

**Does cash lead to conservation?**  
**An exploration of the views of conservation professionals**  
**on the use of cash giving for environmental protection.**

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## **Abstract**

Amongst mounting criticisms surrounding the market basis of conservation policies such as Payments for Ecosystem Services, there have been calls to develop new methods to tackle the biodiversity and climate crises. The concurrent growth of cash transfer programmes in international development suggests they could form part of future conservation. While promising, the practicalities and implications of using cash giving for conservation are yet to be fully explored. This study uses mixed methods, involving a questionnaire with conservation professionals working in the global south and interviews with an environmental NGO implementing cash transfers to assess cash giving's potential for conservation. The opinions of professionals – those who implement conservation policies and shape their uptake – provide insight into the real-world applicability of cash giving for conservation, and what form programmes might realistically take. The study found that cash giving for conservation has general support from conservationists, despite the potential for certain risks, some of which are evidenced in practice. Conditional cash transfers are the most supported form of cash giving for conservation due to the perceived greater potential to achieve environmental outcomes, but unconditionality is also supported in principle. The heterogenous nature of rural communities means that many forms of cash giving are needed, and cash transfer programmes must be designed with the communities involved. While not universally supported, overall, conservationists deem cash giving to have much potential for conservation, but further pilots and empirical study are required to better understand its impacts and move the concept forward.

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## Abbreviations

CBI:	Conservation Basic Income
CESM:	Cool Earth Staff Member
CTP:	Cash Transfer Programme
IPCC:	Intergovernmental Panel on Climate Change
MBI:	Market-Based Instrument
NGO:	Non-Governmental Organisation
PES:	Payments for Ecosystem Services
REDD+:	Reducing Emissions from Deforestation and forest Degradation
RQ:	Research Question
UBI:	Universal Basic Income

## 1. Introduction

Ongoing deterioration of the planet's ecosystems is exacerbating anthropogenic climate change (Právělie, 2018; Gatti, et al., 2021) and has led to a biodiversity crisis, leaving one million species now under threat (Purvis, et al., 2019). To tackle this deterioration, the field of conservation has grown rapidly over recent decades, leading to numerous conservation streams with differing underlying philosophies (Doran and Richardson, 2010). These include mainstream conservation, which involves the creation of protected areas, designed to limit the impact of human activity on pristine wilderness (Doran and Richardson, 2010; Fletcher, 2020). In the late 20<sup>th</sup> century, conservation swung towards the use of market-based instruments (MBIs) (Fletcher, 2020). MBIs are intended to use or construct markets that put a fair price on the services that ecosystems provide, thus creating incentives for their conservation whilst simultaneously providing income towards rural livelihoods (Froger, et al., 2015). Examples of MBIs include REDD+ (Reducing Emissions from Deforestation and forest Degradation) and Payments for Ecosystem Services (PES), which both provide payments to landowners (or users) in return for the protection of certain ecosystems (Montoya-Zumaeta, et al., 2021).

However, MBIs have been subjected to growing criticism. In particular, it has been argued that they conform to a neoliberal agenda that, through promoting capitalism, undermines any conservation gains they provide (Büscher, et al., 2012). They have also been shown to negatively impact local social structures (Holmes and Cavanagh, 2016) and evidence of their ecological impact is limited (Börner, et al., 2017). Furthermore, their market-basis may in fact not materialise, with certain MBIs instead resembling forms of cash giving (Angelsen, 2017; Fletcher and Büscher, 2020; Yu, et al., 2020). These apparent weaknesses have led to calls for new forms of environmental governance and conservation (Büscher and Fletcher, 2020; Smallwood, 2021).

As part of these calls for alternatives, some have proposed making the use of cash giving for conservation explicit (Fletcher and Büscher, 2020). Cash giving, or cash transfer programmes (CTPs), do not rely on any market basis, but simply provide “transfers of cash from formal institutions to targeted individuals or households, usually to satisfy minimum consumption needs” (Garcia, et al., 2012, p.3). Used as a means of poverty reduction, cash giving has often been met with scepticism (Handa, et al., 2018a). However, while there are risks involved (MacAuslan and Riemenschneider, 2011; Bastagli, et al., 2016), cash giving has been shown to lead to highly positive results related to education, income security and health and nutrition (among others) (Bastagli, et al., 2019). This has seen CTPs grow in popularity in the field of international development (World Bank, 2018).

Within this field, numerous forms of cash giving are delivered in practice. Defining features may include: the size and frequency of the payment; whether a CTP is in fact targeted at certain recipients

or given universally; and whether a CTP is conditional upon certain actions or is unconditional (Benhassine, et al., 2015; Banerjee, et al., 2017). Using the foundations of unconditionality and universality, Universal Basic Income (UBI) is a form of cash giving currently receiving much attention (Lacey, 2017). It is designed to provide a basic income (enough to cover an individual's basic needs) to each individual within a community, often at a national scale (Bidadanure, 2019). A Conservation Basic Income (CBI) has been proposed as a means of applying this to the field of conservation, suggesting a basic, unconditional CTP, but targeted at communities in areas of high conservational importance (Fletcher and Büscher, 2020).

It seems likely cash giving could enable conservation either through reducing poverty levels, thus lessening the impact of the poverty-environmental degradation nexus (Aggrey, et al., 2010), or by empowering communities to resist pressures to sell their land to external (and destructive) influences. However, exactly what the impacts of cash giving may be for conservation and environmental governance is an area that remains underexplored. While some initial findings indicate that cash giving has promise regarding reduced deforestation rates (Ferraro and Simorangkir, 2020), these relate to programmes conditional on educational, rather than environmental, outcomes. Conversely, others conclude that providing basic incomes might increase widescale resource use (Howard, et al., 2019). As such, whether cash giving could be used for conservation, alongside poverty reduction goals, remains to be determined. Equally, whether programme design – using CTPs specifically for conservation purposes, potentially including targeting, conditionality, and varying size of payments – could lead to more beneficial outcomes has not been addressed at all. Therefore, despite calls for cash giving to be used as a means of environmental protection (Fletcher and Büscher, 2020), how it could work (best) in practice, and what the impacts of doing so might be, is uncertain.

The present study aims to respond to this gap in the literature by assessing the views of professionals across the field of conservation with experience working in low-income countries. The views of professionals are of particular importance as they play a pivotal role in the uptake and shaping of new practices (Martin-Ortega, et al., 2019). They can therefore help to determine whether cash giving has a future within conservation, and which areas of research will be most critical in developing the concept. The study will combine these views with those of staff members of an environmental non-governmental organisation (NGO) involved in implementing CTPs in the global south. The use of an NGO as a case study will add depth and highly relevant experience to the debate, whilst providing a form of 'ground truthing' to the views presented by the wider conservation community.

The specific research questions (RQs) are:

RQ1 - What are the perceptions (including perceived risks and barriers) of using CTPs as conservation mechanisms, according to conservation professionals?

RQ2 - Are the perceptions and risks outlined in the questionnaire borne out in practice?

RQ3 – Which specific variation(s) of cash giving (including conditional and unconditional CTPs, UBI, and CBI) do conservation professionals perceive to be applicable to conservation?

Section 2 of this paper provides an overview of MBIs in current conservation practice, and the justifications given for new means of conservation, including cash giving. It then examines the evidence around cash giving, its variations, and how it could be used for conservation. Section 3 details the methods used in this study, with Section 4 providing the results and discussion. The conclusions are given in Section 5.

## **2. The case for cash giving in conservation**

In the face of the climate and biodiversity crises (Purvis, et al., 2019; Intergovernmental Panel on Climate Change [IPCC], 2021), coupled with current widescale poverty (World Bank Group, 2020), it can be argued that present conservation practices are not sufficient to bring about the protection of people and planet (Fletcher and Büscher, 2020). This section explores the case for applying cash giving to the field of conservation, as one potential means of creating better outcomes. It firstly details the supposed problems of current practices and how cash giving has been proposed as a means of progressing from them, before looking at the potential of cash giving and its variations more closely.

### **2.1. Market-based criticisms and the platform for cash giving**

The growth of MBIs has come to dominate recent conservation practice (Sandbrook, et al., 2013). This is despite receiving significant criticism in the literature (Arsel and Büscher, 2012; Münster and Münster, 2012; Sandbrook, et al., 2013; Holmes and Cavanagh, 2016).

In particular, there has been growing criticism regarding how MBIs supposedly conform to a neoliberal agenda incompatible with environmental protection (Igoe and Brockington, 2007; Arsel and Büscher, 2012; Fletcher and Büscher, 2017; Allen, 2018). Allegedly, through promoting the advancement of capitalism – as neoliberalism can be seen to do (Harvey, 2007) – MBIs may indirectly support the

degradation of the ecological systems they are designed to conserve (Fletcher and Büscher, 2017; Allen, 2018). While this argument relies on capitalism being a lead driver of the current environmental crises, there is strong support for this being the case (Næss, 2006; Foster and Clark, 2009; Magdoff and Foster, 2011), indicating it has merit as a standpoint. Büscher et al. (2012) reinforce this argument, suggesting that the market basis of MBIs restricts conservation to narrow, profit-focused frameworks that blinker it from its wider environmental and social impacts.

This claim is supported when looking at PES and REDD+, as both have been found to create damaging social impacts (Calvet-Mir, et al., 2015; Bayrak and Marafa, 2016; Hajjar, et al., 2021). Additionally, Börner et al. (2017) find little detailed understanding about how PES schemes impact their related ecosystems, with studies instead relying on land-cover proxies. Furthermore, though not peer reviewed, there are accusations from several organisations that REDD+ has had no success in protecting trees or carbon (Rainforest Foundation UK, 2017). As a counterpoint, however, Holmes and Cavanagh (2016) use a thorough review (while limited to the global south) to show how impacts of MBIs are not universally negative, but context specific, with both positive and negative impacts possible.

A more consistent thread throughout the literature reads that PES and REDD+ have abandoned their market-based roots. Due to the involvement of various actors (government bodies, NGOs, etc.) which control prices and facilitate payments, PES has been argued to function on a 'quasi-market' basis (Van Hecken and Bastiaensen, 2010), or even via no market at all (Hahn, et al., 2015; Fletcher and Büscher, 2017). Yu et al. (2020) support these suggestions through a thorough analysis of the PES literature, finding a large proportion of studies that frame PES as a form of ecological compensation, rather than an MBI. Similarly, Angelsen (2017) finds that contrary to initial intentions, no centralised REDD+ carbon market has materialised. This is supported by Well and Carrapatoso (2016) who, through a detailed review of the REDD+ funding landscape, find it to be highly fragmented. REDD+ can therefore be seen to have become a form of results-based aid (Angelsen, 2017), like PES, shifting away from its neoliberal origins.

Consequently, MBIs can be said to have shortcomings in their ideology, their social and environmental impacts, and in their ability to function on a market basis as designed. Altogether, this supports the calls for alternatives in the conservation agenda (Büscher and Fletcher, 2020; Smallwood, 2021). A pertinent suggestion to this discussion is 'convivial conservation' (Büscher and Fletcher, 2020), a post-capitalist movement that suggests we accept our place as part of nature, living with it, not fencing it off or reducing it to capitalist value (Büscher and Fletcher, 2020). So far, discussions on convivial conservation have been limited to its philosophical foundations (Bhola, et al., 2020; Dunlap, 2020).

While important, equally so is evaluating how it could be implemented practically. The suggested means is via a Conservation Basic Income (Fletcher and Büscher, 2020). Learning from the supposed failings in the market basis of PES and REDD+, CBI moves away from their apparently neoliberal aspects, instead suggesting that we “call a spade a spade” (Fletcher and Büscher, 2020, p. 6), and focus on what it seems they have become – forms of cash giving. Specifically, CBI is a form of cash giving that would provide a basic income to all members of a community in areas of high ecological importance (Fletcher and Büscher, 2020).

Summarily, it seems that in shifting from their market basis, PES and REDD+ can be seen to act much like cash giving in practice (Angelsen, 2017; Fletcher and Büscher, 2020; Yu, et al., 2020). In addition, there are now calls for the use of cash giving in conservation to be made explicit, building on the learnings around PES and REDD+, to abandon their market ideals (Fletcher and Büscher, 2020). It is therefore important to explore what the potential of explicitly non-market-based cash giving is, what the implications of using it might be, and whether its use is supported more widely within the conservation field.

## **2.2. The potential of cash giving**

Cash giving is the means through which poor households receive cash grants to help achieve their basic needs (Owusu-Addo, et al., 2018). These grants may be given by a state body or NGO. The transfers may be given in a variety of means (for example via electronic payments), as one-off payments, or provided in regular instalments (Bastagli, et al., 2016). Certain behavioural or spending requirements may sometimes be placed on the transfers (Bastagli, et al., 2016).

Cash giving has been shown to be very successful, producing numerous benefits within the general field of poverty reduction (Agrawal, et al., 2020; Millan, et al., 2019). For example, (Handa, et al., 2018b) demonstrate, using detailed experimental data, how cash giving can lead to improvements in living standards, with increases in a range of productive outcomes and on household income. This is supported by (Bastagli, et al., 2019) who conducted a thorough review spanning 15 years of research, concluding that cash giving has demonstrable positive impacts across many social and economic outcomes.

Despite these successes, cash giving is still often met with scepticism from a variety of stakeholders (Handa, et al., 2018a). For example, recipients spending the money inappropriately, CTPs inducing negative community-level impacts, and CTPs being unsustainable are often cited as concerns (Handa, et al., 2018a). These concerns have some support within the literature. For example, cash giving has

been found to impact social relations, with MacAuslan and Riemenschneider (2011) finding, through innovative analytical frameworks, that cash giving negatively impacted wellbeing by disrupting social systems within recipient communities. This is further supported by Haushofer et al. (2015) who found that giving cash to certain recipients led to resentment from neighbouring households. Furthermore, Jones (2016) highlights how cash giving may not be successful at achieving long-term poverty reduction goals. While cash giving is therefore not a panacea, and may well come with risks, it is important to note that these studies represent a minority of the literature. Many other studies demonstrate that concerns about cash giving are generally unfounded (Evans and Popova, 2017; Handa, et al., 2018a), with many wide-ranging reviews and evaluations finding highly positive results across education, health and nutrition, income generation, and other areas (Bastagli, et al., 2016; Evans and Popova, 2017; Handa, et al., 2018a; Bastagli, et al., 2019; Millan, et al., 2019). This therefore suggests that the recent calls for cash giving to be used within conservation (Fletcher and Büscher, 2020) are coming from a basis of success within the field of poverty reduction.

Supporting these calls further, there is some evidence that applying cash giving to conservation could lead to positive environmental outcomes, in addition to social and economic ones. For example, studies that link poverty to environmental degradation (Aggrey, et al., 2010; Masron and Subramaniam, 2019; Baloch, et al., 2020) would suggest that the ability of cash transfers to reduce poverty would therefore reduce environmental degradation too. Maintaining this theory, Ferraro and Simorangkir (2020) comprehensively explore the impacts of a national CTP in India on forest cover, finding large reductions in deforestation rates. While promising, that particular CTP is unrelated to environmental aims, instead focused on educational and health outcomes, so the study does not explicitly answer the question as to what the impacts may be when CTPs are applied to conservation. The same applies to Wilebore et al. (2019), who use an advanced randomized control trial and remote sensing data to contrastingly find an increase in resource use. However, the CTP in question here involved a large, one-off payment, not generalisable to CTPs as a whole. Furthermore, while Howard et al. (2019) suggest that certain forms of CTP (specifically basic incomes) could increase ecological harm, this discussion is based on large-scale economic growth and consumption, thus responding to the question in a somewhat indirect way. This demonstrates that there may be potential for cash giving to be applied to conservation, but the impacts of doing so, and under which form(s) it could be applied, are yet to be fully determined.

### 2.3. Variations of cash giving

There are many different forms of cash giving, with cash transfers covering a large span of programme designs and underlying ideologies (Bastagli, et al., 2016). A pertinent example is the contrast between conditional and unconditional cash giving. Conditional CTPs make “transfers conditional on certain behaviours or actions” (Bastagli, et al., 2016, p. 12) from the recipients involved. Unconditional cash transfers, on the other hand, place no such conditions on the recipients. Instead, they are free to spend the money how they wish, and the recipients “are not tied to any particular behaviours” (Baird, et al., 2014, p. 2) to continue to receive the payments.

The distinction between conditional and unconditional programmes is an important one to make. While some studies have found no difference on certain outcomes because of changes to conditionality (Baird, et al., 2014; Evans and Popova, 2017), these studies seem to be in the minority. Several others, using a variety of robust methods, have found slight but significant differences between conditional and unconditional cash giving programmes (Baird, et al., 2011; Akresh, et al., 2013; Akresh, et al., 2016; Banerjee, et al., 2019). Each of these studies concludes that for specific outcomes conditional cash giving is the better option. This is supported by Bastagli, et al. (2016) who provide a comprehensive review of the cash giving literature. Importantly though, unconditional giving has been shown to produce a wider array of benefits (Baird, et al., 2011; Banerjee, et al., 2019), suggesting both unconditional and conditional programmes have their merits and applications.

The choice also has implications from an ethical perspective, as placing conditions on recipients can be seen as colonial (Jenson and Nagels, 2016), or morally wrong (Freeland, 2007). There are practical considerations too, with unconditional CTPs potentially cheaper and easier to implement than enforcing strict conditions (Bastagli, et al., 2016). As with cash giving more generally, there is little to no literature detailing the impacts of conditionality on environmental outcomes.

Developing the notion of unconditionality further is the concept of Universal Basic Income. UBI is “a cash transfer given to all members of a community on a recurrent basis regardless of income level and with no strings attached” (Hasdell, 2020, p. 3). While it is a long-standing idea (Lacey, 2017), the case for UBI has become much more ardent given the impacts of the COVID-19 pandemic (Nettle, et al., 2020; Patel and Kariel, 2021) which have left social relief structures unable to cope with levels of demand (Johnson and Roberto, 2020). This could be particularly important given the increased risk of disasters and social impacts resulting from the warming climate (IPCC, 2014). Research up to this point generally points to UBI being a useful tool in social relief and poverty reduction circles (Hasdell, 2020). For example, Jagodic (2019) uses appropriate qualitative methods to show the considerable potential a UBI would have on the quality of life for women in precarious positions. However, this research is

naturally limited, as it is only the potential that has been explored. Even Hasdell (2020), in a thorough cross synthesis of reviews, is mostly forced to use reviews which focus on unconditional CTPs acting as approximations for UBI. As the report says, “there is an obvious research evidence gap in the evaluation of an experimental, sustained UBI, which is considered the ‘gold standard’ for evidence” (Hasdell, 2020, p. 18). Another thorough review, that of Banerjee, et al. (2019), supports this, demonstrating the lack of evidence around UBI is particularly the case in relation to the global south. UBI therefore remains under-tested and may have unknown negative impacts and practical challenges (Hanna and Olken, 2018). As UBI is envisioned as a means of social protection, until recently thought of as entirely separate from conservation, the ecological impacts of UBI are even less understood, with potential for environmental impacts to be both positive and negative (MacNeill and Vibert, 2019).

Relying on the assumption of creating positive environmental impacts is Conservation Basic Income, as it applies the principles of UBI but with conservation in mind, targeting it to communities in areas of high ecological importance (Fletcher and Böscher, 2020). However, while Fletcher and Böscher (2020) are stringent in their reasoning for it, as a new concept, the effectiveness, limits, and consequences of CBI remain unknown.

In sum, current research shows that while in theory MBIs such as PES and REDD+ may fall into the bracket of neoliberal conservation, in practice they can more closely resemble forms of cash giving (Angelsen, 2017; Fletcher and Böscher, 2020; Yu, et al., 2020). There are also now calls for cash giving to be used explicitly as a conservation mechanism (Fletcher and Böscher, 2020). However, while cash giving has been shown to be generally effective as a poverty reduction tool, whether it could realistically be used for conservation, and what the potential impacts might be are not properly addressed by the literature. Similarly, the literature on the different variations of cash giving shows that each form has potential, but comes with its own implications regarding its impacts, practicalities, and underlying ideologies. Importantly, all of them remain underexplored as conservation mechanisms, so it is difficult to say which forms are most applicable to conservation. This study will take the first steps towards addressing these research gaps. It will do this by assessing the perceptions of conservation professionals. Understanding professionals’ views provides a true marker for how policy and environmental governance concepts may be implemented in practice, and whether they are likely to be taken up at all (Martin-Ortega, et al., 2019). This is important to begin to determine whether cash giving could have a role in future environmental policies which could tackle poverty, the biodiversity crisis, and climate change together. The views of professionals will also highlight any areas of particular concern or uncertainty, which in turn can help to direct future research.

### 3. Methodology

The study used a mixed methods research design, collecting primary data from qualitative semi-structured interviews alongside a quantitative questionnaire. A critical realist approach was taken to the research, using an abductive process with the theory and research shaping one another (Vincent and O'Mahoney, 2018). The research was also conducted in a self-reflexive manner, cognizant of how the context of the research (including the researcher's approach) can affect the research produced (Easton, 2010).

The online questionnaire provides an overview of the views of conservation professionals working in low-income countries on the concept of cash giving and how it could be used for conservation. This offers insights into any consensus on the potential of cash giving and can uncover a wide range of opinions (particularly surrounding the potential impacts of cash giving) based on extensive experience covering multiple low-income country contexts. Restricting the focus to low-income country contexts allowed for closer comparison with the literature (e.g., Holmes & Cavanagh, 2016), and aligned with the experience of the NGO selected for the interviews.

The addition of interviews allowed for a development of analysis, "building on initial findings" (Denscombe, 2008, p. 272) from the quantitative survey. Specifically, interviews with staff of an NGO implementing CTPs allowed for the opinions given in the questionnaire to be both challenged (to see if risks or perceptions of cash giving were realised in practice) and explored in more detail. For example, the ideological reasoning for cash giving, or the differences between cash giving and MBI could be explored in greater depth.

The only NGO (of which the author is aware) to be implementing CTPs for environmental purposes is Cool Earth. As a climate change mitigation charity, Cool Earth have been running CTPs in rural forest communities in Peru since 2008, later expanding their programmes to Papua New Guinea, with the intention of protecting the carbon stored in forests. The CTPs used by Cool Earth cover a variety of forms, reflecting the different social structures of each of the communities they work with.

Using the interviews as a case study allows for exploration into one potential way that cash giving is currently being used for conservation, and the relative successes and challenges of doing so as reported by the project implementers. However, a limitation of only using one NGO as a case study, is that it does not produce much variety of experience regarding cash giving in conservation. As Cool Earth were the only environmental NGO (known to the author) to be implementing CTPs, this was accepted as a natural limitation. The mixed methodology still creates a fuller picture of the views of conservation professionals by combining data from different sources (Denscombe, 2008).

### **3.1. Online questionnaire**

#### **3.1.1. Sampling**

The questionnaire predominantly used a purposive sampling technique to target academics and professionals within the field of conservation. Participants were required to have some knowledge or experience of conservation within low-income countries to complete the survey. While the use of purposive sampling means the findings are not generalisable to the wider population, this is not a limitation of the research, as the research aims are targeted at those within the field of conservation with an interest in this issue. This is an accepted practice within this field (Martin-Ortega, et al., 2019; Bark, et al., 2021).

The sample was gathered by using various online conservation and development networks, including the Interdisciplinary Centre for Conservation Science and the International Institute for Environment and Development, to disseminate the survey. The survey was also shared on social media, tagging conservation networks, while conservation NGOs were approached independently and asked to disseminate the survey amongst their staff. Other contacts in the world of academia were also approached to take part and to disseminate the survey amongst their own contacts, thus involving a snowballing approach to sampling as well. While the survey was disseminated as widely as possible, there is still a chance of sample bias, and thus the end results of the survey may not fully represent the views of the entire conservation community (Sharma, 2017).

#### **3.1.2. Respondents**

A total of 45 people took part in the survey, with an additional seven people who were screened out at the start of the questionnaire as they did not have adequate knowledge or experience of conservation in a low-income country context. Profiling questions were used to gauge an understanding of the demographics of respondents. 32 of the respondents were engaged in working for environmental NGOs. Nine respondents were academics, with four respondents from the private sector, government, and other NGO sectors collectively.

25 of the respondents were of a mid-level seniority within their organisations, with 13 at a senior-level and seven at an entry-level. There was a heavy UK weighting amongst respondents, with 23 of the 45 based in the UK, with another 11 based in the USA or western Europe. The survey received relatively few respondents from low-income countries, with a total of nine respondents covering Angola, Madagascar, Pakistan, Peru, Papua New Guinea, Rwanda, and Uganda. This weighting towards practitioners from the global north is a limitation of the study as practitioners' views from the global south were largely unrepresented. This is also true for non-English speaking countries; there were only

eight respondents from countries in which English is not an official language. This is particularly important regarding parts of Asia, in which PES is normally framed as a form of ecological compensation (Yu, et al., 2020), as their opinions may have been particularly valuable, but are unrepresented in this study.

There was a good mix of countries of operation however, with much of the global south covered, suggesting between them participants covered knowledge of conservation in a variety of contexts. This strengthens the findings of the study, as conservation can function very differently depending on the context in which it operates.

### **3.1.3. Questionnaire design**

The questionnaire (available in full in Appendix 1) was delivered online using the Microsoft Forms platform (Microsoft, 2021). A pilot survey was conducted amongst a small group of University of Leeds students with the data analysed to ensure that the questionnaire functioned as designed, and to inform revisions of the questions before the full roll out.

The main questions firstly concentrated on cash giving generally, with a broad definition provided, and respondents were asked to complete a Likert scale to state whether they believed cash giving was a useful tool for poverty reduction. This would help to explain their views on using it for conservation. A list of potential reasons for agreeing/disagreeing was then presented, and participants asked to select up to three that they agreed with. These statements were based on the common perceptions and likely responses of cash giving in international development found in the literature. Participants were also given the chance to list any other reasons that were not included. For those that selected 'neither agree nor disagree' a list of both positive and negative statements about cash giving was provided, with participants asked to select up to three that they agreed with. This gave the opportunity for those less familiar with the concepts of cash giving to familiarise themselves with common arguments about it, and to decide where their opinions lay.

This process was then repeated throughout the questionnaire. Participants were asked to say whether they agreed with the use of cash giving in conservation and why, what the risks of doing so would be, and what the barriers would be. They were then asked their opinions on whether conditional cash transfers, unconditional cash transfers, UBI, and CBI should be used within cash giving and asked to select (or provide) reasons why.

After the initial question on cash giving for poverty reduction, the 'neither agree nor disagree' option was removed from the Likert scale questions. This was to try and channel participants into making a

choice one way or another based on the information provided. As the different types of cash giving were likely to be new concepts to a large proportion of the participants, it was possible that many would simply select neither agree nor disagree as an 'easy option'. Removing this option increased the likelihood that participants would read the definitions of each form of cash giving closely, and to think carefully about their opinion, with the aim of eliciting more thought-out responses. This was appropriate as this survey was designed to reveal general views about cash giving amongst the wider conservation community. However, this method is not perfect, and some participants left comments at the end of the survey to suggest they would have preferred the option be available throughout the questionnaire, as they felt it did genuinely represent their opinion at times. While the questionnaire therefore did not always allow for the full nuance of respondents' opinions to come through, this was accepted as a standard limitation common within quantitative research (Queirós, et al., 2017). The method was justified by the strengths of implementing a quantitative questionnaire (such as the potential to reach high audiences (Queirós, et al., 2017)), and counteracted by the application of the subsequent interviews, which as discussed allowed for greater exploration and expansion of the ideas put forward in the survey.

#### **3.1.4. Questionnaire analysis**

Descriptive statistics were gathered on the categorical data from the questionnaire using the Python programming language on the Jupyter Notebook platform (Project Jupyter, 2021). Frequencies of responses were used as these are generally the most insightful way to analyse data from Likert scales (Sullivan and Artino, 2013). Frequencies were also used on the follow-up questions to determine the most popular reasons for agreeing or disagreeing with the cash giving scenarios, giving insight into the predominant opinions on cash giving amongst conservation professionals and academics.

Preliminary findings from the questionnaire were used to inform the interview questions. Due to time restrictions, a full analysis of the questionnaire results could not be completed before the interviews took place. However, the preliminary findings were generally representative of the final results of the survey.

### **3.2. Interviews with the NGO Cool Earth**

Semi-structured interviews were conducted with staff members of the NGO Cool Earth (the interview guide for which can be found in Appendix 6). A critical case sampling method was chosen for the interviews as this enables specific inferences relating to the studied phenomena to be drawn (Bryman, 2016). In this case, using staff from Cool Earth allowed for in-depth understanding of how cash

transfers work in practice, and to determine whether the concerns raised during the questionnaire are realised in practice.

The opinions given in the questionnaire are also compared with those of the Cool Earth staff, to find similarities and differences across the two sets of data. Participants are referred to according to the codes given in table 3.1, below. A total of six interviews took place with staff members involved in implementing Cool Earth’s CTPs.

*Table 3.1 – Description of Cool Earth Staff Members (CESMs) who participated in the interviews.*

<b>Interview code</b>	<b>Seniority level</b>	<b>Country of residence</b>	<b>Interviewee role</b>
CESM1	Senior	UK	Oversees all programme design and implementation
CESM2	Mid-level	Peru	Coordinates Peru programmes
CESM3	Senior	UK	Oversees all Cool Earth’s strategy, operations, and programmes
CESM4	Mid-level	UK	Manages Papua New Guinea programmes
CESM5	Mid-level	Papua New Guinea	Coordinates Papua New Guinea programmes
CESM6	Mid-level	Peru	Manages Peru programmes

Interviews were conducted online using Microsoft Teams video calling software (Microsoft, 2021).

A semi-structured interview format was used to allow for some flexibility in the interviews, and for participants to have some involvement in directing the conversation. This enabled unexpected themes to be brought up and explored, and to then be included in subsequent interviews, facilitating more expansive and in-depth explorations of the relevant topics (Bryman, 2016).

Analysis of the interviews was conducted using the Nvivo qualitative data analysis package (QSR International, 2021). A grounded theory approach (Bryman, 2016) was taken to the analysis, using elements of coding methods outlined by Charmaz (2006). A process of ‘initial’ coding, followed by ‘focused’ coding creates an iterative approach to the analysis of the data, which ensures that important but unexpected themes are explored sufficiently (Charmaz, 2006). As cash giving in

conservation is underexplored in the literature, with no known previous studies taking this exploratory approach, it was anticipated that unexpected themes were likely to appear.

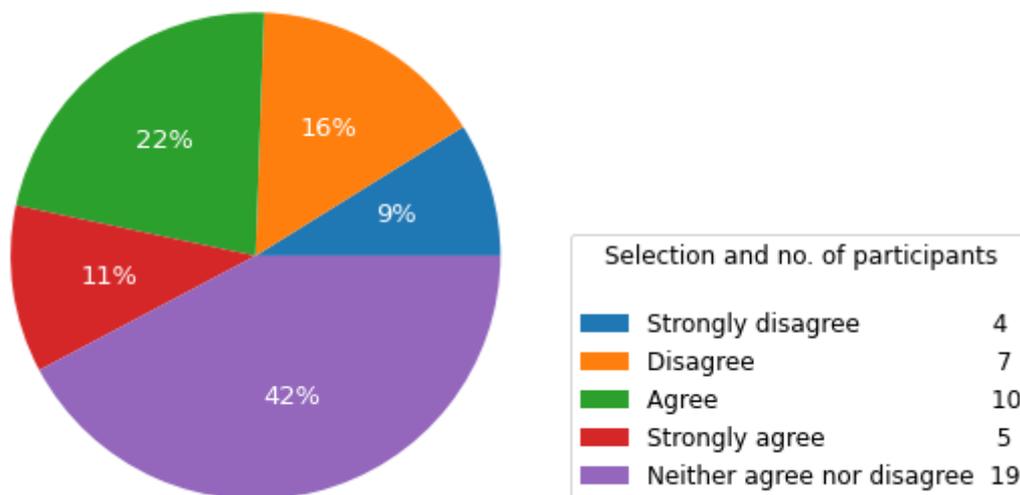
## 4. Results and discussion

### 4.1. The concept of cash giving

The questionnaire firstly gathered the opinions of conservation professionals on cash giving as a concept, and whether it is an effective poverty reduction tool. This demonstrates how it is perceived amongst the respondents on its own terms, which helps to explain the views around using it for conservation. These opinions are compared to those of the Cool Earth staff who took part in the interviews, to understand the opinions on cash giving of those involved in the implementation of CTPs.

Most questionnaire respondents had at least some familiarity with the concept of cash giving, with 47% being generally familiar with the term and what it means, and 22% knowing lots about the concept.

When asked whether cash giving was an effective poverty reduction tool, 33% were in agreement, but the most common response was ‘neither agree nor disagree’, as highlighted in figure 4.1, below.



*Fig. 4.1 – Outline of responses given in the online questionnaire to the statement “Cash giving is an effective poverty reduction tool”.*

Each of these responses led to a follow up question to determine the underlying reasonings.

The agency given to recipients is seen as a major positive of cash giving. 93% of those that supported cash giving determined that recipients know their own needs best and that cash giving allows participants to meet them effectively. This was the predominant reason for supporting cash giving according to the interviewees, too. As CESM3 says, cash giving ensures that recipients “are treated with as much dignity and as much agency as possible”. This reasoning was developed in some interviews by contrasting it with the supposed colonialism of other development and conservation practices. For example, CESM2 says:

“Most conservation practices, even though we don't want to see them that way, are colonial and paternalistic. They come from the idea that ‘Oh, we know better, right? We know what you need [...] it's going to be good for you.’”

It seems conservationists agree that cash giving does not make this assumption, instead allowing the recipients to decide for themselves. The literature highlights that this is not always the case, however, as it can depend on levels of conditionality (Jenson and Nagels, 2016). Other positives highlighted in the questionnaire included the economic benefits, and that it is a cost-effective and scalable means of poverty reduction.

Cash giving's apparent inability to create transformative change was the main reason for opposing cash giving as a poverty reduction tool, with 91% of those that disagreed or strongly disagreed selecting this statement (plus 68% of those that selected ‘neither agree nor disagree’). This suggests that conservationists perceive cash giving as a somewhat half-measure, insufficient for truly reducing poverty on a wide spatial or temporal scale. This is supported by Jones (2016) who finds that conditional CTPs do not account for the complexity of transitioning out of poverty in the long term. This reasoning was moderately supported by the Cool Earth staff, many of whom suggested that cash giving could provide transformative change, but only if used in combination with other factors aimed at empowering local people, including education initiatives, and increasing tenure rights. They tended to agree that cash giving was not a transformative tool on its own, but unlike many survey respondents, did not see this as a reason to oppose cash giving. This suggests cash giving is not considered a panacea but can be a useful tool working alongside others in reducing poverty.

Unlike in the field of international development (Handa, et al., 2018a), the possibility of recipients spending the cash ‘inappropriately’ was given little attention by the respondents. This aligns with the wider literature that finds it is not generally an issue (Evans and Popova, 2017; Handa, et al., 2018a).

The strength of feeling in opposition to cash giving is notable, however. One questionnaire respondent left a comment that cash giving should be left “in the dark ages”. This highlights how controversial

cash giving remains, despite the growing literature body demonstrating its wide array of benefits (Bastagli, et al., 2019). In turn, this strengthens the need for more ‘myth-busting’ papers such as that of Handa et al. (2018a), and for greater discourse on the use of cash giving, both in conservation and poverty reduction circles. The strong feeling against cash giving is held by a minority of respondents though, with only 9% strongly disagreeing with its use for poverty reduction.

As the survey was of a quantitative nature, and it was found the interviewees were all in favour of cash giving, the reasons for this controversy were not sufficiently explored here. This could therefore be pursued in further research.

Other reasons for not supporting cash giving centred on negative social or economic consequences, including furthering inequalities, impacting inflation, or creating community conflicts. These risks are discussed at length in section 4.3 below.

Overall, cash giving for poverty reduction has some support from the conservation community, particularly because of the agency that it provides recipients. The staff at Cool Earth showed strong support towards the use of cash giving programmes, sometimes despite previous hesitancy towards their implementation. However, cash giving clearly remains controversial, and not universally trusted as an effective poverty reduction tool.

## **4.2. Cash giving for conservation**

After the initial questions on cash giving as a poverty reduction tool, the option to neither agree nor disagree was removed from the questionnaire.

Most respondents were in favour of using cash giving for conservation, as highlighted in figure 4.2 below. While 13 disagreed, only three respondents strongly disagreed with the idea. The Cool Earth staff were unanimously in favour of the use of cash giving for conservation.

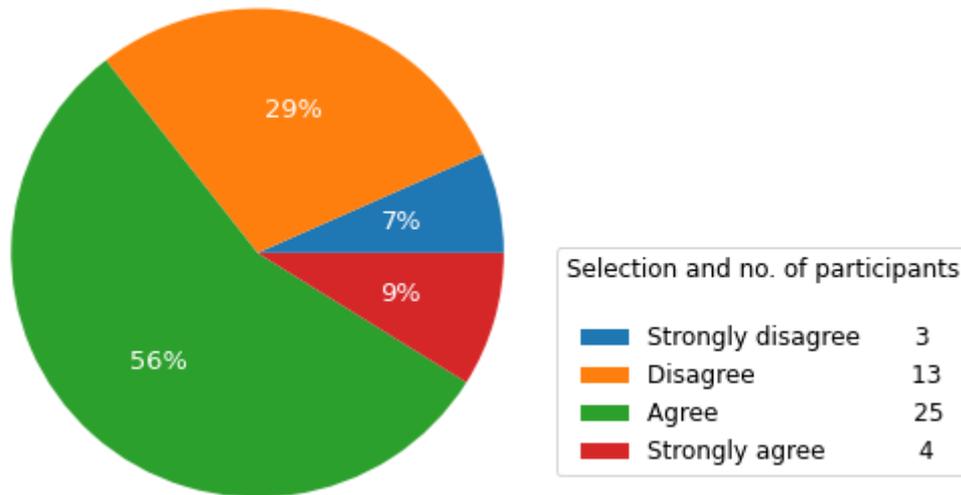


Fig. 4.2 – Outline of responses given in the online questionnaire to the statement “Cash giving should be used in conservation as a means of environmental protection”.

#### 4.2.1. Reasons supporting cash giving for conservation

As shown in figure 4.3, the predominant reason for agreeing with the use of cash giving for conservation was the idea that reducing poverty addresses the cause of environmental degradation, with 15 respondents (52% of those offered the choice) choosing this statement.

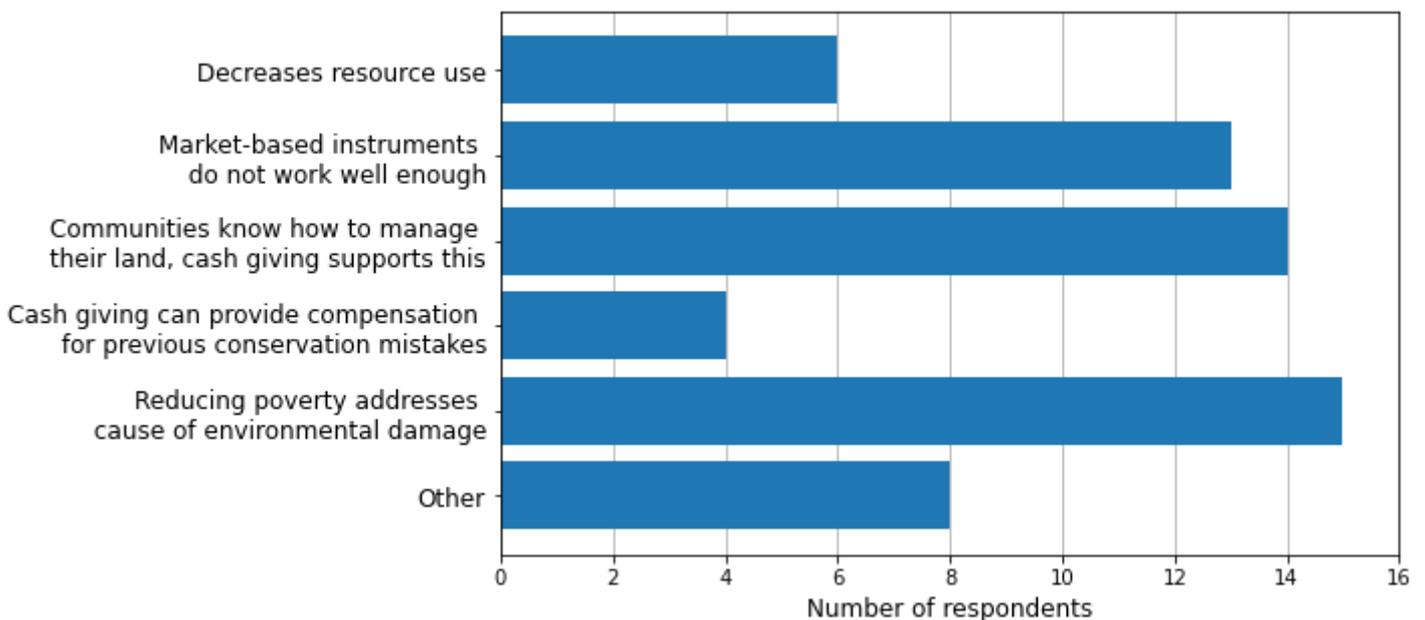


Fig. 4.3 – Outline of the reasons given in the online questionnaire for supporting the use of cash giving for conservation.

The selection of this choice shows that a lot of conservationists believe poverty to be a major contributor to environmental damage, as supported by the wider literature (Aggrey et al., 2010; Masron and Subramaniam, 2019; Baloch et al., 2020). As discussed however, simply reducing poverty does not guarantee improved ecological outcomes (Howard, et al., 2019). This also contrasts to some extent the idea behind Cool Earth's programmes, in which poverty itself is not held to be the driving force of environmental degradation. Rather, the interviews demonstrated that the main problem was the inability of local communities to remain on their land once under pressure from external forces to sell it. Of course, the poverty faced by the indigenous communities plays a role in this.

This relates to another reason for supporting cash giving for conservation – the idea that local people know how best to manage their own environments. 14 respondents (48% of those that agreed with cash giving for conservation) selected this statement, which once more strengthens the idea of giving recipients as much agency as possible, trusting their management of the local environment. This was supported in the interviews, with CESM6 suggesting we should “give the funds to the community as directly as possible and trust the community are the ones that can manage and can use the funds at their convenience and in doing so, they can protect the forests”.

The third most popular supporting reason was that MBIs such as REDD+ and PES do not work well enough, and that other forms of conservation are needed. 44% of those that agreed with cash giving for conservation selected this reason. This supports the ideas developed by, for example, Fletcher and Büscher (2017) that portray MBIs as ineffective conservation methods. Several of the interviewees also highlighted problems with MBIs. Interestingly, their association with markets and neoliberalism was not the main problem interviewees had with them. Instead, their impacts on local people, the concept of offsetting, and an inefficient allocation of resources were much more prominent in the discussions. As CESM6 says:

“A lot of the money goes on building all the bureaucracy in the middle. So, I'm sure Norway, Switzerland, USAID sends a lot of money to countries [such] as Peru for PES and a lot of the money stays in the ministry of environment on the specific programmes that have [been] created to run the specific project. So very few goes straight into the community.”

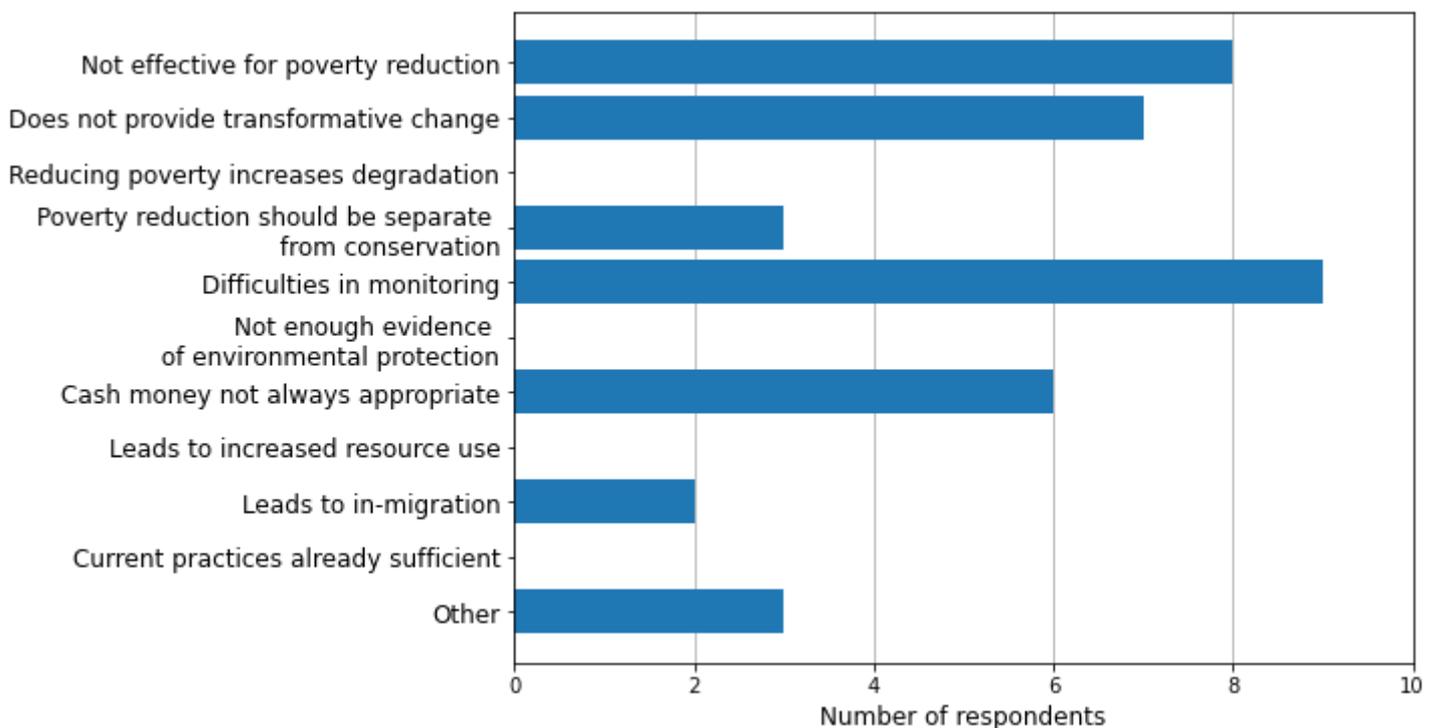
This suggests that while the neoliberal aspects of MBIs such as PES and REDD+ may well undermine the approaches (Fletcher and Büscher, 2017), their more grounded impacts are more problematic according to conservation professionals. This is supported by Martin-Ortega et al. (2019) who find environmental professionals similarly deem the practical impacts of PES to be more important than theoretical concerns. The finding of the current study can only be taken so far though, as the staff at

Cool Earth may not be representative of the entire conservation community, and the reason why MBIs are ineffective was not asked as part of the survey. This thread could therefore be developed in further research.

The finding that conservationists agree alternative methods are needed does suggest though, that to gain popularity, cash giving could aim to distinguish itself from PES and REDD+. For example, implementations could aim to demonstrate not only how they may create positive impacts, and avoid any troubling elements of neoliberalism, but also that they involve more efficient allocation of resources. This difference in efficiency is already supported by the literature, with REDD+ and PES often seen as inefficient in achieving their relative aims (Fosci, 2012; Samii, et al., 2014; Loft, et al., 2016), and cash giving generally the opposite (Bailey and Pongracz, 2015; Doocy and Tappis, 2017).

#### 4.2.2. Reasons against cash giving for conservation

As shown in figure 4.4 (below), the ideas of cash giving not being effective for poverty reduction, and that it does not provide transformative change (both previously discussed) were two main reasons not to support it for conservation.



*Fig. 4.4 – Outline of the reasons given in the online questionnaire for opposing the use of cash giving for conservation.*

The lack of evidence to show that cash giving leads to environmental protection was the other principal reason for disagreeing with its use in conservation. As a new practice for conservation, it is natural that there is a lack of evidence to prove its effectiveness, and it is true that the literature on this is currently lacking (MacNeill and Vibert, 2019). Seemingly, some conservation professionals take a precautionary approach, with nine respondents opposed to cash giving as a result. Cool Earth staff agreed that more research is needed to show a link between cash giving and conservation, with many of the staff directly calling for more research to be done in this area. As one interviewee put it, cash giving for conservation must currently rely on an “assumptive link,” (CESM4) that giving cash will enable environmental protection. While this study was unable to empirically test this ‘assumptive link’, it does suggest there is an appetite for cash giving for conservation pilot programmes, covering various kinds of cash giving, with thorough monitoring and testing to determine how this may impact the environment. This should move beyond the research done by Cool Earth so far, which examines the forest cover in communities engaged with cash giving, and control communities that are not.

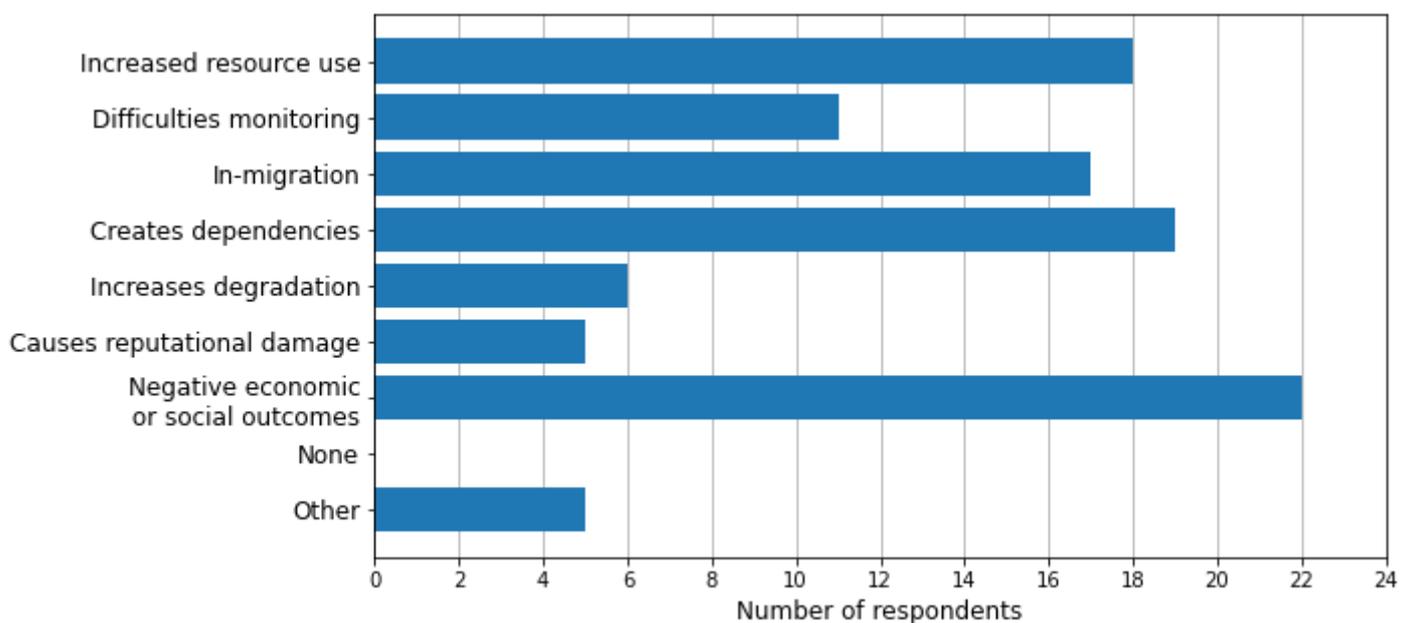
According to Cool Earth, the findings of this monitoring suggest at the very least that cash giving does not work counter to conservation aims, as the communities receiving cash have lower deforestation rates than their neighbours. Cool Earth have also found that the most important thing for forest protection is to enable the indigenous communities to remain on their land. Deforestation rates appear to be much higher in land that is not owned by any community. However, this data is naturally limited, as it only involves four communities (with whom Cool Earth work), and it relies on data from the year 2000 as a baseline.

To determine whether cash giving is really beneficial on this front, further research should seek to learn whether cash giving does provide support for communities to keep their land while under pressure from external sources to sell, and potentially even how much the transfers would need to be to achieve this aim. Coupling this with studies that replicate Cool Earth’s research on forest cover would indicate whether cash giving is a contributory factor to forest protection. Finding a causal link with cash giving may be unlikely, however, due to the complex and dynamic contexts in which indigenous forest communities live (Leggett and Lovell, 2012; Aganyira, et al., 2020).

Overall, the use of cash giving for conservation purposes has much, but not universal, support from professionals in the conservation sector, with many suggesting it could function as a replacement to MBIs such as PES and REDD+. Key to gaining more support will be more research to determine the relationship between cash giving and environmental protection. Cool Earth are beginning to build a strong evidence base towards this aim, but their staff are equally aware that more can, and should, be done.

### 4.3. Risks of cash giving for conservation

While the use of cash giving for conservation seems to have support from the conservation community, it is equally recognised that any cash giving programme will not be without risks. This fact is also openly acknowledged by the Cool Earth staff. CESM3 says, “there are a whole bunch [of risks], it’s not easy to do well. Putting cash into a community has lots of consequences”. Figure 4.5 (below) provides an overview of the risks highlighted in the questionnaire. The rest of the section examines some of these in detail and uses the interviews with Cool Earth staff to determine if they are realised in practice. It also discusses what practitioners involved in implementing cash giving for conservation programmes feel are the main risks involved.



*Fig. 4.5 – Outline of the perceived risks involved in using cash giving for conservation purposes, according to the conservation professionals who completed the online questionnaire.*

#### 4.3.1. Increased resource use

Linked to the lack of evidence demonstrating positive environmental impact, the possibility of increased local resource use is a clear risk outlined by the participants of the questionnaire, as demonstrated in figure 4.5. The logic behind this risk is clear, with increased income meaning that better tools for land clearing can be purchased and more investment made into resource-heavy activities (Wilebore, et al., 2019). There is scant empirical evidence to assess this risk, with the few

studies there are finding opposing results (Wilebore, et al., 2019; Ferraro and Simorangkir, 2020). Cool Earth staff equally acknowledge that it is not possible to know for sure whether cash giving has increased the use of natural resources amongst the communities they work with.

However, the interviews also highlighted how it is important not to focus too much on the possibility of increases in resource use. If the increase is a modest one that allows the community to remain in the forest (rather than selling their land to outside influences) then this would still be of benefit to conservation in the area. Simply determining that cash giving leads to increased resource use may well be misleading in terms of the wider conservation impacts. As CESM1 says, while “there are definitely cases where trees are lost [...] I can't think of any cases where we've got loggers have come in [*sic*]”. This is backed up by the Cool Earth remote sensing data, which shows deforestation rates are much lower on lands under indigenous occupancy compared with neighbouring lands that are not. This is also supported by Bray, et al. (2008) who find community owned lands can be even as effective in forest protection as specifically designated protected areas.

The risk of communities increasing their resource use also clashes with the idea that they know how best to look after their own environments (see section 4.2.1). It suggests that the innate community-led environmental management is only trusted so far, with the external influence of cash giving potentially disturbing the human-nature relationships. It also contrasts with the arguments of convivial conservation (Büscher and Fletcher, 2020), among others (Caillon, et al., 2017; Rai, et al., 2021), that suggests the human-nature dichotomy is a false one, and resource use from indigenous communities should be accepted as part of how an ecosystem functions. Seemingly conservation professionals do not agree with this reasoning. This suggests that while it may not be the most important area in practice, if looking to push forward a cash giving agenda within conservation, future research should treat the impacts on resource use as a priority.

#### **4.3.2. Dependencies**

Another major risk outlined in the survey (by 42% of respondents) was the potential for cash giving to create dependencies amongst the communities. The literature has demonstrated that some forms of dependency – such as a reliance on the income from the CTP in place of incomes from work (Banerjee, et al., 2017) – do not materialise in practice. However, the interviews also highlighted that other types of dependency are still a risk. For example, one illustration given during the interviews was of recipients using the money from cash giving to buy vegetables and other foods from the market rather than growing them themselves, as had previously been the case. Due to restrictions brought in

because of the Covid-19 pandemic, the market then became inaccessible, causing difficulties and potential food security worries. This suggests that the risk of creating dependencies may be realised in practice, and so cash giving programmes should therefore be designed with this in mind.

#### **4.3.3. Negative economic or social impacts**

The possibility of creating negative economic or social impacts was highlighted as the greatest risk of implementing cash giving programmes as a conservation tool. This was even above the risk of increasing local resource use, with 49% of respondents selecting this option. While much of the literature has shown that cash giving does not tend to create negative economic or social impacts (Bastagli, et al., 2019), this is not a universal finding (MacAuslan and Riemenschneider, 2011). The interviews with Cool Earth suggest that these impacts can be limited through project design, stressing that involving the community in designing the cash giving programmes is essential to ensure it is appropriate for their context and will not cause community conflicts or other problems.

Yet even with community input in design, implementing cash giving programmes may still create other economic issues, a point that was confirmed by Cool Earth staff. As CESM3 says:

“If you start dropping cash into communities that probably haven’t seen this amount of cash in a short space of time, possibly ever before, the same way that if you, as Biden’s doing, you drop 2.6 trillion [dollars] into the US market, you start to see extraordinary inflation [...] which does start to screw with the fundamentals of the local economy.”

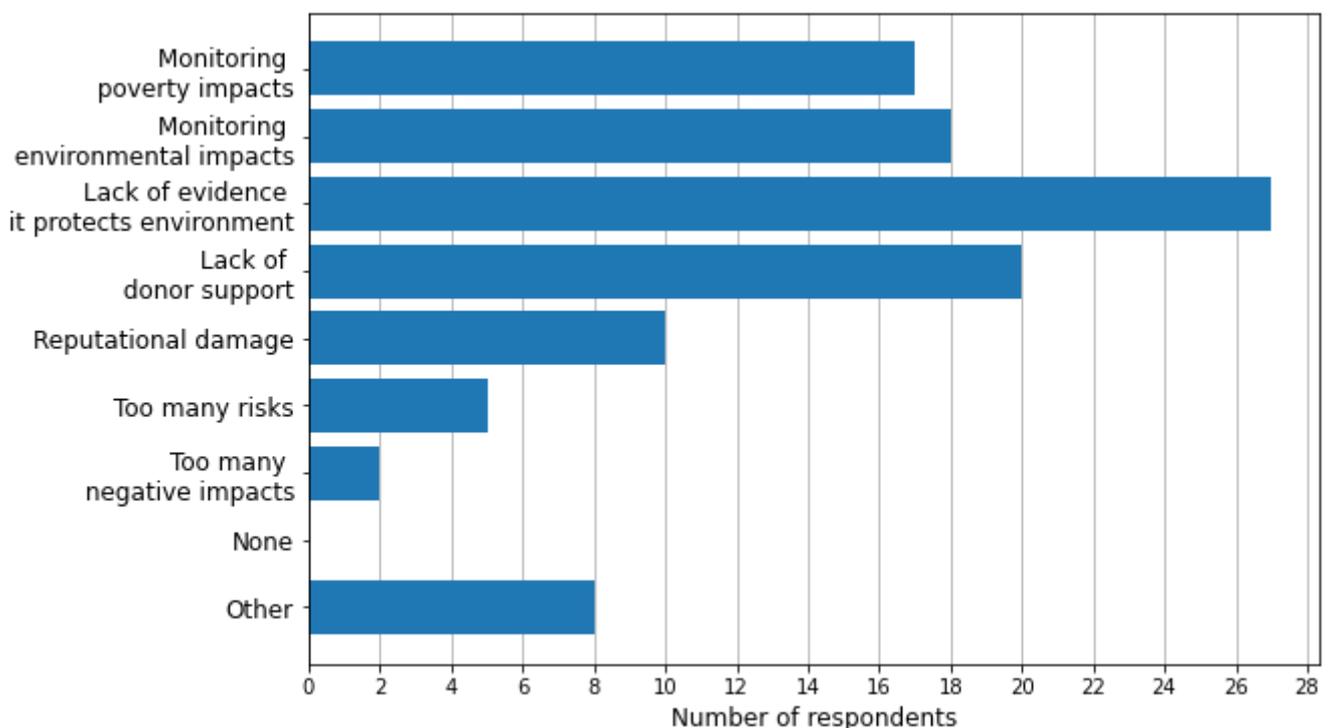
Other social issues that Cool Earth have noted is the idea of elite capture, where cash from cash giving programmes “actually doesn’t go to people fairly and you empower, further empower the elite” (CESM3). Equally important however, is how cash giving may also disempower the elite, “which you might regard as a great thing, but it completely starts to screw up the existing social structures which might be important,” (CESM3). This suggests that cash giving may in fact be similar in some impacts to MBIs such as PES, where social disempowerment has been seen to occur (Fletcher, 2012; Holmes and Cavanagh, 2016), and stresses the need to involve communities in considered and appropriate programme design.

The experience of Cool Earth staff has therefore highlighted how risks identified in the questionnaire are sometimes realised in practice. As such, cash giving in conservation could be subject to much the same risks as PES and REDD+, which should be acknowledged if cash giving were to be used as a replacement to them. The existing literature on cash giving, however, suggests that its benefits outweigh the potential negative social and economic consequences, with Cool Earth staff members

still in favour of cash giving despite the risks. Other risks highlighted in the questionnaire included the possibility of in-migration (which was not deemed too much of a risk according to Cool Earth staff) and difficulties in monitoring (discussed in section 4.4). Overall, the risks outlined in the questionnaire should be taken seriously by project implementers. However, it seems they should not stand in the way of further research being done on cash giving for conservation, and other pilot programmes being implemented.

#### 4.4. Barriers to using cash giving for conservation

As shown in figure 4.6, the main perceived barrier to using cash giving for conservation is that there is not enough evidence to prove it is effective at protecting the environment. A lack of evidence on this front is certainly noticeable within the current literature body (MacNeill and Vibert, 2019). Previous sections also highlighted how the impact on environmental protection should become a focus of future research into the use of cash giving for conservation. The acknowledgement of conservation professionals that it remains the biggest barrier confirms this need.



*Fig. 4.6 – Overview of the perceived barriers to using cash giving for conservation, according to the online questionnaire respondents.*

Related to the shortage of evidence on cash giving's environmental impact is a lack of support from donors, highlighted by 44% of respondents. Without robust evidence to show the impacts of cash giving on the environment, donors are likely to remain extremely hesitant to support CTPs, even as CTPs increase in popularity in fields such as international development (World Bank, 2018).

However, the robust evidence of how cash giving impacts the environment may be difficult to obtain. Another barrier strongly recognised in the questionnaire (by 40% of respondents) is the complexities in monitoring both the environmental and social impacts of cash giving programmes. This is acknowledged as a problem area by Cool Earth staff. As CESM1 says of cash giving programmes:

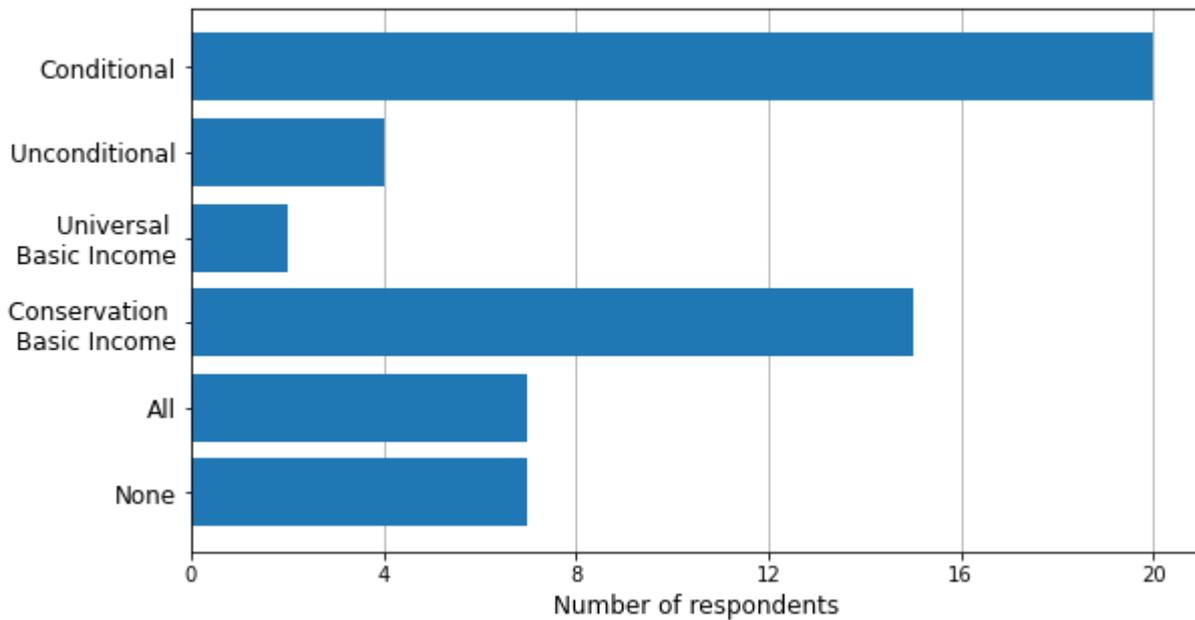
“Trying to measure it is so complicated [...] actually testing it and getting clear answers we're finding is really difficult because comparing different communities, there's always differences. The rainforest might be standing because of other factors.”

This once more highlights that finding a causal link between cash giving and the environment will be extremely difficult. Whether cash giving enables communities to remain on their land, or how deforestation rates compare to control communities could be a subject of future research.

Other logistical barriers were also discussed during the interviews, with security issues of transporting large volumes of cash, low literacy levels amongst recipients, and a lack of mobile banking chief amongst them. This demonstrates that cash giving is highly context dependent, and not applicable to all locations. Certain areas of the Democratic Republic of the Congo were given as an example in which low literacy rates, little mobile banking infrastructure, and high security risks of both transporting and keeping large quantities of cash would prove extremely difficult and dangerous for implementing a CTP.

#### **4.5. Variations of cash giving for conservation**

The questionnaire finally detailed four different forms of cash giving: conditional, unconditional, UBI, and CBI. The survey asked respondents to state whether each one should be used for conservation purposes, and finally to state which they thought were most applicable to conservation.



*Fig. 4.7 – Responses given in the questionnaire to the question of which variations of cash giving are most applicable to conservation.*

As seen in figure 4.7, conditional cash giving was the clear favourite for use in conservation. This demonstrates the potential that exists for conditional cash giving to be implemented within conservation. The main reason for its support is that it is perceived to increase the likelihood of achieving environmental outcomes. This is partially supported by the literature, that finds conditionality aids in achieving specific outcomes (Baird, et al., 2011; Akresh, et al., 2013; Akresh, et al., 2016; Banerjee, et al., 2019), but as discussed, these findings are not related to environmental aims.

Unconditional programmes were also generally supported, with respondents appreciative of the agency given to recipients, along with the lack of moral or colonial implications it carries, which some in the literature have found to be problematic (Freeland, 2007; Jenson and Nagels, 2016). As they are less certain to achieve environmental outcomes though, general unconditional CTPs are seen as less applicable to conservation.

Similarly, Universal Basic Income was seen as something that the field of conservation should support, with 69% of respondents in the questionnaire in favour of it. The predominant reasons for this being the idea that a basic income could provide transformative change within society (where cash giving more generally supposedly cannot). However, it was seen as the least applicable option to the field of conservation specifically. This was mainly due to its lack of conditions and less obvious relevance. The

ability of basic incomes to positively impact the environment is already questioned in the literature (Howard, et al., 2019), and so experimental research into a sustained UBI (Hasdell, 2020) would likely be needed for UBI to gain further support as a conservation mechanism.

Of the unconditional options, Conservation Basic Income was the most supported for conservation, showing that there is great potential for further exploration of this concept within research and practice. However, something that was highlighted in the interviews was just how context dependent successful CTPs are. For example, Cool Earth staff found previous designs used in Peru were inappropriate for the social hierarchies in Papua New Guinea. Furthermore, those designed for one community may be equally as inappropriate for another, even within close proximity. As CESM1 said:

“I'm very aware from work I've done at Cool Earth, how different communities are. Just so many different contexts, and so one thing might work really well in one village even, and then the next village just next door, it might just not work and actually conditionality might.”

This highlights the importance of involving the communities in designing the cash giving programmes, just as other development or conservation programmes should be designed with and for the communities (Dyer, et al., 2014; Aganyira, et al., 2020; Schiavo, 2021).

This adds support to the point that “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” (Fletcher and Büscher, 2020, p. 6). Any notion of CBI being a singular CTP design that spearheads a convivial conservation movement may not be realistic, as it would be unlikely to be appropriate for enough communities. Instead, CBI could potentially be framed as a set of principles, a loose framework within which specific cash transfer programmes could be designed with a community, to ensure that it is an appropriate means of supporting them. This could be tested firstly by surveying a wide range of indigenous communities as to which forms and aspects (if any) of cash giving would suit their needs best. This could be accompanied by trialling CBI pilot projects and testing variations of it empirically to assess their impacts.

Throughout the interviews, Cool Earth staff also brought up the importance of implementing cash giving with parallel programmes, which align with more traditional conservation and development programmes, including initiatives such as business income generation, or water, sanitation, and hygiene programmes. These allow for services to be put in place that the communities would otherwise be unable to spend their cash on. As CESM4 put it:

“In places where peoples biggest need, to stay on their land, is like an education for their kids or health care for their kids, giving them cash, if there's no health care system in place, isn't going to help them stay in their forest lands. They're still going to go to the city because they'll be healthier there. So, I think there's a really strong argument for parallel development programs or working within or with local government structures to get those things in place for people.”

Once more, this brings into question just how effective a strict and solitary cash giving mechanism (which CBI has the potential to be) could realistically be, without further support from governments or NGOs. If there is nothing to spend the cash on, then the cash giving mechanism could become useless, or even detrimental, if risks such as those discussed in section 4.3 come to fruition. This also relates to other literature on cash giving, which suggests that programmes would also require supplemental policies to achieve ecological goals (Gilliland, et al., 2019; Howard, et al., 2019). While it is acknowledged that CBI “must be complemented by attention to the effectiveness of social services and infrastructure in target communities” (Fletcher and Büscher, 2020, p. 6), it arguably needs to go much further than this. For example, state bodies or NGOs could help to establish some of those social services and infrastructure (whilst of course remaining wary of the potential to revert to the controlling, state-governed policy instruments CBI aims to avoid (Fletcher and Büscher, 2020)).

Therefore, while conditional programmes are the most supported type of cash giving for conservation, there is still plenty of support for other types, including CBI. This reinforces the idea that cash giving could have a future in conservation finance, possibly eventually replacing the MBIs currently in circulation. The support for a variety of CTPs could be useful, as the heterogeneity of communities suggests that there isn't one solution that fits all, and therefore a wide scope of cash giving types will be required to meet conservation and development goals in different contexts.

## **5. Conclusion**

The apparent weaknesses in both the conceptualisation and impacts of market-based conservation instruments has led to calls for new forms of conservation (Büscher and Fletcher, 2020). Central to some of these forms is the mechanisms through which conservation can be financed. The resemblance of MBIs, such as REDD+ and PES, to forms of cash giving (Fletcher and Büscher, 2020; Yu, et al., 2020), coupled with the successes of CTPs within poverty reduction (Bastagli, et al., 2016), suggests that cash giving could be one potential means.

However, cash giving for conservation (as designed as a mechanism entirely separate from any market basis) has not been sufficiently explored. Specifically, whether cash giving should or could be used in conservation, and what the social, economic, and environmental impacts of doing so might be, are not fully understood. Furthermore, whether project design, including aspects such as conditionality, size of payments, or targeting specific individuals or communities, could enable greater impacts is also uncertain. Understanding this could help determine the role cash giving could play in future environmental policy.

This study builds on the previous literature by bridging the gap between that on market-based conservation instruments and on cash giving for poverty reduction. It has assessed the opinions of conservation professionals working in lower-income country contexts, to try and understand whether cash giving could be used for conservation, and the implications of doing so. As professionals shape policy and implementation (Martin-Ortega, et al., 2019), their opinions can help to determine if cash giving would realistically work in practice and which areas future research should prioritise.

The study used an online questionnaire aimed at the wider conservation community and conducted qualitative semi-structured interviews with staff members of the environmental NGO Cool Earth, who have been implementing CTPs since 2008. This mixed methods approach provided both a broad and in-depth understanding of conservation professionals' views and helped to determine whether the risks outlined in the survey are realised in practice.

In relation to the opinions of conservation professionals on the use of cash giving (RQ1), the questionnaire found that conservation professionals are generally supportive of both cash giving for poverty reduction and cash giving for conservation. This was despite the risks (such as creating dependencies, inequalities, and increased resource use) they are seen to carry. Cool Earth staff acknowledge that cash giving comes with risks. Many risks, including the creation of certain dependencies and other economic and social impacts, they find are realised in practice (RQ2). However, the staff are still supportive of, and comfortable in, implementing cash transfer programmes (RQ1). They believe the benefits (including increased agency to recipients, a lack of paternalism within the projects, and beneficial environmental and social impacts) outweigh the risks, many of which can be mitigated for in project design. Altogether, this suggests that CTPs have great potential application to conservation. However, the concept remains controversial and there is strong resistance against CTPs amongst a minority of respondents.

The form of cash giving considered most applicable to conservation amongst the wider conservation community (RQ3) was conditional cash giving. In the most part this was due to the perception that it is most likely to achieve environmental outcomes. However, CBI was also favoured as a concept,

demonstrating that unconditional giving has support amongst conservation professionals. More research on the link between environmental protection and unconditional CTPs could develop this support further. Cool Earth staff were most supportive of unconditionality, but still acknowledge the role of conditional programmes. They stress that cash giving is hugely context dependent and must be designed with the communities that will receive the funds. This has consequences for the ideas of programmes such as CBI, which (while not fully designed) could suggest a fairly set format of cash giving. Instead, CBI could perhaps incorporate a variety of programme specifics that align with convivial conservation's ideals, under one CBI umbrella. Cool Earth staff also stress that cash giving works best in combination with other conservation or development programmes, which may reduce the applicability of cash giving on a wide scale or in certain contexts.

Building on this study, future research should focus on the link between cash giving and its environmental impacts (including resource use). This appears to be a key area of concern for conservation professionals that has not been sufficiently addressed by the literature. Perhaps more importantly, research should also determine under which conditions cash giving enables communities to remain on their land (while under pressure to sell), and how much the cash transfers would need to be to ensure this. A limitation of this study is that all interview participants were in favour of the use of cash giving for conservation. Given that it remains controversial, conducting interviews with professionals that oppose its use could provide more depth of understanding of that side of the debate. Largely, though, this study has shown that there is an appetite for trying cash giving for conservation, and so any form of pilot projects or further empirical study would be of great value.

Overall, it appears that cash giving has great potential to be applied to conservation and has much (though certainly not universal) support from the conservation community, particularly regarding conditional CTPs. However, it should also be noted that cash giving is not a panacea, with many social and economic impacts that must be considered when implementing CTPs. The fundamental basis that cash giving, either directly or indirectly, supports positive environmental outcomes is also promising, but yet to be firmly established, and should become the focus of future research to gain additional support.

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## **Appendices** **(including evidence of analysis and ethical considerations)**

### **Appendix 1. Questionnaire and results**

Below is the questionnaire used for this study along with the number of responses given to each option. As the questionnaire was delivered online, the formatting has been changed and incorporated into a table for ease of use. A screenshot of how the questionnaire was delivered online is in Appendix 2.

#### **Cash Giving in Conservation**

You are being invited to participate in a research study titled Cash Transfers in Conservation: An exploration of the views of conservation professionals. This study is being conducted by Callum Sheehan as part of his MSc dissertation at the University of Leeds, under the supervision of Prof. Julia Martin-Ortega.

This survey will take you approximately 20 minutes to complete. It will ask about your views on 'cash giving' generally, before providing examples of, and asking questions about, specific variations of Cash Transfer Programmes. Definitions of 'cash giving' and the specific examples are provided. This survey is aimed at any conservation professional, regardless of specific previous experience with cash transfer or cash giving programmes.

If you are unfamiliar with the concepts explored, please read the definitions carefully and answer the questions as best you can based on your experience within the field of conservation.

A list of references with further information on the topics discussed will be provided at the end of the survey.

Your participation in this study is entirely voluntary and you may halt the questionnaire at any time.

To the best of our ability your participation in this study will remain confidential, and only anonymised data will be published. We will minimise any risks by not taking any personal details from you and using online storage facilities that are password protected. Data will be securely destroyed 5 years after completion of the study. Further information is available via the University of Leeds Privacy Notice (link below). This research has been approved by the University of Leeds Research Ethics Committee as part of the SOEE5020 Research Project module. This ensures that this research project meets all the legal and ethical standards relevant to this type of research.

If at any time you wish to ask any questions about this survey or the research project you can contact Callum at [ee20cms@leeds.ac.uk](mailto:ee20cms@leeds.ac.uk)

The University of Leeds Privacy Notice can be found at: <https://dataprotection.leeds.ac.uk/wp-content/uploads/sites/48/2019/02/Research-Privacy-Notice.pdf>

To continue with the survey, please click below to confirm that you have understood and consent with the above information.

Topic	Questions	No. of Responses
Screening questions	<b>I confirm that I have understood and consent with the above information</b>	52
	<b>This questionnaire is addressed to academics and professionals in the field of conservation, with some experience or familiarity in lower-income countries. Does this describe yourself?</b>	
	Yes	45
	No	7
Profiling questions	<b>Which of the following best describes your current professional setting or sector?</b>	
	NGO: Environmental/ Conservation focused	32
	NGO: Other	1
	Private sector: Environmental consultancy	1
	Private sector: Other	0
	National Government/Policy	2
	Local government	0
	Public agency: Environmental	0
	Public sector: Other	0
	Academia	9
	Other	0
	[If you selected other] Please specify your professional setting or sector	0
	<b>How long have you worked in this sector?</b>	

0-5 years	17
6-10 years	8
11-20 years	17
21+ years	3
<b>Which of these options best describes your level of seniority?</b>	
Entry-level (e.g. Research Assistant)	7
Mid-level (e.g. Project Manager)	25
Senior level (e.g. Head of Department)	13
<b>In which country are you currently based for work? (e.g., If you work in the UK for an NGO that conducts fieldwork in Kenya, please put 'UK'). [Open question, responses below]</b>	
UK	23
USA	8
Angola	1
Australia	1
Belgium	1
Brasil	1
Madagascar	1
Netherlands	1
Pakistan	1
Papua New Guinea	2
Peru	1
Rwanda	2
Sweden	1
Uganda	1
<b>In which country(ies) does your organisation operate? [Open question, responses below]</b>	

>20 countries	13
Afghanistan	1
Angola	1
Argentina	1
Australia	2
Bangladesh	1
Belgium	1
Bolivia	1
Botswana	2
Brazil	3
Cambodia	2
Cameroon	1
Chile	1
Columbia	4
Costa Rica	1
DRC	2
Ecuador	1
Ethiopia	3
Galapagos Islands	1
Ghana	1
Guyana	1
India	2
Indonesia	2
Kenya	3
Liberia	1
Madagascar	3
Malawi	2
Malaysia	1

Niger	1
Pakistan	1
Papua New Guinea	2
Peru	3
Phillipines	2
Rwanda	2
Senegal	1
Singapore	1
South Africa	1
Tanzania	4
Thailand	1
Uganda	1
UK	4
Vietnam	2
Zambia	1
Zimbabwe	2
<b>Which of these options best describes your main training/educational background?</b>	
Biological Sciences	13
Environment	16
Social sciences	4
Economics	6
Engineering and Physical Sciences	1
Arts, Humanities and Cultures	0
Business and Administration	1
None	0
Other (Please specify)	4

<b>Cash Giving</b>	Cash giving, or cash transfer programmes, is the means through which a state body or non-governmental organisation gives cash (or electronic payments) directly to recipients. The transfers may be given in a variety of means, as one-off payments or provided in regular instalments for a number of years. Certain behavioural or spending requirements may sometimes be placed on the transfers. Cash transfer programmes may be used to pursue the goal of poverty reduction.	
	<b>Before you were asked to take part in the survey, how aware were you of the concept of cash giving?</b>	
	I knew lots about it	10
	I was generally familiar with the term and what it means	21
	I had heard of it, but didn't know much about it	12
	I had never heard of it before	2
	<b>Do you agree with the following statement: 'cash giving is an effective poverty reduction tool'?</b>	
	Strongly disagree	4
	Disagree	7
	Neither agree nor disagree	19
	Agree	10
	Strongly agree	5
	<b>Please tick up to three of the statements below that you either agree or strongly agree with (for those that selected 'neither agree nor disagree')</b>	
	Money from cash giving may not be used responsibly	7
	Cash giving creates dependencies or reduces participation in work	4
	Cash giving is a cost effective and scalable means of poverty reduction	2
	Cash giving can create negative social or economic impacts (such as price inflation or community conflicts)	11
	Recipients know their own needs best - cash giving allows recipients to spend money how they see fit	10
Cash giving is 'colonial' in nature	1	
Cash giving provides economic, social, health or educational benefits	7	
Cash giving is a means of 'decolonialising' poverty reduction efforts	0	
Cash giving does not provide the transformative change needed to tackle the economic, social or political causes of poverty	13	

	<b>What are the reasons why you disagree or strongly disagree? (Tick up to three responses)</b>	
	Cash giving increases spending on 'temptation goods' such as tobacco and alcohol	1
	Money from cash giving gets spent on short-term needs or wants, and not invested for the future	5
	Recipients become dependent on the money from cash giving programmes	4
	Cash giving reduces participation in other productive activities (for example casual labour work)	3
	Cash giving creates negative economic impacts at a community level (such as price inflation)	0
	Cash giving creates inequalities or conflict amongst recipient communities	6
	Cash giving programmes are too expensive to be used at scale	3
	Cash giving is 'colonial' in nature	4
	Cash giving does not provide the transformative change needed to tackle the economic, social or political causes of poverty	10
	Other	2
	If you selected 'other', or there are any other reasons not listed above why you disagree or strongly disagree, please state them here	2
	<b>What are the reasons why you agree or strongly agree? (Tick up to three responses)</b>	
	Cash giving provides economic benefits to recipients	6
	Cash giving provides health benefits to recipients	1
	Cash giving provides educational benefits to recipients	2
	Recipients know their own needs best - cash giving allows recipients to spend money how they see fit	14
	Cash giving provides social benefits such as improving equality or family relationships	1
	Cash giving is a cost effective and scalable means of poverty reduction	7
	Cash giving is a means of 'decolonialising' poverty reduction efforts	4
	Other	1
	If you selected 'other', or there are any other reasons not listed above why you agree or strongly agree, please state them here	4
<b>Cash Giving for Conservation</b>	This section regards if and how cash giving could be used as a tool for conservation, alongside the main aims of poverty reduction, by applying cash transfer programmes to communities specifically in areas considered to be of	

high conservational importance. This is distinct from other programmes such as Payments for Ecosystem Services and REDD+, as 'cash giving for conservation' does not involve the use of market-based instruments.	
Here, we would like to hear your opinion on cash giving in conservation in general (later we will ask you about specific types of cash giving programmes).	
<b>Do you agree with the following statement: 'cash giving should be used in conservation as a means of environmental protection'?</b>	
Strongly disagree	3
Disagree	13
Agree	25
Strongly Agree	4
<b>What are the reasons why you disagree or strongly disagree? (Tick up to three responses)</b>	
Cash giving is not an effective poverty reduction tool	8
Reducing poverty leads to greater environmental degradation	0
There is not enough evidence to show that cash giving leads to environmental protection	9
Poverty reduction efforts should take place independently from conservation; the two aims shouldn't be mixed	3
It would be too difficult to monitor the poverty reduction impacts	0
It would be too difficult to monitor the environmental impacts	0
Giving cash money is only appropriate in certain circumstances, many cultures and rural communities do not rely on it	6
Cash giving would encourage increased resource use	0
It could lead to in-migration to environmentally fragile areas	2
Greater 'transformative change' is needed within conservation, cash giving doesn't support this change	7
Current conservation practices are already sufficient, we don't need alternatives	0
Other	3
If you selected 'other', or there are any other reasons not listed above why you disagree or strongly disagree, please state them here	3
<b>What are the reasons why you agree or strongly agree? (Tick up to three responses)</b>	

Cash giving in rural communities decreases resource use	6
Current market-based conservation mechanisms (such as Payments for Ecosystem Services or REDD+) do not work well enough, we need to try something different	13
Rural communities know how best to manage their local environment, cash giving can support them to do this	14
Cash giving can provide compensation for previous mistakes made in conservation practices	4
Reducing poverty addresses the cause of environmental degradation	15
Other	8
If you selected 'other', or there are any other reasons not listed above why you agree or strongly agree, please state them here	10
<b>If cash giving were used in conservation, what would you consider to be the greatest risks involved? (Tick up to three responses)</b>	
Cash giving could lead to increased local resource use	18
It could be too difficult to monitor the impacts effectively	11
It could lead to in-migration to environmentally fragile areas	17
Cash giving could create dependencies amongst recipients	19
Reducing poverty could increase environmental degradation	6
Cash giving could cause reputational damage to the implementing organisation due to negative perceptions of cash giving amongst the public	5
It could lead to negative economic or social outcomes (such as creating inequalities, reducing participation in work, or increasing use of temptation goods like alcohol or tobacco)	22
None	0
Other	5
If you selected 'other', or there are any other risks not mentioned above that you would like to mention, please specify them here	5
<b>What are the main barriers to using cash giving in conservation? (Tick up to three responses)</b>	
Difficulties in monitoring the poverty reduction impacts of the programme, for example how the money is spent	17
Difficulties in monitoring the environmental impacts of the programme, for example local deforestation rates	18

	There is not enough evidence to prove it is effective at protecting the environment	27
	A lack of support from donors	20
	Negative perceptions of cash giving amongst the public could cause reputational damage	10
	There are too many risks involved	5
	There are too many negative impacts	2
	None	0
	Other	8
	If you selected 'other', or there are any other barriers not listed above that you would like to mention, please specify them here	8
<b>Variations of Cash Giving</b>	<p>Cash transfers come in a variety of different forms. Most variations depend on whether there are certain criteria that need to be fulfilled in order to receive a transfer, such as in Conditional Cash Transfer Programmes. Other variations place no restrictions on the recipients, as in Unconditional Cash Transfer Programmes. Cash giving also varies on who is eligible to receive it – whether the transfers are ‘universal’ (given to every member of a certain community or country) or not. Some of the most common variations of cash giving will be detailed next.</p> <p>If you are unfamiliar with the following concepts, please read the definitions carefully and answer the questions as best you can based on your experience within the field of conservation.</p>	
<b>Conditional Cash Transfers</b>	<p>Conditional Cash Transfers can be given to specific groups of individuals or can be applied universally to a community or region. Those that are eligible must comply with certain criteria, or conditions, in order to receive the funds. For example, the individuals may be limited in terms of how they can spend the cash transfers, such as with spending limited to food or healthcare purchases. They may also have to undertake certain activities or behaviours to become or remain eligible, such as enrolling their children in school or refraining from harvesting timber. If those conditions are not met, then funding may be withdrawn. It is therefore necessary to monitor those specific conditions to ensure that they are being met. REDD+ and Payments for Ecosystem Services are sometimes classed as Conditional Cash Transfer Programmes, though their theoretical reliance on markets to set payment prices and source funding is a distinguishing factor and so they are discounted from the definition of 'Conditional Cash Transfers' as it is used in this survey.</p>	
	<b>Before you were asked to take part in the survey, how aware were you of the concept of Conditional Cash Transfer Programmes?</b>	
	I knew lots about it	10

I was generally familiar with the term and what it means	20
I had heard of it, but didn't know much about it	9
I had never heard of it before	6
<b>Do you agree with the following statement: 'Conditional cash transfer programmes should be used in conservation'?</b>	
Strongly disagree	4
Disagree	8
Agree	28
Strongly agree	5
<b>What are the reasons why you disagree or strongly disagree? (Tick up to three responses)</b>	
Cash giving is not an effective poverty reduction tool	5
Placing conditions on monetary spending or other activities is not needed to create beneficial outcomes	5
It would be too difficult or expensive to monitor whether the conditions are being adhered to	4
Cash giving could lead to increased resource use regardless of conditions placed on environmental interactions	2
Placing conditions on monetary spending is 'colonial' in nature	5
Recipients should have ultimate and full control over how the money is spent	7
Other	1
If you selected 'other', or there are any other reasons not listed above why you disagree or strongly disagree, please state them here	2
<b>What are the reasons why you agree or strongly agree? (Tick up to three responses)</b>	
Placing conditions on spending or behaviours ensures the money is spent in a beneficial way	14
Conditional programmes reduce the likelihood of creating negative economic or social impacts (such as creating inequalities, reducing participation in work, or increasing use of temptation goods)	20
Conditional programmes are easier to monitor for programme implementers	9
It is easier to gain funding for conditional programmes	10
Placing conditions on how recipients interact with the environment reduces the chance of increasing pressures on natural resources	19

	Other	7
	If you selected 'other', or there are any other reasons not listed above why you agree or strongly agree, please state them here	7
<b>Unconditional Cash Transfers</b>	Unconditional Cash Transfers do not place any restrictions or conditions upon the recipient. The recipients are free to spend the money in any way they choose. They are also not required to participate in any particular activities or undertake any particular behaviours in order to receive (and keep receiving) the funds. Unconditional Cash Transfer Programmes therefore have very few (if any) monitoring requirements. The lack of conditions, particularly related to recipients' environmental actions, makes them distinct from programmes such as Payments for Ecosystem Services and REDD+.	
	<b>Before you were asked to take part in the survey, how aware were you of the concept of Unconditional Cash Transfer Programmes?</b>	
	I knew lots about it	10
	I was generally familiar with the term and what it means	15
	I had heard of it, but didn't know much about it	13
	I had never heard of it before	7
	<b>Do you agree with the following statement: 'Unconditional cash transfer programmes should be used in conservation'?</b>	
	Strongly disagree	7
	Disagree	15
	Agree	19
	Strongly Agree	4
	<b>What are the reasons why you disagree or strongly disagree? (Tick up to three responses)</b>	
	Cash giving is not an effective poverty reduction tool	11
There is not enough control over how the money is spent	8	
It could be too difficult to monitor the environmental impacts	9	
It could be too difficult to monitor the poverty reduction impacts	5	
A lack of conditions could lead to increased resource use	9	

	It could lead to in-migration to environmentally fragile areas	6
	Other	5
	If you selected 'other', or there are any other reasons not listed above why you disagree or strongly disagree, please state them here	6
	<b>What are the reasons why you agree or strongly agree? (Tick up to three responses)</b>	
	Recipients should have full control over how the money is spent	14
	Unconditional cash transfer programmes create equally positive outcomes as conditional programmes	5
	It is cheaper to implement than conditional programmes	7
	It is not necessary to closely monitor the environmental impacts	3
	It is not necessary to closely monitor the poverty reduction impacts	3
	Other	10
	If you selected 'other', or there are any other reasons not listed above why you agree or strongly agree, please state them here	10
	A Universal Basic Income is a form of unconditional transfer that is both 'universal' (in that it is given to all the citizens of a certain population, even at a national scale) and 'basic' (the amount transferred in a Universal Basic Income should be enough to meet the basic needs of a recipient, but not enough to live on comfortably). The Universal Basic Income is not means tested, nor are there any other conditions that the recipients must meet, and so recipients are free to spend the money how they see fit. The payments will be the same amount given to all recipients, regardless of their income. This survey refers to the use of Universal Basic Income particularly in the context of lower income countries of high conservational importance.	
<b>Universal Basic Income</b>	<b>Before you were asked to take part in the survey, how aware were you of the concept of Universal Basic Income?</b>	
	I knew lots about it	10
	I was generally familiar with the term and what it means	21
	I had heard of it, but didn't know much about it	7
	I had never heard of it before	7

<b>Do you agree with the statement: 'The field of conservation should support the use of a Universal Basic Income'?</b>	
Strongly disagree	1
Disagree	13
Agree	27
Strongly Agree	4
<b>What are the reasons why you disagree or strongly disagree? (Tick up to three responses)</b>	
It could lead to increased resource use	2
Cash giving is not an effective means of poverty reduction	4
Some restrictions are needed over how the money can be spent	1
It would not be possible to fully monitor the environmental impacts	0
It would not be possible to fully monitor the poverty reduction impacts	0
Providing a basic income would be too costly to implement at scale	5
The money involved in running a Universal Basic Income scheme could be better spent elsewhere	5
Other	8
If you selected 'other', or there are any other reasons not listed above why you disagree or strongly disagree, please state them here	9
<b>What are the reasons why you agree or strongly agree? (Tick up to three responses)</b>	
Reducing poverty at a wide scale will reduce pressure on the environment	17
Recipients should have full control over how the money from cash giving is spent	12
Cash transfers should be provided to all members of a community or society equally	10
The idea of a basic income encourages transformative change within society	23
It is not necessary to closely monitor the environmental impacts	0
It is not necessary to closely monitor the poverty reduction impacts	1
Other	4
If you selected 'other', or there are any other reasons not listed above why you agree or strongly agree, please state them here	6

<b>Conservation Basic Income</b>	Conservation Basic Income is a new concept suggested for conservation funding. Similar to a Universal Basic Income, it takes the form of an unconditional payment scheme that provides enough funds to cover the basic needs of recipients. Payments would be provided equally to all members of a specific community, situated in an area of conservational importance. This concept is only theoretical at the moment and has not been tried in practice to the best of our knowledge.	
	<b>Before you were asked to take part in the survey, how aware were you of the concept of Conservation Basic Income?</b>	
	I knew lots about it	3
	I was generally familiar with the term and what it means	7
	I had heard of it, but didn't know much about it	5
	I had never heard of it before	30
	<b>Do you agree with the following statement: 'Conservation Basic Income should be used as a conservation funding mechanism'?</b>	
	Strongly disagree	3
	Disagree	12
	Agree	25
	Strongly agree	5
	<b>What are the reasons why you disagree or strongly disagree? (Tick up to three responses)</b>	
	There is not enough control over how the money is spent	1
	It could be too difficult to monitor the environmental impacts	0
	It could be too difficult to monitor the poverty reduction impacts	0
It could lead to increased resource use	4	
It could lead to in-migration to environmentally fragile areas	4	
Cash transfers are not an effective means of poverty reduction	5	
Providing a basic income would be too costly to implement at scale	3	
It is unfair to provide a basic income to one community over another, just because they live in an area of high conservational importance	4	

	Other	7
	If you selected 'other', or there are any other reasons not listed above why you disagree or strongly disagree, please state them here	8
	<b>What are the reasons why you agree or strongly agree? (Tick up to three responses)</b>	
	Recipients should have full control over how the money is spent	14
	It is not necessary to closely monitor the environmental impacts	3
	It is not necessary to closely monitor the poverty reduction impacts	3
	Cash transfers should be provided to all members of a community equally	11
	The idea of a basic income encourages transformative change within society	17
	A basic income in areas of ecological importance will reduce pressures on the environment	16
	Other	8
	If you selected 'other', or there are any other reasons not listed above why you agree or strongly agree, please state them here	9
<b>Variations - All</b>	<b>Of all the variations of Cash Transfer Programmes mentioned in the survey, which do you think have the most potential for use in conservation?</b>	
	Conditional	20
	Unconditional	4
	Universal Basic Income	2
	Conservation Basic Income	15
	All of the above	7
	None of the above	7
	<b>Please state your reason for this choice</b>	44
<b>Previous experience</b>	<b>Have you or your organisation ever considered using cash transfers as part of their work?</b>	
	Never considered using cash transfers* <sup>1</sup>	10
	Considered using cash transfers but decided against it* <sup>1</sup>	4
	Have implemented cash transfers in the past* <sup>2</sup>	2

	Are currently implementing cash transfers* <sup>2</sup>	1
	Have not implemented cash transfers so far but are considering using them in the future* <sup>1</sup>	6
	Unsure	11
	Not applicable to my organisation	11
	<b>*<sup>1</sup>If possible, please state a reason for this</b>	13
	<b>*<sup>2</sup>If you would be open to being contacted about this cash transfer programme, please provide your email address in the box below (your email will not be used for any reason other than contacting you to discuss this cash transfer programme and will not be shared with any third party).</b>	3
<b>Concluding questions</b>	<b>Thank you for taking part in the survey. If you would like to receive a summary of the results of this research, please let us know by providing your email address below (your email will not be used for any reason other than sending you the results of the survey and will not be shared with any third party).</b>	32
	<b>If you have any other comments you would like to share with us, about cash giving or this survey, please write them below.</b>	14

## Appendix 2. Questionnaire as delivered online

Below are three screenshots of the questionnaire on the Microsoft Forms platform (Microsoft, 2021) used to deliver the questionnaire online, which also demonstrates the informed consent of participants.

The screenshot shows a Microsoft Forms questionnaire titled "Cash Giving in Conservation". The interface includes a header with the title and a "Share" button. The main content area is divided into "Questions" and "Responses" (52). The questionnaire text is as follows:

**Cash Giving in Conservation**

You are being invited to participate in a research study titled Cash Transfers in Conservation: An exploration of the views of conservation professionals. This study is being conducted by Callum Sheehan as part of his MSc dissertation at the University of Leeds, under the supervision of Prof. Julia Martin-Ortega.

This survey will take you approximately 20 minutes to complete. It will ask about your views on 'cash giving' generally, before providing examples of, and asking questions about, specific variations of Cash Transfer Programmes. Definitions of 'cash giving' and the specific examples are provided. This survey is aimed at any conservation professional, regardless of specific previous experience with cash transfer or cash giving programmes.

If you are unfamiliar with the concepts explored, please read the definitions carefully and answer the questions as best you can based on your experience within the field of conservation.

A list of references with further information on the topics discussed will be provided at the end of the survey.

Your participation in this study is entirely voluntary and you may halt the questionnaire at any time.

To the best of our ability your participation in this study will remain confidential, and only anonymised data will be published. We will minimise any risks by not taking any personal details from you and using online storage facilities that are password protected. Data will be securely destroyed 5 years after completion of the study. Further information is available via the University of Leeds Privacy Notice (link below). This research has been approved by the University of Leeds Research Ethics Committee as part of the SOEE5020 Research Project module. This ensures that this research project meets all the legal and ethical standards relevant to this type of research.

If at any time you wish to ask any questions about this survey or the research project you can contact Callum at [ee20cms@leeds.ac.uk](mailto:ee20cms@leeds.ac.uk)

The University of Leeds Privacy Notice can be found at: <https://dataprotection.leeds.ac.uk/wp-content/uploads/sites/48/2019/02/Research-Privacy-Notice.pdf>

SOEE 5020 Q&A | Watch '5020 Research Propo... | Cash Giving in Conservation (Edit... | +

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https://citation.cros... | Mendeley - Referen... | Conservation basic... | Environmental jobs... | Basic Income Trial -...

Forms | Cash Giving in Conservation - Saved | Callum Sheehan [...]

Preview | Theme | Share

Questions | Responses 52

... module. This ensures that this research project meets all the legal and ethical standards relevant to this type of research.

If at any time you wish to ask any questions about this survey or the research project you can contact Callum at [ee20cms@leeds.ac.uk](mailto:ee20cms@leeds.ac.uk)

The University of Leeds Privacy Notice can be found at: <https://dataprotection.leeds.ac.uk/wp-content/uploads/sites/48/2019/02/Research-Privacy-Notice.pdf>

To continue with the survey, please click below to confirm that you have understood and consent with the above information.

Section 1

1. \*

I confirm that I have understood and consent with the above information

Section 2

Cash Giving in Conservation (Edit) x +

forms.office.com/Pages/DesignPage.aspx?lang=en-US&origin=OfficeDotCom&route=Start#FormId=qO3qvR3lzkWGPllpTW3y3zE7n7lzpZCgO\_RQNvqzcpUOU8zWkRJTUpIS0MyMFVLN1ZTNTRRRjhCTi4u

Forms Cash Giving in Conservation - Saved ? Callum Sheehan [...]

Preview Theme Share

Questions Responses 52

Section 4

### Cash Giving

Cash giving, or cash transfer programmes, is the means through which a state body or non-governmental organisation gives cash (or electronic payments) directly to recipients. The transfers may be given in a variety of means, as one-off payments or provided in regular instalments for a number of years. Certain behavioural or spending requirements may sometimes be placed on the transfers. Cash transfer programmes may be used to pursue the goal of poverty reduction.

11. Before you were asked to take part in the survey, how aware were you of the concept of cash giving?

- I knew lots about it
- I was generally familiar with the term and what it means
- I had heard of it, but didn't know much about it
- I had never heard of it before

12. Do you agree with the following statement: 'cash giving is an effective poverty reduction tool'?

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree

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Cash Giving in Con...

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Evidence

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### Appendix 3. Results of the questionnaire

Below is a screenshot of the results of the questionnaire imported to Microsoft Excel (Microsoft, 2021) and formatted for use in the Python programming language. A screenshot of some of the codes used in Python is in Appendix 4.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	V	W	X	Y	Z	AA	AB	AC	AD	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BJ	BK	BL				
1	Start Time	Completion Time	Consent	Conservation Professionals	Sector	How long Sector	Seniority Level	Country Based	Countries Operate	Education	Education Other	Cash Giving Awareness	Cash Giving Poverty	CGPN Money Not Used Responsibly	CGPN Creates Dependencies	CGPN Cost Effective	CGPN Negative Social Economic	CGPN Recipients Know Own Needs	CGPN Colonial	CGPN Economic Social Health Educ	CGPN Decolonialising	CGPN No Transformative Change	RDCG Ptemptation goods	RDCG Pshort term	RDCG Pdependent	RDCG Pduced participation	RDCG Pnegative economic	RDCG Pinequality conflict	RDCG Pto expensive scale	RDCG Pcolonial	RDCG Ptransformative	RDCG Pother	Reasons Disagree CG Other	RACG P economic benefits	RACG P health benefits	RACG P educational benefits					
2	11	7/6/21 11:26:13	7/6/21 13:07:43	I confirm th Yes	NGO: En	1	2	UK	Kenya	Social sciences		2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
3	12	7/6/21 13:24:49	7/6/21 13:34:26	I confirm th Yes	Academ	1	2	Nether	Camb Other	Interdisci		1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4	13	7/6/21 14:01:42	7/6/21 14:01:54	I confirm th No																																					
5	14	7/6/21 13:56:06	7/6/21 14:04:05	I confirm th Yes	NGO: Ot	1	3	UK	Thaila	Biological Scien		2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6	15	7/6/21 21:06:40	7/6/21 21:11:57	I confirm th Yes	Private s	1	1	UK	Mada	Environment		2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7	16	7/7/21 9:44:47	7/7/21 9:50:50	I confirm th No																																					
8	17	7/7/21 14:19:19	7/7/21 14:51:53	I confirm th Yes	NGO: En	3	2	UK	Globa	Social sciences		1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	18	7/7/21 15:06:32	7/7/21 15:41:38	I confirm th Yes	Nationa	3	2	Brasil	Colon	Biological Scien		1	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10	19	7/7/21 19:42:03	7/7/21 19:56:38	I confirm th Yes	NGO: En	4	3	United	70 co	Economics		1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11	20	7/7/21 20:23:30	7/7/21 20:30:46	I confirm th Yes	Nationa	1	2	UK	UK	Biological Scien		4	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	21	7/7/21 21:15:50	7/7/21 21:54:09	I confirm th Yes	NGO: En	3	2	United	over 7	Economics		1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	22	7/8/21 7:59:43	7/8/21 8:38:04	I confirm th Yes	Academ	3	2	Pakista	Pakist	Environment		3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14	23	7/8/21 14:55:53	7/8/21 15:11:51	I confirm th Yes	NGO: En	2	2	US	70+	Economics		2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15	24	7/8/21 15:16:41	7/8/21 15:29:17	I confirm th Yes	NGO: En	1	1	UK	Based	Biological Scien		3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16	25	7/8/21 15:17:04	7/8/21 15:42:16	I confirm th Yes	NGO: En	1	1	UK	Globa	Environment		4	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17	26	7/8/21 16:29:41	7/8/21 16:34:01	I confirm th Yes	NGO: En	3	2	UK	Globa	Environment		3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	27	7/9/21 8:18:17	7/9/21 8:27:43	I confirm th Yes	NGO: En	3	3	UK	Globa	Social sciences		1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	28	7/9/21 10:14:46	7/9/21 10:40:41	I confirm th Yes	Academ	1	2	USA	Many	Environment		1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20	29	7/9/21 15:47:59	7/9/21 16:52:15	I confirm th Yes	NGO: En	2	2	USA	Multi	Economics		2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	30	7/9/21 20:37:01	7/9/21 20:45:45	I confirm th Yes	NGO: En	3	3	Peru	Peru,	Environment		2	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22	31	7/9/21 21:37:09	7/10/21 0:10:42	I confirm th Yes	NGO: En	2	2	USA	>70 c	Environment		2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

## Appendix 4. Quantitative data analysis using Python

Screenshots of the data analysis carried out using the Python programming language on JupyterLab (Project Jupyter, 2021).

**Cash Giving in Conservation Online Questionnaire Analysis**

This Jupyter Notebook follows the analysis undertaken on the cash giving in conservation online questionnaire conducted as part of the MSc Environment and Development dissertation project 'Does cash mean conservation? An exploration of the views of conservation professionals on how cash giving can be used for conservation'.

```
In [1]: #Import all the packages I need
import numpy as np
import pandas as pd
from scipy import stats
import matplotlib.pyplot as plt
import seaborn as sns
from pathlib import Path
from pandas.api.types import CategoricalDtype
```

```
In [2]: #Import the excel database
CashGiving_file = Path('CGDataForAnalysis.xlsx')
df_CG = pd.read_excel(CashGiving_file, index_col=0)
```

```
In [1]: #Check the database has imported properly
```

```
In [4]: display(df_CG.head())
```

ID	StartTime	CompletionTime	Consent	ConservationProfessionals	Sector	HowLongSector	SeniorityLevel	CountryBased	CountriesOperate
11	2021-07-06 11:26:13	2021-07-06 13:07:43	I confirm that I have understood and consent w...	Yes	NGO: Environmental/ Conservation focused	1.0	2.0	UK	Kenya, Tanzania, Zimbabwe, India, Afghanistan
12	2021-07-06 13:24:49	2021-07-06 13:34:26	I confirm that I have understood and consent w...	Yes	Academia	1.0	2.0	Netherlands	Cambodia, Brazil
	2021-07-	2021-07-06	I confirm that I have understood						



### create a for loop to convert data to categorical and print value counts

```
In [20]: def get_col_names(starting_col_name, end_col_name):
col_names = df.CG.columns
#starting_col_name = "RACGPeconomicbenefits"
#end_col_name = "RACGPother"
for i in range(len(col_names)):
    if col_names[i] == starting_col_name:
        starting_ind = i
    elif col_names[i] == end_col_name:
        end_ind = i + 1
col_names_range = col_names[starting_ind:end_ind]
print(col_names_range)
print(len(col_names_range))
return col_names_range
```

Cash giving for conservation reasons to agree/disagree

```
In [21]: RDCGC_col_names = get_col_names(starting_col_name="RDCGCnoteffectivepoverty", end_col_name="RDCGCother")
for i in RDCGC_col_names:
    df.CG[i] = df.CG[i].astype(cat3)
    print(df.CG[i].value_counts())

Index(['RDCGCnoteffectivepoverty', 'RDCGCenvironmental degradation',
'RDCGCnotenough evidence', 'RDCGCpovertyseparateconservation',
'RDCGCnomonitorpoverty', 'RDCGCnomonitorenvironment',
'RDCGCmoneyappropriate', 'RDCGCincreasedresourceuse',
'RDCGCimmigration', 'RDCGCnottransformativechange',
'RDCGCcurrentconservation', 'RDCGCother'],
dtype='object')

12
0 44
1 8
Name: RDCGCnoteffectivepoverty, dtype: int64
0 52
1 0
Name: RDCGCenvironmental degradation, dtype: int64
0 43
1 9
```



## Appendix 5. Pilot survey

A screenshot of the pilot survey conducted online using Microsoft Forms (Microsoft, 2021).

The screenshot shows a Microsoft Forms survey titled "Cash Giving in Conservation PILOT - Saved". The survey is displayed in a web browser window. The browser's address bar shows the URL: forms.office.com/Pages/DesignPage.aspx?auth\_pvr=OrgId&auth\_upn=ee20cms%40leeds.ac.uk&lang=en-US&origin=OfficeDotCom&route=Start#FormId=qO3qvR3IzkWGPllpTW3y3zE7n7IzpZCgO\_RQNvqzcpUMVFRWDJLNIIdPOFpJUTBJMTMxTDZWQ0IBMi4u. The browser's taskbar shows several open applications, including "Inbox - Leeds - Mail", "Cash Giving in Con...", "CS Cash Giving Dis...", "Whole draft offcuts...", and "5020 Handbook\_20...". The survey content is as follows:

**Questions** | Responses **10**

### Cash Giving in Conservation

This section regards if and how cash giving could be used as a tool for conservation, alongside the main aims of poverty reduction, by applying cash transfer programmes to communities specifically in areas considered to be of high conservational importance. This is distinct from other programmes such as Payments for Ecosystem Services and REDD+, as 'cash giving for conservation' does not involve the use of market-based instruments.

Here, we would like to hear your opinion on cash giving in conservation in general (later we will ask you about specific types of cash giving programmes).

18. Do you agree with the following statement: 'cash giving should be used in conservation as a means of environmental protection'? \*

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly Agree

19. What are the reasons why you disagree or strongly disagree? (Tick up to three responses) \*

- Cash giving is not an effective poverty reduction tool
- Reducing poverty leads to greater environmental degradation
- There is not enough evidence to show that cash giving leads to environmental protection
- Poverty reduction efforts should take place independently from conservation; the two aims

## **Appendix 6. Interview guide**

Below is the interview guide used to conduct the interviews with Cool Earth staff. As a semi-structured format was used, the order of questions was not followed exactly. A partial transcript of one interview (anonymised) is found in Appendix 7.

### **Cash Giving Interview Guide**

Semi-structured interview format, collaborative style

#### **Briefing**

This interview forms part of the dissertation portion of the MSc in Environment and Development at the University of Leeds. The project aims to assess opinions of conservation professionals on using cash transfer programmes in conservation, and whether these opinions are realised in practice.

Participation in this interview involves answering questions about your perceptions of using cash transfer programmes in conservation *generally*, and your experiences of cash transfer programmes *in practice*.

If you consent to it, this interview will be recorded and securely stored on the University of Leeds servers. It will be viewed by myself to aid in the analysis of the answers given.

Reporting of these interviews will be entirely anonymised, but due to Cool Earth being named within the dissertation, there is a chance that you will be identifiable if the dissertation is combined with other information. Results from this research may be published in academic or other types of publications, including quotations from this interview. If you are not happy with quotes from this interview being used in the final piece, please let me know now.

The interview should last no more than an hour. The interview can be stopped at any time if you so wish, and you do not have to answer any questions you do not want to.

By agreeing to take part in this interview, you are providing consent to the terms outlined in the Participant Information Sheet and Participant Consent Form previously signed by yourself.

Do you consent to this interview being recorded?

Do you have any questions before we begin?

Great, I'll start the recording now and get going if that's okay?

*Start the recording*

Thank you again for taking part in this interview, can you please confirm for me that you have now provided consent to the terms outlined in the Participant Information Sheet and Participant Consent Form and have provided consent to be recorded.

*Pay attention during the interview and try and relate the answers given back to the themes as the interview goes along*

## **Profiling questions:**

### **1. Can you tell me a bit about your professional background?**

- How long have you been involved in the sector?
- What were some of your previous roles (prior to joining Cool Earth)?
- What (if any) is your academic background?
- How would you define your specialisation?

### **2. Can you tell me about your current role at Cool Earth?**

- How long have you been working with Cool Earth?
- Which country are you based in? Which country do you work in?
- What sort of projects do you work on?

## **Cash giving questions: relating to cash giving as a general concept**

### **3. How would you define cash giving as a concept?**

- How would you define it? What are the defining characteristics?
- How do you feel about it?

### **4. What are the benefits/positives of cash giving generally?**

- How do they compare to “traditional” development/conservation practices?

### **5. What do you see as the risks or negatives of cash giving programmes?**

- How can these be counteracted?

### **6. What specific kinds of cash giving programmes do you know of?** *Any that they don't pick up on, I can then ask about – eg UBI and CBI below*

- What makes them the same/different from other types of programmes? What are their distinguishing features?

#### **6.1 - How familiar are you with the concept of Conditional cash transfer programmes?**

- How would you define them?
- What do you make of them?

#### **6.2 - How familiar are you with the concept of Unconditional cash transfer programmes?**

- How would you define them?
- What do you make of them?

### **6.3 Do you have a preference between Conditional Cash Transfer Programmes and Unconditional Cash Transfer Programmes? Why?**

- Which is most applicable to conservation? Why?
- What would you see as the risks/barriers of using each one? Particularly in relation to conservation
- What would be the situations where one applies over the other?

### **6.4 How familiar are you with the concept of a Universal Basic Income?**

- How would you define it? What are its defining features?
- How do you feel about the idea of implementing UBIs? Particularly in a low-income country context?
- Do you think a UBI would be good for conservation? Why/not?
- What would you consider to be the main risks and barriers?

### **6.5 How familiar are you with the concept of a Conservation Basic Income?**

- What do you think of the idea of using a conservation basic income?
- Would it work in supporting conservation aims? Why/not?
- What would you consider to be the main risks and barriers?

## **7. Which version of cash giving do you prefer? Which is most applicable to conservation? Why?**

### **8. What do you think about PES/REDD+ and other market-based instruments?**

- Should we continue to use them? Why/not?
- Do you have any concerns about them at all?
- What do you make of their ties to 'the market' or capitalism more generally?
- Some have argued that market-based instruments respond to a neoliberal agenda for conservation, would you agree?
- Is it a problem?

### **9. How do you feel PES/REDD+/MBIs and cash giving compare?**

- What are the main distinctions?

#### **9.1 - Do you prefer one or the other? Why/not?**

### **10. Some have argued that 'conservation' is in need of transformational/radical change, do you agree?**

**11. Do you think cash giving provides a form of transformational change within conservation/development? Or does more need to be done?**

**12. Any other points about cash giving generally that you wanted to bring up or discuss?**

- Have you worked on cash giving programmes before? If so:

**Cool Earth's Programme Questions:**

**13. Can you tell me a bit about Cool Earth's cash giving programmes?**

- Are you involved in them? In what capacity? How long have you been involved in them?
- How do they work in practice?

**14. What are the main goals behind the programmes? What do you hope to achieve in using them?**

**15. How would you describe Cool Earth's cash giving programmes in relation to other cash transfer programmes?**

- Is it most closely aligned to CTPs, UTPs, Labelled TPs, UBI, or CBI?

**16. Can you tell me about how they came about?**

- Were you involved in the decision?

**17. Was there much debate amongst the team/senior management?**

- Did people worry about anything? What did you feel were the potential risks of implementing them in this context?
- How did you feel about the decision? Were you concerned at all? Why/not? What were your concerns?
- How (if at all) did the concepts of capitalism/MBIs/other "traditional" conservation/development practices influence the decision making?
- What were the reasons for deciding to implement them?

**18. What are your experiences of cash giving in practice?**

- Have the programmes been generally successful/unsuccessful? In what way?
- Did the worries/concerns materialise?
  - Is increased resource use/social or economic impacts/inflation an issue?
- Is it difficult/easy to implement? In what way?
- How do you feel about them now?

- Do you think they are an effective tool that should be used more widely? In poverty reduction? In conservation?

**19. What have been the main challenges or barriers you have come across in implementing them?**

Was donor support/lack of evidence/difficulties in monitoring an issue?

**20. How does the monitoring of the programmes work? How much do you do? Why?**

**20.1 Are you aware of how the money has been spent by the community?**

**20.2 Can you tell me about the environmental impacts of the programmes?**

**20.3 Can you tell me about the economic impacts of the programmes?**

**20.4 Can you tell me about the social impacts of the programmes?**

**Do you have anything else that you would like to add about cash giving or cool earth's programmes or anything else?**

*Thank the participant for taking part*

*Stop the recording*

*Ask them how they found the interview.*

## **Appendix 7. Partial interview transcript**

Below is a partial transcript of an interview conducted with one of the staff members at Cool Earth involved in their cash giving programmes, as transcribed by the Microsoft Teams software (Microsoft, 2021). Any identifiable information has been removed for the sake of anonymity.

### **Transcript**

Speaker 1

It should be recording now, I think.

Speaker 1

There we go.

Speaker 1

Thank you again for taking part in this interview, can you please confirm for me that you have now provided consent to the terms outlined in the Participant Information Sheet and Participant Consent Form and have provided consent to be recorded.

Speaker 2

Yep, provided all the consent.

Speaker 1

And great stuff. So First things first, can you just tell me a bit about your professional background?

Speaker 2

Uhm yes so.

Speaker 2

How far back do you want to go?

[...]

So I guess firstly, how would you define cash giving as a concept? Do you think what are It's sort of defining characteristics?

Speaker 2

I I would define it as firstly cash giving should be unconditional, so cash being given very freely without any criteria having to be met in order to receive it.

Speaker 2

And I also think of cash giving um.

Speaker 2

Well I guess It's both restricted and unrestricted, but I guess the way that we've implemented it and thought about it is that spend is unrestricted.

Speaker 2

So I guess when I think of cash giving, I really think of it as unconditional, unrestricted in the same way that

Speaker 2

You know, if you give a bit of money to somebody who's on the street who's asking for money, you're just giving it to them. You don't really care what they're spending it on, it's that kind of very freely given cash.

Speaker 1

And and so.

Speaker 1

Yeah, I think we'll come back to that note actually. So what would you say are the sort of the the benefits and, well, the positives of cash giving generally?

Speaker 2

I think the positives to the recipients

Speaker 2

Uh, are the freedom of choice and to really know you know they know best what they need the cash for.

Speaker 2

And that comes into the kind of unrestricted part of it. And and I think I have a lot of support for that as it 'cause it's less paternalistic than in kind aid or restricted giving and it allows people.

Speaker 2

Yeah, real choice and that kind of empowerment that comes with choice, so I think that's the major positive and.

Speaker 2

And because of that it can be used to address so many things for the individual who's receiving it. You know, it could be anything from just like your next meal to the long term. Like I want to go to university.

Speaker 2

This money is going towards.

Speaker 2

That and total range of stuff.

Speaker 2

So, so it's a massive positives in terms of poverty reduction and human choice.

## Appendix 8. Screenshots of qualitative coding

Below are two screenshots of some of the codes created in the Nvivo software (QSR International, 2021) for analysing the interview data.

The screenshot displays the Nvivo software interface. The top menu bar includes File, Home, Import, Create, Explore, Share, and Node Tools. The main workspace is divided into three sections: a left-hand navigation pane, a central nodes list, and a right-hand text viewer.

**Left-hand navigation pane:** Contains sections for Quick Access (Files, Memos, Nodes), Data (Files, File Classifications, Externals), Codes (Nodes, Sentiment, Relationships, Relationship Types), Cases, Notes, Search, Maps, and Output.

**Central Nodes List:** A table showing a hierarchy of nodes. The columns are Name, Files, and References.

Name	Files	References
Cash giving in general		0
Cash giving overview		6
Conditionality (F)		3
Link between cash and conservation (F)		2
MBIs and Cash Giving (I)		5
Negatives		6
Comparison to other conservation-development (I)		1
Public perception (I)		1
Spending (I)		2
Positives		5
Agency (F)		3
Freedom (I)		3
managing their land (I)		4
Comparison to other developmentconservation (I)		4
Transformational change (I)		3
Types		0
CBI (I)		4
Conditional (I)		3
Preference for one kind of cash giving (F)		4
Conditional vs unconditional (F)		5
UBI (I)		4
Unconditional (I)		2
Cool Earths Programmes		0
Aims and basic overview		4
Barriers to implementation		3
Funding (I)		2
Logistical challenges (I)		2
monitoring difficulties (I)		1
Categorisation of Cool Earths programmes (I)		3
Learner (F)		5

**Right-hand Text Viewer:** Displays the content of a selected node, "Doesn't work on its own (I)". The text includes several paragraphs and speaker attributions:

That provides incentive for long term protection of whatever it is you're trying to protect.

Speaker 3

And that's where I'm still going going towards them. I guess I'm just sceptical of us as human beings, whatever community we are whether we're indigenous and living in the rainforest for.

Reference 2 - 1.62% Coverage

I think yeah, potentially it could, but as I said before, probably alongside other ways of empowering local people.

Speaker 3

So for example, in the case of rainforest conservation really helping on the tenure side, so that people able to push for tenure themselves. So is there a way of reducing poverty that gives more?

Speaker 3

I think the two could work well together.

Speaker 3

Yeah, obviously there's always need in government. Changing government to improve people's rights, living in poverty and rainforest. Yeah whole swathes of.

Speaker 3

things that can be done alongside changes in attitude. The main things are the marginalisation and the access to.

Speaker 3

Services everybody else has.

Reference 3 - 0.24% Coverage

yeah, that's why.

Speaker 3

I worry about not having the parallel.

Speaker 3

Activities alongside it

The bottom status bar shows 48 items, 4 files, and 10 references. The taskbar at the very bottom shows the Windows taskbar with the search bar and several open applications.

Dissertation cash giving interview analysis.nvp - NVivo 12 Plus

---

**File** Home Import Create Explore Share **Node Tools**

Node

Memo Link | See Also Link | Content | Zoom | Quick Coding | Annotations | See Also Links | Relationships | Coding Stripes | Highlight | Code | Uncode from This Node | Spread Coding | Auto Code | Code In Vivo | New Annotation Annotations | Word Cloud | Chart | Compare With | Explore Diagram | Query This Node | Find

---

**Quick Access**

- Files
- Memos
- Nodes

**Data**

- Files
- File Classifications
- Externals

**Codes**

- Nodes
- Sentiment
- Relationships
- Relationship Types

**Cases**

**Notes**

**Search**

**Maps**

**Output**

**Nodes** Search Project

Name	Files	References
monitoring difficulties (I)		1
Categorisation of Cool Earths programmes (I)		3
Learnings (F)		16
Context specific (I)		4
Doesn't work on its own (I)		10
General comments (I)		2
Monitoring and Impacts		10
environmental impacts (I)		7
Social impacts (F)		9
Work (I)		2
Risks		4
Changing behaviour (F)		4
Resource use (I)		8
Social structures (I)		5
Dependency (I)		10
Inflation (I)		1
Market access (I)		1
Programme design (I)		2
Sentiment (F)		10
Feelings about CG (I)		7
Internal Debates (I)		5

Drag selection here to code to a new node

Doesn't work on its own (I) X

That provides incentive for long term protection of whatever it is you're trying to protect.

Speaker 3

And that's where I'm still going going towards them. I guess I'm just sceptical of us as human beings, whatever community we are weather were indigenous and living in the rainforest for.

**Reference 2 - 1.62% Coverage**

I think yeah, potentially it could, but as I said before, probably alongside other ways of empowering local people.

Speaker 3

So for example, in the case of rainforest conservation really helping on the tenure side, so that people able to to push for tenure themselves. So is there a way of reducing poverty that gives more?

Speaker 3

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Speaker 3

Yeah, obviously there's always need in government. Changing government to improve people's rights, living in poverty and rainforest. Yeah whole swathes of.

Speaker 3

things that can be done alongside changes in attitude. The main things are the marginalisation and the access to.

Speaker 3

Services everybody else has.

**Reference 3 - 0.24% Coverage**

yeah, that's why.

Speaker 3

I worry about not having the parallel.

Speaker 3

Activities alongside it

---

CS 48 Items Files: 4 References: 10 Unfiltered

Code At Freedom (I) (Nodes\Cash giving in general\Positives\Agency (F))

---

Type here to search

Inbox - Outlook - ...
5020 Handbook\_20...
Document1 - Word
Dissertation cash gi...

10:11  
20/08/2021



## INTERNAL RESEARCH ETHICS APPLICATION

### Part A: Do I need a full ethical review?

Ethical review is required for all research involving human participants, including research undertaken by students within a taught student module. Further details of the University of Leeds ethical review requirements are provided in the *Research Ethics Policy* available at: <http://ris.leeds.ac.uk/ResearchEthicsPolicies> and at [www.leeds.ac.uk/ethics](http://www.leeds.ac.uk/ethics).

1. Will your dissertation involve any of the following?	Yes	No
New data collected by administering questionnaires/interviews for quantitative analysis	✓	
New data collected by qualitative methods	✓	
New data collected from observing individuals or populations		✓
Working with aggregated or population data		✓
Using already published data or data in the public domain		✓
Any other research methodology, please specify:		✓

2. Will any of the participants be from any of the following groups? (Tick as appropriate)	Yes	No
Children under 16		✓
Adults with learning disabilities		✓
Adults with other forms of mental incapacity or mental illness		✓
Adults in emergency situations		✓
Prisoners or young offenders		✓
Those who could be considered to have a particularly dependent relationship with the investigator, e.g. members of staff, students		✓

Other vulnerable groups, please specify:		✓
--	--	---

<b>3. Will the project/ dissertation/ fieldwork involve any of the following:</b> (You may select more than one)	<b>Yes</b>	<b>No</b>
The use of, or potential access to, NHS premises or facilities		✓
NHS staff recruited as potential research participants by virtue of their professional role		✓

<b>4. Will the project/ dissertation/ fieldwork involve any of the following:</b> (You may select more than one)	<b>Yes</b>	<b>No</b>
Research participants identified from, or because of their past or present use of services (adult and children's healthcare within the NHS and adult social care), for which the UK health departments are responsible (including services provided under contract with the private or voluntary sectors)		✓
Collection or use of information from any users of these services (adult and children's healthcare within the NHS and adult social care)		✓
Research participants identified because of their status as relatives or carers of past or present users of these services (adult and children's healthcare within the NHS and adult social care)		✓
Adults who lack capacity to consent for themselves		✓
Health-related research involving prisoners		✓
A social care project funded by the Department of Health		✓

**If you answered 'yes' to ANY of the above questions in 2 or 3 then you will need to apply for full ethical review, a faculty committee level process.** This can take up to 6 weeks, so it is important that you **contact your supervisor and the module team (soee5020@leeds.ac.uk)** for guidance with this application as soon as possible. Please now complete and sign the final page of this document. The application form for full ethical review and further information about the process are available at <http://ris.leeds.ac.uk/UoLEthicsapplication>.

**If you answered 'yes' to ANY of the questions in 4 then you will need to apply for Health Research Authority approval:** <http://ris.leeds.ac.uk/HRAapproval>.

**If you answered 'no' to ALL of the questions in sections 2, 3 and 4 please continue to part B.**

## INTERNAL RESEARCH ETHICS APPLICATION

### Part B: What do I need to consider during my dissertation?

5. Will the research touch on sensitive topics or raise other challenges?	Yes	No
Will the study require the cooperation of a gatekeeper for initial access to groups or individuals who are taking part in the study (eg students at school, members of self-help groups, residents of a nursing home)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will participants be taking part in the research without their knowledge and consent (eg covert observation of people in non-public places)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the study involve discussion of sensitive topics (eg sexual activity, drug use)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Could the study induce psychological stress or anxiety or cause harm or have negative consequences beyond the risks encountered in normal life?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there any potential conflicts of interest?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does any relationship exist between the researcher(s) and the participant(s), other than that required by the activities associated with the project (e.g., fellow students, staff, etc)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the research involve any risks to the researchers themselves, or individuals not directly involved in the research?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

*If you have answered 'yes' to any of the questions in (5), please describe the ethical issues raised and your plans to resolve them on a separate page. Agree this with your supervisor and submit it with this form. Again you MAY be referred for light touch or full ethical review.*

6. Personal safety	Yes	No
Where will any fieldwork/ interviews/ focus groups take place?		
At the university or other public place (please specify below).	<input type="checkbox"/>	<input checked="" type="checkbox"/>
At my home address*	<input checked="" type="checkbox"/>	<input type="checkbox"/>
At the research subject's home address	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Some other location (please specify below).	<input type="checkbox"/>	<input checked="" type="checkbox"/>

\*All interviews will be conducted online

If you conduct fieldwork anywhere except at the university or other public place you need to review security issues with your supervisor and have them confirmed by the Dissertation Co-ordinator who may refer you for light touch or full ethical review. A risk assessment may also be required: <http://ris.leeds.ac.uk/HealthAndSafetyAdvice>. Write a brief statement indicating any security/personal safety issues arising for you and/or for your participants, explaining how these will be managed. Agree this with your supervisor and submit it with this form.

Please note that conducting fieldwork at a research participant's home address will require strong justification and is generally not encouraged.

<b>7. Anonymity</b>	<b>Yes</b>	<b>No</b>
Is there a possibility of individuals being identified or re-identified from the dissertation, either directly or by combining the information in it with other information?	✓	

If you have answered 'yes' to question 7, please discuss this further with your supervisor. You need to provide a strong justification for this decision on a separate sheet. This application will need to be reviewed by the dissertation co-ordinator and may require a full ethical review.

### **8. Research data management**

Will the research involve any of the following activities at any stage (including identification of potential research participants)?		<b>Yes</b>	<b>No</b>
<b>a.</b> Examination of personal records by those who would not normally have access			✓
<b>b.</b> Sharing data with other organisations			✓
<b>c.</b> Use of personal addresses, postcodes, faxes, e-mails or telephone numbers			✓
<b>d.</b> Publication of direct quotations from respondents	✓		
<b>e.</b> Publication of data that might allow individuals to be identified	✓		
<b>f.</b> Use of audio/ visual recording devices	✓		
<b>g.</b> Storage of personal data on any of the following:			
FLASH memory or other portable storage devices			✓
Home or other personal computers			✓
Private company computers			✓
Laptop computers			✓
Explain what will happen to the data you collect once you have completed the module:			
The research data will be stored securely on Microsoft One Drive for 5 years, allowing the data to remain available for 3 years after publication if the research is of high enough quality to be published.			

If you have answered 'yes' to any of the questions under 8, you must ensure that you follow the University of Leeds [Information Protection Policy](#) and the [Research Data Management Policy](#).

## Dissertation Research Ethical Approval: Declaration

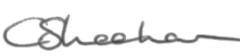
<b>For students</b>	<i>Please tick as appropriate</i>
<b>Option 1:</b> I <b>will NOT</b> conduct fieldwork with (data on) human participants for my dissertation.	✓
<b>Option 2:</b> I <b>will</b> conduct fieldwork* with (data on) human participants for my dissertation.	

For **options 1 and 2** - I confirm that:

- The research ethics form is accurate to the best of my knowledge.
- I have consulted the University of Leeds Research Ethics Policy available at <http://ris.leeds.ac.uk/ResearchEthicsPolicies>.
- I understand that ethical approval will only apply to the project I have outlined in this application and that I will need to re-apply, should my plans change substantially.

For **option 2** only:

- I am aware of the University of Leeds protocols for ethical research, in particular in respect to protocols on **informed consent, verbal consent, reimbursement for participants and low risk observation**. If any are applicable to me, signing this form confirms that I will carry out my work in accordance with them. (<http://ris.leeds.ac.uk/PlanningResearch>)

Student's signature:  .....

Date: 26/05/2021.....

## **Appendix 10 – Justification of decisions surrounding participant anonymity**

The aim of the research project is to assess the use of cash transfer programmes in conservation, examining opinions of conservation professionals and using an NGO programme as a case study. This will be done firstly via an online questionnaire given to a variety of professionals in the field of conservation. Secondly, interviews will take place with staff members of Cool Earth, the only NGO of which I am aware that is currently implementing cash transfer programmes within a conservation scope.

All the data presented in the final dissertation will be anonymous. Descriptive statistics will be presented from the questionnaire with no likelihood of participants being able to be identified.

When presenting the interview data, all participants will be anonymised with pseudonyms used, as necessary. However, since all the interview participants will be from the NGO Cool Earth, there is a chance that participants may be identified if the dissertation is combined with other information.

This project has been co-designed in partnership with Cool Earth and a research agreement has been signed with them. They have agreed for the interview data to be used and are willing for the work to be carried out and for their name to be used in the dissertation. Because they are a rare example of an NGO implementing cash transfers for conservation, and as such their programmes will be discussed in detail in the dissertation, I feel it is pertinent for the NGO to be named in the text. All the potential interview participants will be given all the relevant information to ensure that fully informed consent is given.

## **Appendix 11. Interview participant information and consent forms**

Below is the interview participant information sheet and consent forms signed by each interview participant and the researcher before they took part in the interviews.

### **Research Interviews: Participant Information Sheet**

School of Earth and Environment  
University of Leeds  
Woodhouse Lane  
Leeds  
LS2 9JT



**UNIVERSITY OF LEEDS**

26/05/2021

Dear Participant,

Thank you for agreeing to talk to us about your work. This letter is to give you some more information about the research we are doing, and a contact point if you would like to talk further.

#### **About this research**

This research is conducted for the dissertation portion of the MSc in Environment and Development at the University of Leeds. The project aims to assess opinions of conservation professionals on using cash transfer programmes in conservation, and whether these opinions are realised in practice.

Participation involves answering interview questions about your perceptions of using cash transfer programmes in conservation generally, and your experiences of cash transfer programmes in practice.

Your participation allows us to understand how cash transfer programmes are perceived by professionals involved in their implementation, and if perceived risks and opportunities of implementing cash transfer programmes for conservation are supported in practice. Participating in this project carries minimal foreseeable risks. Interviews will last no more than an hour and you should only be required to attend one interview.

We will not directly identify you in writing up/discussing our research, but we will be using the name of your organisation ('Cool Earth') and given your role you may be identifiable in our reporting of the research. The research will be used in an assignment that may be seen by teaching staff at the university, and external examiners as part of our quality assurance processes. If deemed of suitable quality, a version of the research may later be published in an academic journal.

The data collected will be securely stored on University approved servers with password protection.

#### **Contact point**

If you have any questions or comments about the research, please do not hesitate to contact Callum Sheehan at ee20cms@leeds.ac.uk. It is up to you whether you take part or not. Please remember that if you agree to take part but change your mind later, you can withdraw from the project up until 6<sup>th</sup> August.

Thanks very much for your time in taking part in this discussion.

Yours Sincerely,  
Callum Sheehan

## Research Interviews: Participant Consent Form

School of Earth and Environment



UNIVERSITY OF LEEDS

### Consent to take part in Cash Transfers in Conservation: Perceptions and risks outlined by conservation professionals

	Add your initials next to the statements you agree with
I confirm that I have read and understand the information sheet dated 26/05/2021 explaining the above research project and I have had the opportunity to ask questions about the project.	
I agree for the data collected from me to be stored securely on Microsoft OneDrive.	
I understand that relevant sections of the data collected during the study, may be looked at by individuals from the University of Leeds or from regulatory authorities where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.	
I agree to take part in the above research project and will inform the lead researcher should my contact details change.	

Name of participant	
Participant's signature	
Date	
Name of lead researcher	Callum Sheehan
Signature	
Date	

<i>Project title</i>	<i>Document type</i>	<i>Version #</i>	<i>Date</i>
Cash Transfers in Conservation: Perceptions and risks outlined by conservation professionals	Consent form	1	26/05/2021