



Analysis

Group certification supports an increase in the diversity of sustainable agriculture network–rainforest alliance certified coffee producers in Brazil



Luís Fernando Guedes Pinto ^{a,*}, Toby Gardner ^{b,c}, Constance L. McDermott ^d, Karim Omar Lara Ayub ^{e,1}

^a IMAFLORA – Instituto de Manejo e Certificação Florestal e Agrícola, Brazil

^b Stockholm Environment Institute, 87D Linegatan, Box 24218, Stockholm, Sweden

^c International Institute for Sustainability, Rio de Janeiro CEP 22460-320, Brazil

^d Environmental Change Institute, University of Oxford, Oxford University Centre for the Environment, South Parks Road, Oxford OX1 3QY, UK

^e Oxford Department of International Development, Queen Elizabeth House, University of Oxford, 3 Mansfield Road, Oxford OX1 3TB, UK

ARTICLE INFO

Article history:

Received 20 December 2013

Received in revised form 2 August 2014

Accepted 8 August 2014

Available online 27 August 2014

Keywords:

Equity

Standards

Performance

Rainforest alliance

SAN

Value chain

ABSTRACT

Socioenvironmental certification is a market-based mechanism aimed to foster sustainability of production systems. However, mainstream certification schemes in the agricultural sector have been adopted primarily by larger and more established producers, indicating an unequal distribution of social benefits. Group certification is often promoted as one alternative to increase accessibility for smaller producers, but there has been a lack of studies assessing this hypothesis. We assessed all coffee producers certified under the Sustainable Agriculture Network–Rainforest Alliance Certified system in Brazil in 2011, comprising 55 individual farms and 11 groups of individual producers. We found that group certification has increased access to small and medium size producers compared to certification for individually certified producers. There is diversity in the way producers are organized and in the profile of producers among and inside groups. However, the small producers participating in group certification are those with high productivity, suggesting that the most marginalized producers are still unable to access the certification system. Thus additional policy interventions will be necessary to promote more sustainable practices among the large numbers of marginalized coffee farmers in Brazil.

© 2014 Elsevier B.V. All rights reserved.

1. Introduction

Socioenvironmental certification is a market mechanism that aims to promote management responsibilities in a way that increases the social and environmental sustainability of products and production systems (Cashore et al., 2004; Viana et al., 1996). The first certification schemes were launched in the 1980s and 1990s in response to concerns about the environmental and social impacts of the expansion and intensification of production within the forestry and agricultural sectors (Kiker and Putz, 1997; Scarlat and Dallemand, 2011; Taylor, 2005). While improvements in social welfare are an explicit aim of many of these schemes, there are concerns that their reliance on market uptake will reinforce and potentially even exacerbate inequities among producers and across the value chain (McDermott, 2013; McDermott et al., 2012). In particular, it has been argued that the costs and entry

requirements of certification can lead to the exclusion and disempowerment of small, community and family-based operations (Drigo and Piketty, 2009; González and Nigh, 2005; Tovar et al., 2005). In addition to equity concerns, the exclusion of smallholders has also been identified as a barrier to the overall growth of certified commodity markets – especially for products like coffee and cacao that are often grown by small producers (ISEAL, 2011).

Coffee was one of the first agricultural commodities to be certified in international trade and various certification schemes are globally applied to the crop such as organic, Fair Trade FLO, Sustainable Agriculture–Network–Rainforest Alliance, Utz and 4C (Potts et al., 2014). In 2010, 16% of global production and 9% of total consumption of coffee was certified, with projections that this figure will double in the next five years (Panhuysen and van Reenen, 2012). The crop is traditionally produced by smallholders in tropical and developing countries, often in regions of high importance for biodiversity conservation (Beuchelt and Zeller, 2011; Loureiro and Lotade, 2005; Myers et al., 2000; Perfecto et al., 2005). It is generally traded by large multinational companies, with significant value added to the final product, thus imposing a strong bias in the distribution of benefits across the value chain (Oxfam, 2002).

Brazil is the largest world producer and exporter of coffee and consequently one of the leading suppliers of certified coffee to the global

* Corresponding author at: Estrada Chico Mendes, 185 Piracicaba, SP 13420-850, Brazil. Tel./fax: +55 19 34290800.

E-mail addresses: luisfernando@imaflo.org (L.F.G. Pinto), tobygardner@gmail.com (T. Gardner), constance.mcdermott@ouce.ox.ac.uk (C.L. McDermott), k.laraayub@balliol.oxon.org (K.O.L. Ayub).

¹ Present Address: The World Bank, Operations Policy and Country Services Department, Mexico and Colombia, Insurgentes Sur 1605, Piso 24. Mexico, D.F. 03900.

market under a range of certification schemes. In 2009 Brazil supplied 29% of Utz, 21% of SAN–Rainforest Alliance and 15% of Fair Trade FLO certified coffees (Potts et al., 2010). Although 85% of coffee farmers in Brazil are owned by smallholders, with many cultivating in properties less than 50 ha (IBGE, 2006), the crop is also produced by medium and large-scale producers (Moreira et al., 2011; Saes, 2008). In general, Utz and SAN–Rainforest Alliance have been adopted by larger producers, while organic and FLO–Fair Trade systems have been adopted by small and medium sized producers (Moreira et al., 2011).

The SAN–Rainforest Alliance is among the main certification schemes for coffee in Brazil (Potts et al., 2014). Despite being mainly applied to large farms in its initial period of implementation, in 2008 the scheme started to certify smaller farmers in groups. In 2013 certified groups in Brazil were responsible for almost half of the volume of certified coffee under this scheme in relation to farmers certified individually (Pinto, 2014). Group certification has also become increasingly relevant for the growth of SAN–Rainforest Alliance certification for coffee producers in Colombia and cocoa producers in Africa (Rainforest Alliance, 2012, 2013).

Group certification was originally created to increase equity and access of smallholders to certification schemes. It involves the certification of a group of producers organized in cooperatives or associations as a single management unit led by a group administrator (ISEAL, 2008). This grouping of producers was intended to reduce operational costs while also promoting awareness of certification and collective learning (Barret et al., 2001; Markelova et al., 2009; Pinto et al., 2008; Ros-Tonen et al., 2008). Previous research has indicated that group certification of coffee producers under organic and Fair Trade FLO has provided opportunities for smallholders to access certification markets, and in turn has played an important role in reducing farmers' livelihood vulnerability (Bacon, 2005). However, there is a lack of studies regarding the potential for mainstream certification schemes, adopted mainly by large farms, to support smallholder farmers through group certification. Here we address this knowledge gap and examine whether group certification can indeed facilitate access to such schemes for smaller producers, and producers with more diverse production profiles, while also retaining an accessible yet rigorous assessment of compliance with certification standards.

We use data from all 66 audit reports for the SAN–Rainforest Alliance certification scheme in 2011 in Brazil to assess whether individually and group-certified coffee farms have distinct profiles with respect to: (i) production characteristics, (ii) the audit process and (iii) certification compliance against the same management standard. In doing so we present the first comprehensive assessment of some of the key challenges and opportunities facing the expansion of group certification as a mechanism for improving the sustainability of production systems for a wide range of producers.

2. Material and Methods

The majority of Sustainable Agriculture Network–Rainforest Alliance Certified (SAN–RAC) coffee growers in Brazil are producers of *Coffea arabica* (a higher quality coffee with greater relevance to certified markets than its main alternative, *Coffea robusta*), present in the traditional coffee-growing regions in the Cerrado and Atlantic forest biomes of the states of Minas Gerais, São Paulo and Bahia. Certification of individual farms requires compliance with the Sustainable Agriculture Standard of July 2011 (SAN, 2011), which contains 136 criteria organized in 10 principles relating to the management system, agronomic, environmental and social issues (1. Management System, 2. Ecosystem Conservation, 3. Wildlife Protection, 4. Water Conservation, 5. Working Conditions, 6. Occupational Health, 7. Community Relation, 8. Integrated Crop Management, 9. Soil Conservation and 10. Integrated Waste Management). Farms certified in groups must also comply with this basic standard as well as an additional Group Certification Standard (SAN, 2011b). This group certification standard sets criteria to assess the performance of the group administrator in assuring compliance with the standard by

all individual members of the group. Annual auditing of a group is done on a representative sample that is composed of a number of individual farms at least as large as the square root of the total number of members of the group. The standard does not in any way restrict the kinds of producers that can be members of a group.

Data was drawn from the full universe of all coffee farms certified individually or in groups under the SAN–Rainforest Alliance system in Brazil. It was collected from all 66 certification audit reports from 2011 compiled by Imaflora, the accredited certification body of the SAN–RAC acting in Brazil. At the farm (producer) level, the dataset comprises the total universe of 199 certified coffee producers, 55 of which were individually certified and the remaining 144 of which were distributed among 11 certified groups. Of those certified within groups a subsample of 39 individual farms were audited as part of the group certification audit and compliance process.

We compared the two types of producers (certified individually and in groups) in relation to their production characteristics and the certification audit and compliance processes. Producer characteristics included the size of the farm, size of areas set aside for production and conservation, levels of productivity (production per hectare) and the labor force. Characteristics of the certification process included the intensity and cost of the audit. Performance against the certification standard was assessed based on the audit score and the frequency distributions of major and minor non-conformities of all 2011 audits against the SAN standard for both individual and group-certified producers.

Farm size was classified according to Brazilian legislation, which is based on the number of fiscal modules. Large farms are those with more than 15 modules, medium between 4 to 15 modules, small between 1 and 4 modules and mini-farms are up to 1 module (Brasil, 2006). Sizes of the fiscal module are determined for each municipality by the Brazilian government. In the region of our study (mainly Minas Gerais State), a fiscal module ranges from 15 to 50 ha and we assumed an average size of 30 ha. Therefore, we classified large farms as those over 450 ha; medium, from 121 to 450 ha; small, from 31 to 120 ha and mini, up to 30 ha.

Individual variables were compared between groups using Wilcoxon rank sum tests, which are equivalent to the Mann–Whitney test using a 5% significance level to reject the null hypothesis that there is no difference between the samples. To assess overall variability in producer profiles belonging to different certified groups (to ensure that comparisons between individual and group certified producers were not biased by characteristics of one or a small number of groups) we used multi-dimensional scaling analysis based on production variables, together with pairwise Analysis of Similarities (ANOSIM) using a normalized Euclidean distance matrix. ANOSIM tests for differences in compositional dissimilarities between one or more groups are based on an underlying matrix of (in this case) farms by producer characteristics. Different groups were also compared descriptively regarding the type of group administrator, number of members, total area, median size of farm of the group and the presence of either small or large producers in the group.

3. Results and Discussion

3.1. Comparing Production Systems

The majority of individually certified farms are large (>450 ha, 73%) while little over one quarter are medium (121–450 ha, 27%) in size. By contrast group certified farms are mostly small (35%), medium (35%) or mini (15%), with only 15% being large. When considering the overall distribution of coffee (*C. arabica* and *C. robusta*) producers in Brazil, the majority of coffee farms (>75%) are smaller than 10 ha (IBGE, 2006). As individually certified farms are larger, they tend to produce more coffee, have larger conservation areas and employ more workers than farms certified in groups (Fig. 1). The average size of individually

Download English Version:

<https://daneshyari.com/en/article/5049505>

Download Persian Version:

<https://daneshyari.com/article/5049505>

[Daneshyari.com](https://daneshyari.com)