodiversity (Fletcher and Büscher, 2020). In the remainder of this chapter, we discuss the rationale for BICs as both a political methodology and a transformational governance mechanism. The basic idea behind BICs is simple: to better understand and politicize the relationships between different actors and the impacts that their livelihoods and consumption choices have on the conservation of particular forms of biodiversity. BICs challenge many of the embedded assumptions that we have previously outlined in this section by refocusing attention onto those with the largest footprints – likely to be in class 1 and 2 – while challenging the problematic focus on class 4 actors. In doing so we open up the potential for transformative change in biodiversity governance, as the focus of conservation discourses, actions and interventions shifts onto those with the biggest footprints.

12.4 Biodiversity Impact Chains

The idea of BICs is partly inspired by the value chain literature, which studies value supply chains to see how commodities are produced, distributed and consumed, and to study social, political and environmental issues along the way (Bair, 2009). The value chain literature has developed in numerous directions, including how value chains relate to forms of more sustainable production or the tracing of knowledge as a valuable commodity in its own right (Büscher, 2014; Guthman, 2008; Ponte, 2019). A classic example comes from Hartwick’s (1998: 426) focus on gold, where she shows how production, processing and consumption dimensions are connected through “vertical” long-distance relationships but also consist of “horizontal” dimensions of local interrelationships along various points on the chain. She contends that the production of one commodity can imply multiple chains, while along points on a singular chain “halo-effects” can occur. In this way, wider social and environmental effects are brought about by particular activities along the chain.

A major critique in much of the literature on value chains is that they have quite a linear understanding of the chains they describe and a very simplistic or instrumental idea of the “value” they envision. According to Starosta (2010: 435):

[W]hat commodity chain studies do is simply to offer, through an essentially inductive-empirical methodology, a typological description of the immediate outer manifestations of the determinations at stake. This failure firmly to explain the nature of GCCs [*Global Commodity Chains*] is expressed, for instance, in the disjuncture between the portrayal of the particular dynamics internal to each industry and the general dynamics of the “system as a whole.”

Like others (Ponte, 2019), Starosta (2010: 455) argues that we should pay more attention to irregular circulatory dynamics of value, rather than “captive governance structures” that work according to linear models of how value is produced. The same lessons apply for how we should study the idea of “*impact chains*.” Like value or commodity chains, the last decades have seen a major literature develop around the idea of impact, including in relation to “cross-sectoral cumulative impacts” that we draw upon and are inspired by (Baird and Barney, 2017).

Building on these important considerations, we imagine BICs as a *political methodology* and a *governance mechanism* to (further) study, map and steer political economic activities in particular bioregions (both urban and rural, and everything in between) and how they relate to specific ecosystems and biodiversity that provide the (raw) materials for these activities. In many cases, this is impossible to establish given the complex considerations above. Hence, we consider starting with specific ecosystems wherein this dependency can be most directly established. These could include (fresh) water, as the distances between water and their use – although they can be large – are often local or regional. As the important case of the drought in Cape Town, South Africa, in 2018 shows – a recent example of a major global city facing an acute water crisis⁶ – the conservation of water sources is critically important, and depends on complex political-ecological factors, some of which can be directly controlled and some not (such as climate change). But once the availability and sustainable supply of water are more-or-less known, needs and interests can be renegotiated accordingly, which is precisely what happened in Cape Town, where more pressure was put on major water users in particular to conserve.⁷

Other examples could relate to locally specific biodiversity and their needs vis-à-vis inhabited (urban or rural) landscapes. But all of these are still, in many ways, local or regional. Given the thoroughly global nature of today’s value and impact chains, it is critical to also map and study global connections so as to more directly highlight the political implications and biodiversity impacts of richer lifestyles. There are two ways to do this, both of which are already being explored in practice: first, to start from a specific and important ecosystem or species and “work up” toward the main actors or economic sectors that impact it; or, second, to “work down” from particular actors and economic sectors to show their cumulative impacts on different biodiversity and ecosystems. In what follows,

⁶ See www.capetowndrought.com for more information. Accessed 25 February 2018, two months before alleged “day zero” was projected, the day that water will no longer come from Cape Town taps.

⁷ See <https://bit.ly/3ttJRIC>.

we provide some first tentative examples of both, after which we wrap up the section by suggesting how we can take this concept forward as part of a broader move to operationalize the transformative governance of convivial conservation.

12.4.1 Working down the Biodiversity Impact Chain

Conservation areas and biodiversity are often – and rather self-evidently – said to be impacted mostly by “local people” aiming to fulfill their livelihood needs by utilizing surrounding natural resources. This is, among other factors, the basis of much of the “community-based conservation” literature (Dressler et al., 2010), as well as an explicit assumption of many elite actors involved in conservation. One example concerns famous Virgin billionaire-entrepreneur Richard Branson. In a video supporting conservation in Africa, he asks the question, “what is Africa?” and answers bluntly that “Africa is its animals. That is the beauty of Africa, that’s what makes it different from the rest of the world. And to lose those animals would be catastrophic.” Branson blames “dwindling wildlife numbers” on “Africa’s increasing (human) populations” and argues that Africa should “increase the amount of land for the animals and by increasing the amount of land for the animals, that will help human beings.”⁸

Unfortunately, this neocolonial discourse is not uncommon when it comes to conservation in Africa (Mbaria and Ogada, 2017). Convivial conservation challenges colonizing discourses and practices by more clearly identifying the impacts of extra-local actors, and especially global elites who have the largest footprints. In the case of Branson, his environmental impacts are quite well-documented and provide a pertinent example. Branson, after all, owns several luxury game reserves around the world and has voiced some of the largest climate commitments of any elite actor. Together, these could constitute quite an environmental legacy were it not for the fact that scholars have thoroughly debunked these commitments. Naomi Klein (2015: 251–252), for example, argues that “Branson set out to harness the profit motive to solve the climate crisis – but the temptation to profit from practices worsening the crisis proved too great to resist. Again and again, the demands of building a successful empire trumped the climate imperative.” Scott Prudham (2009), similarly argued that Branson’s environmentalism did nothing to limit further capitalist expansion, including the resource extraction and use this entails. However, while these authors may show that Branson is far from an environmental hero, his precise impact on biodiversity is unclear and needs more research.

At the same time, this research also needs to be extended to aggregate sectors instead of (only) individuals. Our own research on the high-end tourism sector in South Africa provides a short example of how a BIC analysis could work by analyzing the impact of all four conservation classes (Table 12.1) on biodiversity. Adjacent to the world-famous Kruger National Park, philanthrocapitalists such as Richard Branson have their own residences on private protected lands (“upper class,” category 1), while lodge operators and large tourism companies own enormous tracts of private lands (“land-owning capitalist class,” category 2)

⁸ www.youtube.com/watch?v=F0LhU4XFHAM.

for relatively wealthy tourists to enjoy (“upper class,” category 1 and “land-owning capitalist class,” category 2). Furthermore, some wealthy South Africans, Europeans and others own properties on so-called “wildlife estates,” sometimes as a permanent residence but often also as “second homes” (again categories 1 and 2, but also 3) (Koot et al., 2019).

Meanwhile, the inequality between these classes and the “middle and lower classes” (category 3) and “lower rural classes” (category 4) remains enormous, and people from the latter two categories are often associated with causing most of the problems of conservation, including poaching (Duffy et al., 2019). However, these people also provide substantial “conservation labor” (needed for the first two class categories to enjoy nature) and, through the tourism industry, are increasing the value of private land, thereby reducing the chances of the middle and lower and lower rural classes to claim land for other purposes (Ramutsindela, 2015; Sodikoff, 2009), perpetuating and fortifying socioeconomic inequality. Despite a variety of such negative social and environmental consequences, the tourism industry often champions itself for its sustainable contribution to conservation (including much support for militarized anti-poaching conservation initiatives) and community development. However, initial research from several of this chapter’s authors suggests that tourism’s contributions are actually quite meager. More research is needed to accurately evaluate the impacts that all of the classes outlined here have on the national park and its biodiversity, and we posit that BICs as political methodology would enable such an analysis (see also Mugo et al., 2020).

12.4.2 Working up the Biodiversity Impact Chain

The other way to operationalize impact chains is to work “up” from specific biodiverse spaces, and document the direct and indirect pressures on these areas. Unlike the aforementioned top-down impact-chain mapping, this is an area where a lot of work is already being done. NGOs like Greenpeace, Friends of the Earth, the Rainforest Action Network and many others are well known not just for their (direct) actions but also for their research linking environmental impacts on specific areas to specific actors. The Rainforest Action Network, for example, published a report in 2017 tracking the impact chains on Southeast Asian rainforest, especially those in the Leuser Ecosystem in Sumatra, Indonesia (RAN, 2017). According to the report, it

profiles key environmental, social and governance (ESG) performance issues of 8 companies operating in Southeast Asia’s tropical forest-risk commodity sectors. The 8 companies profiled – Felda Global Ventures Holdings, Indofood Sukses Makmur, IOI Corporation, Wilmar International, Asia Pulp and Paper Group, Oji Holdings Corporation, Marubeni Corporation, and Itochu Corporation – were found to have had a range of serious ESG violations in their own operations or direct supply chains. These violations include: use of child and forced labour; conflicts with local communities over violations of their tenure rights; tropical deforestation and destruction of carbon-rich peatlands; threats to biodiversity; corruption; and illegality. *(RAN, 2017: 3)*

But the report doesn’t just highlight the responsibility of the companies directly involved in the destruction of biodiversity and other misdemeanors; it goes all the way up to specific

institutional investors, which they argue are equally responsible for the impacts on biodiversity:

The forest-risk commodity sector operations of the 8 companies profiled in this report have been enabled by at least 6.38 billion USD in bond- and shareholdings at the most recent filing date in May 2017 by institutional investors (asset managers, insurance companies, pension funds) and have received more than 32.67 billion USD in loans and underwriting facilities between 2010 and 2016.

(RAN, 2017: 3)

They then list the investors and bank and highlight that these “have both a moral and corporate responsibility, and a fiduciary duty to understand and address the harmful ESG impacts . . . which they are connected to” (RAN, 2017: 3).

This type of work is critical and puts the spotlight where it belongs: on the wealthy, often extra-local actors that have disproportionate (negative) impact on biodiversity. A similar “working up” approach was also recently applied by Amazon Watch to destruction of the Amazon and Cerrado biomes in Brazil, in their report entitled “Complicity in Destruction” (Amazon Watch, 2019). Home to 10 percent of the world’s biodiversity and 20 percent of its flowing freshwater, it is hard to imagine a convivial conservation transition without a concerted international effort to curb rapid deforestation and land conversion that has increased by more than 50 percent since 2016 (Amazon Watch, 2019). The report echoes research implicating soy and beef production for over 80 percent of forest land conversion in Brazilian Amazonia, and while noting the difficulty in following the exact trail to consumption destinations, it outlines clearly the global financial sources underwriting local and multinational companies implicated in the commodity chain. Among the largest creditors and equity investors in companies active in the Amazon and Cerrado, including those fined for illegal practices, were Barclays, Capital Group, BlackRock, Bank of America, Citigroup, JPMorgan Chase, BNP Paribas, Santander, HSBC, Credit Suisse, Vanguard, Morgan Stanley and Fidelity Investments (Amazon Watch, 2019: 19–24). Illegal timber supply chain links were also found with major importers in France, Belgium, the Netherlands, Denmark, the UK and the USA. Ultimately, Amazon Watch calls for a no-deforestation policy by global financiers, which are effectively underwriting the rapid decline of the world’s most biodiverse region, and sees scope for targeting EU and North American governments, given their accounting for 18.3 percent and 11 percent of Brazilian agricultural exports, respectively.

The importance of viewing the soy and beef industries together in this conservation impact chain is not incidental. Research has shown that despite the primary driver of Amazon deforestation by far being cattle production, this has occurred partly as a result of displacement of medium and smaller cattle ranchers from land now occupied by soy (Barona et al., 2010). Perhaps even more salient has been Brazil’s efforts to “flex” its soy crop for animal feed processing and biofuel production in order to maintain a degree of domestic control – and significant revenues – as China monopolized Brazilian whole bean exports after 2008 (Oliveira and Schneider, 2016). Maintaining a Brazilian soy-crushing and animal feed production capability effectively depends on constantly expanding domestic cattle production, or else losing out to global competition.

With China now crushing the bulk of Brazilian soy to make chicken, pig, salmon and cattle feed for markets worldwide, the “working up” of Amazonian biodiversity destruction simultaneously results in a “working down” to numerous examples of agro- and aqua-industrial pollution and ecosystem decline across worldwide cases from Norwegian salmon to Vietnamese shrimp, and beef industrial expansion across much of Asia. In Brazil itself, then, the conversion of some 200,000 square kilometers of highly biodiverse Cerrado forest and savanna for monocrop GM soy, with associated intensive pesticide use and seed consolidation by a tiny list of corporate players, has meant a wholesale collapse of pre-existing nature and agrarian livelihoods, while also enabling biodiversity destruction associated with agribusiness around the globe (Oliveira and Hecht, 2016). Arguments that we need to continually expand food production to feed a growing population are quickly countered by deeply uneven global access, distribution and profiteering from corporate-led food systems that themselves increasingly depend on ecological catastrophe and the undermining of local food production in favor of export markets (McMichael, 2014).

Finally, with regard to Amazonian biodiversity decline, “scaling up” also highlights the complicity of the global financial and market connections already identified in the rise of authoritarian government. The close association of extractivism with the new Latin American far right is well covered in the literature (Arsel et al., 2016; McCarthy, 2019; Saad-Filho and Boffo, 2021), yet often understated are the simultaneous attacks on protected areas in the Amazon and elsewhere – especially those managed by Indigenous Peoples – that the expansion of mining and the cattle–soy nexus necessitates. The dismantling of Brazilian government ministries for Indigenous Peoples and the environment is effectively now preventing *any* regulation of Amazonian conservation. The same list of global financiers noted above thus profit from the authoritarian *enforcement* of biodiversity decline, a fact further highlighting the urgent need for institutional control of global finance.

More examples can be mentioned, but what is clear is that the transformation to convivial conservation would rely on a dramatic extension and normalization of such research and exposure endeavors. In doing so, the precise details of the impact-mapping in the above examples should be as important as the sociocultural and political-economic process that accompanies it. Again: we see this methodology and governance mechanism as a *politicization tool* that connects different actors from Table 1 in relation to how biodiversity is conserved or not. This political process can then further map the needs and interests of stakeholders in the short term, and also how these needs might change as the overall economy shifts toward degrowth, sharing the wealth and convivial conservation. In addition, the planning process could start to create awareness of how people in bioregions can contribute to degrowth and sharing of wealth. This is how an active process of shifting needs and interests (and hence, ultimately, human nature itself), and challenging the vested interests associated with the creation of capitalist needs and interests, might start or be further encouraged. Moreover, “impact chains” can never do justice to all the different types of impacts generated through activities, especially the complicated climate-related impacts. The point is therefore not to get one-on-one impacts “measured” precisely but rather to complicate, and politicize, the capitalist governance of biodiversity by incorporating direct

and indirect pressures and by targeting and challenging these from two sides (bottom-up and top-down).

12.5 Conclusion

Along with climate change, inequality and, more recently, a global pandemic, biodiversity loss is considered to be one of the world's most pressing challenges. As such, calls for transformative change in the ways biodiversity is governed and conserved are growing. However, major differences on how to approach transformative change exist, and some prominent responses to the biodiversity crisis that consider themselves transformative do not actually address underlying structural drivers of destruction. We therefore argue that these responses, including neoprotectionism and new conservation, should not be considered transformative in the way we have defined the term. Instead, and in line with a growing number of academics, social movements and civil society groups, we contend that fundamental structural transformation is needed to achieve the biodiversity and wider environmental governance capable of adequately addressing the growing biodiversity crisis. In this chapter we have built on the vision of convivial conservation, put forward as a necessary and realistic alternative – one that has fundamental structural transformation at its core.

We have also outlined a practice tool – biodiversity impact chains – as an example of a transformative governance mechanism that reframes perspectives on biodiversity conservation by politicizing the uneven relationships and impacts that different actors have with and on biodiversity. BICs can be seen as a tool for governance *of* transformations (Chapter 1) as they aim to steer the transformative change outlined in this chapter as part of the convivial conservation vision. Two characteristics of transformative governance highlighted in Chapter 1 are reiterated here as particularly important in relation to BICs. First, BICs are *inclusive* as they emphasize the interests of different actors and how such interests impact biodiversity. Second, BICs are *integrative* as they connect actions and solutions across scales. BICs also demonstrate the need for transformative governance to expand yet further and provide a mechanism through which the very framing of biodiversity and its conservation is politicized, challenged and disrupted. Local communities are still typically conceptualized as the recipients, or targets, of biodiversity governance interventions – even in cases where this governance is thought to be transformative. BICs support an alternative approach – one that could support policymakers in better targeting interventions in a more impactful and transformative way.

BICs are just one tool in the convivial conservation toolbox that we and other diverse actors are developing, and in line with other transformative movements such as degrowth. The convivial conservation vision, however, goes beyond the use of individual tools, and the focus, we argue, must be on broader “whole earth” transformation (Büscher et al., 2017). This requires what Wark (2015) calls “alternative realism,” in contrast to “capitalist realism,” asserting that there is no viable alternative to the existing order – and a questioning of many of the assumptions that underpin conservation as we know it.

This may seem impossible, but if, as Olsson et al. (2010: 280) argue, “transformational change is most likely to occur at times of crisis, when enough stakeholders agree that the current system is dysfunctional,” then this moment could be the opportunity to make the fundamental, structural changes that are needed.

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