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October 2014

Sustainability Research Institute

Paper No. 71

Centre for Climate Change Economics and Policy Working Paper No. 191

SRI PAPERS

SRI Papers (Online) ISSN 1753-1330

First published in 2014 by the Sustainability Research Institute (SRI)
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What lays at stake for standards organisations pursuing fairness in the carbon market? Lessons from literature applied to practice in the carbon market

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Abstract

In the context of an evolving voluntary carbon standards market, standards organisations are collaborating and competing in order to come up with new tools, rules and marketing strategies which could facilitate the certification of more pro-smallholder and pro-community carbon projects. One particular package is the concept of “fair carbon” projects, and “fairly traded” carbon credits. While “fairness” is a fuzzy notion, subject to multiple and competing interpretations, this paper unpacks the notion using the same framing as the proponents of the “fair carbon” package, where fairness is operationalised in terms of access for smallholders and communities, and benefits accrued to them.

Using this framing, seven major challenges associated with the achievement of desired “fair” outcomes are identified, based on a review of literature. The complexities and costs of 1) carbon accounting, and 2) aggregation of multiple participants, pose challenges for access. Finding ways to 3) adapt standards to diverse institutional contexts 4) deal with the concept of “carbon rights”, are challenges for both access and benefits. Meanwhile, 5) the marginal benefits to smallholders and communities, and 6) their weak positioning vis à vis the project developer, both threaten abilities to benefit meaningfully from involvement in carbon projects. The final overarching challenge, of high transaction costs in the face of low market prices and falling demand, affects all the other challenges.

This paper takes a cyclical approach which iterates between theory and practice, using evidence from literature and from carbon standards markets as connectors. We tackle a theoretical conundrum with a practice-based approach to “fairness”, then apply this lens to the analysis of literature on carbon projects. This allows us to link the practice-based approach in the carbon standards market with lessons from literature and highlight gaps and opportunities. The results of the literature review are then applied to a case of a collaborative standards initiative in order to determine which issues are priorities to be addressed and what needs to be better understood. Arising knowledge gaps are rendered into a three-pronged research agenda which involves conducting a critical examination of standards-making processes; examining fairness issues across the entire carbon value chain; and exploring the impact of standards interventions on access and benefits outcomes within carbon projects. Overall, we posit that defining “fairness” more explicitly in practice, can contribute in turn to understanding “fairness” through theory.

Submission date 19-05-2014; Publication date 13-10-2014

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1. INTRODUCTION

Smallholders, low income households and communities in the global south who are reliant on small scale agriculture are already adversely affected by climate change, the effects of which are expected to increase dramatically by 2050 (IPCC, 2014). The majority of developing countries have significantly lower carbon footprints than the global average and have reaped little profit from the industrialisation and economic growth responsible for the exponential rise in greenhouse gas (GHG) emissions from other nations. Acknowledging this inequity, the Kyoto Protocol encourages developed countries to channel finances into supporting developing countries in climate change adaptation and mitigation. While International committed adaptation finance has been more piecemeal mitigation finance is being delivered and disbursed, by means of market mechanisms (Schultz, 2012). These mobilise private sector capital and enable businesses and governments to work towards their own emissions reductions targets, in particular through carbon trading. Carbon trading has enabled the transformation of GHG sequestration and emission reductions into an intangible commodity referred to as tCO_2e (tonnes of carbon dioxide or equivalent), which is traded on both regulatory and voluntary markets.

Within carbon markets and climate policy, avoidance of emissions in one place is assumed to compensate for continued emissions elsewhere, the effect supposedly the same regardless of the location of the emissions. In developing countries, costs are perceived to be lower so relatively more carbon can be sequestered with the same amount of money (Moosa et al., 2012). Financing mitigation in developing countries is often described as picking the 'low hanging carbon fruit'. Carbon markets can also serve as an opportunity for financing low carbon development pathways as an alternative to more carbon intensive development which might otherwise have taken place without climate finance. Contrary viewpoints underscore the danger of using market-based instruments designed for addressing environmental problems, as levers for social justice and poverty alleviation (Karsenty et al., 2014). Developed countries can benefit from market opportunities to transfer technologies and knowledge to the global south while avoiding the bigger societal and industrial changes required to reduce their own emissions (Jordan, 2010). While the offsets generated usually belong to the project developer, the emission reduction effectively reduces the baseline of the project host country, making it harder for them to reduce their own emissions when this eventually becomes mandatory (Lohmann, 2006). When sources of overseas development aid are dwindling, critics argue that developing countries are increasingly obliged to accept these projects (Paul, 2012), which distract from providing real finance for adaptation (Stabinsky, 2011).

As carbon projects proliferate in the global south, members of some NGO, activist and researcher communities have been moving towards a middle ground, where carbon trading is acknowledged for the influence it has within climate policy and the global economy, for the development opportunities it may offer, as well as the risk of adverse environmental and social outcomes. They recognise that concerns may be more constructively addressed by creating project set-ups and certification systems which promote positive outcomes and safeguard against negative outcomes. Consequently, standards organisations and NGOs have begun to advance notions of "fair" and pro-poor" carbon projects and "fairly traded" carbon credits and offsets are already being marketed using such terms. However

“fairness” and “equity” and are widely interpreted and lack clear definitions, both within carbon projects and payments for ecosystem services (McDermott et al., 2013) and within the Fairtrade movement itself (Tallontire and Nelson, 2013).

Various theoretical frameworks for exploring equity and justice have been applied to carbon projects and forest certification in Asia, Africa and Latin America (Mathur et al., 2014, Pinto and McDermott, 2013). Others have begun by exploring definitions of justice in practice, and used these to build on environmental justice theories (Schlosberg, 2004). The approach we take lies somewhere between the two: rather than starting with a framework, we instead work with a broad understanding of “fairness” issues in practice, explore the arising issues within carbon projects documented by academic literature. We then lay down a research agenda for a more systematic exploration of how “fairness” is being used in policy and practice and its implications within carbon projects. This involves drawing on theoretical equity frameworks both as a reference point for assessing what does and does not form part of “fairness” in practice, and as a canvas for building theory informed by practice.

We begin by identifying the principal standards operating in the voluntary carbon market which are relevant to projects involving smallholders and communities. This is based on an empirical review of current practices in the carbon standards market, supported by literature. We describe the evolution of the market, highlight processes of collaboration and competition and identify remaining gaps. We then select one particular collaborative scheme where work is currently being done to develop the concept of “fair carbon”, in order to base our understanding within practice. This enables us to operationalise “fair carbon” according to what those involved in shaping the certification framework identify as the primary issues, namely access to the carbon market for smallholders and communities, and opportunities for them to benefit from any involvement. These issues are then unpacked by examining their salience and determining the challenges associated with addressing them. We do this through a review of literature on the challenges and opportunities for carbon projects involving smallholders in the global south. By forging links between the challenges, opportunities and some potential interventions by standards organisations, we identify remaining gaps and important considerations. This paves the way for introducing a forward-looking research agenda that could enhance understanding of the ethical debate at stake, shed light on the governance processes through which “fairness” is being standardised, and examine its implications within carbon projects where standards are implemented.

2. REVIEW OF PRACTICES IN THE VOLUNTARY CARBON STANDARDS MARKET

The rapid growth of the voluntary carbon market (VCM) has triggered the proliferation of voluntary carbon standards, as transparent governance, rigour and credibility have become more pressing concerns (Bumpus et al., 2010, Lovell, 2010). A diversity of standards organisations have stepped in to govern transactions, particularly since 2005. In 2008, 96% of the offsets traded on the VCM were certified (Hamilton et al., 2009). Existing schemes are extending their scope by developing new methodologies while others are merging or falling by the wayside in an arena of competition, fast-changing market dynamics and regulatory uncertainty. Nevertheless, no single standard is currently offering a robust and scalable carbon certification system which both targets and aims to benefit smallholders and communities in the global south, and which covers the whole range of technologies and

measures to reduce emissions or sequester carbon which are potentially relevant to them[1]. In this paper we consider projects involving energy efficiency, small-scale renewable energy and household appliances such as cookstoves, biogas digesters and water filters; tree-based projects; and projects involving agriculture as potentially relevant. For a carbon certification system to be successful, it would also need to be efficiently administrated, affordable, and popular on the market. To address this gap, some standards organisations are combining forces to enhance the range of their expertise with the aim of providing robust, versatile and accessible certification systems, using tools such as dual certification, optional add-on modules and streamlined documentation. Table 1 introduces the main schemes that are potentially applicable to projects involving smallholders and communities.

Table 1: Introduction to the principal carbon standards and initiatives paying attention to smallholders, communities and/ or projects co-benefits

Standard or Module	Origin	Uptake
Carbon Accounting Standards (certifying emissions reductions)		
Gold Standard	Developed under the leadership of WWF and launched for VCM projects in 2006. Founded with the conviction that the level of quality of offsets needed to be raised, in terms of social and environmental benefits. Managed by the Gold Standard Foundation and endorsed by more than 85 NGO supporters.	Particularly popular for energy projects so far, but current work on the Land Use and Forests framework (being developed in partnership with Fairtrade International and Forest Stewardship Council) will allow the standard to be used by a wider range of projects.
Plan Vivo	Initiated in 1994. The standard is developed and overseen by the Plan Vivo Foundation (Scottish charity). Designed as a framework for "supporting communities to manage their natural resources more sustainably, with a view to generating climate, livelihood and ecosystem benefits" (Plan Vivo, 2014)	Certification thus far limited to a few small-scale land-based projects.
The Rainforest Standard	Designed by Colombia University and five Latin American countries specifically for REDD projects and launched at Rio+20 in 2012. Integrates carbon accounting, socio-cultural-economic impact, and biodiversity outcomes.	Standard was released in March 2014
Verified Carbon Standard (VCS)	Developed by private sector carbon market and launched in 2006. VCS aims to allow more flexibility and innovation through less stringent standards, methodological development and lower cost certification of a wider range of project types (Kollmuss et al., 2008). VCS does not require projects to have additional environmental or social benefits but these aspects become mandatory	Has consistently certified the largest number of projects since its initiation. Often combined with CCB Standard, or Social Carbon within Latin America if project developers would like to draw attention to co-benefits.

[1] Although Gold Standard's work on suppressed demand and the development of smallholder guidelines is being done with the aim of targeting smallholders, poor communities and LDCs. Also, their expansion into land use will mean that this standard will eventually dispose the tools for certifying the whole range of technologies and measures relevant to smallholders and communities in the global south.

	when it is combined with a co-benefit standard.	
Co-benefits Standards (combined with a carbon accounting standard to generate carbon credits)		
CCB Standard	Founded in 2005 by the Climate, Community and Biodiversity Alliance, which is composed of five international NGOs including Rainforest Alliance. Aims to foster best practice and multiple benefits into project design and practice and requires explicit social and environmental benefits. The third edition was developed with the aim to facilitate access to smallholder and community-led projects.	Commonly combined with VCS. Joint VCS-CCBS certification more than doubled in 2012 after the release of a joint VCS-CCBS certification template.
Social Carbon	Developed in the late 1990s by the Brazilian Ecologica Institute. Aims to monitor a project's co-benefits and providing incentives for continuous improvements (Sterk, 2009).	Most popular for Brazilian projects, and also used in Turkey, Indonesia and China. Commonly combined with VCS.
Optional add-on modules and dual certification schemes		
Fairtrade add-on standard	Fairtrade International and the Gold Standard Foundation announced their collaboration at COP 18 and have been working since then on an optional add-on module for "fair carbon credits", to be combined with Gold Standard certification. Through their collaboration they hope to make standards more accessible to smallholders, enhance benefits to communities and provide upfront financing mechanisms (Gold Standard Foundation, 2014a).	Due to be launched in 2014-2015
FSC dual certification	Forest Stewardship Council and the Gold Standard Foundation have been collaborating since 2012 and are working on standards development with the aim of aligning processes, terminology and content, to enable a cost-efficient option for dual certification of forestry projects (Gold Standard Foundation, 2014b).	Gold Standard forestry modules relevant for dual certification were launched in late 2013.
SAN Climate Module	Module developed by members of the Sustainable Agriculture Network and released in February 2011. Aims to provide verifiable criteria on 'climate-friendly' (adaptation and mitigation) practices, to be applied and monitored by farms already certified by Rainforest Alliance (Sustainable Agriculture Network, 2011).	Developed and being rolled out in a number of countries.
W+ Standard	Founded in early 2013 by WOCAN (Women Organizing for Change in Agriculture and Natural Resource Management). Aims to integrate and measure women's empowerment and participation in carbon mitigation projects, (Peters-Stanley and Yin, 2013) and will be used in combination with carbon accounting standards.	Still under development.

2.1. Collaboration and competition on the VCM

The tendency towards collaboration and convergence, but also competition between standards organisations, is a common trait in product certification (Riisgaard, 2009) and is observable in table 1. For example, VCS and Gold Standard were both launched the same year in the voluntary market and are known competitors (Smith and Fischlein, 2010). Parallel moves by Fairtrade International and Rainforest Alliance into the carbon market is probably no coincidence, given their competition within the field of sustainability certification. Collaboration and convergence can also be understood as a strategy in light of criticism that the ever-widening array of approaches and methodologies used by different standards organisations to make and verify claims about emissions reductions and climate-friendly practices is a threat to the robustness and credibility of carbon markets. This is because of inconsistencies and incoherency between them (TSPN, 2010). This poses a threat to market efficiency, especially when projects require multiple certifications, and makes it difficult for project developers and buyers of offsets to choose which standard to use (Merger and Pistorius, 2011).

Table 1 also shows that the various schemes have been created by different types of actors with different goals in mind. Some schemes channel the interests of carbon market actors, allowing them to augment their own benefits and control within the system. Others are attempting, through collaboration, to open up discursive and material spaces where the more vulnerable stakeholders in the carbon trading system can play a more active role in future carbon pathways and enhance their shares of the benefits. One example is the collaboration between Fairtrade International and the Gold Standard Foundation, explored below.

3. A "STANDARDS" UNDERSTANDING OF "FAIR CARBON"

The partnership between Fairtrade and Gold Standard announced in late 2012 has effectively brought the concepts of "Fairtrade" and carbon trading to the same table. Although "Fairtrade carbon" is not yet clearly defined, this section explores which aspects of "fairness" these organisations are tackling as a result of their collaboration[i]. Firstly, the two organisations claim that their partnership will enable access to the carbon market for 'thousands more smallholders in developing countries' (Gold Standard Foundation, 2012). 'Communities' and 'farming communities' are also referred to as intended target groups to benefit from their collaborative work (Gold Standard Foundation, 2014a). A number of mechanisms are cited which would help to address access issues: streamlined and simplified processes and reduced transaction costs (Gold Standard Foundation, 2012); guidelines for application of methodologies, making them easier and more relevant to smallholders and community projects; tools and capacity-building training sessions for smallholders, making it easier for them to participate in carbon markets; and upfront finance mechanisms. Secondly, through their collaboration, Fairtrade and Gold Standard seek to ensure benefits to smallholders from the carbon market. This is framed in terms of finance for those who are least responsible for climate change to enable them to both adapt and mitigate climate change, and to drive development that is described by a Fairtrade Director as being "fair to both people and planet" (Gold Standard Foundation, 2012). An example of increased benefit which they suggest could form part of a future Fairtrade 'label' for Gold

Standard credits might be 'defined, direct and financial benefits to communities' (Gold Standard Foundation, 2014a). In the following sections, we review literature on carbon projects in order to examine the saliency of the issues of 'access' and 'benefits' that Gold Standard and Fairtrade hope to address. We identify potential challenges and opportunities that they may encounter and then view these alongside the interventions which were initially proposed by Gold Standard and Fairtrade in order to highlight persistent gaps and areas of consideration[ii].

4. APPROACH TO THE LITERATURE REVIEW

Based on an analysis of the projects listed in the registries and databases of the principal carbon standards organisations listed in table 1[iii], we identified firstly that there are significantly fewer land-based projects compared to renewable energy and energy efficiency projects currently being implemented. Secondly, compared to Asia and Latin America, sub-Saharan Africa still lags behind in terms of the number of carbon projects being implemented. The country of exception in sub-Saharan Africa is Kenya, which as of June 2013, was the fourth largest supplier location in the world for credits transacted on the VCM, and was responsible for transacting half of Africa's total volume of 8 $MtCO_2e$ (Peters-Stanley and Yin, 2013). Therefore, as we reviewed academic literature, we focussed on carbon projects undertaken in the global south in general but with a particular focus on sub-Saharan Africa and on land-based projects. We looked for databases of carbon projects; empirical evidence of carbon project implementation and implementation of particular carbon standards; reviews of opportunities and challenges for projects involving smallholders and communities; and debates around the inclusion of land-based projects and soil carbon in particular. We also undertook more specific searches for literature on carbon projects, crossed with themes such as equity; value chains; institutions; trade-offs; knowledge, expertise and roles for local communities; and costs and benefits.

We also reviewed grey literature to look for arguments for and against carbon finance for smallholders and communities; and for examples of a) carbon projects involving smallholders and communities; b) carbon projects led by supply chains; and c) initiatives to promote either of these types of project. This was done by reviewing websites of standards organisations, businesses and NGOs, through personal communications with standards organisations and project developers, and by attending workshops and events on carbon finance and development both in the U.K. and during the Conference of Parties in Warsaw. Our findings were generated by determining which of the challenges were mentioned with respect to multiple projects, and which illuminated the concepts of "access" and "benefits".

5. RESULTS OF THE LITERATURE REVIEW

Seven common challenges emerged from the review, six of which relate to the themes of 'access' or 'benefits' for smallholders and communities. Challenges that relate specifically to access are 1) the complexities and costs of carbon accounting, and 2) aggregation of multiple participants. Challenges with relevance to issues of access and of benefits are 3) the need to make standards workable in diverse institutional contexts, and 4) the necessity of grappling with the ambiguous concept of carbon rights. In relation to benefits, the challenges are that 5) benefits available to smallholders and communities are often marginal, and that 6) their positioning in project design and implementation is weak. The

final challenge of high transaction costs in the face of low market prices and falling demand forms the context within which all the other challenges need to be resolved (see figure 1). These challenges are outlined below, and each challenge is followed by an associated opportunity (detailed in Italics) that could be addressed through appropriate standard development.

Figure 1

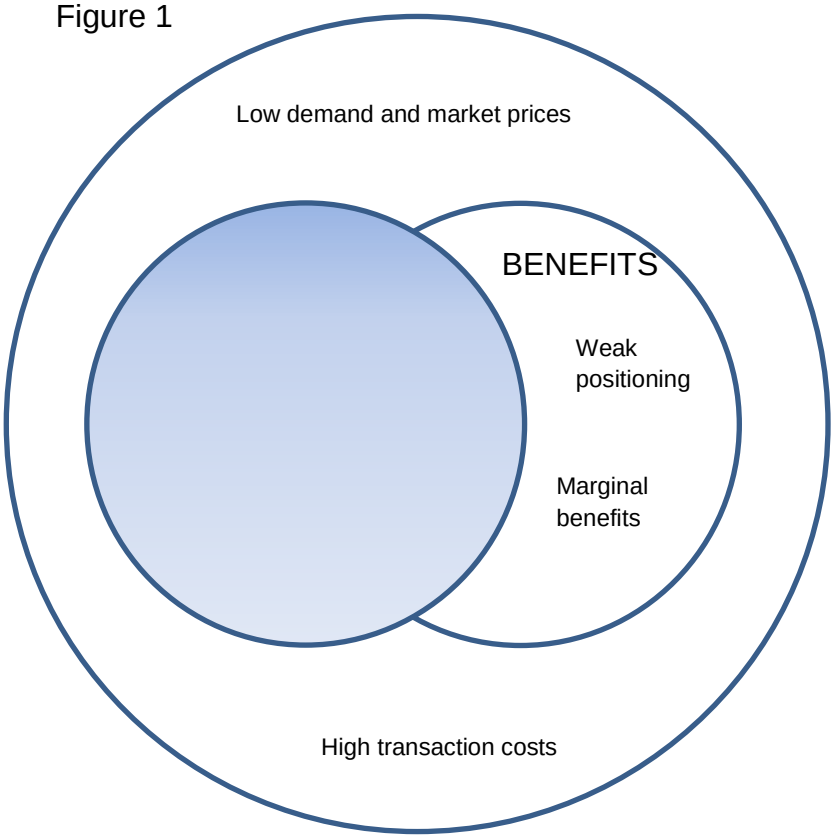

Figure 1: authors' conceptualisation of the key challenges and their relationship to the issues of access and benefits

5.1. Complexity and cost of carbon accounting

Carbon accounting (monitoring, reporting and verification) is wrought with complexity because of the ambiguity surrounding the development of carbon baselines (Lohmann, 2006, Gupta et al., 2012) and the actual mitigation capacity of carbon projects (Jindal et al., 2012, Simon et al., 2012). As a result, projects often rely on external 'expertise' whilst diminishing the carbon revenue available to those involved in generating carbon (Fairhead et al., 2012). In response, several authors advocate a role for local people in monitoring as a way of reducing costs, but this must be balanced against the need for robust accounting (Danielsen et al., 2011, Palmer Fry, 2011, Gupta et al., 2012). There may be a trade-off between complexity of methodology and scope for involving local monitors, and if methods cannot produce robust results, a proportion of the potential carbon revenue may need to be discounted to account for uncertainty. Compared to cookstove or tree projects, soil carbon projects are notoriously costly and complex to monitor (Sharma and Suppan, 2011), although as more data become available, results can be extrapolated and costs decrease. Studies exploring cost-effectiveness of soil carbon projects in particular often ignore the revenue losses as a result of high rates of discounting due to uncertainty (De Pinto et al.,

2010). Generally, the more robust and complex the methodology for carbon accounting, the more expensive it is to implement, with direct implications for the amount of carbon revenue available to those involved in generating the offset.

Choices about which methodologies and techniques should be used to generate which kinds of data, and who to involve in the collection and analysis are politically-laden and have direct implications for the empowerment or disenfranchisement of local communities: inherent technical accounting challenges are resulting in continued investment in carbon cycle science and a continued role for international experts in climate governance, meanwhile excluding 'non-experts' (Gupta et al., 2012). Involvement of local people in monitoring practices can open up alternative ways of 'seeing' and 'knowing' natural environments (Gupta et al., 2012), for example, 'seeing' forests for their multiple values rather than only as an alienable source of tradable carbon, or 'knowing' the forest through reading multiple signs of their growth, decline or biodiversity rather than drawing conclusions only from satellite imagery. This can ensure that the parameters which are measured are more culturally relevant because local people will have the opportunity to influence which specific resources are monitored (Palmer Fry, 2011). While local knowledge cannot be accepted unquestionably (Danielsen et al., 2011), combining participatory and ecological approaches may be a strategy for deriving more accurate and relevant indicators on sustainable land management than either approach would be able to achieve alone (Palmer Fry, 2011, Reed et al., 2008).

Opportunity for standards: to play an active role in developing and/or certifying methodologies which are robust, cost-effective and recognisant of local expertise and knowledge.

5.2. Aggregating multiple farmers or households into one project

Carbon sequestration practices need to be carried out at appropriate scale to achieve mitigation benefits (Scherr et al., 2012) and cost effectiveness (Perez et al., 2007). When smallholders and individual households are involved, practices need to be aggregated and jointly certified under larger schemes, but this implies high costs and complexities, especially when they are scattered across large geographical areas (Perez et al., 2007, Leach et al., 2012). Pioneering land use and forest carbon projects in Africa such as the Sofala Community Carbon project in Mozambique and the Kenyan Agricultural Carbon project have been extremely costly to set up and heavily reliant on donor funding (Swallow and Goddard, 2013). Costs would have to be reduced if these projects were extended or implemented elsewhere (Jindal et al., 2012, Grace et al., 2010).

The UNFCCC has developed an approach under the Clean Development Mechanism (CDM) for coordinating diverse carbon sequestration activities under one banner called a 'Programme of Activities' (PoA), led by a Coordinating and Managing Entity. PoAs have been taken up as a way of scaling up popular projects such as cookstoves (Peters-Stanley et al., 2011) across entire countries or sub-regions. One example of this is found in the Improved Cookstove Programme of East Africa (Uganda Carbon Bureau, 2013). Elsewhere, landscape level carbon projects involving land use and forests have been implemented at scale in Madagascar and the Sahel, using a blueprint style of planning (Scherr et al., 2012) devised by the United Nations Environment Programme and African Union staff. Another potential approach for encouraging large-scale adoption of carbon

sequestration practices by smallholders and individual households is to incorporate the 'production' of carbon credits into existing supply chains. Suppliers are compensated for carrying out mitigation actions either directly in the production process or within their households and local environments, and the lead company buys the carbon credits. This approach has been piloted in Latin America within coffee supply chains (Rainforest Alliance, 2011, Cafe Direct, 2012) and is being developed in Africa (FairClimateFund, 2013).

While these large-scale approaches may allow for the generation of larger volumes of carbon credits, in some cases there may be a trade-off between scaling up and opportunities for individuals to meaningfully engage with project processes. In theory, it is possible to coordinate PoAs and other programmatic or landscape-level approaches with little input from the individuals who are effectively carrying out the practices. Cookstove projects involve promoting a generic cookstove design, specified by scientific institutes, donor programmes or standards organisations and approved methodologies, meaning they are less able to respond to heterogeneous needs of the users (Simon et al., 2012). Large-scale projects may also simply be inappropriate for involving smallholders and resource users, and pressure to increase mitigation benefits could result in their exclusion or even alienation.

Opportunity for standards: to recognise the heterogeneity of individual farmers' and households needs and practices, and find ways of certifying diverse project set-ups which take these into account, whilst still being cost-effective.

5.3. Implementing projects in diverse institutional contexts

The challenges of designing socially, environmentally and economically beneficial projects at scale are matched by the complexities of implementing them in specific local contexts, where interplay between local institutions and project mechanisms is important. Institutions are understood here as the informal and formal mechanisms that shape individual and social expectations, interactions and behaviour (Agrawal, 2008). Weak or absent property rights or land tenure is seen as a barrier to adoption of alternative land management practices (Perez et al., 2007) and of carbon sequestration projects in general (Unruh, 2008, Dougill et al., 2012). Existing institutional infrastructure and communication channels affect the connections and communication between multi-level institutions and actors involved in projects, and behavioural changes which may come about through the project are also conditioned to some extent by participants' perceptions of the project and its associated risks and benefits (Dougill et al., 2012). The role of local organisations and leaders in brokering deals or facilitating the distribution of benefits shapes project participants' abilities to draw an equitable share of the benefits (Lipper et al., 2006, Perez et al., 2007, Dougill et al., 2012). If community-based carbon sequestration and trading projects are to achieve their multiple environmental, economic and social goals, the activities they incorporate must be backed by 'strong rural organizations, legitimate and representative leadership, client-driven extension, local capacity building, and informed and enabling policies' (Perez et al., 2007). However, it is difficult to take into account the diversity of forms of social organisation when designing certification schemes (Perez et al., 2007), projects or other climate finance mechanisms, especially when these are intended to be blueprints. Similarly in cookstove projects, the success or failure for different groups depends on organisational structure, inter-relationships and distribution of decision-making control within different development

partnerships, and local non-profit intermediaries are important for coordinating activities between local users, financers, governments, entrepreneurs; for raising awareness; providing technical support; and helping to facilitate between suppliers and financers in efforts to scale up (Simon et al., 2012).

Opportunity for standards: to recognise diverse forms of social organisation, and to stimulate meaningful and effective roles for local institutions

5.4. Ambiguous "carbon rights" language

The ambiguity of the term "carbon rights" and its use in carbon projects affects people's ability to access and derive benefits from carbon projects, and impinges on the projects' long-term stability. The issue of 'carbon rights' has been raised by several authors with respect to carbon projects. The principal problem is that they are not clearly defined, and therefore difficult to comprehend, and to differentiate from other resource rights (Karsenty et al., 2014, Tienhaara, 2012, Lyster, 2011). Australia and New Zealand have made legislative provisions for carbon rights, but it is unlikely that these will emerge in most developing countries any time soon (Lyster, 2011). In Argentina, carbon rights have been equated with rights to land, which effectively means that only those with land ownership rights can claim carbon rights (Karsenty et al., 2014). Where there is no overarching legislation, carbon rights are mostly left to the language of contracts and are open to interpretation (Passero, 2008). Some project regulatory frameworks have attempted to tackle the issue, for example, CDM rules for projects in the energy sector assign carbon rights to the investors who have brought about the emission reductions. However, in land-based projects, the issue is more ambiguous and problematic.

While some authors advocate for clear definitions of carbon rights equated to land, this could jeopardise people's attempts to obtain land, because governments might choose to assign land to rent-seeking industries instead or refuse to transfer property rights to individuals and communities (Karsenty et al., 2014). Defining and allocating carbon rights may also result in overriding customary rights to land (Lyster, 2011, Baldwin, 2009); this is particularly relevant to large-scale biodiversity, forestry or biochar projects. These projects are prone to dispossessing people of land use rights (Fairhead et al., 2012) in the interests of 'sustainable intensification' and 'improving practice and efficiency' (Paul, 2012). Issues of land tenure and land use rights are critical within projects such as the Kenyan Agricultural Carbon project where carbon rights are based on individual land holdings (Atela, 2012). It may also not be easy to distinguish between carbon rights and rights to forests or land, especially for resources such as trees which simultaneously represent carbon rights while standing and co-benefits when turned into timber.

The ambiguity of the notion and lack of legislative framework may mean that project participants are not aware of their rights (that they may or may not still possess). Even if they are aware, they may still lack the information or legal framework to understand the terms they are signing up to, negotiate more favourable terms or to claim and fully utilise their rights (Lyster, 2011, Lohmann, 2006). This issue also concerns future generations who may inherit land tenure or use rights without the awareness or disposition to commit to what has already been signed. It is particularly problematic with long term projects that assign rights over periods which extend beyond the lifetime of the project participants and infringe on the liberties of future generations.

Overall, when carbon rights are equated with land tenure, some actors are effectively excluded from participating in projects. However, without clarity on the subject of carbon rights, promises of co-benefits may end up being empty, and the permanence of the carbon sequestration is questionable. One option would be to require land-based projects to define management and exclusion rights, as this would enable exclusion of illegal loggers and encroachers whilst ensuring that contractual obligations were met (Kaimowitz, 2008). However, this would be problematic to apply in contexts where individual and family rights are embedded in community land; in such cases, perhaps what is really needed is a transformation of land tenure so that individuals, families and communities can claim rights to land and/or trees encompassed by forest carbon scheme (Karsenty et al., 2014).

Opportunity for standards: to tackle 'carbon rights' in a way that resonates within national legislative frameworks, and facilitates individual and community land users and custodians to access and derive benefits from carbon projects without jeopardising contractual obligations.

5.5. Marginal benefits to smallholders and communities

Carbon projects carried out under certification frameworks which explicitly take account of sustainable development are supposed to deliver environmental and social benefits to the communities involved or affected by them, as well emissions reductions which are more beneficial to the world at large or to the offsetter. Improved cookstove projects are assumed to bring inherent benefits, through the use of the technology itself, although a discourse which assumes automatic wins "gravely oversimplifies the complex network of social, ecological and economic actors and interactions that comprise such programs" (Simon et al., 2012). Meanwhile, in land use and forest projects, it is recognised that the people carrying out carbon sequestration practices will need to receive direct and/or indirect financial and non-financial benefits (Stringer et al., 2012) such as incentive payments, improvements to soil fertility, increased agricultural yields, employment, additional income from timber or non-timber products harvested from the trees products, access to cheaper fuel, training and secured land tenure. However, evidence from land use and forest carbon projects in Africa suggests that financial benefits have often not been sufficiently attractive, regular or disseminated enough to motivate or compensate people, especially when they incur significant investment, risks and labour costs (Dougill et al., 2012, Swallow and Goddard, 2013).

'Benefits' and 'co-benefits' are usually defined by project developers rather than the smallholders or households involved in projects, and may be optimistically stated (Lohmann, 2006). For example, in the Sofala Community Carbon project, employment was deemed one of the major economic benefits by those who had been hired by the project (Jindal et al., 2012), but employment is usually limited to a few people and may only be for the early years of a project. In another case, a project involving Shea reforestation in Northern Mali promises increased Shea butter production as a benefit to farmers (Shames et al., 2010) but as Shea trees take 20-30 years before they fruit, only future generations can hope to benefit from any increased yields. Some projects entail negative impacts on local communities but very few tangible benefits. Large-scale forestry, biodiversity corridor and biochar projects have been criticised for being routes for foreign direct investors to buy tracts of land cheaply from national governments for extended periods, and to benefit disproportionately, whilst dispossessing local communities and excluding them from the

resources from which they earn their living (Tienhaara, 2012, Leach et al., 2012). Where benefits do reach local communities, there is evidence of unjust distribution across the community, since carbon projects are unlikely to address pre-existing marginalisation (Mathur et al., 2014).

Opportunity for standards: to find ways of enhancing and measuring the delivery of multiple types of "benefits" as defined by participants.

5.6. Weak positioning of smallholders and communities

It is important that individuals and communities involved or affected by carbon projects have an opportunity to participate and influence the project, including design and implementation processes (Mathur et al., 2014) but we also need to ask whether their participation is based on free prior informed consent and whether opting out is possible. Although stakeholder processes are required by some certification schemes, these may be used instrumentally, and when pre-existing power relations are taken into account, the extent to which participatory processes can recognise diverse actors and their interests is questionable (Mathur et al., 2014). In the Kenyan Agricultural Carbon project, local monitors (whose practices are measured as a proxy for the project as a whole), were selected by means of a random computer programme and were not given the opportunity to give free prior informed consent (Atela, 2012). Within the above project, practices are selected by local resource people who experiment and then pass them on to the farmers. Farmers have little say in designing the practices, and once they become project participants, they have to change the way they work the land in order to incorporate at least some of these practices (Sharma and Suppan, 2011). Project designs such as the Sofala Community Carbon project, which offer farmers the flexibility to choose from a menu of practices, nevertheless incur high transaction costs for monitoring and supervision because this must be done at the level of individual farmers and households (Jindal et al., 2012).

It is crucial to explore spaces for participation but also spaces for resistance (Gupta et al., 2012), since engaging in carbon projects involves entering into an international commodity market which is intangible, risky, highly uncertain and very volatile, and may not be desirable. Limited research has been done at the farm or community level to explore participants' experiences of carbon projects (Dyer et al., 2014, Mathur et al., 2014). Resistance to carbon projects has also been documented in some research (Lohmann, 2006, Baldwin, 2009). Participation and resistance also need to be explored within carbon standard-setting processes themselves.

Opportunity for standards: to forge spaces for participation and to encourage the effectiveness of stakeholder processes, taking into account existing social and institutional relationships.

5.7. High transaction costs, low market prices and falling demand

This final challenge sets the context in which the other six challenges are played out. A number of them mentioned above have direct implications on project transaction costs at least in the short term, for example the cost of aggregating large numbers of smallholders and communities scattered over large areas and potentially implementing a mosaic of carbon saving practices; and the costs of engaging with local stakeholders and working to build relationships and capacity among local institutions. Although some of these costs may even out over the course of several years, the finance required at the beginning of a project

is likely to be a barrier for community or smallholder-led projects, necessitating a role for investors and donors. A number of authors have questioned the legitimacy and efficacy of project budgets managed by donors and investors, underlining the need to decipher how costs and revenue are split between the stakeholders involved in a project, deciding what proportion of the budget is absorbed by transaction costs, as well as how much goes to the communities responsible for carbon sequestration practices (Sharma and Suppan, 2011, Fairhead et al., 2012).

Cost effectiveness is a concern across the carbon value chain, not only for projects involving smallholders and communities. Information asymmetries created by the structure of the market lead to higher transaction costs, or opportunistic attempts to economise on them (Merger and Pistorius, 2011). Carbon is an intangible commodity, so it is possible to intentionally or unintentionally sell or account for it twice ('double accounting'). Also, both supplier and buyer have an interest in exaggerating the number of carbon offsets that a project has produced (Kollmuss et al., 2008). Suppliers can cut costs and increase profit margins by delivering low-quality offsets (less rigorously accounted for, or without co-benefits), as long as they are able to hide any negative social, environmental impacts or questionable mitigation benefits. 'Quality' is an intangible attribute, and is difficult and costly to track. For standards to be perceived as credible, they must put in place complex and costly methods for accounting both carbon and environmental and social benefits. Although some buyers have shown willingness to pay more for 'charismatic' or rigorously accounted carbon credits (such as Gold Standard credits), many buyers are interested in paying as little as possible (Merger and Pistorius, 2011). Meanwhile, carbon credit prices are influenced by market dynamics of supply and demand and do not necessarily cover costs of production. Carbon credits from land-based projects in particular may be comparatively more costly to generate than credits from cookstove projects, and are also less popular on the market because of a continuing reticence amongst climate policy makers and market actors (mainly because of the higher risks of leakage and non-permanence associated with them). It is difficult to design financially viable projects or source money to finance them when the market does not offer hope of generating sufficient carbon revenue.

Opportunities for standards: to find ways to reduce certification-related transaction costs without losing credibility and to set requirements for transparent budgeting and revenue-sharing without creating extra burdens.

6. DISCUSSION

6.1 Application of the results to a collaborative standards approach

Figure 2 summarises the challenges and opportunities which were laid out in the section above, and presents them alongside the interventions initially proposed by Fairtrade and Gold Standard. Dotted lines indicate the potential linkages between the opportunities and the interventions, but notably this is much more complex than the figure can convey. While the opportunities are idealised and involve 'perfect' balances between the various trade-offs and interrelated components, the interventions are concrete steps which the standards organisations were proposing to take when they first announced their collaboration. The results of taking these steps are contingent on the intentions and resources behind them, the roles played by a wider range of actors, the dynamic realities within different project

contexts, and the ways that each step combines with other steps as part of a whole matrix of interventions.

There are some remaining gaps between the opportunities and the proposed interventions. Some of these may be addressed as Fairtrade and Gold Standard develop their approaches. For example, the carbon rights issue is not obviously addressed by any of the proposed interventions, although carbon rights have been considered in the Gold Standard afforestation/reforestation standard. Other issues may be partially addressed through one or other of the interventions, but would require additional provisions, either at the standards level, or within particular project designs. For example, tools and training to build smallholder capacity might facilitate smallholders to take on particular roles within a carbon project, potentially via the local institutions to which they may be connected. However, the way that these local institutions are engaged or taken into consideration within a project depends on how they are understood and defined by standards organisations and project stakeholders. Similarly, the way that 'benefits' are dealt with will depend on how they are defined within the standard. The proposed interventions which we have linked to the opportunity of enhancing and measuring benefits, apparently focus on 'financial benefits', which may be easier to measure and track at least in the short term, compared to less tangible benefits, or benefits that take longer to materialise. Other gaps may relate to more persistent limitations of standards as a form of governance. For example, it will be difficult for a certification system based on the recognition of standardised forms, to take into account diverse local institutions, practices and specific social contexts (Leach et al., 2012). Smallholders and communities are not homogeneous, but the standards are likely to need to make a choice about which types of 'smallholders' and 'communities' their methodologies are relevant to, and this will necessarily involve inclusion and exclusion. Finally, the elephant in the room appears to be the overarching challenge of the market. Even if a system can be developed which takes into account all the opportunities we have outlined, it is difficult to predict whether there will be a sufficient market to absorb the credits which the system could generate. There is some confidence that Fairtrade could play a role in transforming the market (e.g. Ciscell, 2010). However, the voluntary carbon market has a predominantly corporate consumer base (Lovell et al., 2009), while the Fairtrade system has traditionally targeted individual consumers. Some of the persistent gaps mentioned above may only be possible to evaluate several years into the future but they can be incorporated into a guiding framework for reflecting upon the standard development process as it unfolds.

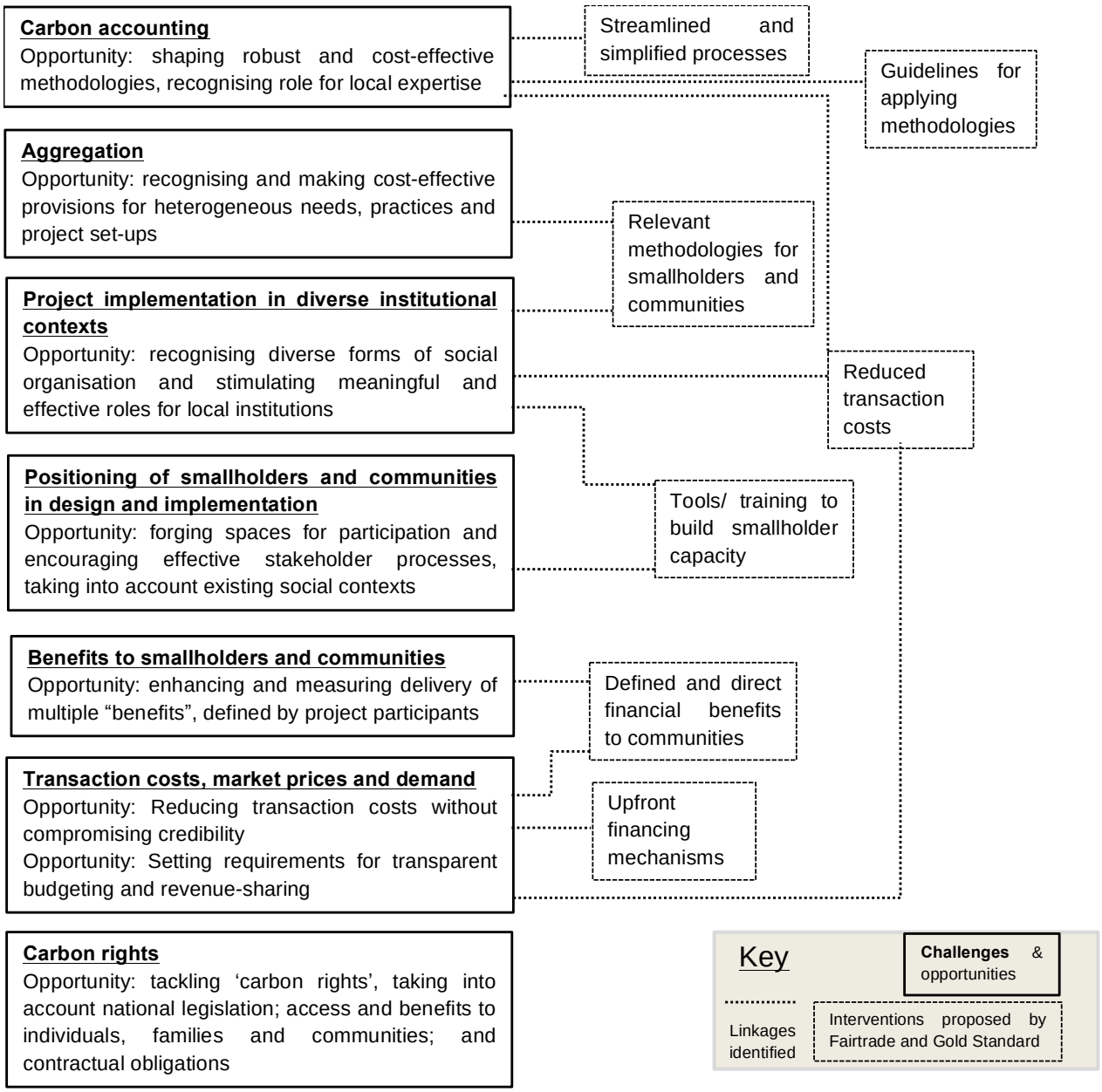

Figure 2: Authors' analysis of the links between challenges and opportunities for standards organisations, and the proposed interventions of Fairtrade and Gold Standard

6.2. Taking it forward: developing a research agenda for “Fair Carbon"

Section 5 provided a critical review of the ongoing issues and challenges that carbon standards will need to grapple with as they advance along pathways towards “fairness” in the world of carbon and these were applied to one particular example of collaborative standards development in section 6.1. With the aim of developing this analysis and contributing to existing scholarly work, we have identified three overlapping research areas, presented here. Together, they create a comprehensive research agenda for carbon projects and carbon standards aiming to deliver fairness. This agenda builds on existing literature, some of which was introduced at the beginning of this paper. It involves exploring multiple understandings of “fairness” and examining which of these make it into the standard, identifying which governance processes shape the content of an eventual standard, and ascertaining what the various mechanisms perceived to support greater access and benefits for smallholders and communities may look like, when implemented within particular carbon projects.

6.2.1. Research on carbon standards development processes

A novel and opportune area for research involves conducting an appraisal of carbon standards development processes, including a detailed analysis of how “fairness” in carbon is being understood, defined and operationalised. This paper has used the broad framings of “fairness” in terms of “access” and “benefits” as a starting point for exploring the associated challenges, but the term ‘fair carbon’ is still a new and fuzzy notion and attempts to capture it within a carbon standard are ongoing. McDermott et al. note that “without a clear definition of which aspects of equity are being pursued and how, it is difficult to evaluate the impact of policies and programmes on equity, and impossible to plan for it effectively” (2013). Our goal is not to seek a universal or theory-driven definition of “fairness”, but it will be useful to draw on equity frameworks such as those proposed by McDermott et al (2013) or Mathur et al (2014) as reference points for identifying what does or does not form part of different stakeholders’ perceptions of “fairness”. McDermott et al’s (2013) framework in particular is also useful for exploring how the parameters for equity are set within this particular standards development context, in terms of exploring who does and who does not participate in the process of defining what “fair carbon” should mean, and whose understandings of “fair carbon” are taken into account in the standard. These insights can be used to build on what Schlosberg has called a “plural yet unified theory and practice of justice” (2004).

Once plural definitions of fairness have been clarified, the next step is to identify the specific standards mechanisms considered as quintessential for achieving equity outcomes by actors taking part in the standards making process. These mechanisms may each be surrounded by implicit or explicit theories of change, and their arrival into a final standard will be a result of dynamic governance processes involving negotiation of interests, power dynamics, and compromise. This review has identified some of the standards mechanisms that are being advanced to address some of the fairness challenges identified. This can be taken further as more obstacles to fairness are identified and new mechanisms are proposed, as well as by looking in detail at existing mechanisms adopted by parallel standards initiatives where lessons may already have been learnt. Research should build on parallel research on sustainability standard-setting processes (Bacon, 2010, Reinecke, 2010, Cheyns, 2011, Tallontire et al., 2013). Also, as carbon standards are rapidly

emerging, expanding, merging and forming new partnerships, research should try to capture the dynamism of governance arrangements. Analyses of rival governance networks (Smith and Fischlein, 2010), markets for standards (Ponte and Riisgaard, 2011) partnerships and multi-stakeholder initiatives (Bitzer et al., 2012, Cheyns, 2011) all provide a useful backdrop for making sense of governance network dynamics, mechanisms for participation and effects on standards content and market and sustainability outcomes.

6.2.2. Research across the whole carbon value chain

Carbon trading implies the linking of "producers" and their carbon storage practices in one local context, with the global carbon market and end "consumers" (individuals and organisations who "buy" the stored carbon in the form of offsets) across a carbon "value chain", via a series of actors involved directly or indirectly in defining, measuring and adding value to the carbon. The concept of the 'value chain' has only tentatively been applied to the generation and trading of carbon credits, but provides an opportunity to embed project level analyses within the wider context (Schneider et al., 2010). Carbon projects vary considerably in their investment profiles, sales strategies, profitability and relationships between different stakeholders but there are only a few studies characterising the different types of carbon value chain, and exploring how they operate, at the project level and across scales (Swallow and Goddard, 2013, Schneider et al., 2010). Some studies have yielded insight by focussing on particular actors and nodes within the chain (Lovell and Ghaleigh, 2013, Lovell et al., 2009). Given the concerns about the amount of carbon revenue that stays in the community relative to what is captured by investors or absorbed by monitoring, running and marketing costs, it is important to consider the other actors in the chain, thus exploring local benefits as part of a wider analysis of fairness across the chain. Governance is a central theme in value chain analysis (Gibbon and Ponte, 2005, Gereffi, 1994), with a focus primarily on the lead firm and its relationships with upstream and downstream actors (Coe et al., 2008). However, 'external' actors such as government agencies, NGOs, certification bodies, services providers and 'experts' can have a strong influence on value chain governance (Tallontire et al., 2011) and in the case of carbon value chains, may each take a share of the carbon revenue. Also, given the lack of clarity concerning carbon rights, exacerbated by the intangible nature of carbon offsets and credits, an analysis of the sequential 'movement' of a tonne of CO_2 along the chain is useful for making explicit the ownership and control at any one point.

6.2.3. Research on the impact of interventions on smallholder access and benefits

The extent to which standards exclude smallholders from markets or provide them with opportunities to improve welfare and competitiveness is much debated and there is evidence to support both positions (Jaffee et al., 2011, Henson and Humphrey, 2010). There have been multiple attempts to facilitate smallholder compliance with sustainability and food quality standards in recent years, particularly in sub-Saharan Africa but insufficient research into the impacts or cost-effectiveness of such efforts (Jaffee et al., 2011) as well as the transformative potential of particular standards mechanisms (Bolwig et al., 2010). Changes in standards provisions may fuel change on the ground in projects, but there is considerable room for interpretation and opportunism in the way that these standards are implemented in specific contexts. Therefore it is critical to explore not only the standards provisions or the project designs on paper, but also the implementation of standards and projects in practice. Although impacts may only be possible to determine retrospectively,

initial research can explore this theme on a micro-scale within the context of particular projects by examining how they are played out in projects at their early stages and by seeking the opinions of those who experience them first hand. This review has provided some anecdotal illustrations of standards mechanisms implemented in practice, but most of the examples in the literature come from Plan Vivo certified projects, as few publications cover the standards mechanisms developed by other carbon standards organisations, and how they may link to outcomes within project settings.

7. CONCLUSION

Heated debates surround the concept of “fairness” in carbon projects but the term itself is widely interpreted and lacks clear definition. This paper has taken a pragmatic approach by exploring “fairness” issues in terms of “access” to carbon standards and carbon finance for smallholders and communities, and “benefits” as a result of their participation in carbon projects, with these two concepts being derived from practice rather than theory. The focus was identified by looking at what a collaborative standards initiative involving Fairtrade and Gold Standard, is hoping to achieve. Collaboration is part of a general dynamic within the market for standards, where the lack of a single, accessible, robust and scalable standard for smallholder and community carbon projects is being addressed through a growing number of collaborative standards initiatives. It provides an interesting example because it potentially opens up discursive and material spaces, whereby more vulnerable stakeholders in the carbon trading system could potentially play a more active role and reap more benefits.

A review of literature on carbon projects, smallholders and communities pointed out key challenges and opportunities which fit broadly within the problematic of “access” and “benefits”. They are all interrelated and complex to address, especially when both macro and micro contexts are taken into account. At the macro-level, low market prices and falling demand for carbon credits on the global carbon market render many types of carbon project financially non-viable or barely profitable. At the micro-level, aggregating large numbers of smallholders and community members and designing processes which work within diverse institutional contexts and can be carried out without the need to fly in expensive foreign consultants, absorbs considerable costs and effort.

While the outcomes of efforts to enhance access and benefits to smallholders and communities are highly uncertain, it is nevertheless important to explore steps being taken towards these goals. With many actors involved, multiple interests at stake, and a climate of competition which may push standards organisations to act quickly to fill gaps in the standards market, independent research can help to enhance transparency within the process. The research agenda we have outlined provides a novel contribution by combining both theory and practice with respect to “fairness” in carbon projects; by applying this lens across the carbon value chain rather than only in particular nodes; and by linking standards and project practices through the simultaneous exploration of standards content, standards-making and the impact of standards applied within particular carbon projects.

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ACKNOWLEDGMENTS
This research was funded by a grant (ES/J500215/1) from the UK Economic and Social Research Council (ESRC) and the Natural Environment Research Council (NERC). The funders played no role in the design or execution of the work. This research forms part of the work of the Centre for Climate Change Economics and Policy (CCCEP). The views presented do not necessarily reflect those of the associated bodies.

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[i] This is based on the initial press release announcing the collaboration between Fairtrade and Gold Standard, and material published on Gold Standard's website on the lines of partnership with Fairtrade.

[ii] Note that these are based on an understanding of what Gold Standard and Fairtrade were planning to work on, and some of these gaps and considerations may already have been addressed during subsequent discussions and on-going work by the two organisations.

[iii] This analysis was done for projects listed by CCB Standard, Gold Standard, Plan Vivo and VCS up to the end of October 2013. Social Carbon projects were also identified where they were jointly certified by VCS and Social Carbon.