

**Co-constructing sustainability:  
Agencing sustainable coffee farmers in Uganda**

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### **Abstract**

This article explores the sustainability initiatives undertaken in a non-certified market involving an indigenous Southern firm and smallholder coffee farmers in Uganda. In response to recent calls, we take a performative approach to sustainability and employ an agencing lens to ask the question: how are sustainable coffee farmers constituted in concrete situations, and what role do they play in co-constructing sustainability? The ethnographic study undertaken reveals the proactive and interactive participation of farmers in co-constructing sustainability. Also unveiled, are the continuous and iteratively emergent agencing processes involving firms, farmers, and market devices, which collectively create variably-agenced sustainable farmers who perform diverse versions of sustainability.

**Keywords:** Sustainability; Agencing; Agencement; Performativity; Coffee farmers; Sustainable development.

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## **1. Introduction**

This paper is concerned with the achievement of sustainable coffee value chains and the role that upstream actors play in this regard. The coffee market is important because it is one of the largest commodity markets (Ponte, 2002) involving over 25 million smallholders, yet many of them struggle to make a living from coffee (Fairtrade, 2017; Mojo, Fischer and Degefa, 2017). At the same time, it also generates a significant amount of waste material both as solids (i.e. coffee pulp) and liquids (i.e. processing effluent), thus negatively impacting on ground/surface water pollution and river eco-systems via leaching and run-off (Kebede et al., 2010). Therefore, the goal of achieving a sustainable coffee sector is important for both planet and producers. No universal definitions of sustainability exist (Warner, 2007; McMorran, Scott and Price, 2014), however, a popular description of sustainability from the World Commission on Environment and Development emphasizes meeting the social, environmental and economic needs of current generations without compromising the ability of future generations to meet their needs. Consequently, some definitions place emphasis on one dimension over another (Kirwan, Maye and Brunori, 2017; Luke, 2005) and others refer to a balance between the 3 dimensions (see for example Morito, 2002 as cited in Loconto, 2014). This is compounded by the realization that a balance between the idealized 3 pillars of sustainability is notoriously difficult to achieve (Epstein and Buhovac, 2014; Visconti, Minowa and Maclaren, 2014). In attempting to move beyond this impasse there have been increased calls for research to consider the efforts to reorganize market relations and incorporate network-models based on greater levels of co-operation and integration between partners (Jaffee, 2007; Warner, 2007; Vurro, Russo and Perreni, 2009; Ryan, Mitchell and Daskou, 2012).

Notwithstanding these macro level considerations, conventional research on sustainability has come under increased scrutiny for failing to account for micro level, context-

specific concerns of actors (Warner, 2007; Loconto and Simbua, 2012; Doherty and Huybrechts, 2013). This scrutiny has led to recent calls for a more performative definition of sustainability (Melo and Hollander, 2013; Loconto, 2014), which accounts for a more situational explanation of sustainability and its achievement. Furthermore, while over 60% of world coffee production is sold from non-verified or non-certified sources (Levy, Reinecke and Manning, 2015), a disproportionate level of research has been given to understanding formal fair trade and organic certification within the coffee industry (Lyon and Moberg, 2010; Reinecke, Manning and von Hagen, 2012; Tallontire and Nelson, 2013). This has led to a shortage of evidence concerning the route towards a more sustainable global coffee value chain outside of the certified coffee market (Kolk, 2013). This is a problem for three reasons. One, there is a recognition that the product-based certification system remains primarily on Northern-based standards. Moreover, this has implications for Southern producers as it is likely to raise barriers to market entry (Raynolds, Murray and Heller, 2007). Secondly, such systems are limited in their scope of initiatives, that is to say focusing on improving product characteristics rather than attempting to strengthen social-based objectives (Doherty and Huybrechts, 2013). Thirdly, they lack focus on the producer's voice, often ignoring the ways in which they exercise agency (Melo and Hollander, 2013). In this paper, we specifically address these shortcomings in the extant literature, by examining more closely the multiple practices of sustainability and how it is organized and performed (see Warner, 2007; Loconto and Simbua, 2012; Doherty and Huybrechts, 2013).

Building on the work of Vorley, del Pozo-Vergnes and Barnett (2012), we focus on the initiatives of a Southern-based entrepreneur with a vision to bring about a distinctive version of a sustainable coffee market. From this perspective, we consider the efforts of an indigenous Ugandan roaster and exporter of coffee, involving farmers in South Western Uganda and reflect upon the active role of smallholder coffee farmers in co-constructing sustaina-

bility, which also works for them. Specifically, this emerges in a distinctive version of sustainable farming that balances between environmental, social and economic concerns, but with farmers gaining greater control over their own economic livelihoods. In doing so, we draw from the insights and experiences of farmers to explore how they negotiate with, transform, and ultimately construct a distinctive version of sustainability which responds to societal expectations.

We advance similar approaches taken in rural studies (see for example Konefal and Hatanaka, 2011) to reveal the iterative processes unfolding in the co-construction of sustainability; and also, to develop the research on agencements (see Le Velly and Dufeu, 2016 for a more extensive discussion), by illuminating the ongoing efforts to reshape ‘sustainability agencements’ through agencing processes. In this paper, we conceive the achievement of sustainability agencements as dependent on the realization of an actor-network to perform sustainable farming practices. We follow Cochoy (2014) in conceiving this actor-network as an agencement – a composite consisting of heterogeneous elements including humans, and material and technical devices which flexibly adjust to one another and act collectively (Çalışkan and Callon, 2010: 9). Specifically, our study focuses on the ‘agencing’ action which affords agency by “‘setting-up’, arranging, or combining a set of given elements” within the agencement (Cochoy, 2014: 117). Perceived as “strategies for realising sought-after economic agencies” (Callon (2008) as cited by Araujo and Kjellberg 2009: 201), we consider agencing as contributing to create ‘agenced sustainable farmers’ who then can perform sustainability. Moreover, agencing, through the collective effort of heterogeneous actors, sets processes in motion (Cochoy, 2014; Cochoy, Trompette and Araujo, 2016) which equip farmers to construct sustainability. Hence, this study uses the agencing lens to explain how ‘sustainable’ coffee farmers are constituted in concrete situations, and what role these farmers play in co-constructing sustainability.

The article now proceeds by providing an overview of the underpinning literature on sustainability, performativity and agencing, and then discusses the adopted methodology which uses an ethnographic approach, supported by in-depth interviews and visual research methods. Next, our findings and discussion highlight the performative sustainability mechanisms practiced by farmers, highlighting agencements and the market devices used to create and shape sustainability. Finally, our conclusions discuss the implications of our findings for both practice and theory.

## **2. Performative and agencing approaches to sustainability**

### **2.1 Sustainability as performative**

A performative definition of sustainability allows for the notion of ‘sustainability as practiced’, including the emergence of multiple, connected and context-specific understandings of the notion; for example, sustainability can be understood to concurrently mean market access or a project’s longevity to different actors (Loconto, 2010; 2014). Recent research emerging from within rural studies employ similar approaches to investigate sustainability and alternative, Third-Party Certification (TPC) markets (Konefal and Hatanaka, 2011; Le Velly and Dufeu, 2016). Here, Konefal and Hatanaka (2011) call for a more embracing perspective of TPC which reconciles the views of Northern and Southern actors in particular (see also Reynolds et al., 2007; Loconto, 2010), and accounts for the lived experiences of Southern producers (see Martin et al., 2015). In their portrayal of farmers as marginalized, Konefal and Hatanaka (2011: 126) reveal that, TPC standards enact performatively and construct realities through continuous processes of “politicking, maneuvering, and negotiating” between Southern actors and the Northern counterparts. Our study builds on Konefal and Hatanaka’s (2011) work to illuminate the mutual adjustments in particular between objects, market devices and

farmers acting to perform sustainable coffee farming. In this regard, we conceive farmers as active participants in co-constructing sustainability.

Concurrently, within the coffee sector, there have been increased calls for more visibility surrounding the everyday practices of smallholder farmers (see Carrier, 2010; West, 2010). This focus is particularly important given that smallholder farmers appear reluctant to engage with external sustainability initiatives, and have been found to prefer local interactions where possible (Martin et al., 2015). It seems appropriate then to take a performative approach to sustainability which contributes to illuminate the diverse contexts, actors and interactions involved in constructing sustainability, and to the unfolding transformations enabled.

We therefore pursue a broader understanding of the nature and context of the sustainability practices of coffee farmers. To help ensure a deeper appreciation of the concrete practices of, and actual representations of, smallholder farmers, we place greater attention on the interactions between people, things and their contexts, and take a performative approach to understanding sustainability (Carrier, 2010; Konefal and Hatanaka, 2011; Melo and Hollander, 2013; Loconto, 2014). We add to Loconto's (2014) work which, while shedding light on the interactive role of small farmers in shaping sustainability, remains silent on how agencies develop the capacity to act, and therefore contribute to co-construct sustainability. To help realize these contributions, we draw on the market studies literature; agencing, to be precise.

## **2.2 Agencing market actors**

The increased attention given to market studies has been underway for nearly a decade now. Since Araujo (2007), a number of scholars have been invited to consider a new set of con-

cerns and a new set of market actors heretofore marginalized from view (Cochoy, 2014). Central to the premise, and informed by both Michel Callon and Bruno Latour, amongst others, is the understanding that agency is collective and is understood through the notion of ‘agencement’: a composite consisting of heterogeneous elements including humans and (material and technical) devices which adjust to one another and act collectively (Çalışkan and Callon, 2010: 9). Within agencement studies, both humans and non-humans participate in action. According to Muniesa et al (2007: 2), market devices – “material and discursive assemblages that intervene in the construction of markets” – act and cause others to act. Likewise, Andersson, Aspenberg and Kjellberg (2008: 68) suggest that “rather than focusing on what actors are in principle, the study of market practice directs attention to the many practical forms in which market actors appear”. Importantly, this perspective offers a framework to consider how market agency is achieved, without resorting to models based on either actor’s cognitive capacities (Andersson et al., 2008) or their ethical values assumptions (Holt, 2012) in bringing about sustainable market forms.

Following Cochoy’s (2014) request to consider new concerns, and a new set of market actors often marginalized from view, this study focuses on a group of farmers who, in their quest to attain sustainable livelihoods, interact with many varying market agencies and exhibit differential agency in different situations (Kjellberg and Helgesson, 2006; Andersson et al., 2008). In so doing, we approach the collective capacities to act “as a practical outcome, rather than an essential characteristic” of actors (Kjellberg and Helgesson, 2006: 843); as an outcome of agencing efforts.

Developed from the neologism ‘agencement’, ‘agencing’ reflects the activities which attribute agency to actors, whilst also setting in motion various other activities (Cochoy, 2014; Cochoy et al, 2016). While ‘agencement’ refers to “arrangements endowed with the

capacity to act in different ways, depending on their configuration” (Çalışkan and Callon, 2010: 9), agencing draws attention to agency – how it is continuously acquired, shaped and sustained within the broader agencement (Hagberg, 2016). According to Cochoy (2014: 17), agencements draw attention less to the structure of its composition than to “its capacity to act”. From a market studies perspective, therefore, it is important not to conflate roles, people and actors. Instead actors (or agents in the ANT lexicon), are recognised as hybrid collectives or agencies, involving a mix of elements (people, expertise, devices) kept together in links or associations (Callon and Law, 1995). Perceived as a process, agencing predicates action (Cochoy et al, 2016); “‘setting-up’, arranging, or combining a set of given elements” in an agencement (Cochoy, 2014: 117). Agencing also can be perceived as “strategies for realising sought-after economic agencies (Callon, 2008 as cited by Araujo and Kjellberg 2009: 201), for example, the agenced sustainable farmers we investigate in this paper.

In discussing Callon’s perspective on agents and agency, Cochoy (2014: 112) suggests that: “If one particular actor may be seen and named as the origin of action (‘whose action is attributed to A’), no one of the entities at stake [in the actor network] is in fact the only source of action; no one can move without the other’s contribution, but also without the process of attributing it to a given element in the network.” Hence, through the collective effort of heterogeneous actors, agencing produces specific agencements and sets processes in motion (Cochoy, 2014; Cochoy et al, 2016).

Within this framework, we investigate the agencing efforts that build farmers’ capacities to co-construct sustainability. These efforts are not unidirectional, but stem from various directions – from the firm, external organizations, market devices, and from the farmers themselves. The understanding that markets are constituted by calculative market agencies, in particular, is emphasized (Callon, 1998). Questions about how farmers acquire their calcula-

tive agency and how their calculations in turn shape their sustainability practices therefore become important. Indeed, we consider the formatting and equipping of cooperating and/ or competing agencies with calculative tools (Callon, 1998) as reflective of the agencing efforts that constitute and shape market actors. Hence, in this study, the calculations of farmers become important in order to understand how their agential capacity to shape sustainability agencements is developed.

Calculation, according to Callon and Muniesa (2005), is about how calculative spaces are created; how entities in these spaces interact; and what alternatives are open for actors to evaluate. The authors highlight the broad spectrum of calculations that actors engage in, including that of making goods calculable. Calculation is further perceived as encompassing both computations and qualitative rational judgements whose recursive behavior creates an unstable and dynamic calculative space (Araujo, 2007; Cochoy, 2008). Further, calculation emerges through the collective performance of humans and market devices (Callon and Muniesa, 2005; Muniesa, Millo and Callon, 2007). For example, Cochoy (2008) demonstrates that shopping carts redefine consumer constraints and create calculative tools for consumers. Le Velly and Dufeu (2016) illustrate how market devices (including refrigerated warehouses and trucks, contracts and surveys) shape alternative food networks in a fish market in France. Beyond the views offered, of market devices and their role in co-constituting agencements, our study contributes to instantiate a processual perspective of agencing work (Cochoy et al, 2016), illuminating the ongoing negotiations and mutual adjustments between market devices and humans in constructing a sustainability agencement.

As discussed earlier, farmers and their agency have heretofore been obscured from view, where instead of being considered as calculative market actors, we have been relying on representations of ‘worthy’ (i.e. perceived as being deserved of a producer premium as in

the case of fairtrade) subsistence farmers (West, 2010). To contribute to the dearth of research in this area, we draw attention to the agential capacity of market actors, specifically farmers, which allows them to engage in ongoing economic activity. Subsequently, we ask: how are sustainable farmers constituted in concrete situations, and what role do these farmers play in co-constructing sustainability? To answer these questions, we examine agencing as a temporal and iterative process that unfolds in context as new connections between actors, market objects, and actions are created.

### **3. Research Methodology**

This study adopts a market studies approach, which considers action as enacted through a network of attachments, without which actors would cease to exist (Latour, 2005). Drawing from Callon (1986) and Latour (2005), we trace the practices of the actors, to learn from them how they define their identities, actions, and the range of choices open to them; and how they define and associate different elements to construct and explain their world. These activities are based on the assumption that actors are in the best position to understand their world and the motivations to perform it (Callon, 1986; Latour, 1999). All actors investigated in this article are actively involved in shaping the version of sustainability examined. As such, we attend to the associations between actors and to their performances as a durable whole (Callon, 1986; Latour, 2005).

Consistent with the underpinnings of actor-network theory, this study involves an ethnographic case study research design. Ethnographic research allows the researcher to obtain intimate familiarity with the everyday practice of subjects for an extended period (Brewer, 2000), as the “over-riding concern is always to observe actions as they are performed in concrete settings” (Gobo, 2008: 5).

This study investigates the everyday practices of the firm and two distinct farming communities, whereby for the purposes of this study will be referred to Community 1 and Community 2. The research methodology allowed the researchers to obtain direct and sustained social contact with the participants under study (Moisander and Valtonen, 2006: 48); to observe their everyday practices, and to listen to what the participants said about the occurrences (Becker and Geer, 1957; Gold, 1958).

Conducted in July and August 2010, the field research investigated the everyday coffee production and exchange practices of participants. We specifically examined the sustainability initiatives introduced by the firm including the formation of Producer Organizations (POs) and Saving and Credit Cooperatives (SACCOs) which collectively sought to achieve ‘community empowerment’ and ‘sustainable projects’ targeting farmers. We examine how these initiatives contribute to construct and to create durable interactions/connections between farmers and the firm. Following Callon and Muniesa (2005), this study perceives action as performed interactively by both humans (the firm’s officials and farmers) and non-humans (POs, SACCOs and market devices). It paid attention to obtaining micro-level details of the emergent interactions between actors (Andersson et al., 2008); to the relations and the practices unfolding between actors (Law, 2009). Hence, this study examined the interactions between the firm’s field officials and: 1/ farmer leaders – these occurred frequently; 2/ farmers during field visits, and during the coffee transactions which took place at the field office. The events investigated included 3 PO savings meetings, 1 farmers’ workshop, 1 field visit, and 1 meeting between the farmers and a visiting team from the firm.

The data was collected mainly through participant observation, involving direct interactions between the researcher and the subjects (Gobo, 2008). Accompanying methods included conversational interviews with the subjects (after Brewer, 2000) and fieldnote taking,

a standard practice in ethnography (Hammersley and Atkinson, 1995; Peñaloza and Cayla, 2006) that facilitates the recall of the details that might otherwise have been forgotten. Inspired by Thomas and Magilvy (2011), selected in-depth interviews were conducted with participants including the one farmer leader, an elderly farmer, two senior firm officials. The interviews provided deeper insights into the phenomena observed. Non-participant observation was also employed, for example, during farmer group meetings, when the researcher did not wish to influence the subjects' behaviour (Gobo, 2008). Visual and audio data was also recorded to enrich the data collected (Pink, 2013).

The fieldnotes were translated from brief to complete notes during, and immediately after, the fieldwork phase. Likewise, the interview transcription was done after fieldwork. Four datasets were created and organized according to the research setting i.e. Community 1, Community 2, the firm's field office and headquarters. Although the data analysis occurred iteratively and continuously throughout the research process (Brewer, 2000), the distinct analysis process began with the manual categorization of data using classifications cutting across the four datasets. Owing to the vast amount of data involved, and to the complexity of manually analyzing different datasets, Atlas.ti, an appropriate qualitative analysis software was employed. Ultimately, the data was coded line-by-line and the codes merged, and relationships were established between datasets, in order to generate the categories used in the empirical analysis below. This ethnographic account provides a basis for us to analyze the agencing efforts shaping the sustainability practices performed in the context examined.

#### **4. Empirical analysis**

This study is set in a South-Western district in Uganda and analyses the interconnected practices of market actors – the firm, farmers, Producer Organisations (POs) and Saving and

Credit Cooperatives (SACCOs) working alongside each other to achieve social, economic and environmental sustainability. First, we introduce the market actor networks examined, providing a backdrop to the main discussion on the attainment of social, economic and environmental sustainability. The agencing theme runs throughout the empirics to illuminate the collective role of the firm, farmers, POs and SACCOs setting processes in motion (cf. Cochoy et al, 2016) and in equipping farmers to calculate and to perform sustainability. In the opening scene to our focal discussion, we draw attention to an organic farming workshop involving farmer leaders to highlight the collective agencing efforts involved in constructing environmentally-sustainable farmers. We then trace the evolving, interactive, practices centering around the role of POs and SACCOs in constructing spaces for social, economic and environmental sustainability to simultaneously unfold.

#### ***4.1 The Research Context***

##### *4.1.1 Initial efforts to create a sustainability agencement*

The firm initiated the efforts to create a sustainability agencement in the context researched. The company offers an indigenous sustainability model that competes with the predominantly Northern-driven forms of sustainability, but which we can say coincides loosely with a model of sustainable development and attempts a balance among “economic viability, social justice, and environmental responsibility” (Morito, 2002 as cited in Loconto, 2014). Briefly, the firm’s core sustainability values, as cited on their website include: a social equality dimension: *To sell the finest African agro products bought direct from the growers at prices that ensure they make a profitable return on their harvest*; an economic viability dimension: *To operate on a sustainable financial basis within a framework of commercial best practices that places community empowerment at the heart of our business*; a social justice and envi-

ronmental responsibility dimension: *To create value for our farmers and their communities by investing a guaranteed portion of our profits in sustainable projects*; and an environmentally responsible dimension: *To train our farmers in agricultural best practices, and enable them to improve their crop quality and overall farm productivity.*

#### *4.1.2 Constituting sustainable coffee farmers*

The efforts to create sustainable coffee farmers within the agencement examined began at the outset of the firm's emergence onto the coffee market. In 2003, the firm organized 14000 farmers in the district to form 50-member POs. Along with an international aid agency, the firm donated wet processing equipment to farmers and trained them on organic coffee agronomy practices, empowering them to produce parchment coffee, a new type of coffee (in the district) which attracts a higher price both locally and globally. Farmers in the district market two types of coffee – parchment and unwashed coffee. The firm only buys parchment coffee, while unwashed coffee is bought by numerous intermediaries (local traders and agents) who sell ultimately to various exporters. About 70% of farmers in the district produce unwashed coffee using dry processing methods; a practice that they have engaged in since coffee was introduced in the early 20<sup>th</sup> century. Sometimes, however, the farmers sell coffee to both markets depending on how urgent their income needs are.

As the firm only buys coffee during the harvest season, income from parchment is seasonal. Some farmers get alternative income through selling unwashed coffee to local traders. While the firm offers stable prices to farmers despite the volatile coffee prices in the world market, the traders' prices fluctuate with world coffee prices. The firm thrives on maintaining a price leadership position in the market; as a protective measure, therefore, only reveals its price when the buying season starts.

As perhaps expected in the context of subsistence coffee producing communities, considerable efforts are being made by the firm to create sustainable coffee farmers. However, the manner in which farmers respond to, and iteratively reshape, the sustainability initiatives is important, and it is here where we gain a much more significant insight into how ‘overall sustainability’ (i.e. environmental, social and economic) is accomplished. These efforts are therefore not only important in and of themselves, but also for the long-term achievement of the broader environmental, social and economic goals.

This study focuses on the agencing practices performed in one PO, Community 1 PO (C1PO). The firm considers membership to POs as important, as do the farmer leaders, and takes note of this information during transactions. Figure 1 below depicts the network of actors involved in enacting social, economic and environmental sustainability in the context examined.

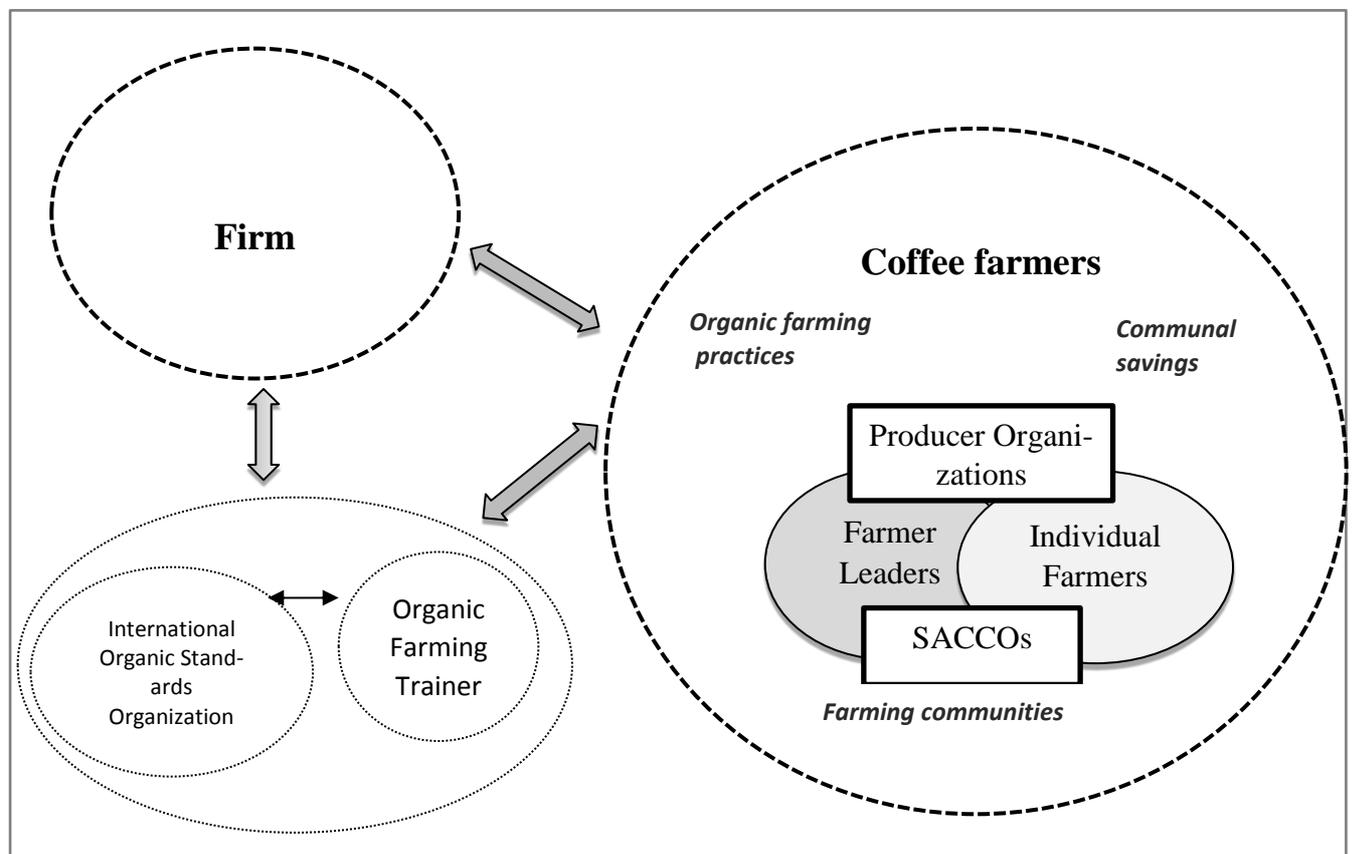


Figure 1: Enacting social, economic and environmental sustainability in the agencement

## ***4.2 Constituting environmentally-sustainable coffee farmers***

### *4.2.1 Initial efforts to construct environmental sustainability*

In 2008, the opportunity to qualify farmers as environmentally-sustainable, or put differently – to create environmentally-sustainable coffee farmers, arose when the firm was selected for funding by the International Trade Centre under the Uganda Organic Export Initiative to start a organic certification project. The firm selected 14% of its farmers to be involved in the project. According to Monde, a C1PO farmer, 15 farmers belonging to his group were registered for the programme. However, in order to format and equip farmers with specific attributes (after Callon, 1998) and specialist knowledge, the farmers must become associated with other elements, such as (more obviously) environmentally sustainable practices, but also (less obviously) ‘localized’ savings practices. Hence, participants, being formatted as environmentally-sustainable coffee farmers, were required to follow international organic standards relating to farming and growing coffee (environment, employment, record keeping, external contamination, etc.); and crop and land management including conversion to organic farming (a process that takes a minimum of 2 years) and the control of weeds, pests and disease. Formatting environmentally-sustainable farmers, however, is not a simple linear process. In adopting the organic standards, the farmers were responding to (in some cases) and in others, initiating a range of actions and activities that enabled the ‘formatting’ to be accomplished.

Below, the analysis focuses on one site, an organic farming workshop, where environmental sustainability is performed. Thus, we go behind the scenes to trace the actors, (inter)actions and mechanisms contributing to develop the agential capacity of environmentally-sustainable coffee farmers. In so doing, we focus our discussion on the efforts by the firm, farmer leaders, farmers and a newly enrolled market actor – an international trainer – to transform farmer leaders into Internal Inspectors.

#### *4.2.2 The organic farming workshop – creating a space for constructing environmentally-sustainable farmers*

To kickstart the organic certification process, and to create environmentally-sustainable farmers, the firm enrolled an actor – an International Organic and Sustainable Agriculture trainer – to run workshops to facilitate in setting up an internal control system to ensure quality coffee production and the documentation of all organic practices performed by farmers. In mid-July 2010, the final of four workshops was held and 15 farmer leaders attended. With the trainer’s contract ending with this workshop, the manager of the organic certification project at the firm, Timothy, was confident that the company could now competently pursue the certification programme without training support.

The workshop, which was a revision session on Internal Inspection<sup>1</sup>, provided an environment to develop the qualities of organic farmers in the farmer leaders attending. Previous workshops had focused on building farmer leaders’ abilities as practitioners of (and trainers on) crop rotation, mulching and farm management. Altogether, the workshop topics reflect the concerns of international organic food accreditors, relayed through the firm and the trainer, in achieving organic certification. The trainer plays a prominent role at this stage of the sustainability agencing effort. In the present workshop, for instance, she purposed to develop an additional quality - internal inspection – in the farmer leaders, equipping participants with information in the form of handouts on internal inspection as well as information on the ‘critical control points’, ‘violations’ and ‘sanction procedures’ involved in performing internal inspection. These items formed the basis of the discussions that followed which mainly highlighted the trainer’s concerns that farmer leaders are putting to practice the

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<sup>1</sup> Internal inspection, according to the trainer is defined as a formal verification of compliance to organic standards is performed on the authorization of the operator (the firm in this case).

knowledge learned during workshops; and that farmer leaders would ultimately contribute to build trust in the firm's organically produced coffee. For instance, farmer leaders were given various violation scenarios to consider and discuss in two groups. For instance, on the issue of "dry grass still standing in the shamba", one group recommended that:

You need to study the situation of the grass in the land – whether sprayed, or not weeded; advise the farmer to slash or weed; if observed that the firm has been sprayed with non-organic, fill a violation form (field note).

From the above, we can see that the trainer's performance shapes and predicates action (Cochoy et al, 2016), contributing to build the agential capacity of farmers to act as 'organic farmers'/ internal inspectors who promote environmentally-sustainable practices.

Besides, the workshop fostered interactions within the agencement, between the firm, trainers and farmer leaders, contributing to emphasize the collective and interactive performance of environmental sustainability. The interaction between farmer leaders was particularly visible, as the workshops format promoted discussion, allowing participants to draw on experience to identify violations and recommend actions for resolving them. Equipped with internal inspection forms, farmer leaders elicit information on the farmers' particulars; assess chemical usage and the risk of contamination on farms; farmers' knowledge of organic concepts and the agronomy practices performed; advise farmers; and cite any violations observed. One sample form observed assessed a farmer as 'good' in organic practices and 'fair' in performing tree maintenance, inter-cropping and crop-rotation and shade tree practices.

However, as Cochoy et al (2016) note, agencing efforts result in differences and asymmetries. For instance, not all farmer leaders competently filled out the inspection forms submitted to Timothy on the day of the workshop. Mukisa, for instance, had successfully

completed the forms, while others needed further guidance from Timothy on how to fill out the forms. Some others did not submit the forms at all. After the workshop, Timothy spent a few minutes explaining to farmer leaders how to correctly use the forms. Once completed, the forms are updated on the firm's database. As per Tabu, capturing this information permits the traceability of the organic practices performed by farmers.

As was emphasized during the workshop, the participation of family members and neighbors in organic farming is vital for the success of the programme. For instance, it was implied during workshop discussions that the use of chemicals in neighboring farms will affect the soils and crops of organic farmers. Farmer leaders were also charged to ensure that participants and their family members, including children, were familiar with the organic standards:

While observing Sula at his farm, the farmer told his son to remove plastic bags from the garden. The farmers are aware of the reasons behind the organic practices they practice e.g. why they get rid of plastic bags or don't use chemicals. Whereas their reasoning seems rudimentary, it does carry some weight. For example, Sula told me that they were taught that "plastics spoil soil", as did Tendo, when he mentioned that, "...chemicals affect their health" (field note).

Following the workshop, no formal gathering was called at the C1PO to feed forward the information obtained. Mukisa, however, reported that he had informally updated the C1PO farmers about the workshop. It seems then that, beyond managing the formal documentation on internal inspection, farmer leaders informally disseminate information to their counterparts. Other efforts to disseminate organic farming information noted include those by the firm to create local versions of the international organic standards on farm management, handling and storage which they avail to farmers.

We attribute the advancements in the environmentally-led farming practices above to the evolving, interactive, practices centering around POs and SACCOs. The discussion around the organic farming workshop provides a good starting point for us to discuss the agencing efforts set in motion to construct environmentally-sustainable farmers. Beyond this, we go behind the scenes to establish how the previous structures established (i.e. POs and SACCOs), and the evolving social and economic sustainability practices, heralded the co-construction of sustainability.

### ***4.3 Setting the stage to achieve sustainability through POs and SACCOs***

The findings reveal that market actors – the firm, farmers, Producer Organizations (POs) and Savings and Credit Cooperatives (SACCOs) – work alongside each other to achieve social, economic and environmental sustainability. POs and SACCOs are important market actors in our study context. These actors are constituted by groups of farmers (POs) and groups of groups of farmers (SACCOs). Although presented separately, in reality, the social, economic and environmental sustainability practices performed are entangled and sometimes occur ex-temporaneously, as and when the opportunities arise.

#### ***4.3.1 Agencing efforts to strengthen farming communities***

As vehicles to achieve social and economic sustainability, the firm firstly introduced Producer Organization consisting of farming communities living in close proximity to each other. The farmers organized themselves into groups of up to 50 members. Altogether, 280 POs were formed in 16 sub-counties. Tabu, a firm official, explained that, from his previous interactions with international aid agencies, 50 was considered an ideal number to group farmers.

These agencies, he remarked, preferred to channel assistance to farmer groups rather than to individual farmers. At this point in time, the firm fronted the sustainability agencing efforts.

POs are centers of activity, creating an interactive space for economically- and socially-sustainable coffee farmers collectively engage in, and promote, overall sustainability practices, and for the firm and farmers to interact. Indeed, the firm's associations with the farmers are enacted at PO-level. Tabu, for instance, considers the PO executive as "contact persons" for the firm, and also boasts that the firm buys coffee from "identifiable farmers" – individuals who can be traced to their respective POs.

The efforts to strengthen the farming communities (i.e. socially-sustainable farmers) began when the firm distributed wet processing equipment, pulpers (one pulper per PO), donated by an international aid agency, to POs. Here, we see that, despite taking the lead in agencing farmers, the firm needed the support of the aid agency in order to accomplish its goals. When the need arose to build central processing stores in 2 locations including Community 1, co-agencing – a joint endeavor between the firm, an aid agency and farmers – became necessary. Consequently, the central processing store, besides housing the PO's wet processing activities, became a meeting point for the C1POfarmers. PO meetings play a significant role in agencing farmers, contributing to sustain farming communities, and creating a space for farmers to discuss issues relating to their main source of livelihood (i.e. growing, processing and selling coffee). Beyond this, the C1POfarmers meet to address other economic and social priorities displayed on a wall in the processing store: "*modernize coffee farms; educate children; save for the problems; business; fight domestic violence; HIV/AIDS*".

Further efforts to equip farmer leaders with business skills are evident. The firm, in association with aid agencies and consultants, organizes management and accounting training for the farmer leaders. For example, Mukisa, a primary school leaver, does the bookkeeping

for C1PO and for SACCO 1. Even from inception, the firm trained farmer leaders on organic farming and wet processing practices. Forming part of the PO executive, trainers transmit the information (and the practices) learned during trainings to the rest of the farming community.

#### *4.3.2 SACCOs introduced to promote farmers' savings*

In 2006, at the recommendation of the Ugandan Minister of Finance, the firm initiated the formation of 15 Savings and Credit Cooperatives (SACCOs<sup>2</sup>). The SACCOs are established at sub-county level, and all the POs and their respective members are eligible to voluntarily join as members. The introduction of SACCOs restructured the sustainability agencement, creating a space for the construction of socially and economically-sustainable farmers.

In a joint effort with the firm, the farmer leaders actively involved in mobilizing farmers to enroll into SACCOs, which later would contribute in agencing sustainable farmer leaders and farmers. Because of the large number of POs involved, the firm identified the most active farmers at sub-county level, "*prime people on the ground*", as one firm official remarked, and appointed them as SACCO leaders.

The C1PO forum is used by farmer leaders to promote social and economic sustainability through SACCO savings, perhaps because the majority of the SACCO executive and most members of the SACCO belong to the C1PO. Indeed, like Mukisa observed, only 8 out of the 26 POs in the sub-county were members of SACCO 1. However, SACCO 1 is one of the best performers, as noted by the firm; a fact attributed to the frequent savings meetings

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<sup>2</sup> SACCOs form the largest registered cooperative societies in Uganda, and are member-driven (Ministry of Trade, Industry and Cooperatives, 2014). There are over 2000 SACCOs in Uganda (Bank of Uganda, 2014), governed under Uganda Cooperative Alliance, whose primary role is to finance rural primary cooperatives and cooperative unions through savings (Kwapong and Korugyendo, 2010b; Borda-Rodriguez and Vicari, 2013).

held at the C1PO. “The other SACCOs don't hold meetings. Without meetings, it becomes difficult to bring people together. It is money that brings people together... ‘no savings, no meetings’”, Mukisa remarked. The success of the C1PO and SACCO 1 evidences the agencing efforts of farmer groups in achieving social and economic sustainability.

### 4.3.3 Creating calculative ‘sustainable farmers’

#### *Establishing a price-savings model*

As SACCOs began to take off, the firm took a proactive role to employ a price-savings model to promote farmer savings. Through the model, the firm recommends farmers to save at least UGX 100 per kilo of parchment sold<sup>3</sup> in their respective SACCOs. At the field office entrance is a whiteboard showing the saving contribution (indicated as ‘profits share’ in Figure 2 below) recommended, which serves as a reminder the farmers to save in SACCOs. The figures shown on the display reflect the season’s price of coffee UGX 5,000 and the recommended (voluntary) UGX 100 saving. The model and the display are enrolled into the sustainability agencement as market devices (after Muniesa et al, 2007) designed to shape the saving-related practices of farmers.



<sup>3</sup> This was 2 percent of the August 2010 price of parchment.

Figure 2: The price display at the field office

With the market devices at hand, the farmer leaders and farmers are equipped with tools to trigger agencing practices. However, farmer responses to the firm's price-savings model vary, as they either modify or fail to adopt the model as we shall now demonstrate. The C1POfarmers modify the firm's price-savings model to suit their circumstances. To illustrate one scenario, instead of saving the recommended UGX 100 (per kilo sold), the C1POfarmers save UGX 200/ kilo, allocating 50% of this amount to individual members' SACCO accounts and the rest as the individual's contribution to C1PO's savings. In the second scenario, the modified model allows farmers to save on three fronts – in the SACCOs (as the firm recommends), individually, and at the C1PO-level. Using the SACCO funds, Mukisa, who is also the C1PO's accountant, buys coffee from individual farmers on behalf of the group and deducts UGX 200/ kilo from their total payment when they deliver coffee to his house<sup>4</sup>. He then deposits the money into the SACCO accounts of the farmer and the PO.

Still taking the lead in the agencing process, the C1PO farmers use the firm's price to set the C1PO's buying price. Essentially, the C1PO offers a price to farmers, which in principle is UGX 200 less than the firm's prevailing price. The firm only buys coffee during the harvest season, offering an all-season, stable price. The C1PO's price, which is set during the firm's buying season, therefore, prevails throughout the harvest and subsequent off-season, and then the cycle starts again. Table 1 summarizes the farmers' buying price and savings schedule.

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<sup>4</sup> Mukisa stores the coffee in his house until the firm's buying season starts, and then transports it to the field office for sale

<b>Item</b>	<b>(UGX)</b>
The firm's price/ kilo	5,000
SACCO price/ kilo	4,800
Total deduction	200
Contribution toward PO profits (50%)	100
Farmer savings in SACCO (50%)	100

Table 1: The farmers' buying price and savings schedule

Consequently, the farmers' calculative abilities are enhanced, and they are able to create a calculative frame as we demonstrate below, whose components derive from the firm's price-savings model (like we have shown) and from the firm's calendar of operations.

*Farmers creating overlapping calculative frames*

With highly volatile world coffee prices, the price of parchment – both the firm's and CIPO's– changes every season. For the farmers, the variation in price creates overlapping calculative frames during the harvest and off-seasons destabilizing existing market arrangements. Because farmers lack the vital information on the firm's subsequent season prices, they risk making erroneous judgements when deciding whether or not to sell coffee to the firm and/ or to local traders. This decision is important to the farmers who, when faced with school fees needs, particularly during the off-season, sometimes resort to producing and selling unwashed coffee instead of parchment. For example, some farmers end up selling organically-farmed coffee at low prices (i.e. as unwashed coffee), in which case, they achieve envi-

ronmental sustainability at the expense of economic sustainability. Social sustainability goals are not achieved either, as the practice of producing unwashed coffee is condoned by farmer leaders. The farmers will therefore rely on prices set even five months previously to compare the prices of parchment and unwashed coffee. When comparing coffee prices, one farmer, Chwezi, evokes a separate calculative frame operating during the off-season in which the SACCO's (not the firm's) and traders' prices are compared.

Despite the price uncertainty, the CIPO farmers are still able to make economic gains by operating separate calculative frames, and recover any losses made due to the incongruous SACCO prices set. When the buying season commenced in August 2010, the firm offered a much higher price than was normally expected (i.e. UGX 5,000), allowing SACCO 1 to realize profits (see Table 2) when farmers sold the stock accumulated during the off-season.

	<b>Fly crop season/ off-season (Mar-July 2010)</b>	<b>Main season (Aug-Dec 2010)</b>
The firm's price (UGX)	3,700	5,000
SACCO price (UGX)	3,500	4,800
Savings deduction (A)	UGX 200	
Profits made: The firm's price less off-season SACCO price (B)	$5,000 - 3,500 = 1,500$	
Difference in profits <b>B – A</b>	$1,500 - 200 = 1,300$	
Percentage increase in profits:	$\frac{\text{UGX } 1,300}{\text{UGX } 200} \times 100 = 550\%$	

Table 2: A computation of the SACCO's profits

#### *4.3.4 Variable outcomes of agencing processes*

##### *Farmers' responses to the price-savings model*

The efforts to achieve an agenced sustainable farmer to a great extent are contextual, and depend on the farmers themselves i.e. their efforts to adopt or adapt the model. For example, the C1PO farmers actively save, although the PO cannot always afford to buy coffee from its farmers as the loans are usually in excess of the savings. According to Mukisa, by July 2010, the PO had accumulated UGX 8 million in savings and planned to spend 25% of the funds on buying coffee from farmers and the rest on loans<sup>5</sup>.

Moreover, the agencing process is not without complexity. Whereas the C1PO farmers embraced and modified the model, the majority of the firm's farmers did not. To take one example, Mosi (a farmer leader belonging to SACCO 2), whose SACCO failed to implement the model. Ssali, a second farmer leader in this SACCO decried the distrust between members of the SACCO leadership team, and reflects on the pessimistic future of SACCO 2: "I think [the problems faced in the executive] will probably go on until the SACCO collapses". In this case, we find that the SACCO 2 farmers are not (yet) agenced to save despite the introduction of market devices, and that the agencing efforts in SACCO 2 need to be strengthened if farmers are to collectively save.

In an attempt to strengthen SACCO 2's agencing efforts, the SACCO executive met and resolved to request Tabu to act on the SACCO's behalf and mandatorily deduct the saving contribution from its members during transactions. When Mosi met with Tabu at the field office, Tabu declined to intervene, saying that it was illegal to compel farmers to save, as sav-

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<sup>5</sup> The exchange rate from UGX to the British Pound (£) at the time of data collection (August 2010) was UGX 1,000 = £0.28.

ing is a voluntary action. However, the SACCO 2 farmers are engaging with the model in a different way as we discuss in the next section.

### *Farmers' responses to saving in kind*

Further efforts to boost the saving capacity of farmers are evidenced when Tabu proposed an alternative of saving in kind; a feasible option for farmers who are frequently short of cash. Tabu describes this option as the “best approach to saving”, even better than the firm’s proposed savings model:

“Tell the farmers to bring 1 kilo of coffee to the SACCO. The SACCO should bulk the coffee ‘savings’ and then bring to the company for sale. The savings are then banked in the SACCO account. At the end of the year, you will read to the farmers ... ‘here are your savings’. “It is psychologically easier for farmers to deal with coffee than with money...Farmers don’t only have to save UGX 100, but can save more for example two, five or more kilos”, he said (Field note).

The C1PO already practices this approach (an example of farmers’ agential capacity enabled through the firm’s agencing efforts). For example, during one savings meeting, a farmer, Lumu, contributed 2 kilos of parchment in savings, and the parchment’s money equivalent was credited to his PO account. The PO would later translate the parchment into cash when the coffee is sold to the firm.

Thus, we see a second actor (i.e. parchment coffee) participating alongside the firm’s savings model in shaping farmers’ saving practices. Underlying this new role of parchment as a currency is the assumption that POs will receive the savings in kind and then will sell the

parchment to the firm. The cash equivalent of the savings will then be credited into the farmers' PO account.

The C1PO farmers also repay their SACCO loans in kind as illustrated in the field note below:

“During off-season when we don't have money, we get loans from the SACCO so that we can take our children back to school...during harvest we take coffee to the village bank to repay the loan. The PO, in turn, sells the coffee and gets money” (Kato).

From their perspective, the firm hopes that all the Saving and Credit Cooperatives (SACCOs) it oversees will embrace parchment as a currency so that farmers will not have to seek alternative income from traders through mortgages and/ or sell coffee to them. This practice helps to retain farmers as suppliers (of sustainable coffee) to the firm, owing to their obligations to repay loans in kind. As a currency, therefore, parchment builds the agential capacity of farmers, enabling them to become economically and socially sustainable through collective group savings and coffee trade.

## **5. Discussion**

In contrast to previous studies which rely on a North versus South discourse and remain silent on actors' capacities to act (see Reynolds et al., 2007; Loconto, 2010, 2014; Melo and Hollander, 2013; Doherty and Huybrechts, 2013), the empirical analysis above presents a snapshot view of how sustainability is achieved through an interplay between Southern actors (an indigenous firm and coffee farmers) and sustainability initiatives (POs and SACCOs). It illustrates the entangled nature of sustainability practices, which unfold when actors respond to opportunities as they arise (e.g. the advice to establish SACCOs, the initiative to obtain or-

ganic certification). These social, economic and/or environmental practices are often portrayed as discrete (Kirwan, Maye and Brunori, 2017; Luke, 2005).

We demonstrate how within a sustainability agencement, agencing processes (geared towards achieving social, economic and environmental sustainability) are set in motion (cf. Cochoy et al, 2016). In so doing, the agencement provides a space for market devices to evolve and intermingle with the firm, farmer leaders and farmers to build the agential capacity of sustainable farming communities, promote savings, and develop organic certification practices (see also Melo and Hollander, 2013; Loconto, 2014). The market devices investigated take various shapes including a formula materialized onto a whiteboard (i.e. the price-savings model), a mode of savings (i.e. savings in kind), and internal inspection forms. The market devices intervene to build the agential capacity of farmers and to shape (sustainability) and articulate action i.e. they act and make others act (Muniesa et al, 2007). For example, equipped with the price-savings formula, the C1PO farmers gain the capacity to calculate i.e. to involve in both computations (e.g. by determining C1PO prices and savings) and qualitative judgements (e.g. by rationalizing that more savings will benefit both individuals and POs), to calculate (cf. Cochoy, 2008). Some market devices (such as the internal inspection forms), however, take the form of representational market practices (Kjellberg and Helgesson, 2006), which capture vital information on the organic practices performed by farmers and any violations observed, and trigger remedial action directed at both the farmer leaders and the farmers. These market devices build the agential capacity of farmers to perform environmentally-sustainable practices.

Ultimately, this study evidences the mutual adjustment between human actors and market devices in co-constructing sustainability, illustrating the continuously emergent nature of agencements, a dimension not yet problematized in rural studies (see for example, Le Vel-

ly and Dufeu, 2016). The continuous agencing and (re)shaping of a sustainability agencement reveals entangled social, economic and environmental sustainability dimensions. Depending on when the opportunities arise, some dimensions become more prominent than others. For example, although environmental sustainability goals are upheld all year round, during the off-season, some farmers compromise the social and economic sustainability goals due to school fees demands.

The findings further reveal that variable agencing outcomes are accomplished in the market (Hagberg, 2016), revealing differences and asymmetries in actors' agencies (Cochoy et al, 2016). A case in point is the mutual adjustments between farmers and sustainability mechanisms: SACCO 1 farmers, by adopting the price-savings model, become more agenced as sustainable farmers' vis-à-vis their SACCO 2 counterparts.

Additionally, this study sheds light on the reasons behind farmers not actively engaging with sustainability programs. Precisely, we find that non-participation in sustainability programs can result from farmer-level disagreements, and do not in this case arise from farmer-sustainability organization disagreements as Konefal and Hatanaka (2011) demonstrate.

Recent rural research has discussed sustainability standards as outcomes of "ongoing network construction", and have typified farmers as underprivileged actors whose contribution to the development of standards remains marginal (Konefal and Hatanaka, 2011: 126). However, the interactivity demonstrated between farmers and their leaders, Saving and Credit Cooperatives (SACCOs), Producer Organisations (POs) and firm officials presents an optimistic picture, validating the significant role of farmers in co-constructing sustainability. Moreover, all actors constituting the agencement (including the farmers themselves), collectively participate in agencing farmers, building their capacity to save and to earn a sustainable

income (and sometimes profit from the coffee trade). Also, important to note here is the agencing role of farmers (not completely marginalized as previously considered) alongside market devices in shaping sustainability actions. In other words, the agencing efforts come from all directions of the agencement; being directed towards farmers, and from farmers towards the agencement. Consequently, the farmers who embrace the sustainability initiatives become agenced to the extent that they can autonomously grant loans from savings made and can save at individual, C1PO and SACCO levels. Moreover, with parchment as a currency, the farmers' saving contributions and loan repayments remain uninterrupted.

Interestingly as well, the market actors investigated sometimes assumed prominent, proactive, roles in performing agencing action, and then at times appeared silent as another actor took on this role. The roles to initiate/drive the agencing action, we found, were processually passed on from actor to actor as opportunities arose, and were shared (through co-agencing) in some instances. This attests to the asymmetries of agencing power unfolding in this study.

In this agenced role, C1PO farmers are able to construct dynamic calculative spaces (cf. Araujo, 2007) as a result of the mechanisms introduced (the price-savings model, to be precise). In particular, one entity in this calculative space – the volatile seasonal prices of coffee – destabilizes farmers' calculations (of the C1PO's price and savings) every season and off-season. Hence, the relations between entities in the calculative space (Callon and Muniesa, 2005), yield different outcomes in every season/off-season. Moreover, the enactment of parchment as a currency constructs a robust savings model, which ensures continuous economic activity, even without cash. These actions of farmers also uncover their calculative capacities as they are able to “patch things together” (Wilson, 2010: 85), that is to go against

the odds to enact transactions during the off-season, and to save without any monetary currency.

## **6. Conclusion**

This article examines the role of smallholder farmers in constructing a performative definition of sustainability, emerging in a balanced version between economic, social and environmental and local dimensions that are specific to the context investigated. In response to calls for more visibility surrounding the everyday practices of smallholder farmers (see Carrier, 2010; West, 2010), we illuminate the practicalities surrounding the balancing role of sustainability which has also received limited attention (Loconto, 2010, 2014; Melo and Hollander, 2013) by drawing attention to what sustainability means and for whom, and further, how it is organized and performed, (Warner, 2007; Loconto and Simbua, 2012; Doherty and Huybrechts, 2013). More specifically, this article responds to recent calls to develop the agency of farmers, including those participating in sustainability programs, so that they can take control of their lives and make markets work for them (Wilson, 2010; Vorley et al, 2012). We demonstrate that the ongoing process of the achievement, or otherwise, of sustainable development goals is highly fragile. In our case, local traders, continually wait in the wings in attempts to draw farmers back to less sustainable farming practices with offers of year-round mortgages on their unwashed coffee. This is why the agencing question that we address in this paper – on how sustainable coffee farmers are constituted in concrete situations, and what role these farmers play in co-constructing sustainability – is important. By illustrating the market devices introduced by, in this instance, indigenous firms, we trace how agencing processes are set in motion, which equip farmers to develop sets of practices that will ultimately support their version of sustainability, specifically here, to save and to calculate.

This study showcases the greater level of cooperation and integration between sustainability partners (Jaffee, 2007; Warner, 2007; Vurro et al., 2009; Le Velly and Dufeu, 2016) – the firm and the farmers in this case. However, it also illuminates the role of market devices in mediating the relationship between partners and equipping the targeted actors (farmers) to participate in co-constructing sustainability. Contrasting Wilson’s (2010) findings on Fair Trade as unprofitable to Nicaraguan farmers, this study demonstrates that, with a degree of autonomy, farmers can creatively shape a form of sustainability which is beneficial (and sometimes profitable) to them. The farmers can take control over their saving practices within the frameworks of initiatives provided by sustainability firms. Moreover, agenced farmers can “patch things together” (Wilson, 2010: 85) when faced with scarce resources (cash), price uncertainties, and information asymmetries. Although co-operation has been foregrounded as central in achieving sustainability (see Mojo, Fischer and Degefa, 2017), the emphasis has been on human actors and organizations, thus, ignoring the role of intermediary devices. Hence, we portray smallholder farmers as reflexive actors, learning and relearning from their experiences (in using the market devices, for example) in order to make things work. As Boersma (2009: 52) remarks, this more reflexive understanding of so-called ‘poor and marginalized’ actors is crucial in developing a “fairer and more humane” (sustainability) market.

In the absence of the global market’s over-reliance on mainstream actors which largely operate top-down Third Party Certification approaches to sustainability goal-setting from Northern actors (e.g. as critiqued by Dyllick and Hockerts, 2002; Reynolds et al., 2007; Reinecke et al., 2012; Levy et al., 2015), the firm (and its actor-network) employs a localized farmer-agencing efforts to address the aforementioned limitations of international certification schemes. Although the farmers involved in the pursuit of more environmentally sustainable practices akin to organic certification, the localized approach combining top-down and

local initiatives helps to realize a more dynamic and co-constructed version of sustainability that will potentially boost greater smallholder, farmer-involvement in negotiating and/or setting sustainability goals, and subsequently lead to a fairer and more sustainable global coffee value chain.

Contributing to the emerging research on agencing, this article illuminates the processes of transforming the agency of actors as interactively and iteratively emergent. Thus, there is no distinction between the ‘agencor’ and the ‘agenced’, as all actors involved are continuously transformed through the agencing process (which in our case is the action involved in equipping farmers to save and to calculate). The ‘unagenced’ actors stand out, as they simply observe, or are in the process of trialling sustainability mechanisms. Future research could look into the entire timeline in tracing the agencing process (Hagberg, 2016), as in this study we have only provided a snapshot of the process.

## References

- Andersson, P., Aspenberg, K. and Kjellberg, H., 2008. The configuration of actors in market practice, *Marketing Theory*, 8 (1), pp. 67-90. doi: 10.1177/1470593107086485
- Araujo, L., 2007. Markets, market-making and marketing. *Marketing Theory*, 7 (3), pp. 211-226. doi: 10.1177/1470593107080342
- Becker, H. S. and Geer, B., 1957. Participant observation and interviewing: A comparison. *Human Organisation*, 16 (3), pp. 28-32. doi: <http://dx.doi.org/10.17730/humo.16.3.k687822132323013>
- Boersma, F. V., 2009. The urgency and necessity of a different type of market: the perspective of producers organized within the fair trade market. *Journal of Business Ethics*, 86 (1), pp. 51-61. doi: 10.1007/s10551-008-9766-4
- Brewer, J. D., 2000. *Ethnography, Understanding Social Research*, Open University Press, Buckingham.
- Çalışkan, K., and Callon, M., 2010. Economization, part 2: A research programme for the study of markets. *Economy and Society*, 39 (1), pp. 1–32. doi:10.1080/03085140903424519
- Callon, M., 1986. Some elements of sociology of translation: Domestication of the scallops and the fishermen of the Saint Brieuc Bay. In Law, J. Editor, 1986. *Power, Action, and Belief: A New Sociology of Knowledge?* Routledge, London. pp. 196-223.
- Callon, M., 1998. An Essay on Framing and Overflowing: Economic Externalities Revisited by Sociology. In Callon, M., 1998. Editor. *The Laws of Markets*, Blackwell, Oxford. pp. 244-269.

- Callon, M., 2009. Elaborating the notion of performativity. *Le Libellio d'Aegis*, 5(1), 8–29.  
Retrieved from <http://hal-ensmp.archives-ouvertes.fr/docs/00/46/08/77/PDF/Callon-Libellio2009.pdf>
- Callon, M. and Muniesa, F., 2005. Peripheral vision economic markets as calculative collective devices. *Organization Studies*, 26 (8), pp.1229-1250. doi: 10.1177/0170840605056393
- Carrier, J.G., 2010. Protecting the environment the natural way: ethical consumption and commodity fetishism. *Antipode*, 42(3), pp. 672-689. doi: 10.1111/j.1467-8330.2010.00768.x
- Cochoy, F., 2008. Calculation, qualculation, calquation: Shopping cart arithmetic, equipped cognition and the clustered consumer. *Marketing Theory*, 8 (1), pp. 15–44. doi:10.1177/1470593107086483.
- Cochoy, F., 2014. *A Theory of 'Agencing': On Michel Callon's Contribution to Organizational Knowledge and Practice* (pp. 106-124). Oxford: Oxford University Press.
- Cochoy, F., Trompette, P. and Araujo, L., 2016. From market agencements to market agencing: an introduction. *Consumption Markets & Culture*, 19 (1), pp. 3-16. doi: 10.1080/10253866.2015.1096066
- Doherty, B. and Huybrechts, B., 2013. Connecting producers and consumers through fair and sustainable value chains. *Social Enterprise Journal*, 9 (1), pp. 4-10. doi:10.1002/bse.323
- Dyllick, T. and Hockerts, K., 2002. Beyond the business case for corporate sustainability. *Business Strategy and the Environment*, 11 (2), pp. 130-141. doi: 10.1002/bse.323

- Epstein, M. J., & Buhovac, A. R. (2014). *Making sustainability work: Best practices in managing and measuring corporate social, environmental, and economic impacts*. Berrett-Koehler Publishers.
- Fairtrade, 2017. *Coffee Farmers*. Available at:  
<http://www.fairtrade.org.uk/Farmers-and-Workers/Coffee>. Accessed 23<sup>rd</sup> June 2017.
- Gobo, G., 2008. *Doing ethnography*. Sage.
- Gold, R. L., 1958. Roles in sociological field observations. *Social Forces*, 36 (3), pp. 217-223. doi: 10.2307/2573808
- Hagberg, J., 2016. Agencing practices: a historical exploration of shopping bags. *Consumption Markets & Culture*, 19 (1), pp. 111-132. doi: 10.1080/10253866.2015.1067200
- Hammersley, M. and Atkinson, P., 1995. *Ethnography: Principles in Practice*, Routledge, London and New York.
- Hines, F., & Marin, O., 2004. Building innovations for sustainability: 11th international conference of the greening of industry network. *Business Strategy and the Environment*, 13 (4), pp. 201-208. doi: 10.1002/bse.412
- Holt, D. B., 2012. Constructing sustainable consumption from ethical values to the cultural transformation of unsustainable markets. *The Annals of the American Academy of Political and Social Science*, 644 (1), pp. 236-255. doi:10.1177/0002716212453260
- Jaffee, D., 2007. *Brewing Justice: Fair Trade Coffee, Sustainability, and Survival*. Berkeley: University of California Press.
- Kebede, Y. K., Kebede, T., Assefa, F., & Amsalu, A. (2010). Environmental impact of coffee processing effluent on the ecological integrity of rivers found in Gomma woreda of Jimma zone, Ethiopia. *Ecohydrology & Hydrobiology*, 10(2), 259-269.

- Kirwan, J., Maye, D. and Brunori, G. (2017) Acknowledging complexity in food supply chains when assessing their performance and sustainability. *Journal of Rural Studies*, 52, 21-32.
- Kjellberg, H. and Helgesson, C-F., 2006. Multiple versions of markets: Multiplicity and performativity in market practice. *Industrial Marketing Management*, 35 (7), pp. 839-855. doi:10.1016/j.indmarman.2006.05.011
- Kolk, A., 2013. Mainstreaming sustainable coffee. *Sustainable Development*, 21 (5), pp, 324-337. doi: 10.1002/sd.507
- Konefal, J. and Hatanaka, M., 2011. Enacting third-party certification: A case study of science and politics in organic shrimp certification. *Journal of Rural Studies*, 27 (2), pp.125-133. doi:10.1016/j.jrurstud.2010.12.001
- Latour, B., 1999. On Recalling ANT. In Law, J. and Hassard, J., Editors, 1999. *Actor Network Theory and After*, Blackwell Publishers, Oxford pp. 15-25.
- Latour, B., 2005. *Reassembling the Social: An Introduction to Actor-Network-Theory*, Clarendon Lectures in Management Studies, Oxford University Press, Oxford.
- Law, J. (2009) Actor Network Theory and Material Semiotics in Turner, B. S. Ed. *The New Blackwell Companion to Social Theory*, Oxford: Blackwell, 141-158.
- Le Velly, R., & Dufeu, I., 2016. Alternative food networks as “market agencements”: Exploring their multiple hybridities. *Journal of Rural Studies*, 43, pp. 173-182. doi:10.1016/j.jrurstud.2015.11.015
- Levy, D., Reinecke, J., and Manning, S., 2015. The political dynamics of sustainable coffee: Contested value regimes and the transformation of sustainability. *Journal of Management Studies*, 53 (3), pp. 364-401. doi: 10.1111/joms.12144

- Loconto, A., 2010. Sustainably performed: Reconciling global value chain governance and performativity. *Journal of Rural Social Science*, 25 (3), pp.193-225.
- Loconto, A., 2014. Sustaining an enterprise, enacting Sustainability. *Science, Technology and Human Values*, 39 (6), pp. 819-843. doi: 0162243914531989.
- Loconto, A. M., and Simbua, E. F., 2012. Making room for smallholder cooperatives in Tanzanian tea production: Can Fairtrade do that? *Journal of Business Ethics*, 108 (4), pp. 451-465. doi: 451-465. 10.1007/s10551-011-1101-9
- Luke, T. W., 2005. Neither sustainable nor development: reconsidering sustainability in development. *Sustainable Development*, 13 (4), pp. 228-238. doi: 10.1002/sd.284
- Lyon, S. and Moberg M., 2010. What is fair? The paradox of seeking justice through markets. In Lyon, S and Moberg M., Editors, 2010. *Fair Trade and Social Justice: Global Ethnographies*. New York University Press, New York.
- Martin, S., Rieple, A., Chang, J., Boniface, B., & Ahmed, A., 2015. Small farmers and sustainability: Institutional barriers to investment and innovation in the Malaysian palm oil industry in Sabah. *Journal of Rural Studies*, 40, pp. 46-58. doi: 10.1016/j.jrurstud.2015.06.002
- McMorran, R., Scott, A. J., and Price, M. F., 2014. Reconstructing sustainability; participant experiences of community land tenure in North West Scotland. *Journal of Rural Studies*, 33, pp. 20-31. doi:10.1016/j.jrurstud.2013.10.006
- Melo, C.J. and Hollander, G.M., 2013. Unsustainable development: Alternative food networks and the Ecuadorian Federation of Cocoa Producers, 1995-2010. *Journal of Rural Studies*, 32, pp. 251-263. doi:10.1016/j.jrurstud.2013.07.004
- Moisander, J. and Valtonen, A., 2006. *Qualitative Marketing Research: A Cultural Approach*. London, Sage.

- Mojo, D., Fischer, C., & Degefa, T. (2017). The determinants and economic impacts of membership in coffee farmer cooperatives: recent evidence from rural Ethiopia. *Journal of Rural Studies*, 50, 84-94.
- Morito, B., 2002. Thinking ecologically: environmental thought, values, and policy. Winnipeg, Fernwood Books Limited. In Loconto, A., 2014. Sustaining an enterprise, enacting Sustainability. *Science, Technology and Human Values*, 39 (6), pp. 819-843. doi: 0162243914531989.
- Muniesa, F., Millo, Y. and Callon, M., 2007. An introduction to market devices. *The Sociological Review*, 55 (s2), pp.1-12. doi: 10.1111/j.1467-954X.2007.00727.x
- Peñaloza, L. and Cayla, J., eds. (2006) Writing Pictures/Taking Fieldnotes: Towards a more Visual and Material Ethnographic Consumer Research, in Belk, R. W. Ed. *Handbook of Qualitative Research Methods in Marketing* Edward Elgar, 279-290.
- Pink, S. 2013. *Doing Visual Ethnography*. London, Sage.
- Ponte, S. 2002. The latte revolution? Regulation, markets and consumption in the global coffee chain. *World Development*, 30(7), 1099-1122.
- Raynolds, L. T., Murray, D., and Heller, A., 2007. Regulating sustainability in the coffee sector: A comparative analysis of third-party environmental and social certification initiatives. *Agriculture and Human Values*, 24 (2), pp. 147-163. doi: 10.1007/s10460-006-9047-8
- Reinecke, J., Manning, S., and Von Hagen, O., 2012. The emergence of a standards market: Multiplicity of sustainability standards in the global coffee industry. *Organization Studies*, 33 (5-6), pp. 791-814. doi: 10.1177/0170840612443629

- Ryan, A.M, Mitchell, I.K., and Daskou, S., 2012. An interaction and networks approach to developing sustainable organizations. *Journal of Organizational Change Management*, 25 (4), pp. 578-594. doi: <http://dx.doi.org/10.1108/09534811211239236>
- Tallontire, A., and Nelson, V., 2013. Fair trade narratives and political dynamics. *Social Enterprise Journal*, 9 (1), pp. 28-52. doi: <http://dx.doi.org/10.1108/17508611311329994>
- Thomas, E. and Magilvy, J. K. (2011) Qualitative Rigor or Research Validity in Qualitative Research, *Journal for Specialists in Pediatric Nursing*, 16(2), 151-155.
- Visconti, L.M., Minowa, Y. and Maclaren, P. (2014) “An ecological perspective on sustainability as a megatrend”. *Journal of Macromarketing*, 34(3), pp. 349-368.
- Vorley, B., del Pozo-Vergnes, E., and Barnett, A., 2012. *Small Producer Agency in the Globalised Market: Making Choices in a Changing World*. Hivos and the International Institute for Environment and Development, Netherlands and UK.
- Vurro, C., Russo, A., and Perrini, F., 2009. Shaping sustainable value chains: Network determinants of supply chain governance models. *Journal of Business Ethics*, 90 (4), pp. 607-621. doi: 10.1007/s10551-010-0595-x
- Warner, K.D., 2007. The quality of sustainability: Agroecological partnerships and the geographic branding of California winegrapes. *Journal of Rural Studies*, 23 (2), pp.142-155. doi:10.1016/j.jrurstud.2006.09.009
- West, P., 2010. Making the market: specialty coffee, generational pitches, and Papua New Guinea. *Antipode*, 42 (3), pp. 690-718. doi: 10.1111/j.1467-8330.2010.00769.x
- Wilson, B. R., 2010. Indebted to fair trade? Coffee and crisis in Nicaragua. *Geoforum*, 41 (1), pp. 84-92. doi:10.1016/j.geoforum.2009.06.008