

Global Justice and the Opportunity Costs of Conservation

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Abstract

Opportunity costs can represent a significant portion of the costs associated with conservation projects (Green et al 2018), frequently outstripping other kinds of cost (Balmford and Whitten 2003). They are typically understood to refer to the benefits someone *could* or *would* have obtained if conservation projects had not required them to give up on current activities such as farming or hunting in a particular place (Naidoo and Adamowicz 2006, Adams, Pressey and Naidoo 2010). As Green et al (2018: 2) put it, to identify opportunity costs we simply need to measure ‘the net benefits obtained if the land were available instead for development to some other productive use’ (Green et al 2018: 2). I show that this familiar way of identifying opportunity costs is flawed, and that when used to calculate what people affected by conservation projects are owed, it generates considerable injustice. Integrating ideas from the political theory of global justice, I show that the analysis of opportunity costs provides a good example of the importance of considering conservation and issues of global justice alongside one another, rather than thinking about them in isolation. I distinguish four ways of identifying opportunity costs, and make the case for an egalitarian baseline. Such a

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Introduction

Opportunity costs can represent a significant portion of the costs associated with conservation projects (Green et al 2018), frequently outstripping other kinds of cost (Balmford and Whitten 2003). They are typically understood to refer to the benefits someone *could* or *would* have obtained if conservation projects had not required them to give up on current activities such as farming or hunting in a particular place (Naidoo and Adamowicz 2006, Adams, Pressey and Naidoo 2010). As Green et al (2018: 2) put it, to identify opportunity costs we simply need to measure 'the net benefits obtained if the land were available instead for development to some other productive use.' This paper argues that this familiar way of identifying opportunity costs is flawed, and that when used to calculate what people affected by conservation projects are owed, it generates considerable injustice. Integrating ideas from the political theory of global justice, I show that the analysis of opportunity costs provides a good example of the importance of considering conservation and global justice alongside one another, rather than thinking about them in isolation. I distinguish four ways of identifying opportunity costs, and make the case for an egalitarian baseline. Such a baseline would suggest that, in practice, many of the world's poor are being unjustly treated, or even exploited, as a result of conservation activities.

A Moralized Baseline for Opportunity Costs

In many cases, conservation projects will require people to give up on valuable economic opportunities. In such cases, they can be said to incur an opportunity cost. To measure those costs, we must judge them in relation to some baseline, such as the income they *would have* earned if they had been able to perform some activity or another. Policy-makers then face the empirical challenge of measuring how far conservation might cause someone to fall below the baseline in question. They would then be in a position to offset those opportunity costs, if appropriate. But before they get

there, they face the *moral* challenge of specifying which baseline is the correct one to use. Policy-makers' answers to that question will have enormous implications for global justice.

It might be suggested that there is no great moral mystery here: to calculate opportunity costs, we simply need a description of the activity an actor would otherwise have engaged in, along with the benefits it would have brought them. In that sense opportunity costs might be thought to be a morally neutral category. To the contrary, I argue that identifying opportunity costs must involve reflection on the kinds of opportunities that people *should* have access to. In some cases, the activities people are currently engaged in should be forbidden. Imagine that a gang of people are engaged in growing a recreational drug which is hugely damaging to human health. This activity is highly lucrative, but a protected area is declared locally, and the gang asks conservationists to replace the income they would have received from selling the drug. That is not a request conservation policy-makers should accede to. The gang's members might still have a right to help in finding alternative livelihoods. But using expected drug revenues to calculate opportunity costs would be to select a morally inappropriate baseline. The same would go for other clearly unjust activities, such as those involving slave labour, or the exploitation of children. If an activity should not normally be seen as legitimate in the first place, then it does not form a suitable baseline for identifying opportunity costs. It makes more sense to connect opportunity costs to opportunities people ordinarily *ought* to have, were it not for the need for conservation at a particular site.

Using actual opportunities as the baseline for opportunity costs could also wrongly cause policy-makers to give people much *less* than they are entitled to. Imagine that a community of farmers is cruelly exploited, for instance by being trapped in debt bondage. Their government does not step in to help, because the farmers belong to a marginalised ethnic group. As a result their incomes are far lower than those earned by other locals, and leave them vulnerable to serious malnutrition in lean years. If a protected area was declared in the locale, it would be quite wrong for its funders to give fewer resources to members of the exploited group, compared to others, even if it is the case that they *would have* earned less if they had been able to continue farming. Here

too we can see that opportunity costs must be connected to a view about the kinds of opportunities that people *ought* to have.

Such cases show that the baseline for calculating opportunity costs must be a ‘moralized’ one, rather than a morally neutral one. It must make some reference, that is, to the kinds of opportunities that people should, and should not, have. But this is not the end of the matter, because we can imagine several *different* moralized baselines for opportunity costs, and policy-makers will have to choose between them. In what follows I will sketch and evaluate four possible baselines. The first two are very familiar from conservation practice, and do not draw any explicit connection with theories of global justice. The last two are less familiar, but they do both explicitly take considerations of global justice on board. I will argue that the first two baselines ought to be rejected, and that the fourth is to be preferred to the third.

To keep things simple, I will focus on cases where conservation is clearly required, but where the actors who are being asked to change their behaviour simply cannot afford to bear any of the costs of doing so. As such their opportunity costs must be met by others if conservation is going to take place. In some of the cases to be discussed, we will use figures in US\$. It is quite possible, of course, that some of the losses that conservation projects cause cannot be adequately captured by focusing on dollar income. This might be true, for instance, of the ‘cultural’ costs incurred by people required to give up on traditional activities (Tan 2021). If these were taken into account, the opportunity costs of conservation could be much greater than simple dollar figures suggest. But using dollar figures allows us to capture the way that the various baselines diverge in their implications, even if it does not capture everything that is important.

1. The status quo baseline

In practice, opportunity costs are often calculated by establishing what people counterfactually *would have* earned, had conservation projects not taken place (Fisher et al 2011, Green et al 2018). In financial terms, this could mean the money they would have earned if they had been able to carry out those activities. Alternatively,

opportunity costs might be calculated in terms of 'expected' value, where the revenues from the relevant activities are multiplied by the likelihood that they would have been brought to fruition (Naidoo and Adamowicz 2006). Either way, payments are linked to the status quo before the project took place, and specifically to the opportunities that then existed. It is important to recognise, however, that the status quo baseline is a moralized one, insofar as it connects, or ought to connect, conservation payments to activities that could have legitimately taken place. The status quo baseline cannot plausibly be purely a factual one, which describes whatever activities people would have engaged in. As the examples of growing dangerous drugs or using slave labour show, it must be moralized insofar as it describes activities that people could *justly* have brought to fruition.

Why should we support the status quo baseline? There is a potential pragmatic justification, insofar as people are likely to resist conservation projects that make them worse off; as a result paying them what they would have earned might be necessary to secure their compliance. And there is a potential fairness justification too: conservation activities should not make people worse off, if that can be avoided. This thought is reflected in the familiar principle that conservation projects should 'do no harm' to the poor (Sims and Alix-Garcia 2017). In this case, doing no harm might mean not making them worse off than they already were.

The problem with the status quo baseline is that the opportunities people have are often deeply unfair. Adopting a status quo baseline condones and may even reinforce that unfairness. Imagine that a global conservation organisation has decided to make payments to farmers who agree to let their fields lie fallow. One farmer, in the United States, could have made \$10,000 if she had grown crops on her land rather than leaving it to rest. Another farmer, in Sierra Leone, could have made \$500. The status quo baseline suggests this is what each should receive. But what if the disparity in opportunities in this scenario emerges within a vastly unfair global economy, and is influenced by an historical legacy of colonialism? To accept *actual* opportunities as the relevant benchmark is to place the background context offered by the status quo beyond moral question.

This point applies both ways. The status quo baseline could involve *over*-paying, whereby decision-makers send substantial funds in the direction of people who, even without such funds, would have a comfortably above-average standard of living (considered in global terms). But it is also likely to involve substantial *under*-paying. In cases where people's opportunities are unjustly constrained, it could mean avoidably leaving people in desperate and undeserved poverty. If conservation decision-makers have it within their power to offer people a ladder out of unjust poverty, but choose not to, this could render them complicit in that poverty. The global economy offers radically unequal opportunities to people the world over, and many people's prospects continue to be shaped by violent practices of dispossession, slavery, and colonialism. There is no reason why conservation policy-makers should accept that status quo as morally authoritative. Instead of accepting the status quo baseline, they ought to identify opportunity costs by thinking through the kinds of opportunities that people *ought* to have.

2. The willingness to accept baseline

In many cases, opportunity costs are identified by establishing affected people's willingness to accept compensation (Lindhjem and Matani 2012, Bush et al 2013, Lennox and Armsworth 2013, Tadesse et al 2021). This typically involves surveying those who are likely to be affected by a conservation project, and asking them how much money it would take to make them indifferent about whether that project took place or not. If someone states that they would require a payment of \$800, say, before they accepted a conservation project that disrupted their livelihoods, then a payment of that magnitude might be seen to cover their opportunity costs. We might suppose that the willingness to accept baseline will deliver identical results to the status quo approach. We might even consider willingness to accept surveys as a useful method of identifying what people stand to lose compared to the status quo. But in principle, the two baselines could pull in different directions. For instance, if a community genuinely had a veto over a conservation project, they might ask for an amount which was higher than the actual economic cost they would incur.

For an illustration of what the willingness to accept baseline could look like in practice, consider a study on forest conservation by Mahesh Poudyal and colleagues (Poudyal 2018). Their study concerns a REDD+ pilot project in the Ankeniheny-Zahamena Corridor, a large protected area in Eastern Madagascar. Under the REDD+ scheme, the World Bank seeks to defray the opportunity costs of forest conservation, by providing alternative livelihood options (such as improved agricultural, livestock, and beekeeping projects) to locals who have been required, as a result of the declaration and expansion of the protected area, to give up traditional practices such as swidden agriculture (ibid: 6). As well as being a haven for biodiversity, Madagascar is home to the second-highest proportion of citizens classified as 'extremely poor' of any country in the world, and as a result the conflict between conservation and poverty is acute (ibid: 3). Three findings from the study are of particular interest. The first is that more than 50 percent of affected locals have received no compensation at all to date (ibid: 1). Second, the official benchmark for compensation is extremely low: the published plan suggested that each eligible household would receive a one-off payment of between \$100 and \$170 (ibid:16), even though the effects of exclusion would be significant, and would be felt for decades or more (ibid:19). Third, the baseline for compensation which Poudyal and colleagues suggest would be *more* appropriate (and more generous) is instructive in its own right. The authors conducted a choice experiment intended to elicit locals' willingness to accept compensation. After asking locals how much money they would accept in return for giving up swidden agriculture in the area, they arrived at a median figure of \$2,375 (ibid:13). This, they claim, represents the *true* opportunity cost of conservation in the area, and it should therefore form the baseline for fair compensation, rather than the relatively modest payments made by the scheme to date (ibid:15).

Those higher figures move us closer to a just outcome, but they are still far too low. The problem with using willingness to accept to identify opportunity costs is that we have little reason to believe that what people would *accept*, if they had to choose between conserving and continuing as they are, is equal to what they are *entitled* to. A willingness to accept framework can undoubtedly provide the conservation planner with useful practical information about how much conservation she can get for her money in different parts of the world. But it is far less clear that it can tell her what

people *ought* to receive when they are required to give up on activities they are committed to. On the one hand, social scientists tell us that privileged actors, with plenty of alternatives, can leverage their position to extract conservation payments greater than they would in fact have received if they had used their land to earn income in the formal economy (Lennox and Armsworth 2013). On the other hand, disadvantaged actors may, when giving responses to a willingness to accept experiment, ‘settle’ for what they expect they would have received without the policy intervention. But that might be much less than they *ought* to have received, if their opportunities were fair. In the formal economy, people often after all accept exploitative wages, which pay them much less than they are entitled to. The fact that people will often accept these wages does not prove that they are not entitled to more; it simply shows that they inhabit a weak structural position, in which they take the modest rewards they can get because they do not have better options (Mayer 2007). The willingness to accept baseline is problematic, then, inasmuch as it may allow privileged actors to extract excessive payments, but may involve disadvantaged actors settling for much less than they should receive, if their opportunities were genuinely fair. But this, of course, requires an account of what it means for our opportunities to be fair. Our next baseline provides an answer to that question, by connecting payments to the goal of the eradication of poverty.

3. The anti-poverty baseline

According to ‘minimalist’ views about global justice (Armstrong 2012), everyone should have a realistic chance of escaping from poverty (Rawls 1999, Miller 2007). In some cases this means the privileged should provide the disadvantaged with positive assistance, aimed at helping them to find their way out of poverty. In other cases, it means they must be vigilant to ensure that institutions, practices and policies do not make it harder for people to escape poverty, or take advantage of people’s unfairly limited opportunities. Minimalism as a view about global justice has not been applied extensively to conservation issues, aside from discussions of climate change and carbon sinks (Miller 2009). But its implications appear to be fairly clear: if people *ought* to have realistic opportunities to escape from poverty, and if conservation measures threaten to cut away their only realistic path for doing so, that would be unjust. Minimalists can

therefore support an anti-poverty baseline, which rules out conservation outcomes which cause people to fall into poverty, or diminish their chances of escaping it.

Minimalists can also object to cases of exploitation, which involve some actors taking unfair advantage of others. David Miller (1999), for example, has argued that outcomes can be unjust if they arise in conditions of significantly unequal bargaining power, and if they grant people less than they are entitled to. Problematic outcomes, for the minimalist, would presumably include those which left people in conditions of poverty. For example, imagine a situation where the prevalent wages in a region are \$1 per day, but these wages leave people in serious poverty. Perhaps the ability to lead a decent life would demand that everyone received at least \$2.15 instead (the World Bank's current extreme poverty line), or perhaps it would require even more. The advocate of a status quo baseline will see nothing wrong with a situation where conservation projects granted people incomes of \$1, if that is the prevalent wage in a region. But minimalists can argue that it would be exploitative for conservation organisations to leave people with an income of \$1, simply because they had the power to do so. While conservation outcomes can sometimes be objectionable because they push people into poverty, in other cases they can be objectionable simply because they avoidably leave people in poverty, where this involves denying them a fair return for their sacrifices. For minimalists, those who determine conservation policies can have a duty to avoid taking unfair advantage of the unequal structural position people find themselves in, and avoidably leaving people below a reasonable poverty line is a good example of such an unfair practice.

The anti-poverty baseline, then, delivers quite distinctive guidance in practice. In some cases, the anti-poverty baseline will actually be less demanding than the status quo and willingness to accept baselines. Imagine a farmer who earns an income far above the global average. If a conservation project requires him to forego that income, the status quo baseline suggests he should be given help in obtaining a similar income in some other way. The willingness to accept baseline is likely to lead to similar results, assuming that the farmer will not be prepared to accept a reduction in income. But the anti-poverty baseline focuses on ensuring that the farmer is not left in poverty, and so it is not clear

that it would object to him ending up worse off than average as a result of the conservation project, so long as he stays above the poverty line.

In other cases, as I have shown, adopting an anti-poverty baseline will suggest that people are owed *more* than they are used to receiving, and in those cases this baseline will be more demanding than the status quo or willingness to accept versions. This may be because outcomes that leave people in poverty can count as exploitative, where they result from unequal bargaining power, or because we have a positive duty to help people escape from poverty. This marks a clear difference between the anti-poverty baseline and the two previous baselines we have considered. Unlike the status quo and willingness to accept baselines, advocates of the anti-poverty baseline need not accept outcomes where people are left below the poverty line.

The anti-poverty baseline is in this respect an advance, insofar as it reduces the conflict between conservation and poverty: no-one should be kept in poverty as a result of the need to engage in conservation, and people's poverty should not provide an opportunity to interact with them on exploitative terms. Global justice scholars have made a somewhat parallel argument in the case of climate change, arguing that if it is possible to meet the costs of mitigation without pushing anyone into poverty – or removing their only means of escaping it – then that is what ought to be done (Moellendorf 2014). The same argument has not been extended to the biodiversity crisis, but it can be. As such an anti-poverty baseline is an indispensable part of any account of conservation justice. Nevertheless, the anti-poverty baseline is not sufficient, because of the way it treats people above the threshold of poverty. For the minimalist, injustice occurs when costs are unfairly loaded onto the shoulders of people below the poverty baseline. But minimalists are not concerned with the distribution of benefits and burdens above the poverty baseline (Armstrong 2012). In fact, minimalism implies that there would be no injustice even if *all* of the opportunity costs of conservation were loaded on the shoulders of people who live just above the poverty threshold, so long as this does not push them into poverty. Implausibly, it implies this would be a fair outcome even if there were many other people with far greater capacity to absorb burdens. In the case of climate change David Miller (2007) has suggested, to the contrary, that above the threshold of poverty, burdens ought to be shared equally. But making that claim takes

him away from the minimalist position, and onto the territory of an egalitarian account (Armstrong 2012: 198-9). Strictly speaking, the structure of the minimalist view refuses to accept that facts about people's *comparative* opportunities (above the poverty threshold) are relevant when we come to evaluate a particular distribution. Instead it focuses solely on ensuring that everyone has the opportunity to escape poverty.

Theories of justice should also concern themselves with what happens above the poverty baseline, however. It would be unjust if the most advantaged loaded the costs of conservation onto the shoulders of people who were not poor, but who were much worse off than themselves. But to share burdens fairly above the poverty baseline, we need to turn to an egalitarian account.

4. The egalitarian baseline

Egalitarian theories of global justice maintain that, other things being equal, people the world over ought to have roughly equal prospects in life (Caney 2005). The alternative is to argue, implausibly, that it is fair for some of us to have worse prospects than others simply because of where we are born, or the position of our country in the global economy. If our lives have equal moral value, it is hard to see how such a case could be made successfully. The idea of 'equal prospects' has to be unpacked in some way, and my suggestion is that it is best understood in terms of people's access to well-being (Armstrong 2017), since what matters morally is our ability to lead healthy, fulfilling, and reasonably autonomous lives wherever we happen to live. Like minimalists, egalitarians therefore care about ending poverty, because poverty seriously jeopardises our ability to lead flourishing lives. But distinctively, egalitarians are also concerned with people's *comparative* opportunities, even above a baseline of poverty. It is wrong if some have better or worse opportunities than no others through no fault of their own, even if they do not find themselves in poverty.

According to an egalitarian baseline, opportunity costs should be calculated in terms of shortfalls from an equal sustainable standard of living. This baseline would suggest that an allocation of conservation burdens is unjust if it prevents people from achieving an equal sustainable level of well-being, or if it involves exploitative transactions which

take advantage of people's unequal opportunities or access to resources. This represents a more demanding standard than the anti-poverty baseline, which would only judge an allocation to be unjust if it prevented people from achieving a minimal or decent standard of living, or exploited their inability to secure such a living. The egalitarian baseline is more compelling, though, because setbacks to our access to well-being are objectionable not only when they leave people below some suitable poverty line, but also when they mean some of us have *better* opportunities than others.

This means that conservation projects should not push people into relative disadvantage, or worsen their chances of escaping from it. But it also means that conservation projects should not exploit people's relative lack of opportunities. Even if they do not fall below some reasonable poverty line, people in the global South often suffer from relative disadvantages, such as inferior access to productive capital, weak institutions, more modest educational opportunities, limited access to healthcare, geographical disadvantages, and so on. Often, these impediments will have been created or intensified by a legacy of colonialism, unjust aggression, and global economic institutions that continue to offer a raw deal to people in the global South. It might well be that, even in the absence of any impediments to their opportunities imposed as a result of unfair conservation policies, many of the worst-off people in the world would have struggled to achieve anything close to an equal sustainable standard of living. But conservation schemes can still be unjust when they take unfair advantage of people's inferior access to well-being. Conservation projects that take advantage of people's unfavourable structural positions in order to pay less than they *ought* to get – which egalitarians will define in terms of an equal sustainable standard of living – violate a duty not to exploit those who are worse off through no fault of their own.

The egalitarian should also want to draw linkages between conservation policy and the wider project of ameliorating the disadvantages faced by the world's poor, by using conservation as an opportunity to promote *better* opportunities than they would otherwise have enjoyed. We live in a deeply unjust world, and are likely to do so for the foreseeable future. In moving towards a more just world, many tools are likely to be important - including, inter alia, trade policy, tax policy, lending and investment, aid, migration policy, and climate policy (Armstrong 2019, chapter 3). None of these is likely

to be sufficient by itself. As such, the egalitarian has reason to seize any additional opportunities that present themselves which promise to shift resources in the direction of the disadvantaged, and should view with favour any permissible policies which would grant them more control over their own destinies. The egalitarian will argue not only that the allocation of conservation burdens *should not worsen* opportunities to achieve an equal sustainable standard of living, but also that conservation policies should *promote more equal* access to such a standard of living. He or she should envision conservation policy as an integral part of a movement to secure a more equal and democratic world order.

The Egalitarian Baseline and the Biodiversity Crisis

I have shown that opportunity costs are not a neutral category, but are inevitably calculated in relation to one baseline or another, and that all of these baselines inevitably involve moral judgements. In conservation practice, costs are often calculated in relation to either a status quo or willingness to accept baseline. But I have argued that we should reject those baselines, because they would render conservation policy-makers complicit in the severe disadvantage many people wrongly face. Adhering to such baselines could also mean that conservation policies are exploitative, if they take unfair advantage of people's unfavourable structural position to give them less than they are entitled to when their lives are disrupted by those policies. This is a good example, I would suggest, of the fact that we ought to evaluate the impact of conservation policy in light of broader concerns about global justice. Minimally, I have argued that policy-makers should commit to an anti-poverty baseline, with the implication that conservation policies should not make it harder for people to escape from poverty, or exploit their poverty. But the anti-poverty baseline, while important, is not enough. Conservation policy should not make it more difficult for people to achieve an equal sustainable standard of living either, and this means that conservation policies which merely avoid locking people into poverty are insufficiently demanding. More ambitiously, I have suggested that conservation policy could aim to shift the opportunity structure that people face, *improving* their situation and making an equal sustainable standard of living more accessible.

I recognise, however, that this is a challenging view, and in this section I want to address a worry about it. Specifically, it might be thought that making conservation policy a vehicle of global justice is inappropriate, because poverty and biodiversity loss are separate problems that ought to be dealt with separately (Terborgh 1999). It might be argued that linking the two challenges will only slow urgent action to tackle the biodiversity crisis (Kinzig et al 2011). If urgent action is required now, then making individual conservation projects more costly (as both the anti-poverty and egalitarian baselines would do) will only undercut collective responses to the biodiversity crisis.

To reinforce that point, some might invoke a distinction between justice as fair burden-sharing, and justice as harm avoidance (Caney 2014). Justice as fair burden-sharing asks what an ideal allocation of burdens would be, when it comes to tackling some common problem. Justice as harm-avoidance, by contrast, begins by suggesting that urgent action is required in order to tackle a problem, and asks how we might bring that about speedily and effectively. In some cases, the two approaches may deliver similar conclusions. But in others, justice as harm-avoidance can condone *unfair* allocations of burdens, if this is necessary to avoid still greater harms further down the line. In the case of climate change, for instance, someone might suggest that the only practical way to get very affluent people to stop driving SUVs is to offer them generous incentives to trade them in for electric vehicles, even if the drivers in question can and should bear these transition costs themselves. Although affluent drivers do not ‘deserve’ such incentives, neither do future people deserve the very great harms that will come about if dangerous climate change is not avoided. *If* drivers will not give up their SUVs without incentives, and *if* moving away from SUVs is necessary in order to avoid climate catastrophe, then the harm avoidance argument might suggest that it is better to give in to their demand for incentives (even if it is an unreasonable one), rather than let climate disaster unfold. In the case of biodiversity loss, the harm avoidance argument might be thought to imply, for example, that policy-makers should pay very affluent people to set aside farmland, even if they could easily bear the costs of doing so themselves. That would introduce some unfairness – but doing so might be necessary to prevent much greater harms to innocent others. If we focus on justice as fair burden-sharing, such policies look unpalatable. But if we focus on justice as harm avoidance, such policies

might be justified in the interests of avoiding still greater unfairness (towards people who would otherwise be harmed in the future as the biodiversity crisis unfolds).

If we emphasise harm avoidance, it could be argued that policy-makers are justified in giving some people *less* than they are entitled to, if this is the only feasible way to achieve action on a sufficiently large scale, in the right time-frame and with the resources available. Requiring poor locals to bear some of the opportunity costs of biodiversity conservation is morally objectionable, and it may well be exploitative; but allowing environmental catastrophe to unfold would be even worse. On grounds of harm avoidance, it might be argued that it would be a mistake to operate an egalitarian baseline for conservation costs, *if* this means that the biodiversity crisis is not averted, or even if it becomes significantly less likely that it will be averted.

How should we assess this argument about harm avoidance? I agree that harm avoidance can sometimes mean that policy-makers can be justified in imposing policies which do not distribute burdens fairly. But this does not mean (and Caney would not himself claim) that we should place considerations of fair burden-sharing to one side entirely. There are four reasons why it is important to be clear about what fair burden-sharing would look like, even if urgent action to arrest the biodiversity crisis is absolutely vital.

First, even if the only way we can tackle a pressing problem involves imposing an unfair allocation of burdens, it is important to know what a fair pattern of burden-sharing *would be*. For one thing, we should recognise that political or material circumstances can change over time, such that policy-makers *can* move closer to justice. To do so, they need to know what a just allocation of burdens would look like. For another thing, even if we cannot move closer to justice, it is important that we recognise when we have departed from its demands. Disadvantaged people might be owed a profound apology if they receive less than they are owed when conservation policies are set. If such an apology was sincere, it would imply a commitment to make policies fairer if and when it becomes possible to do so.

Second, it might *not* be the case that implementing fair policies is impossible or even politically infeasible. Given the immense resources available in the world, it might be that applying an egalitarian baseline to many conservation projects is eminently possible. The existing funding channelled towards conservation projects pales in comparison, for example, to the funds earmarked for new fossil fuel extraction schemes and other infrastructure projects (Watson et al 2021). Diverting just a small share of these immense resources might allow policy-makers to give affected people the support they are entitled to. Even those funds that are already earmarked for conservation are poorly targeted, with the vast majority of funding spent within the global North, despite the fact that the global South contains most biodiversity (Stark et al 2021: 2). This should be urgently remedied. The question of political feasibility, of course, is a more moveable feast, and the point of arguments about global justice is often to shift consensus about what is morally acceptable. But even if fair burden-sharing is in some sense politically infeasible – whatever that might mean – it is important to register that this is often not because of an overall lack of resources, but because of their hugely unequal distribution, and because of the hold that the very well-off have on the exercise of political power. Those who *make* a fair allocation of burdens infeasible might be acting wrongly, and if so it is important to recognise that fact. Other actors can work to reveal their advantaged position, and their pernicious effect on policy-making.

Third, imposing unfair policies will often serve to undermine commitment to conservation projects in the long run. An allocation which is widely recognised as fair, by contrast, can expect to garner greater public support (Martin 2017: 37). To the extent that this is true, it cuts against the claim that we can have pragmatic reasons for imposing an unjust allocation of burdens. Imposing an unfair allocation of costs may not in fact be politically sustainable over time, if it undermines overall support for conservation policies. More broadly, conservation pressures are often generated within a highly unjust global economy, in which the poor are locked out of valuable opportunities and then, to add insult to injury, asked not to exploit local natural resources in the interests of conservation. In such cases it is the assumption that locals should cooperate with conservation projects on the usual terms which might be better labelled ‘unrealistic.’ Offering them better opportunities to advance their well-being would not only be fair in its own right, but might make them more likely to cooperate.

Giving them an appropriate degree of control over the projects concerned could help still more.

Fourth, it is important not to underestimate the extent to which conservation policy not only *can*, but in practice sometimes *does*, internalise goals of global justice. Take, for instance, the transfers made under the 'Payments for Ecosystem Services' (PES) framework. We may have reasons for caution about the PES framework as a way of conceptualising our moral relation to conservation projects. But it is interesting to note nevertheless that PES often *does* function as a kind of redistribution, easing poverty and hence pressure on local ecosystems (Buscher and Fletcher 2020: 196). According to Martin (2017: 88), 'most operational PES schemes have far less to do with markets than is typically assumed – and in some cases rather more to do with governments and other agencies seeking positive action to redistribute costs and benefits' (Martin 2017: 88). My claim is that we should be explicit about the justice goals that conservation policy ought to embody, rather than allowing them to emerge in an ad hoc fashion. Justice goals should be explicitly designed into conservation policies from the start, both in terms of fair burden-sharing and fair participation. But in order to do that, we need to know what fair burden-sharing would look like. Establishing the right baseline for opportunity costs is an important part of that project.

Implications for Conservation Practitioners

In this final section I want to address the implications of my argument for conservation practitioners – people who design, fund, and implement conservation projects. It is helpful here to emphasise the philosophical distinction between negative and positive duties. Negative duties include duties not to harm other people, or to treat them wrongfully. A small-scale example would be the duty not to push someone who cannot swim into a swimming pool, or to make it harder for her to get out if somebody else has already pushed her in. In debates about global justice, it is commonly agreed that negative duties are held by everyone, regardless of their location or social position (Miller 2007). It is wrong for me or you to push someone into a swimming pool, and it is similarly wrong for anyone else to do so, whoever or wherever they happen to be. Since

negative duties are held regardless of distance or the particular roles we inhabit, it is plausible that they apply to conservation practitioners too.

One of the most important negative duties, which has been the topic of much discussion in the literature on global justice, is a duty to avoid pushing people into poverty, and, relatedly, a duty to avoid making it harder for people already in poverty to escape from it (see e.g. Pogge 2002, Miller 2007). Another is the duty not to exploit people by taking unfair advantage of their limited opportunities. These duties surely apply to anyone involved in conservation policy, or funding, or research, or implementation, all of whom should be vigilant that their decisions do not make the problem of global poverty worse if at all possible, or exploit people's straitened circumstances.

But it is not only by pushing people into poverty, exploiting their poverty, or making it harder for them to escape from it, that we can harm them. Conservation policies are objectionable not only when they lock people into (or take advantage of) poverty or absolute disadvantage, but also when they lock people into (or take advantage of) comparative disadvantage. This is the clear implication of the egalitarian baseline, which condemns conservation policies that make it more difficult for people in poor countries to catch up with the rest of the world. Observing their negative duties means that conservation practitioners must also take care to ensure that their interventions do not make it more difficult for the poor to attain an equal sustainable standard of living, or exploit their unjustly limited opportunities.

Positive duties, by contrast, typically involve offering active assistance to others in need, as opposed to merely not harming them. For instance, on seeing that someone has been pushed into a swimming pool, a bystander might have a duty to help them out, assuming they can swim. In debates on global justice, positive duties are often connected with the capacities of particular actors to make a difference. For instance, it has been argued that those who *can* help reduce global poverty ought to do so, at least when doing so involves them taking on no more than moderate costs (Barry and Øverland 2016). I would argue, further, that those who can assist in the transition to a more equal world should join that effort, even if it involves them taking on some costs. The question then becomes who actually possesses the capacity to make a difference, and what would be a

fair division of labour. I do not claim here that conservation practitioners or those who determine conservation policies and priorities are the *only* actors with the capacity to make a difference. There will be many actors who can help improve opportunities for people caught in the conservation/development dilemma, including national governments in the global South, governments in the global North, aid agencies and NGOs, and international institutions such as the World Bank, IMF, and World Trade Organisation. Among all of these actors, conservation practitioners and policy-makers are surely not the most powerful. What we should expect of such actors will depend on the time and other resources they possess, and the likely costs to them of pressing for change (Caney 2012a). Much may depend on their class, race, and gender: we should avoid the double bind of asking actors who are already disadvantaged to bear special burdens in tackling injustices, and should seek instead to place greater onus on members of more privileged groups (Yankah 2019). In many cases, it may be that the part any particular actor can and should play in discharging our positive duties towards the world's poor will be quite small. Nevertheless, there are a whole series of ways in which academics and other professionals can contribute to tackling problems like global poverty (Caney 2012a), and it is likely that they can make *some* difference. They might be able to contribute, for example, by arguing for a more robustly anti-poverty and even egalitarian approach to conservation policy, which avoids leaving those affected by conservation interventions locked into poverty, and even assists them in accessing a fairer and more equal standard of living. They might contribute to debates which over time could shift the policies of conservation organisations, governments in the global North, and even international institutions. Even if their capacities to change the world are probably quite limited, conservation practitioners can still be important allies in the struggle for global justice.

Conclusion

Simon Caney (2012b) has argued powerfully that discussions of our response to the climate crisis should not play out in isolation from issues of global justice, because if they are, policy-makers risk entrenching existing injustices. To the contrary, debates about climate change ought to be integrated with broader discussions of global justice,

in order to ensure that our responses to the climate crisis are fair. I believe that the same holds for debates on conservation. In this paper I have attempted to illustrate the importance of that kind of integration, by arguing that the baseline for calculating opportunity costs can be defined in a number of different ways, and that we have moral reasons for preferring some baselines rather than others. The danger of applying a status quo or willingness to accept baseline to conservation funding schemes is that this may either entrench or exploit distributive injustice, given that people's actual incomes, and expectations, are shaped within a context of profound injustice. At a minimum, justice requires that policy-makers apply an anti-poverty baseline, which would avoid locking those affected by conservation into poverty. More ambitiously, I have argued for an egalitarian baseline, connected to an equal sustainable standard of living. I have engaged with a powerful objection to the egalitarian baseline, which suggests that applying an egalitarian baseline might slow progress in tackling the biodiversity crisis, in effect placing much greater demands on a limited conservation budget. It may or may not be true that operating a more demanding baseline will make progress in tackling the biodiversity crisis less likely. But even if it was true, it would be important to recognise that, in their drive to tackle the biodiversity crisis, policy-makers were imposing an *unfair* distribution of conservation burdens. Over time, they ought to work to make it possible to apply a fairer – more egalitarian – baseline. In doing so, conservation policy-makers can be important allies in the struggle for global justice.

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