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Which "fairness", for whom, and why?

Broadening inputs for a standard designed to certify "fairtrade carbon credits"

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Abstract

Carbon projects are often complex, contested and shrouded by concerns about fairness, particularly regarding the involvement and sharing of benefits to local communities and smallholders. Fairtrade International's collaborative efforts to develop a standard to certify Fairtrade Carbon Credits (FCCs) warrants careful analysis of the multiple and competing notions of fairness, how to achieve it and for which beneficiaries. This paper uses a theoretical equity framework combined with Q methodology to elicit three distinct perspectives on fairness visible across the stakeholders involved in developing the standard. The first prioritises development delivered through organisations, participation in decision-making and use of minimum prices to adjust trade imbalances. The second conceptualises a non-exclusive approach maximising generation and sales of FCCs, involving a commodity chain where everyone performs their optimum function with financial transparency and information-sharing to facilitate negotiations. The third involves minimising intervention, allowing carbon commodity chains and project set-ups to function efficiently and make their own adjustments to enhance benefits access and quality received by beneficiaries. The three factors reflect debates within carbon and fair trade spheres about who should be doing what, for which reasons, and how people should be supported to interact on an uneven playing field. Communicating findings to standards organisations should enable a more open and inclusive policy process. Clearer definitions of "fairness" are also useful for standards organisations in reviewing *ex post* whether "fairness" goals have been met.

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1. INTRODUCTION

Carbon markets have been heralded as an opportunity for financing low carbon development in the global south but are simultaneously the object of major discussions about fairness; particularly who benefits and how (Howard, Tallontire, Stringer, & Marchant, 2015). Concerns have been raised regarding the burdens, benefits and positioning of local communities involved in carbon projects (Mathur, Afionis, Paavola, Dougill, & Stringer, 2014; Melo, Turnhout, & Arts, 2014) and the technical complexity of offset mechanisms, which create dependency on outside expertise for audit and can shape carbon market access (Corbera & Brown, 2010; Lansing, 2013). In 2011 the ethical standards body Fairtrade International committed to address fairness within the climate change arena with a new fair trade commodity named "Fairtrade Carbon Credits" (FCCs) (Mhene, 2012). A strategic collaboration with the Gold Standard Foundation[1] began in 2012 to develop a new joint certification scheme (Gold Standard Foundation and Fairtrade International, 2012) expected to address rural communities' unequal access to, information about, and capacity to benefit from, the carbon market (Howard, et al., 2015). Subsequently, the two organisations pooled their expertise and elicited inputs from multiple stakeholders[2] to develop a Fairtrade Climate Standard for projects engaging smallholders and rural communities in the production of FCCs[3]. Fairtrade International is one of a number of standard setting organisations (SSOs) attempting to address fairness, equity and justice in commodity markets through people-centred approaches aimed at poverty alleviation, participation and empowerment (Melo, et al., 2014; Phillips, 2014) but actual impacts are shaped by the priorities driving standards and the multiple contexts where they are applied (Constance L. McDermott, 2013; Nelson & Martin, 2015). By operating both within and against the market, and deploying a technocratic logic of measurement, SSOs are positioned in a place of inherent contradiction and have the potential to result in continued marginalisation of local communities, centralised control and reinforcing of dominant interests, despite efforts to avoid these outcomes (Melo, et al., 2014).

In the absence of clear definitions of 'fairness' in the context of carbon projects (Howard, et al., 2015; M. McDermott, Mahanty, & Schreckenberg, 2013), the concept is open to co-opting or dilution by powerful actors (Leach, Scoones, & Stirling, 2010) something already happening within the fair trade movement (Doherty, Davies, & Tranchell, 2013). Attempts by SSOs to set 'rules' or standards on what constitutes 'fairness' involves 'closing down' debates concerning its boundaries (Renard, 2005; Renard & Loconto, 2013), but this is a process which is necessary for establishing which types of fairness outcomes they are hoping to achieve, for whom, how and why (M. McDermott, et al., 2013). In this paper we undertake a critical analysis of how the term 'fairness' is understood in the context of the Fairtrade Climate Standard developments and then discuss findings in the context of

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[1] Gold Standard is a non-profit foundation coordinating a certification standard for carbon offset projects which also contribute to sustainable development.

[2] This involved several meetings and workshops led by Fairtrade International with stakeholders from fair trade producer organisations; fair trade marketing organisations; and NGOs, businesses and consultants involved in carbon project financing, development, implementation or retailing of credits.

[3] This was designed as an add-on label to the Gold Standard certification, for projects which meet the social, environmental, trade and carbon accounting criteria of both organisations.

broader contestations about fairness in fair trade and carbon contexts. In doing so, we respond to calls to unpack the normative ideals, in particular fairness (Howard, et al., 2015) evoked by SSOs in the carbon market (Page, 2012) and used differently by different actors in depoliticised, technocratic, standardised and instrumental ways which threaten the achievement of fairer outcomes (Constance L McDermott, Coad, Helfgott, & Schroeder, 2012; Melo, et al., 2014).

2. CONSTRUCTING MULTIPLE DIMENSIONS OF FAIRNESS

Following Schroeder and McDermott (2014), we view 'fairness' as socially constructed. Using Q methodology, we explore constructions of 'fairness' deployed by the various stakeholders involved in providing input for the Fairtrade Climate Standard. Q methodology ('Q') aims to analyse subjectivity in an open, yet structured and statistically interpretable form (Curry, Barry, & McClenaghan, 2013; Setiawan & Cuppen, 2013) that can collate a range of voices, accounts and understandings (Barry & Proops, 1999). Q serves as a tool for 'opening up' inputs and reflexivity in policy-making processes (Leach, et al., 2010; Ockwell, 2008) and can enhance policy implementation processes (Barry & Proops, 1999). We adapted McDermott et al's (2013) multi-dimensional equity framework and used as a guide to select statements for the study, in interpreting results and linking them to broader debates within the carbon market and fair trade movement. This framework facilitates the examination, assessment and planning of impacts on equity brought about by changes in the value of ecosystem services. It is composed of three dimensions (contextual, procedural and distributional justice) that form the core content of equity (what counts as equity). The core is surrounded by three concentric layers of framing questions, firstly the scale and target of concern (who counts as a subject of equity), secondly the goals of an intervention with respect to equity (why equity) and thirdly how decisions about each of these dimensions are taken (parameters of equity). We used the questions from the framework but adapted the wording to reflect the language of Fairtrade International and Gold Standard Foundation and also the input of other scholars who have theorised on the content of fairness, justice and equity with slight variations in terminology and linkages between concepts (see Howard, et al., 2015). Overall we refer to fairness rather than equity as a broader term encompassing both justice and equity (Schroeder & McDermott, 2014) and reflecting the language of the SSOs. Therefore, we refer to the **goals and target of fairness**, and how the **parameters of fairness** are set. We deploy this latter dimension in a narrower sense in our selection of statements and analysis of results, by looking only at how parameters for trading relationships and pricing are set as part of an ongoing analysis of how the parameters for fairness are set within the Fairtrade Climate Standard as a whole. We refer to the content of fairness as the following:

- **Fair Access**: ways that different people are able to engage with and participate in the carbon market via carbon projects. Linked to notions of contextual justice (in McDermott et al.'s framework) and equity of access (see Howard, et al., 2015)

- **Fair Procedures**: ways that people participate in project decision-making and/or implementation, as well as the rules and procedures themselves. Also referred to as

procedural justice (in McDermott et al.'s framework and by other scholars) and equity and legitimacy of decision-making and institutions (see Howard, et al., 2015)

- **Fair Benefit-sharing**: ways that people can benefit from project outcomes, in monetary, quantifiable and non-quantifiable terms. Also referred to as distributional justice (in McDermott et al.'s framework and by other scholars), fair distribution of benefits and equity of outcome (see Howard, et al., 2015).

McDermott et al's (2013) framework has been applied to a comparative analysis of a number of certification schemes, including Fairtrade, with a focus on scheme governance, actual standards, and certification outcomes (Constance L. McDermott, 2013). In contrast, our focus of analysis is on the competing notions and discourses around fairness which shape the standard while it is under development and also impact on the future of fair trade itself (Renard & Loconto, 2013).

3. METHODOLOGY

We followed six methodological steps in our Q study.

3.1. Collation of the "Fair Carbon" concourse

A Q concourse is a body of literature which aims to represent the full range of ideas and opinions on the issue under study. Our concourse, defined as opinion on what "fairness" would mean in the (hypothetical[4]) context of an FCC project, was collated from materials collected or accessed during observations of the standards development process (September 2013- March 2014). Details of these materials are listed in the supplementary material.

3.2. Refinement of concourse into a "Q set"

Concourse materials were analysed inductively using Atlas.ti software. Five codes were theoretically inspired by our adapted version of McDermott et al.'s (2013) equity framework (fair access, fair benefit-sharing, fair procedures, the target of fairness and the goal of fairness), and four more were developed inductively (generic fairness, issues of ownership of the credits and trade-offs involved in delivering fairness). 119 coded extracts were derived and used to generate an initial set of 58 statements, which were edited down to a manageable number of 40 statements expected to trigger both positive and negative reactions (following Webler, Danielson, & Tuler, 2009). We ensured the theoretical breadth by cross-checking the statements against six thematic categories, based on our adapted version of McDermott et al.'s (2013) equity framework, and selecting at least five from each category, although some covered more than one category (Table A 1 and Table A 2). Following Lansing (2013), we chose not to make these categories explicit to participants because we did not want to confine them to react to predetermined categories. We conducted a pilot Q-sort with one person who was working for a carbon project advisory company but had conducted preliminary research for the Fairtrade Climate Standard and had taken part in multiple stakeholder meetings. She signalled 14 ambiguous statements,

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[4] The standard was still under development and no projects had yet been certified.

three statements which were too general and one statement which was loaded towards a particular response because of its wording and queried the omission of statements about 'price'. Using this feedback, we adjusted the set, which included going back to the concourse and re-coding it for 'parameters of fairness' (the outer layer in the equity framework) and selecting statements referring specifically to pricing mechanisms. The final set contained 40 statements.

3.3. Purposive selection of participants

To include divergent perspectives (Setiawan & Cuppen, 2013), most participants were invited to participate based on their interventions in stakeholder meetings and workshops and informal discussions. Two additional participants from the fair trade system were encouraged to participate by their colleagues. Of the 36 invited, 26 participated (see Table 1): 23 had been involved in at least one stakeholder meeting connected to the development of the standard and the remainder had received information about the process via colleagues who had been involved.

3.4. Q-sorts and accompanying interviews

During May-September 2014, 26 Q interviews were conducted. Based on participants' locations, 20 were face-to-face, using printed cards and a distribution grid, and six were via *Skype*, using Q-sort software application *Flash Q* (Hackert & Braehler, 2007). Participants were encouraged to think out loud during their first reading and sorting of statements into 'agree, disagree and neutral'. This helped us to understand how the statement was being interpreted and why, and highlighted statements or words which were ambiguous for some people. It generated rich interview data, used to understand the sorts and develop factor interpretations. Next, participants ranked the statements, positioning them on a 9-columned forced normal distribution grid, indicating a spectrum ranging from most disagree to most agree (Figure 1). Forced normal distribution grids aid contemplation and reveal participants' preferences (Brown, Danielson, & van Exel, 2014; Webler, et al., 2009). Participants were then asked open-ended questions in order to understand their positioning logic, helping us view each Q-sort from the perspective of the interviewee.

Figure 1: The Q-sort grid. We distinguished columns using letters, but the equivalent numerals used in the Q data analysis software package (and used later in the presentation of the results) are given in brackets.

Most disagree ←   Most agree →

Z (-4)	Y (-3)	X (-2)	W (-1)	N (0)	D (+1)	C (+2)	B (+3)	A (+4)
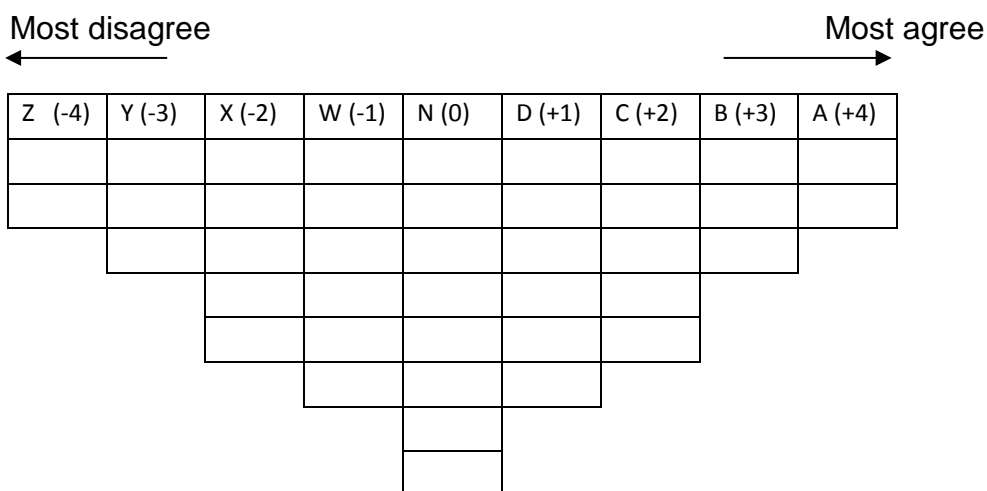
3.5. Correlation and factor analysis of Q-sorts

Q-Analysis aims to identify similar sorting patterns in the Q-sorts, meaning that participants share some distinct commonalities in their perceptions. Analysis of the 26 Q-sorts was performed using a computer software package called PQ method, version 2.35 (Schmolck, 2002). A 26 x 26 correlation matrix of the Q-sorts was produced and subjected to factor extraction and rotation. Rotation is applied to ensure each factor offers 'the best possible, or most meaningful vantage point from which to view the subject matter' (Watts & Stenner, 2012:142). Following Cairns et al, (2014), our aim was to find a factor solution which maximised the variance explained and number of loaders (participants significantly correlated with just one factor), while minimising the number of confounders (people loading significantly on more than one factor) and non-loaders (participants loading on no factor). We applied the principle that each factor should contain at least two sorts loading significantly on that factor alone (Watts & Stenner, 2012). We compared outputs with Principal Components Analysis (PCA) and Centroid, and rotating 7, 5, 4 and 3 factors, before selecting a three-factor solution extracted with PCA and rotated with Varimax. Together, the three factors explained 46% of the study variance. 22 participants' Q-sorts loaded significantly on one of these factors, with three confounders and one non-loader. Weighted averages of the significant single loaders' sort patterns from each factor were used to create three 'factor arrays' or idealised Q-sort patterns, following the same format as the original distribution grid (Table A 2).

3.6. Qualitative results interpretation and development of "Fair Carbon" narratives

Factor interpretation should account for the entire item configuration captured in the factor array and should be based on iteration between the individual sorts that make up the factor, and the combined sorts (Watts & Stenner, 2012). Our aim was to understand the factor from the perspectives of the participants and to create narratives which resonated with at least the highest loaders in each factor. Factor interpretation followed Watts and Stenner's (2012) guidelines, which involves drafting crib sheets of statements and checking back over demographic and post-interview data to formulate hypotheses. Using the rich by-statement interview data, we compared the views of each significant loader in the factor and summarised shared views. Our interpretative narratives paid particular attention to the interview data concerning the statements on the crib sheet. We chose not to draw on statements which had been understood quite differently by the various people in the factor, and invited the highest loaders to read over them and comment. In order to make explicit the links between the content of the narratives and the original themes, we organised them according to the headings in our adapted version of McDermott's (2013) equity framework. Due to our observations when categorising the statements that many of them spanned multiple categories, we chose to combine the headings of 'goals' with 'target'; and 'access' with 'procedures' in order to avoid repetition.

4. RESULTS
Factor 1 (F1): Producer First: Participation and Price-Floors

F1 explains 17% of the study variance and has eight significant loaders. Five work within the fair trade system; three are involved in project development and have experience of working with fair trade producers in carbon projects.

Goals and Target of fairness

Production of FCCs should be in 'organised communities of disadvantaged people in the south' (statement 2, ranked +3). Production should not be limited to pre-existing organisations (30, -4), but well-functioning cooperatives should be targeted (14, +2). Large structures where individual members are 'not realistically engaged' and manufacturing companies that do not engage with organised communities should not be targeted (13, +2; 38, -3) and credits should not be produced in the industrialised north (4, -4). Buyers of FCCs must also commit to reducing their emissions (32, -3) as it would be unfair to ask poor people to reduce their emissions if high emitters are not committing to do the same (36, +1).

Content of fairness

Access and procedures: participation in an organisation and active involvement in a carbon project are essential components of fairness. This does not mean that the community-based or farmer organisation should manage everything from the carbon project development process (21, -2) to the sale of credits (25, -1). However, participating individuals and households must be able to input into decision-making and management (40, +4) and financial discussions (10, +3). Credits must transfer hands in order to be transacted, but the first owners should be the participating individuals and households in a project (11, +2) and the signing of an agreement with an aggregator is insufficient for the fair transfer of the credits away from those generating the emissions savings (15, -3).

Benefit-sharing: Focus should be on the organisation carrying out the project, who must receive a fair price. The rest of the supply chain is not a target of fairness (hence 19 and 20, both 0). Choices made about budgeting and revenue do not need to be judged through a 'fairness' lens (see statements 9, 16, 22 and 23 all in zero)- these should be left to the discretion project participants. Nevertheless, intervening to ensure that payments are reaching women may be appropriate in some project contexts (39, +1).

Parameters of fairness

Minimum prices are important in setting parameters for fairer trade (27, +4), rather than prices being *driven* by market forces (28, +1). This does not mean being oblivious to market prices, but setting a floor price which would guarantee projects a carbon credit price that covers production costs and ensuring that there is willingness to pay.

Table 1: Participants and degree of correlation with each factor (F1, F2 and F3).

	Based	F1	F2	F3
Participants loading significantly on F1				
Staff of Fairtrade International	Europe	0.743*	0.193	-0.293
Staff of Fairtrade International	Europe	0.797*	-0.029	0.012
Carbon project financer and seller of credits	Europe	0.532*	-0.001	0.027

Staff of fair trade marketing organisation	Europe	0.618*	0.103	0.013
Carbon project advisor	Europe	0.548*	0.282	0.250
Staff of fair trade marketing organisation	Europe	0.643*	-0.031	0.163
Staff of fair trade marketing organisation	Europe	0.493*	-0.084	0.389
Carbon project technician/ advisor	Europe	0.595*	0.126	0.131
Participants loading significantly on F2				
Carbon project implementing partner	Africa	0.027	0.660*	0.326
Fair trade licensee and carbon project implementer	Africa	-0.142	0.789*	0.064
Carbon project implementing partner	Africa	-0.115	0.562*	0.253
Carbon project advisor	Africa	0.219	0.519*	-0.034
Staff of fair trade producer network	Africa	0.103	0.599*	0.081
Carbon project implementer	Africa	0.258	0.648*	-0.263
Carbon project implementer	Africa	0.050	0.608*	0.265
Carbon project developer and advisor	Europe	0.371	0.514*	0.060
Carbon project implementer	Africa	0.267	0.427*	0.256
Participants loading significantly on F3				
Staff of research organisation	Africa	-0.064	0.179	0.645*
Low-carbon technology promoter	U.S.	0.045	0.289	0.668*
Carbon project owner	U.S.	0.019	0.116	0.491*
Carbon project advisor and implementer	Africa	0.090	-0.032	0.725*
Staff of certification body	Europe	0.363	0.108	0.577*
Confounders (loading significantly on more than one factor)				
Staff of Fairtrade International	Europe	0.583*	0.187	0.465*
Carbon project technician/ advisor	Europe	-0.129	0.508*	0.472*
Staff of standards organisation	Europe	0.442*	0.004	0.644*
Non-loaders (loading significantly on none of the factors)				
Carbon project advisor and implementer	Africa	0.365	0.332	-0.031

* = significant sorts (±0.41 at the p<0.01 level).

Factor 2 (F2): Functional Value Chain, Maximum Impact for People and Planet.

F2 explains 15% of the study variance and has nine significant loaders. Eight are involved in African carbon projects, as implementers, advisors or project partners; two work with fair trade producers.

Goals and Target

Anyone willing to produce carbon credits should be allowed to, including those in heavily-emitting regions (4, +2). Entities should not be excluded on the basis of how organised they are at the outset (30, -4), their size (17, -3) or whether they engage with organised communities or not (13, -4), and projects which enable new organisations to emerge should be rewarded (7, +3), through encouragement and support. Well-functioning cooperatives should be targeted (14, +2), but so should non-organised groups as organisation may not be relevant or realistic. Although FCCs should aim to shift more of the benefits of carbon

trade to disadvantaged people in the South, the initiative should not only target organised communities, and neither should it limit scope to the South (2, -1). It is unfair to ask poor people to reduce emissions if high emitters are not doing the same (36, +1) but requiring customers to reduce their emissions is unhelpful (32, +2) because it narrows demand and reduces opportunities for those who are willing to carry out mitigation activities which can benefit communities, households, and more broadly the environment.

Content

Benefit-sharing: the most important element of fairness in FCC projects is financial governance and distribution within the value chain. Transparency of costs and margins is essential (19, +4) and can facilitate trust between parties, encourage efficiency and prevent one party from making windfalls. All parties can ensure that everyone is reasonably compensated (20, +4). Micro-level decisions about how the carbon revenue is paid and what it is used for, e.g. whether it is paid to women or men (39, -2), and whether it reaches particular members of the household (16, -2), are beyond the gaze of fairness.

Access and procedures: communities involved in carbon projects do not have to sell the credits by themselves (25, -3) as this is impractical and inefficient. Intermediaries have a role to play as long as they do not take an unfair proportion of the sales revenues, (5, +3), hence the people generating the carbon credits must be *involved* in the project development process (21, -2) so they can accept and appropriate it, and determine whether they are getting a fair deal. 'Taking on' the project development process should still allow for essential technical support, especially in a project's earlier phases. Some loaders suggested the onus is on Fairtrade International to make project procedures simple to facilitate people in taking on at least part of the project development process. Providing opportunities for individuals and households participating in a project to participate in management decisions and finance discussions will not be relevant (40, 0 and 10, +1) if they lack the capacity or willingness.

Parameters

Fairtrade minimum prices (a floor price) *may* have a role to play in fairer trade (27, +1) but market forces will naturally drive prices (28, -3) through supply, demand and negotiation between parties. A strong bond between credit suppliers and sellers is important (33, +2) but as one person noted, this should be a strong collaboration enabling benefit-sharing, rather than a chain that binds them.

Factor 3 (F3): Market Efficiency, Minimum Interference, More for the Project

F3 explains 14% of the study variance and has five significant loaders from a mixture of professional backgrounds and locations.

Goals and Target

Development must be a primary target of FCC projects, alongside emissions reductions (26, +4). They should not be a mechanism for paying communities for having low carbon footprints (3, -3) and insisting that poor people should only reduce their emissions if high emitters have made commitments to reduce theirs (36, -4) would deny them benefits of the carbon market (such as accessing low carbon technology, and channelling finance from developed countries to developing countries).

Content

Benefit-sharing: fairness might be achieved by enabling access to low carbon technology and ensuring its maintenance (37, +1), provided this comes with an appropriate design, and training provision in usage. Sourcing of technology should be done with users' interests and quality in mind: banning imported stoves is unhelpful and irrelevant (12, -4), as jobs are created in both stove production and distribution. Fairness in the delivery of benefits might mean making carbon payments specifically to women (39, +1), where payments are appropriate, and where women are doing the mitigation. Nevertheless, this is a project design issue, and should not be regulated by a Fairtrade standard. In land-based projects, direct payments to farmers for the costs they incur might be desirable (22, +1) but the money generated through a carbon project should directly impact the long term income of participating farmers or households (34, +3).

In an FCC value chain, each actor plays a distinct role. It is totally acceptable (and perhaps preferable) for private companies to be involved in projects and any criteria used to judge them (35, +3) should also be applied to NGOs and non-profits, as performance, not status is important. Every party involved should be reasonably compensated for what they deliver (20, +3), as per any functional business model. As one person loading on this factor emphasised, "we are talking about a market mechanism and if you can't generate fair revenue for everybody in that process, you don't have a functional mechanism, or you're talking about development aid". It is difficult to evaluate what is 'reasonable' or which costs and margins are acceptable, even within the chain, but this should not be regulated by any third party (18, -3).

Access and procedures: people generating carbon credits should understand what they are involved in, but do not need to take on the carbon project development process (21, +2). This requires a specific skill-set and is best left to those who can do it most efficiently. Offering opportunities for individuals and households involved in projects to input into financial and management decisions (e.g. through consultations), is welcomed though not relevant (10 & 40, 0) if they lack the capacity or willingness to meaningfully participate. As credits must be transacted, ownership must be transferred away from the people generating the emissions saving to the end buyer, but agreements between parties must be clearly understood (15, +4).

Parameters

Market forces will undoubtedly drive prices (28, -2) and the application of minimum prices is not necessarily going to make trade fair (27, -2). As some people suggested, perhaps other tools are more practical and would not risk pricing the credits out of the market.

5.DISCUSSION

This section discusses points of difference and convergence between factors and links them to wider debates, evidence and lessons learnt within fair trade and the carbon market. Table A 3 in the supplementary material summarises the links between these three areas of debate. Notably, most people loading on F1 come from within the fair trade system or are familiar with it, and this is reflected across a number of areas where the factor perspective resonates with the Fairtrade Theory of Change, or with key components of fair trade. However, some participants from within Fairtrade loaded more significantly on other factors;

this difference reflects the internal debates within the fair trade movement which is evolving and heterogeneous. Our discussion also highlights some differences between existing fair trade commodity chains and the way things work in carbon projects, as the participants of the study came from one or other of these contexts, and are likely to use what they know as a frame of reference.

5.1 The goals and target of fairness

There is consensus between factors that development and emissions reductions should both be primary goals of an FCC project, but differences emerge when exploring what is understood by 'development' and where priorities are placed. For F2 and F3, the goal is to maximise emissions reductions and carbon credit sales whilst having a positive development impact. For F2 this is achieved by removing limitations to the production and marketing of credits in order to maximise the environmental impact. F3 envisages development at the level of the households and individuals participating in the project, through increased access to clean and usable technology, or positive impacts on household income. F1 prioritises development in the global south, achieved principally through participation in the project as organisational members: organisations being the target of support and benefits.

Disagreements on the target of fairness are clearest between F1 and F2 regarding the necessity of being organised, inclusion of projects in the north, and criteria for customers buying credits. Similar debates are articulated within fair trade, most visibly in the recent departure of Fair Trade USA from the Fairtrade International system. F2 fits more with Fair Trade USA's strategy of growing the market for fair trade products so that more producers will benefit (involving certifying farmers who are not democratically organised, plantations in sectors which Fairtrade International limits to small producers, and Northern producers) - this has been widely condemned by Fairtrade International and other members of the movement because of the emphasis on market goals over movement principles (Raynolds & Greenfield, 2015).

Disagreements about the relevance of organisation between F1 and F2 loaders are a reminder that firmly rooted assumptions about 'organisation' need to be reality-tested by attending to the specificities of carbon credits (how they are produced and by whom) compared to existing fair trade commodities. Producer organisations form the roots of the fair trade movement, beginning with coffee cooperatives in Mexico (Smith & VanderHoff, 2013), and these roots continue to shape organisational preferences 30 years on. Producer organisations feature strongly in Fairtrade International's Theory of Change (Fairtrade International, 2013), which articulates how fair trade interventions result in impacts. However, scholars have underlined the need to attend to the geographical and cultural specificity of different commodities and modes of organisation (McEwan, Hughes, Bek, & Rosenberg, 2014; Nelson & Martin, 2015). For example, Africa had a very different history of cooperative formation leaving a legacy of very large cooperatives and cooperative unions initiated by colonial governments, many of which are struggling or facing particular challenges (AM. Tallontire, 2015).

Disagreements about where carbon credits should be produced reflect ethical debates about neo-colonialism in both carbon and fair trade arenas. Carbon debates are polarised by those who see carbon trading as northern customers dumping responsibility on the

global south, and those who see it as an opportunity for people in the south to benefit from climate finance (Howard, et al., 2015). Obliging customers to reduce their own emissions before buying credits (F1) is a strategy to respond to this critique even if it would mean limiting the size of the market (F2). Fair trade's emphasis on cash crops produced in the global south for northern markets proliferates colonial commodity circuits despite efforts to transform production relations (Raynolds & Greenfield, 2015), although the polarisation of producers and consumers is gradually changing with the development of fair trade markets in Africa (Keahey, 2015) and Latin America (Renard & Loconto, 2013).

5.2 The content of fairness

Fair benefit-sharing

The three factors diverge on where to measure fair benefit-sharing (at the household level (F3); within the organisation producing the credits (F1); and across the commodity chain (F2 and F3)). F1 echoes the fair trade approach which is relatively prescriptive on fair benefit-sharing but limits the scope to producer cooperatives and worker associations (Fairtrade International, 2013; Constance L. McDermott, 2013). Fair trade impact studies normally assess household level changes too, but reluctance in F1 to extend the gaze to individual households may be because FCCs cannot be expected to generate the same level of direct household income as other fair trade commodities, as the carbon revenue is often absorbed further along the chain (Howard, et al., 2015). Despite their bearing on available income, all factors agreed that intermediaries can be involved in an FCC commodity chain. However, while F1 advocates limiting them, F2 and F3 embrace them and advocate reasonable compensation. F1 maps onto the fair trade, which in the coffee sector has been focused on enabling primary producers to engage in 'direct' trade with shorter trading chains while F2 and F3 fit more with other sustainability standards such as by the Forest Stewardship Council which often include many intermediaries (Taylor, 2005). Nevertheless more recently, the role of intermediaries has been legitimated within Fairtrade standards, in the Contract Production standard developed by Fairtrade International for particular geographical areas and products, and in the Independent Smallholder standard developed by Fair Trade USA although there is not yet enough evidence of the intermediary playing the intended role. Within carbon projects, Boyd (2009) suggests that NGOs can sometimes serve as intermediary institutions, bridging the disconnect between the values and rhetoric of local resource users, and the global institutions that set the rules, however, evidence on how this would occur in practice is again lacking (Lansing, 2013).

Fair Access and Procedures

All factors agreed that carbon project participants should be involved in design and implementation but recognised that households, farmers or community members may initially lack specific capacity or skills to engage effectively. However, while F1 aims to build capacities, F2 and F3 see limited capacity as reasons for continued involvement of additional parties. F2 recognises the need to shift power by enhancing project participants' negotiation capacities, whereas F3 does not advocate for changes in capabilities or power. Notably, the extent to which the shift in capabilities and power is possible depends greatly on context as well as motivations of actors involved. Within fair trade, there is a risk that approaches focusing on political empowerment only empower producers that already have more resources. Equally, without political empowerment, once dependencies become

institutionalised, there may be few opportunities to develop socially and institutionally, and to challenge the trading terms and positioning in the value chain (A. Tallontire & Nelson, 2013).

Rationales for participation varied between the factors, from philosophical (F1) to pragmatic or even instrumental (F3), and from being a means to eventually take on more tasks (F1) or a tool for enhancing negotiation (F2), to a means of strengthening participants' commitment to emissions reductions (F3). These differences resonate with Melo et al.'s finding that different carbon projects certified by the Climate, Community and Biodiversity Standard deployed participation in different ways. While participation is commonly emphasised in standards and project design documents and is seen as a requirement for projects to achieve both mitigation and community benefits, interpretations are wide-ranging, and without clear definitions and prescriptions, the notion risks being used instrumentally (Melo, et al., 2014). Also with respect to carbon projects based on Reduced Emissions from Deforestation and Degradation (REDD), McDermott et al (2012) note that safeguards (including participation) intended to enhance equity are deployed in distinct ways by different actors with different interests. Nevertheless, Lansing (2013) observes that project designs are necessarily highly technical, require standardised procedures and often exclude different perspectives. Based on his findings that the farmers, scientists, policy experts and local leaders involved in a carbon project did not agree on the goals of offsetting or the drivers of land use change, he concludes that collaborative project design and implementation is actually very difficult.

5.3 Parameters of fairness

Different reactions to 'minimum prices' point to different understandings of what this mechanism might look like and what it could achieve when applied to carbon. Some positive reactions (F1) were based on experience of the benefits it brings when applied to agricultural commodities, and awareness of the complexity and rigour used to work out prices. Other ambivalent or negative reactions (F2 and F3) came from people who had limited experience of Fairtrade minimum prices or who were aware of the difficulties in challenging market forces or finding buyers willing to pay higher prices, following their experiences of carbon price slump in recent years. One participant commented that the reason she was not in favour of minimum prices was because she was not from fair trade, where she perceived that minimum prices are 'in their DNA'. However, some participants from within fair trade were also unsure how the tool would work when applied to carbon. Minimum prices set Fairtrade standards apart from other sustainability standards and are an attempt to modify conventional trading relations (Taylor, 2005). However, this is harder to achieve in capital intensive, organisationally complex networks (Raynolds & Greenfield, 2015) and depends on actors in the supply chain and other contextual aspects inherent to the commodity and the industry (Nelson & Martin, 2015). Furthermore, corporate pressure is resulting in the dilution of key fair trade principles including minimum prices (Doherty, et al., 2013; Renard & Loconto, 2013). Carbon projects are not only capital intensive and organisationally complex but also constitute a specific context for applying minimum prices, firstly because it is not obvious who would receive them. People in F3 emphasised that payments to individuals are not always appropriate, especially when attached to the use of an energy-saving appliance such as a cook-stove or solar light, and are better translated into subsidies or services. In this case, a minimum price would go to the entity implementing

the project and as yet, these entities are primarily NGOs and foreign or national businesses. For F1, these actors are not the 'target' of fairness. Secondly, certain types of carbon projects such as afforestation/ reforestation often involve complex financial flows where investors commit to forwarding payments to project participants several years ahead of the carbon credits being fungible (e.g. Fisher, 2012; Jindal, Kerr, & Carter, 2012) and this requires agreements and risk management mechanisms which are specific to each project. While there may be valid reasons for not applying minimum prices to carbon credits, this outcome would be very controversial within the fair trade movement and would set a precedent potentially shaping its whole trajectory. The backdrop of low carbon market prices suggests the need for tools to ensure that carbon projects can cover costs and hedge risks, but the critical question remains of whether there will be willingness to pay higher prices.

6. CONCLUSION

Recognising that definitions of fairness and how to achieve it are multiple and contested in the context of carbon markets, our Q study served as a tool for opening up discussion and providing clarity on some of the key fault lines in the debate. The work to develop the Fairtrade Climate Standard with the support of external stakeholders is an illustration that some of the pre-existing internal contestations within the fair trade movement have been mirrored in disagreements between people both from within and outside the fair trade movement concerning the new fair trade commodity of carbon credits. While it cannot be expected, nor would it be necessary that everybody agrees on the content, goals and target and how the parameters of fairness are set, it is nevertheless important to acknowledge whose priorities and definitions are included or excluded in standards and projects aiming to enhance fairness, and to find ways of rebalancing this if it does not fit with the original intentions or has unintended consequences. In this respect, we echo McDermott et al.'s (2013) concern that if the process of defining equity or fairness (the final layer of the framework) is not given sufficient attention it is likely to remain a reflection of prevailing discourses and power relations and standards and projects will be limited in their scope to transform unfair situations and impact on the beneficiaries who should have most to gain from the development of such initiatives. Finally, the potential of a Fairtrade Climate Standard to trigger positive outcomes for the people involved in producing FCCs is contingent on consumers' willingness to pay for them, and this still remains unknown.

Supplementary Material

The concourse included documents; transcripts of observed events; and transcripts or notes from interviews and informal conversations. Written documents included research commissioned or conducted by Fairtrade; discussion papers and draft versions of the standard, which had been shared with invited stakeholders; minutes from meetings of a working group composed of people from within the Fairtrade system; and a position paper and a webpage from organisations who were claiming to engage in "fair carbon" or act according to "fair trade values". In the second category were transcripts from meetings and workshops with experts, organised by Fairtrade and Gold Standard; a transcript from a consultative call on gender organised by Gold Standard; a transcript of a public event held at COP19 by Gold Standard and Fairtrade; and a transcript of one of the Fairtrade working group meetings. In the third category were transcripts and notes from 4 interviews and 3

informal conversations with individuals involved in carbon projects or carbon certification, based in East Africa, the U.S., Asia and Europe. Themes covered included gender in carbon projects, roles and responsibilities, challenges related to production, certification and sales of carbon credits, expectations of the standard, philosophy and moral positioning. In combination, the concourse materials represented the sum of documents, events and interview opportunities that the researchers had access to between September 2013 and March 2014.

Table A 1: Fit between statements and thematic categories

Thematic category	Number of associated statements	Statements used to build factor interpretations
Parameters of fairness	13	Statements about pricing and margins, and to what extent Fairtrade should prescribe parameters of fairness within a standard.
Goal of fairness	8	*Combined:* Statements about where credits should be produced and sold, by which kinds of people and structures; and statements about the overall goal of projects.
Target of fairness	11	
Fair Procedures	13	*Combined:* Statements about ownership of credits, involvement in project design and implementation, and participation in financial and management decisions.
Fair Access	6	
Fair Benefit-sharing	16	Statements about distribution of benefits, responsibilities and skills.

Table A 2: Statements making up the Q set with idealised sort patterns for factors F1, F2 and F3 that emerged from the analysis. Sort patterns represent scores that an individual loading 100% on the factor would have assigned to each statement, where -4 is "most disagree", and +4 is "most agree".

	Statements in the Q set used to explore participants' views on the question *What would "fairness" mean in the context of a Fairtrade carbon project?*	Idealised sort patterns		
		F1	F2	F3
1[c]	FCCs should only pay people for any emissions reductions resulting from the project *G*	-1	-1	0
2	FCCs should aim to shift more of the benefits of carbon trade to organised communities of disadvantaged people in the south *G*	3Δ	-1Δ	1
3	FCCs should be a mechanism for paying communities in developing countries for the fact that their carbon footprints are lower than the ones they are entitled to *G*	-1	-1	3Δ
4	The Fairtrade Climate Standard should include within its scope the regions that are heavy contributors of greenhouse gas emissions *T*	-4Δ	2Δ	-1
5[c]	In an FCC supply chain, intermediaries are acceptable as long as fair distribution of the benefits from sales is ensured *B*	2	3Δ	2
6	Buyers of FCCs should pay a price which takes into account the cost of the damage to the atmosphere caused by excess carbon emissions *P*	-2	0	-2
7	The Fairtrade Climate Standard should reward projects that start from scratch with a group of people and enable them to build an organisation *Pr*	-1	3Δ	-1

8	Manufacturing companies implementing carbon projects must provide opportunities for users to shape product design and use of profits *Pr*	-1	-1	0
9	Fairness should mean that a certain amount of the financial revenues are going into a carbon project for reinvestment, infrastructure, capacity-building etc *B*	0Δ	1	1
10	Individuals and households involved in an FCC project should have an opportunity to take part in discussions about its budget, funding source and revenue distribution *Pr/ A*	3Δ	1Δ	0Δ
11	Fairness should mean that the local households accepting an intervention are the initial owners of the FCCs *Pr*	2Δ	2	-1
12[c]	Fairness should mean that a project does not import cookstoves, as this means exporting jobs to China and America *B*	-2	-2	-4Δ
13	Carbon projects implemented by manufacturing companies that do not engage with organised communities should not be eligible for Fairtrade certification *T/ Pr*	2Δ	-4Δ	-1
14	Fairtrade Carbon should provide the opportunity for well-functioning cooperatives to benefit from more economic resources *Pr/ T*	2Δ	2Δ	1
15	It is fair for ownership of carbon credits to be transferred away from those who are generating the emissions savings as long as they are aware of what they are signing in an agreement *Pr*	-3Δ	0	4Δ
16	Fairtrade certification should be able to ensure that benefits from taking part in a project are reaching particular members of a household *A*	0Δ	-2Δ	1
17	The Fairtrade Climate standard should only support smaller types of projects *T*	-2	-3Δ	-2
18	For a fair supply chain, we need to regulate what everyone in the supply chain is getting *P/ B*	-2	-1	-3Δ
19	Fair revenue distribution along the carbon value chain should be governed by an 'open book policy' (where costs and margins are transparent) *P/ B*	0Δ	4Δ	-1
20	A fair business model in a carbon project will have to cater for a reasonable compensation of all parties involved *B*	0Δ	4Δ	3Δ
21	People generating FCCs should not need to take on the carbon project development process *Pr/ B*	-2Δ	-2Δ	2Δ
22[c]	Fairness in land-based projects is about securing a certain proportion of the carbon revenue as direct payments for farmers *B*	0Δ	-1	1Δ
23	It would be fair to use part of the carbon revenue in land based projects to pay for technical assistance to farmers *B*	0Δ	1	1
24[c]	Organisations must be able to make the steps and follow the procedures required to develop and implement an FCC project by themselves *Pr/ B*	0	0	-1
25	Trade of carbon credits can only be fair if communities have the chance to sell their credits by themselves *Pr/ B/ A*	-1Δ	-3Δ	-2
26[c]	Along with emissions reductions, development should be a primary target of an FCC project *G*	3	3	4Δ
27	Having Fairtrade minimum prices for carbon credits is fundamental for making trade fair *P*	4Δ	1Δ	-2Δ
28	Prices of FCCs should not be driven by market forces *P*	1Δ	-3Δ	-2Δ
29	You should be able to start receiving money for an FCC project delivering development, even before you have delivered the carbon *G/ B*	2	-2	2
30[c]	The Fairtrade Climate Standard should only be applicable for projects implemented by pre-existing organisations *Pr/ T*	-4Δ	-4Δ	-3
31[c]	Fairness' should be assessed by looking at what the carbon revenue has achieved *T/ G*	1	0	0

32	FCCs should be sold to anyone, not just those who commit to reducing their emissions *T*	-3Δ	2Δ	0
33	Fairtrade carbon development should enable a strong bond between carbon credits suppliers and sellers *T/ G*	1	2Δ	0
34	A fair outcome would be that the money generated through a carbon project was having a direct impact on the long term income situation of a farmer or household *B/ G*	0	0	3Δ
35	If social impacts are monitored and distribution of economic and social benefits is balanced, it is acceptable for an FCC project to rely on private companies *T/ B*	1	1	3Δ
36	We cannot talk about fairness if we are asking poor people to reduce their emissions when high emitters have not made commitments to do the same *T*	1Δ	1Δ	-4Δ
37	Fairness in appliance-based projects is about access to the technology and maintenance *B/ A*	-1	0	2Δ
38	Projects carried out by large structures involving large numbers of beneficiaries should be eligible for Fairtrade certification even if individual members are not realistically engaged *T/ Pr*	-3Δ	0	0
39	Fairness should mean that in certain types of FCC projects, the carbon payments are made to women *A/ B*	1Δ	-2Δ	2Δ
40	Individuals and households participating in an FCC project must be able to input into decision-making and management *Pr / A*	4Δ	0Δ	0Δ

Δ denotes statements used to build the factor interpretations.

[c] denotes consensus statements (which did not distinguish between any pair of factors), non-significant at P<0.01. These were not used to build the factor interpretations unless they were also the highest or lowest scored statements.

T G Pa A B Pr denotes coding for statements according our adapted version of McDermott et al's (2013) equity framework, whereby *T* = target; *G* = goal; *Pa* = parameters; *A* = fair access; *B* = fair benefit-sharing and *Pr* = fair procedures.

Table A 3: Summary of concerns and debates in the carbon market, Fairtrade and in the factors

Fairness concerns in the carbon market	Relevant debates in fair trade	Relevant layers of the equity framework and persistent areas of disagreement
Mitigation burdens for people less responsible for climate change	Who should fair trade target as producers and consumers and what should be expected of them?	Goal and target of fairness: Should the standard be focussed primarily on mitigation impact, technology dissemination or development in the global south?
Marginal share of benefits for smallholders and communities	Which kinds of benefits are accessible to whom in different contexts?	Content of fairness (fair benefit-sharing): Should benefits be targeted and monitored at the level of the household, organisation or across the chain?
Marginal positioning for smallholders and communities	Which kinds of relationships and divisions of tasks should prevail between different actors in the chain?	Content of fairness (fair access and procedures): How much can and should project participants be expected/ supported to take on more project tasks?
Exclusivity and inherent trade-offs with marketization and technocratization approaches of standards	Tensions between the movement-driven origins of fair trade and current applications in multiple types of industries, commodities and supply	Setting of parameters of fairness: Are minimum prices applicable and will they make trade of carbon credits fair?

	chains.	

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