Biological Conservation 244 (2020) 108520

Contents lists available at ScienceDirect

Biological Conservation

journal homepage: www.elsevier.com/locate/biocon

Conservation basic income: A non-market mechanism to support convivial conservation

Robert Fletcher*, Bram Büscher

Sociology of Development and Change, Wageningen University, De Leeuwenborch, Hollandseweg 1, 6707 KN Wageningen, Netherlands

ARTICLE INFO

Keywords:
Convivial conservation
Market-based instruments
Payment for ecosystem services
Universal basic income
Cash transfer programs
REDD+

ABSTRACT

This article advances a proposal for conservation basic income (CBI) as a novel strategy for funding biodiversity conservation that moves beyond widely promoted market-based instruments (MBIs). This CBI proposal responds to two important empirical developments. The first concerns growing discussions around cash transfer programs (CTPs) and universal basic income (UBI). These are increasingly implemented or piloted yet do not usually take into account environmental issues including biodiversity conservation. The second relates to MBIs like payments for ecosystem services (PES) and REDD+ (reduced emissions through avoided deforestation and forest degradation). In practice, these programs have not only commonly failed to halt biodiversity loss and alleviate poverty but have also largely abandoned their market-based origins, leading to calls for moving beyond market-based conservation entirely. We conclude that the time is right to integrate and transcend these existing mechanisms to develop conservation basic income as part of a broader paradigm shift towards convivial conservation that foregrounds concerns for social justice and equity.

1. Introduction

Conservationists have increasingly questioned the efficacy of neoliberal conservation strategies centred on promotion of market-based instruments (MBIs). Whereas a decade ago these were seen as the most sensible and realistic conservation policies by mainstream conservation organizations, this aura is now gone. Some conservationists even assert that market-based conservation will not get us out of the current environmental and extinction crisis (Cafaro et al. 2017). Based on our own research, we too have suggested that conservationists might "begin taking the market out of conservation altogether and moving toward redistribution" instead (Fletcher et al., 2016: 675). Few scholars and practitioners, however, have seriously conceptualized what this means and what concrete steps might be taken to transition towards a different strategy for financing conservation. In this article, we propose one potential mechanism that could help trigger such a broader transition: a conservation basic income (CBI). We situate this proposal within an overarching approach to transforming biodiversity policy and practice globally that we call convivial conservation (see Büscher and Fletcher, 2019; 2020). Convivial conservation is "a vision, a politics and a set of governance principles that… proposes a post-capitalist approach to conservation that promotes radical equity, structural transformation and environmental justice" (Büscher and Fletcher, 2019: 283). The approach seeks to challenge and transcend both reliance on neoliberal capitalist markets *and* the strict separation between humans and non-human nature via protected areas (PAs) in pursuit of conservation policy and programming that foregrounds principles of justice and equity.

We detail our convivial conservation proposal in great depth elsewhere (see Büscher and Fletcher, 2019; 2020). There we also briefly advanced CBI as a concrete means of operationalizing part of the approach. Here, we seek to outline this potential funding mechanism in in greater detail and specificity as the basis for future research and experimentation concerning its possible implementation in conservation-critical areas.

This proposal is timely in multiple ways. First, it builds on growing discussion concerning the potential to implement universal basic income (UBI), a discussion that builds on the rapidly growing operationalization of cash transfer programs (CTPs). Challenging bureaucratic, top-down interventions, CTPs and UBI aim to ensure a basic, decent living for all and so create conditions for bottom-up forms of pro-poor development. CTPs have been widely implemented worldwide in various forms while despite some partial operationalization UBI remains largely hypothetical. Within these discussions, however, attention to environmental issues including biodiversity conservation has been largely absent thus far. We believe CBI can rectify this omission,

* Corresponding author.
E-mail address: robert.fletcher@wur.nl (R. Fletcher).

https://doi.org/10.1016/j.biocon.2020.108520
Received 28 June 2019; Received in revised form 8 March 2020; Accepted 16 March 2020

by bringing discussion of CTPs and UBI into dialogue with a parallel stream of research concerning payments for environmental or ecosystem services (PES) and REDD+ (reduced emissions through avoided deforestation and land degradation) schemes that have spread throughout the world to promote conservation specifically.

While these latter programs originated, and continue to be promoted, as quintessential MBIs, in practice most have instead become forms of (primarily state-based) resource appropriation and redistribution or "results-based aid" (Angelsen, 2017). Even so they have largely failed in their aim to achieve significant biodiversity conservation while also reducing poverty. We therefore explore how this experience of 'actually existing' MBIs might be integrated with UBI to create novel forms of CBI. Conceptualized in this way, we believe that CBI can help move conservation policy beyond MBIs that are currently still dominant but failing to both conserve biodiversity and challenge unsustainable forms of development.

We begin by outlining the rationale for CBI, charting the disappointing performance of conservation MBIs over the past several decades. We then synthesize the research exploring CTPs and UBI, followed by an explanation of how PES and REDD+ have evolved to become de facto redistribution mechanisms. We show how integrating the different mechanisms could provide the basis for a synthetic CBI instrument that would go beyond currently existing conservation funding schemes in potentially interesting and productive ways. We conclude by briefly outlining what such a CBI might look like in practice as part of a broader transition towards convivial conservation.

2. The problem

Over the past several decades, the global conservation movement has increasingly embraced MBIs as the basis for interventions in pursuit of biodiversity protection (McAfee, 1999; Büscher et al., 2014; Corson et al., 2014). Common MBIs include bioprospecting, ecotourism, biodiversity offsetting, and wetlands banking, in addition to PES and REDD+. While the specifics of MBIs vary widely (Pirard, 2012), they tend to share a common logic: to harness economic markets as a means to attach sufficient monetary value to biodiversity (understood as comprising 'ecosystem services' or 'natural capital') to cover the opportunity costs of alternative land use and thereby incentivize conservation over resource extraction. They are also widely promoted as a means to 'internalize' environmental (and social) costs previously externalized from economic markets so that these can be rationally managed as part of the production process. In this way, MBIs are intended to reconcile economic development and environmental protection by harnessing conservation as a form of income generation. A substantial body of research investigating the impact of MBIs in sites throughout the world is now reaching consensus that despite decades of implementation and development they have, with rare exceptions, largely failed to achieve intended aims (McShane et al., 2011; Büscher and Fletcher, 2015; Dempsey and Suarez, 2016; Holmes and Cavanagh, 2016; Dunlap and Sullivan, 2019). Moreover, as we explain below, many mechanisms have evolved into forms far removed from the market-based approach they were intended to implement. Deficiencies of MBIs for purposes of biodiversity conservation in particular have indeed been highlighted by a growing number of recent commentaries (e.g. McCauley, 2006; Chan et al., 2007; Child, 2009; Ehrenfeld, 2008; Peterson et al., 2009; Redford and Adams, 2009; Walker et al., 2009; Redford et al., 2013; Fletcher et al., 2016; Dunlap and Sullivan, 2019).

MBIs have been frequently characterized as components of a general approach to policy and practice termed 'neoliberal conservation' (Büscher et al., 2012; Büscher et al., 2014). From this perspective, they are considered part of the overarching hegemony of the neoliberal economic paradigm that has come to dominate the global economy since the 1970s (Harvey, 2005; Peck, 2010). While neoliberalization has been enacted differently in various societies (Brenner et al., 2010), its promotion has generally pursued a common set of principles that Castree (2010) summarizes as: 1) privatization; 2) marketization; 3) deregulation and reregulation (both away from and through state actors); 4) commodification; 5) use of 'market proxies' in state processes; and 6) encouragement of civil society 'flanking mechanisms'. All of these principles can be observed in the promotion of MBIs as a component of neoliberal conservation more generally.

The neoliberal paradigm shaping conservation MBIs has been subject to growing critique for its failure to achieve the 'free' markets it pursues. Hence Peck (2010, page xiii, emphasis in original) describes the history of neoliberalization as a series of "repeated, prosaic, and often botched efforts to *fix* markets, to build quasi-markets, and to repair market failure." In the process, neoliberal policies have instead greatly exacerbated economic inequality (Harvey, 2005; Wilkinson and Pickett, 2010; Piketty, 2014; Hickel, 2017). Evidence of this dynamic has mounted to the point that even representatives of the International Monetary Fund (IMF), one of the foremost (past) proponents of neoliberalization, recently admitted that "the benefits of some policies that are an important part of the neoliberal agenda appear to have been somewhat overplayed" (Ostry et al., 2016: 40).

Substantial research demonstrates the pervasive negative consequences of inequality for human health and wellbeing (Wilkinson and Pickett, 2010; Stiglitz, 2012). There is strong correlation between inequality and biodiversity degradation as well (Mikkelson et al., 2007; Holland et al., 2009; Hicks et al., 2016). According to the IMF, consequently, "evidence of the economic damage from inequality suggests that policymakers should be more open to redistribution than they are" (Ostry et al., 2016: 40, 41). A key question then becomes: what would such redistribution look like in the realm of environmental conservation policy as a corrective to the ineffective MBIs widely promoted over the last several decades?

Ultimately, given the extent of uneven development throughout the world grounded in primitive accumulation and other processes of violent expropriation (Dunlap and Sullivan, 2019), a truly transformative program seeking to redress inequality at its roots would need to move beyond mere wealth redistribution to pursue to re-appropriation of physical space for collective use is some form – what Shaw and Waterstone (2019: 104) call pursuit of "geographic justice." As these authors argue, "Without the appropriation of space, we can only tinker with capitalism's circuits" (Shaw and Waterstone, 2019: 99). It is also clear that effective conservation policy must not only find ways to support the livelihoods of people living in conservation-critical areas, but must also address head on the main root causes of biodiversity loss in: 1) the expansion of extractive industries driven by dynamics of capital accumulation; and 2) associated resource overconsumption by the relatively wealthy segments of society who usually live far from conservation areas themselves.

In our overarching convivial conservation proposal, we advance a two-pronged strategy that combines long-term development of post-capitalist spaces and forms of organization that confront destructive capitalist industries, such as Shaw and Waterstone (2019) highlight, with pursuit of concrete short-term practices that can address immediate problems and concerns as a step towards more profound structural transformation (Büscher and Fletcher, 2020). In terms of this two-pronged strategy, what might be done to promote wealth redistribution in support of conservation within impoverished rural communities in the present? We address this key question in the remainder of the paper.

3. Cash transfer programs

According to the World Bank, as of 2014, cash transfer programs – in which currency is given directly to recipients to spend on goods and services – encompassed 720 million people in 130 countries (World Bank, 2015). CTPs are commonly distinguished between 'conditional' programs, in which payment requires recipients to comply with some type of behavioral expectation (typically health care visits or school

attendance), and 'unconditional' ones, with no requirements. As of 2014, approximately 60 of the world's CTPs were conditional with the rest unconditional (World Bank, 2015). Even so, conditional programs tend to be larger than unconditional ones, which typically target just one social group (i.e. elderly people or children) rather than all poor people as conditional CTPs often do. There is obviously a gray area between these two modalities, with some unconditional programs still imposing restrictions on funding use and some nominally conditional programs, such as Brazil's well-known *Bolsa Familia*, being notably lax in their enforcement of conditionality (Peck and Theodore, 2015; Standing, 2017).

Beginning in the 1990s, CTPs were introduced as a corrective to problems produced by neoliberal interventions associated with structural adjustment policies (SAPs) widely promoted in low-income societies in the 1980s. Initially, international financial institutions like the World Bank and IMF that had championed SAPs were quite skeptical of CTPs due to their apparent revival of the state-based redistribution mechanisms SAPs sought to dismantle (Peck and Theodore, 2015). In their popular book *Just Give Money to the Poor*, Hanlon et al. (2010) thus term CTPs a 'development revolution' originating in the Global South. Yet precisely how revolutionary CTPs are has since been debated extensively. Due to initial skepticism concerning CTP effectiveness, programs have been subject to rigorous evaluation procedures to test the extent to which they succeed in their aims to combat poverty and enhance wellbeing. Increasing evidence of CTPs' effectiveness documented by such procedures eventually convinced the World Bank to reverse its position, after which it became one of the most enthusiastic promotors of CTPs as a novel development strategy (Peck and Theodore, 2015). Consequently, CTPs proliferated dramatically in the first decades of the twenty-first century, introduced by regimes from across the political spectrum (Pena, 2014).

Far from a departure from neoliberal policy, therefore, critics contend that conditional CTPs, at least, remain squarely neoliberal. Saad-Filho, for instance, asserts that conditional CTPs are "the social policies naturally associated ('best fit') with neoliberalism," in that:

> Even though they can assist the target groups at the margin, they are, by design, insufficient to transform the economic, social and political structures perpetuating poverty. CCTs [conditional cash transfers] also introduce commercial mediations and arbitrary limitations to the rights of citizens, manage poverty only within narrow limits, and provide subsidies to capital that, ultimately, reproduce poverty rather than supporting its elimination.
>
> (Saad-Filho, 2016: 76)

Indeed, CTPs are often described in quintessential neoliberal terms: as an 'investment in human capital' intended to combat the chronic dependency created by extreme poverty. They are framed as a counter to the 'nanny' state; not a 'safety net' but a 'springboard' to self-sufficiency designed to avoid cumbersome state bureaucracies and decentralize governance by harnessing the power of individual choice and responsibility (Ferguson, 2010; Van Parijs and Vanderborght, 2017).

While largely agreeing with this characterization of conditional CTPs as a neoliberal effort to "pay for good behavior," Peck and Theodore assert that unconditional programs are "anathema to neoliberal policy-makers" (2015: xxi) due to their lack of behavioral modification requirements. By contrast, Ferguson (2010, 2015) considers both conditional and unconditional CTPs creative "uses of neoliberalism" for alternative ends that may illustrate of 'a new politics of distribution' growing within international development policy.

Notwithstanding their enthusiastic embrace of conditional CTPs, the World Bank and other international financial institutions have remained skeptical of unconditional programs. This is despite the fact that research concerning CTP effectiveness demonstrates that in most cases unconditional programs are equally – or at least nearly – as effective in achieving the same positive outcomes as conditional ones (Hanlon et al., 2010; Bastagli et al., 2016; Standing, 2017). Given such evidence, critics have argued that conditionality is both ineffective and unnecessary and should therefore be eliminated (Hanlon et al., 2010; Standing, 2017).

In sum, the rise of conditional and unconditional CTPs throughout the Global South over the past three decades seems to have precipitated a major transformation in international development policy that has produced well-documented success with respect to a range of objectives. As Standing summarizes, "the vast literature generated by evaluations of cash transfers... shows convincingly that cash transfers result in lower poverty and achieve many of the outcomes desired by policymakers, such as improved school enrolment and attendance, better nutrition, better health and more income-generating activity" (2017: 221).

4. Universal basic income

A particular variant of unconditional CTP is commonly termed universal basic income. Similar approaches come under a variety of different labels, including 'unconditional basic income,' 'basic income grant,' 'citizen's income' and 'social dividend,' while related mechanisms have received other monikers, including a 'negative income tax,' 'capital grant' and 'participation income' (see Standing, 2017 for an overview). Here, we focus on UBI defined as *universal* basic income since this approach is most comprehensive and most conducive to the proposal herein.

UBI is commonly considered to comprise several core features that distinguish it from most existing CTPs. First and foremost, it must be *universal*, granted to everyone within a given social group. By contrast, CTPs are usually given only to (specific groups within) the poor, on the basis of means testing. Second, UBI must be *individual*, given equally to each person of all genders within a given age range (rather than distributed by household, as many CTPs are). Third, UBI must be *basic*: sufficient for an individual to survive on (which is not the same as living comfortably). Most existing CTPs, in contrast, pay less than a basic living standard. Fourth, like all unconditional CTPs, UBI must be *unconditional*, allowing recipients to spend funds on whatever they deem appropriate. Fifth, UBI should be *regular*, *predictable*, *stable*, *permanent*, and *non-withdrawable* to facilitate long-term planning.

Conceptualized in this way, UBI has never been widely implemented, even though it has been periodically promoted by a variety of advocates in many places for several centuries (see Standing, 2017: Van Parijs and Vanderborght, 2017). A number of pilot projects resembling UBI have, however, been implemented in the past, generating compelling evidence of its more widespread potential. Moreover, as Standing asserts, "Cash transfer schemes that at present are overwhelmingly targeted at 'the poor' have the potential to prepare the way for basic income" (2017: 220). And since the 2008 economic crisis, public discussion of UBI has expanded dramatically, encompassing a growing collection of researchers (many within the Basic Income Earth Network (BIEN); https://basicincome.org/) as well as politicians and business leaders (Standing, 2017).

In recent years, a number of new UBI pilot studies have been implemented in high income societies like Canada, Finland and the Netherlands as well as lower income countries including Kenya, India and Namibia (Bregman, 2017; Standing, 2017). The closest approximation to an UBI currently in widespread operation is the Alaska Permanent Fund (APF), instituted in 1976, which provides every official resident of the state with a direct yearly dividend from revenues on oil production within the territory (which fluctuates but is often around US $2000/year). While this payment is not enough to make the fund qualify as truly *basic*, the APF "has long appealed to advocates of basic income within the BIEN community and can be regarded as a nascent fund for payment of either basic capital grants or basic incomes" (Standing, 2017: 151).

Few advocates of UBI claim that it can function as a lone silver bullet for redressing inequality and social injustice; it must be combined

with other programs and within an overall policy framework that redistributes and changes political-economic power. Yet proponents assert that UBI can achieve important gains far beyond current social relief programs. Like CTPs, it would reduce overhead to a minimum, thereby delivering maximum funding into the hands of program recipients. By providing payments to everyone it would stop perverse incentives for people to remain (or feign being) poor to continue receiving means-based payments. Lack of behavioral requirements would eliminate oversight, help to preserve recipients' dignity, and allow them to focus energy on using funding to maximum advantage rather than on reporting requirements. Offering secure long-term funding would allow recipients to forego low-wage or degrading jobs, potentially augmenting wages and working conditions overall. Contrary to common concerns about wasting funding on already comfortable recipients, payments given to wealthy people would be recovered in the higher taxes likely needed to fund the program. Strong evidence from CTPs, meanwhile, allays widespread fears that UBI would be spent on frivolous luxuries rather than basic needs and activities to build long-term security.

Like CTPs, UBI has been asserted by some proponents to be a 'radical' or 'revolutionary' proposal (Bregman 2017; Standing, 2017; Van Parijs and Vanderborght, 2017). Yet others have questioned this perspective, asserting that UBI can itself be used as an instrument of neoliberal reform (Clarke, 2017; Kapoor, 2017; Shaw and Waterstone, 2019). Clarke cautions:

> The hope of a social policy solution to the problems created by neoliberalism and the attacks associated with it is profoundly dangerous because that very 'solution' can so readily assume a form that furthers the very agenda that left [U]BI advocates hope to escape. The institutions of global capitalism are taking an interest in Basic Income and the Davos crowd are even considering it.
> (https://socialistproject.ca/bullet/1438.php; accessed 11/11/2017)

UBI has indeed been endorsed by proponents across the political spectrum, including foundational neoliberal thinkers like Milton Friedman (1962) and Friedrich Hayek (1979). In its neoliberal framing, therefore, UBI may be merely "intended to provide political cover for the elimination of social programs and the privatization of social services."[1] UBI, after all, switches the focus of political action from the traditional left emphasis on gaining greater control over the means of production to appropriating more of the surplus, something Ferguson (2015) finds evident of his 'new politics of distribution' more generally.

Yet as Standing (2017) and others point out, this is not intrinsic to UBI design, which can be structured to combine with - rather than replace - other social welfare programs to build a 'social floor' rather than removing the 'safety net.' Depending on how it is conceived and implemented, then, UBI can be employed in quite different ways: from an instrument of individual 'freedom' to a vehicle of social justice and protection. From all of these perspectives, however, UBI is understood primarily as a mechanism to address poverty, while the question of environmental protection is, with exceptions (discussed below), rarely addressed. It is to this question that we now turn.

5. Payment for ecosystem services

The same period during which CTPs proliferated has seen rapid expansion of PES programs, in which landowners are paid to conserve biodiversity. Currently more than 550 such programs operate throughout the world with annual payments totaling more than US$36 billion (Salzman et al., 2018). PES was originally envisioned as an MBI (esp. Pagiola et al., 2002). As an external evaluation of Costa Rica's program - widely considered to have "pioneered the nation-wide PES scheme in the developing world" (Daniels et al., 2010: 2116) - describes, the mechanism was explicitly intended to move forest conservation policy "away from deficit-plagued, subsidized operations that are only able to survive with the aid of state 'alms' and toward a form of profitable, competitive land use based on sound business principles" (Heindrichs, 1997: 23). Yet a growing body of research has revealed that most existing programs have departed, often quite dramatically, from this neoliberal framing to instead resemble the state-centred 'command and control' mechanisms they were intended to replace (Fletcher and Büscher, 2017). Vatn summarizes this consensus as demonstrating that "a very large fraction of transactions between public intermediaries and 'providers' does not take the form of trade but are better characterized as subsidies… we can therefore conclude that a substantial part of PES is non-market. Where markets exist, they are mainly of the incomplete kind" (Vatn, 2015: 229).

Similar dynamics are evident in REDD+. Like PES, REDD+ was envisioned as an MBI relying on global carbon markets to mobilize funding for payments to incentivize local forest conservation. Yet a decade on, the international market for REDD+ payments is still quite small, operating mostly through voluntary offsets, and hence like PES it has progressively shifted from an MBI to a non-market mechanism for centralized appropriation and redistribution of resources (Angelsen, 2017). The Centre for International Forestry Research (CIFOR) concludes:

> While the scheme was initially conceived as a market-based instrument that would be funded by a massive global carbon market, that vision no longer fits reality. In the absence of that market, REDD+ has since evolved into a form of results-based aid, with various kinds of financing from governments, civil society, and the private sector.
> (https://forestsnews.cifor.org/49642/its-too-soon-to-bury-redd?fnl=en; accessed 11/7/2017)

This common evolution of PES and REDD+ results in large part from these mechanisms' failure to generate sufficient revenue via market engagement to achieve either conservation or poverty reduction on a significant scale. We have argued that this is due to MBIs' intrinsic inability to compete with much more lucrative extractive activity within neoliberal markets (Fletcher et al., 2016). In trying to spend limited funding most 'efficiently,' moreover, they frequently channel payments to wealthier landowners, thus also exacerbating the inequality they seek to redress. To address these problems requires continued intervention to directly allocate resources. While such intervention has allowed these mechanisms to achieve some gains, they remain hobbled by their inability to generate needed funding. This is why we propose CBI as a potential alternative funding mechanism that does not rely on the sort of direct market engagement that has proven inadequate for this aim.

6. Comparing PES and CTPs

Despite differences in how the two mechanisms are financed and payments distributed, in implementation PES and CTPs may be quite similar. While often framed in neoliberal terms, as noted earlier, in practice CTPs – even conditional ones – are still essentially forms of redistribution, usually administered by the national government via taxation (Hanlon et al., 2010). Consequently, they can be seen to operate quite similar to how PES and REDD+ tend to also function in practice. While Ferguson (2010) considers CTPs a creative use of neoliberalism for progressive ends, they could thus equally be viewed, like most PES programs, as a 'subsidy in disguise' (Fletcher and Breitling, 2012).

Resemblance between PES and CTPs has been highlighted by previous research (Alix-Garcia et al., 2009; Rodriguez et al., 2011, 2013; Persson and Alpizar, 2013; Le Velly and Dutilly, 2016; Wilebore et al., 2019). Some indeed define PES as a form of conditional CTP in

[1] https://www.opendemocracy.net/neweconomics/universal-basic-income-is-a-neoliberal-plot-to-make-you-poorer/; accessed 11/11/2017.

providing payments contingent on conservation behavior (Alix-Garcia et al., 2009; Le Velly and Dutilly, 2016; Wilebore et al., 2019) – even suggesting that PES programs can function as de facto unconditional CTPs when enforcement of conditionality is weak or lacking (Wilebore et al., 2019). Others have drawn lessons for effective PES design from CTP implementation (Loft et al., 2014). Yet to date, surprisingly, there has been little initiative to directly combine the two mechanisms. In some cases, PES and CTPs may in fact target the same households with no direct connection between the payments nor organizations administering them (Isquierdo Tort, 2018). Moreover, the limitations of pursuing one mechanism in the absence of the other have been recognized. PES predominantly focuses on environmental protection and hence has been criticized for neglecting poverty concerns (Pagiola et al., 2005), Focused on poverty alleviation, conversely, CTPs may actually exacerbate negative environmental impacts if not specifically mitigated (Alix-Garcia et al., 2013).

Acknowledging all of this, researchers including World Bank staff have suggested combining the two mechanisms in an aggregate "payment for environmental services and poverty alleviation" (PESPA) scheme (Rodriguez et al., 2011, 2013). Yet this approach has never been implemented. To our knowledge, only one existing PES program – *Bolsa Floresta* in the Brazilian Amazon – includes a specific component for poverty reduction (Bakkegaard and Wunder, 2014). However, this program, like the integrated PESPA proposal, emphasizes the type of conditional payments whose necessity has been questioned within the wider CTP debate. Additionally, neither PES nor CTPs – even when operating in parallel – offer payments sufficient to constitute a *basic* income.

7. Conservation basic income

Building on the different bodies of research outlined above, we propose a fully unconditional payment scheme able to cover recipients' basic needs – a conservation basic income. This would combine the social benefits of UBI with PES's focus on environmental protection and hence address shortcomings present in both mechanisms operating independently. Important questions remain regarding exactly what CBI would look like in practice, but many of these can already be addressed to a degree by drawing on current discussions concerning CTPs and UBI.

CBI would need to be applied equally to all individuals within a given community. In this sense, it would not be truly 'universal,' as UBI intends, since it would be restricted to only members of groups living in conservation-critical areas. As UBI has become a subject of serious discussion within many institutions, in the future CBI might be able to be reduced to merely supplement the basic income participants already receive as residents within an overarching society. Whether groups receiving CBI should be communities located in geographical space or instead those comprising users of key resources remains a key question to be discussed and resolved. Length of residence needed to qualify for payments is another important consideration but five years is commonly suggested (Standing, 2017; Van Parijs and Vanderborght, 2017). Appropriate levels of funding would have to be determined by context. As a general rule, Van Parijs and Vanderborght (2017) suggest payments of one quarter current per capita GDP, but payments should always be at least the US $5 per day considered minimal for healthful living (UN, 2014; Hickel, 2017). In delivering payments by individual rather than household, CBI could act as an instrument of women's empowerment (Van Parijs and Vanderborght, 2017). The necessity of additional payments for children is debated among UBI proponents. If provided they should be given to the primary adult caregiver. Recipients could be identified through GIS mapping of areas important to biodiversity hotspots, as occurs in some PES programs (Zhang and Pagiola, 2011). Payment targeting could entail partnership with the Indigenous and Community Conservation Area (ICCA)[2] consortium to help channel CBI.

[2] https://www.iccaconsortium.org/; accessed 15/1/2019.

Different proponents propose a variety of means through which funding for UBI could be generated, from increased state taxation through redirection of existing public resources from other programs through cracking down on tax havens to which potential current revenue is diverted (see e.g. Standing, 2017; Stern, 2017). Using such proposals as a springboard, and particularly by redirecting resources from other existing programs offering seed money to (unsuccessfully) establish conservation markets, it might be possible to finance CBI with little new fundraising. Alternatively, new funding could be raised through innovative sources, such as the (substantial) carbon tax increasingly advocated by climate activists and occasionally proposed as a basis for UBI (Standing, 2017). In this way, CBI would achieve a double benefit, both promoting conservation in target communities and reducing environmental impact globally. This would be especially useful given the grave threat climate change poses to existing conservation areas that cannot be mitigated through local initiatives only (Thomas et al., 2004). In our larger convivial conservation proposal, we advocate pursuit of funding via "a diverse set of revenue sources combining state-based taxation (including public bonds), grants from international donors and individual patrons, insurance schemes, long-term engagement fees, sale of sustainable products, crowdsourcing campaigns, new blockchain technologies, and whatever else can be harnessed in the interest of" the campaign (Büscher and Fletcher, 2020: 197). All of these modalities could comprise the finance base of CBI specifically as well.

Clearly, there are many issues that must be thought through further than space affords here. One important outstanding question is whether CBI might paradoxically contribute to biodiversity loss by increasing people's income. Globally, income levels are strongly correlated with environmental impact (Caron and Fally, 2018), while research has also documented cases where increased income (via ecotourism, for instance) leads to resource degradation by allowing recipients to purchase better land-clearing equipment (Stem et al., 2003). With respect to CTPs specifically, researchers have also found evidence of correlation between nominally unconditional payments and (moderately) increased land clearing, at least in the short term (Wilebore et al., 2019).

Yet provision of basic payments might also reduce resource use by allowing recipients to forgo other income generating activities entailing destructive extraction – for instance, employment in mining or logging operations in places where few other options exist. Payments' unconditionality would at least assuage concerns about the 'crowding out' effects on intrinsic conservation values often associated with incentive-based initiatives (Rode et al., 2015). Indeed, evidence from CTPs suggest that even without conditionality payments might produce 'crowding in' effects on intrinsic motivation if payments are merely rhetorically connected with conservation; one study found that "simply labelling an *unconditional* transfer as an education grant increases the likelihood that behaviour would be directed towards that goal" (Standing, 2017: 224, emphasis in original; see Benhassine et al., 2015).

This is an issue that would need to be closely monitored and evaluated in any piloting of CBI, and steps taken to redress any increase in resource extraction if this were found to occur. As in most UBI piloting (Standing, 2017), such considerations can likely be proactively preempted to some degree by combining payments with other forms of community engagement intended to inspire ethics-based forms of conservation commitment (e.g. environmental education) to help channel payments into beneficial activities. A related issue concerns the potential that funding of this sort might draw new migrants to conservation areas. This dynamic is ostensibly demonstrated by Wittemyer et al.'s (2008) mapping of the global correlation between protected areas and population growth. But detailed social scientific research in some of the areas included in Wittemyer et al.'s study have complicated this picture, demonstrating that the connection between income opportunities associated with protected areas and inmigration is quite spurius (Hoffman et al., 2011). Future research would need to address whether such issues need consideration in CBI.

A third significant question is whether cash money is the best medium of exchange in all contexts. Proponents of UBI generally advocate cash as it affords recipients maximum control, allowing them to decide for themselves how they will use the benefits provided. Yet it is widely acknowledged that cash is useless if there is no effective provision of the various good and services (from consumer markets to health care and education) stakeholders need to access. Hence cash benefits must be complemented by attention to the effectiveness of social services and infrastructure in target communities. An additional concern in relation to cash transfers regards their implications for cultural groups for whom use of money is rare or absent. After all, a common critique of MBIs concerns their potential to impose a monetary logic on resources or practices previously valued in culturally-specific ways, and hence to encourage commodification (Sullivan, 2009; Büscher et al., 2012).

Considering issues such as this, Coote and Yazici caution, "If cash payments are allowed to take precedence, there's a serious risk of crowding out efforts to build collaborative, sustainable services and infrastructure – and setting a pattern for future development that promotes commodification rather than emancipation" (Coote and Yazici, 2019: 31). Such considerations lead some to advocate providing 'universal basic services' rather than income (Coote et al., 2019). Yet there are dangers in this approach as well. For one, it usually requires a strong state capable of providing effective services – something conspicuously absent in many places where conservation interventions are most needed. It is for this reason we do not generally advocate a return to the type of state-based 'command-and-control' strategies for environmental governance that some others (e.g. Klein, 2015) do in challenging neoliberal approaches, save in societies in which states have proven capable of executing this function effectively. In other places, coalitions of non-state actors are likely needed to deliver both CBI and the social services this will be spent on. In such situations, cash transfers may be something of a 'least evil' for local residents who have been largely abandoned by agents of the states in which they live. And even if services are capable of delivery by nonstate actors, they still hold potential to replicate the pattern of paternalistic external control that UBI is intended to combat. As Coote qualifies, "everything turns on how much money is paid, under what conditions and with what consequences for the welfare system as a whole."[3] Consequently, how CBI, or variations upon it, are designed and implemented will require sustained attention to the particularities of local contexts as well as active collaboration with intended recipients. It also requires connection to broader convivial conservation efforts that aim to provide a conducive overarching environment for local initiatives to succeed.

In terms of framing, rather than a payment for 'ecosystem services,' CBI could be considered a form of compensation for the impact of conservation interventions on recipients' lives. In this way, CBI could contribute to developing non-instrumental or -utilitarian means of relating with nonhuman natures in dramatic contrast with that promoted via ecosystem services and natural capital approaches. Moreover, CBI could be considered a form of decolonial reparation for the damage inflicted on communities by previous conservation efforts. By displacing millions of people to create protected areas, conservation has deprived many of access to resources from which they previously derived livelihoods (Dowie, 2009). Providing reparations for past harm is part of the demand for UBI recently advanced by the Black Lives Matter alliance (Standing, 2017: 287) and something we advocate more generally in our convivial conservation proposal (Büscher and Fletcher, 2019; 2020). All this could help to further decolonize conservation and render it more legitimate for the historically dispossessed.

[3] https://neweconomics.org/2019/04/universal-basic-income-new-study-finds-little-evidence-that-it-can-live-up-to-its-promise; accessed 28/6/2019.

8. Conclusion

Notwithstanding persistent attempts to develop a global market for generating finance, in practice conservation funding has come to increasingly rely on (often covert) forms of redistribution. This is true, we have shown, of many PES and REDD+ programs. In their recent review of the global experience of neoliberal conservation, Dempsey and Suarez (2016) demonstrate this pattern more generally. In line with PES research, they show that despite widespread promotion of measures to incentivize conservation around the world over the past decades, in reality very little actual market exchange has taken place and the majority of trade that does occur is directed by states. Hence, they describe genuine market transactions among private parties as merely "slivers of slivers of slivers" of overall finance (Dempsey and Suarez, 2016: 654).

In sum, much biodiversity conservation has to date functioned mostly as a (global) subsidy system, redistributing resources to support conservation rather than developing genuine market mechanisms (Fletcher and Breitling, 2012). What if we chose to call a spade a spade and simply followed this logic in framing and administering conservation funding as explicit versions of the subsidies it actually provides in practice? As we suggested previously, in acknowledging this reality "[m]ight one instead experiment with providing subsidies (state supported or otherwise) to resource-dependent communities based on direct taxation of extractive activities of the type that are already in some cases covertly supplied through MBIs?" (Fletcher et al., 2016: 675).

CBI is one potential mechanism by which this broader strategy could be cultivated. We propose it here as the basis for a future research and policy agenda that should seek to assess its viability and appropriate forms of design. Among other issues, such research should address the following questions:

1) How recipient communities receiving CBI should be defined;
2) Whether payments need be conditional or not;
3) What level of payments are needed to be both effective and just;
4) Whether cash is the most appropriate medium of payment, or whether services and/or other benefits are preferable;
5) Whether payments are likely to compel in-migration, and if so how to address this;
6) Whether payments encourage increased resource use, and if so how to remedy this;
7) How to use this mechanism as part of a broader political discussion to achieve widespread 'transformative change'.

We invite others to contribute to this important discussion in pursuit of a more equiable and convivial future for conservation.

CRediT authorship contribution statement

Robert Fletcher: Conceptualization, Writing - original draft, Writing - review & editing. **Bram Büscher:** Conceptualization, Writing - original draft, Writing - review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

Alix-Garcia, J., et al., 2009. Lessons learned from Mexico's payment for environmental services program. In: Lipper, L. (Ed.), Payment for Environmental Services in Agricultural Landscapes. Springer, New York.
Alix-Garcia, J., et al., 2013. The ecological footprint of poverty alleviation: evidence from Mexico's Oportunidades Program. Rev. Econ. Stat. 95, 417–435.
Angelsen, A., 2017. REDD+ as result-based aid: general lessons and bilateral agreements of Norway. Rev. Dev. Econ. 21, 237–264.

Bakkegaard, R.Y., Wunder, S., 2014. Bolsa Floresta, Brazil. In: CIFOR (Ed.), REDD+ on the Ground. CIFOR, Bogor, Indonesia.
Bastagli, F., et al., 2016. Cash Transfers: What Does the Evidence Say? Overseas Development Institute, London.
Benhassine, N., et al., 2015. Turning a shove into a nudge? A "labeled cash transfer" for education. Am. Econ. J. Econ. Pol. 7, 86–125.
Bregman, R., 2017. Utopia for realists: And how we can get there. Bloomsbury Publishing, New York.
Brenner, N., Peck, J., Theodore, N., 2010. After neoliberalization? Globalizations 7, 327–345.
Büscher, B., Fletcher, R., 2015. Accumulation by conservation. New Political Economy 20, 273–298.
Büscher, B., Fletcher, R., 2019. Towards convivial conservation. Conserv. Soc. 17 (3), 283–296.
Büscher, B., Fletcher, R., 2020. The Conservation Revolution: Radical Ideas for Saving Nature Beyond the Anthropocene. Verso Books, London.
Büscher, B., Sullivan, S., Neves, K., Igoe, J., Brockington, D., 2012. Towards a synthesized critique of neoliberal biodiversity conservation. Capital. Nat. Social. 23, 4–30.
Büscher, B., Dressler, W., Fletcher, R. (Eds.), 2014. Nature™ Inc.: Environmental Conservation in the Neoliberal Age. University of Arizona Press, Tucson, AZ.
Cafaro, P., T. Butler, E. Crist, P. Cryer, et al (2017). If we want a Whole Earth, Nature needs Half: a Response to Büscher et al. Oryx 51, 3: 400.
Caron, J., Fally, T., 2018. Per Capita Income, Consumption Patterns, and CO2 Emissions (No. w24923). National Bureau of Economic Research.
Castree, N., 2010. Neoliberalism and the biophysical environment: a synthesis and evaluation of the research. Environ. Soc. Adv. Res. 1, 5–45.
Chan, K., Pringle, R., Ranganathan, J., Briggs, C., Chan, Y., Ehrlich, R., Haff, P., Heller, N., Al-Krafaji, K., Macmynowski, D., 2007. When agendas collide: human welfare and biological conservation. Conserv. Biol. 21, 59–68.
Child, M., 2009. The Thoreau ideal as a unifying thread in the conservation movement. Conserv. Biol. 23, 241–243.
Clarke, J., 2017. The Neoliberal Writing on the Wall: Ontario's Basic Income Experiment. The Bullet. June 26. https://socialistproject.ca/bullet/1438.php.
Coote, A., Yazici, E., 2019. Universal Basic Income - A Report for Unions. New Economics Foundation and Public Services International, London.
Coote, A., Kasliwal, P., Percy, A., 2019. Universal Basic Services: Theory and Practice; A Literature Review. Institute for Global Prosperity, London.
Corson, C., Campbell, L.M., MacDonald, K.I, 2014. Capturing the Personal in Politics: Ethnographies of Global Environmental Governance. Global Environmental Politics 14 (3), 21–24.
Daniels, A., et al., 2010. Understanding the impacts of Costa Rica's PES: are we asking all the right questions? Ecol. Econ. 69, 2116–2126.
Dempsey, J., Suarez, D.C., 2016. Arrested development? The promises and paradoxes of "selling nature to save it". Annals of the American Association of Geographers 106, 653–671.
Dowie, M., 2009. Conservation Refugees: The Hundred-Year Conflict Between Global Conservation and Native Peoples. MIT Press, Boston, MA.
Dunlap, A., Sullivan, S., 2019. A faultline in neoliberal environmental governance scholarship? Or, why accumulation-by-alienation matters. Environment and Planning E: Nature and Space (2514848619874691).
Ehrenfeld, D., 2008. Neoliberalization of conservation. Conserv. Biol. 22, 1091–1092.
Ferguson, J., 2010. The uses of neoliberalism. Antipode 41, 166–184.
Ferguson, J., 2015. Give a Man a Fish: Reflections on the New Politics of Distribution. Duke University Press, Durham, NC.
Fletcher, R., Breitling, J., 2012. Market mechanism or subsidy in disguise? Governing payment for environmental services in Costa Rica. Geoforum 43, 402–411.
Fletcher, R., Büscher, B., 2017. The PES conceit: revisiting the relationship between payments for environmental services and neoliberal conservation. Ecol. Econ. 132, 224–231.
Fletcher, R., Dressler, W., Büscher, B., Anderson, Z., 2016. Questioning REDD+ and the future of market-based conservation. Conserv. Biol. 30 (3), 673–675.
Friedman, M., 1962. Capitalism and Freedom. University of Chicago Press, Chicago.
Hanlon, J., Hulme, D., Barrientos, A., 2010. Just Give Money to the Poor: The Development Revolution From the Global South. Kumarian Press, West Hartford, CT.
Harvey, D., 2005. A Brief History of Neoliberalism. Oxford University Press, Oxford.
Hayek, F.A., 1979. Law, Legislation and Liberty: A New Statement of the Liberal Principles of Justice and Political Economy, Vol. III: The Political Order of a Free People. Routledge & Kegan Paul, London.
Heindrichs, T., 1997. Innovative Financing Instruments in the Forestry and Nature Conservation Sector of Costa Rica. Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, Eschborn, Germany.
Hickel, J., 2017. The Divide: A Brief Guide to Global Inequality and Its Solutions. Random House, New York.
Hicks, C.C., et al., 2016. Engage key social concepts for sustainability. Science 352, 38–40.
Hoffman, D.M., Fay, D., Joppa, L., 2011. Introduction: human migration to protected area edges in Africa and Latin America: questioning large-scale statistical analysis. Conserv. Soc. 9, 1–7.
Holland, T.G., Peterson, G.D., Gonzalez, A., 2009. A cross-national analysis of how economic inequality predicts biodiversity loss. Conserv. Biol. 23, 1304–1313.
Holmes, G., Cavanagh, C.J., 2016. A review of the social impacts of neoliberal conservation: formations, inequalities, contestations. Geoforum 75, 199–209.
Isquierdo Tort, S., 2018. Payments, Ecosystems and Development: Payments for Environmental Services (PES) in the Mexican Lacandona Rainforest. Doctoral dissertation. University of Oxford.
Kapoor, I., 2017. Cold critique, faint passion, bleak future: Post-Development's surrender to global capitalism. Third World Q. 38, 2664–2683.
Klein, N., 2015. This Changes Everything: Capitalism vs. the Climate. Simon and Schuster, New York.
Le Velly, G., Dutilly, C., 2016. Evaluating payments for environmental services: methodological challenges. PLoS One 11, e0149374.
Loft, L., et al., 2014. Lessons From Payments for Ecosystem Services for REDD+ Benefit-sharing Mechanisms. InfoBrief No. 68 CIFOR, Bogor, Indonesia.
McCauley, D.J., 2006. Selling out on nature. Nature 443, 27–28.
McAfee, K., 1999. Selling Nature to Save It? Biodiversity and Green Developmentalism. Environ. Plan. D 17 (1), 133–154.
McShane, T.O., et al., 2011. Hard choices: making trade-offs between biodiversity conservation and human well-being. Biol. Conserv. 144, 966–972.
Mikkelson, G., Gonzalez, A., Peterson, G.D., 2007. Economic inequality predicts biodiversity loss. PLoS One 2, e444. https://doi.org/10.1371/journal.pone.0000444.
Ostry, J.D., Loungani, P., Furceri, D., 2016. Neoliberalism: oversold. Finance & Development 53, 38–41.
Pagiola, S., Bishop, J., Landell-Mills, N., 2002. Selling Forest Environmental Services: Market-based Mechanisms for Conservation. Earthscan, London.
Pagiola, S., et al., 2005. Can payments for environmental services help reduce poverty? An exploration of the issues and the evidence to date from Latin America. World Dev. 33, 237–253.
Peck, J., 2010. Constructions of Neoliberal Reason. Oxford University Press, Oxford.
Peck, J., Theodore, N., 2015. Fast Policy. University of Minnesota Press, Minneapolis.
Pena, P., 2014. The Politics of the Diffusion of Conditional Cash Transfers in Latin America. Brooks World Poverty Institute Working Paper No. 201. University of Manchester.
Persson, U.M., Alpizar, F., 2013. Conditional cash transfers and payments for environmental services: a conceptual framework for explaining and judging differences in outcomes. World Dev. 43, 124–137.
Peterson, M., Hall, D., Feldpausch-Parker, A., Peterson, T., 2009. Obscuring ecosystem function with application of the ecosystem services concept. Conserv. Biol. 24, 113–119.
Piketty, T., 2014. Capital in the Twenty-first Century. Harvard University Press, Cambridge, MA.
Pirard, R., 2012. Market-based instruments for biodiversity and ecosystem services: a lexicon. Environ. Sci. Pol. 19–20, 59–68.
Redford, K., Adams, W.A., 2009. Payment for ecosystem services and the challenge of saving nature. Conserv. Biol. 23, 785–787.
Redford, K., Padoch, C., Sunderland, T., 2013. Fads, funding, and forgetting in three decades of conservation. Conserv. Biol. 27, 437–438.
Rode, J., Gómez-Baggethun, E., Krause, T., 2015. Motivation crowding by economic incentives in conservation policy: a review of the empirical evidence. Ecol. Econ. 117, 270–282.
Rodriguez, L., et al., 2011. Towards a unified scheme for environmental and social protection: learning from PES and CCT experiences in developing countries. Ecol. Econ. 70, 2163–2174.
Rodriguez, L., et al., 2013. Unifying environmental and social protection: learning from PES and CCT in developing countries. In: Kumar, P., Thiaw eds, I. (Eds.), Values, Payments and Institutions for Ecosystem Management. Edward Elgar, London.
Saad-Filho, A., 2016. Social policy beyond neoliberalism: from conditional cash transfers to pro-poor growth. Journal of Poverty Alleviation and International Development 7, 67–93.
Salzman, J., et al., 2018. The global status and trends of payments for ecosystem services. Nature Sustainability 1, 136.
Shaw, I.G., Waterstone, M., 2019. Wageless Life: A Manifesto for a Future Beyond Capitalism. University of Minnesota Press, Minneapolis.
Standing, G., 2017. Basic Income. Penguin Books, New York.
Stem, C., Lassoie, L., Lee, D., Deshler, D., 2003. How 'eco' is ecotourism? A comparative case study of ecotourism in Costa Rica. J. Sustain. Tour. 11, 322–347.
Stern, A., 2017. Raising the floor: How a universal basic income can renew our economy and rebuild the American dream. Public Affairs, New York.
Stiglitz, J.E., 2012. The Price of Inequality: How Today's Divided Society Endangers Our Future.
Sullivan, S., 2009. Green capitalism, and the cultural poverty of constructing nature as service-provider. Radical Anthropology 3, 18–27.
Thomas, C.D., et al., 2004. Extinction risk from climate change. Nature 427, 145.
United Nations, 2014. Millennium Development Goals Update 2014. United Nations, New York.
Van Parijs, P., Vanderborght, Y., 2017. Basic Income. Harvard University Press, Cambridge, MA.
Vatn, A., 2015. Markets in environmental governance — from theory to practice. Ecol. Econ. 105, 97–105.
Walker, S., Brower, A., Stephens, T., Lee, W., 2009. Why bartering biodiversity fails. Conserv. Lett. 2, 149–157.
Wilebore, B., Voors, M., Bulte, E.H., Coomes, D., Kontoleon, A., 2019. Unconditional transfers and tropical forest conservation: evidence from a randomized control trial in Sierra Leone. Am. J. Agric. Econ. 101 (3), 894–918.
Wilkinson, R., Pickett, K., 2010. The Spirit Level: Why More Equal Societies Almost Always Do Better. Penguin Books, London.
Wittemyer, G., et al., 2008. Accelerated human population growth at protected area edges. Science 321, 123–126.
World Bank, 2015. The State of Social Safety Nets 2015. World Bank, Washington, DC.
Zhang, W.E.I., Pagiola, S., 2011. Assessing the potential for synergies in the implementation of payments for environmental services programs: an empirical analysis of Costa Rica. Environ. Conserv. 38, 406–416.