Does Environmental Certification in Coffee Promote "Business As Usual"? A Case Study from the Western Ghats, India

Arshiya Bose[1], Bhaskar Vira[2] and Claude Garcia[3]

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Abstract

Conservation initiatives are designed to address threats to forests and biodiversity, often through partnerships with natural-resource users who are incentivized to change their land-use and livelihood practices in order to avoid further biodiversity loss. In particular, direct incentives programmes that provide monetary benefits are commended for being effective in achieving conservation across short timescales. In biodiversity-rich areas outside protected areas, such as coffee agroforestry systems, direct incentives such as certification schemes are used to motivate coffee producers to maintain native tree species, natural vegetation, restrict wildlife hunting and conserve soil and water, in addition to encouraging welfare of workers. However, despite these claims, there is a lack of strong evidence of the on-ground impact of such schemes. To assess the conservation importance of certification, we describe a case study in the Western Ghats biodiversity hotspot of India, in which coffee growers are provided price incentives to adopt Rainforest Alliance certification standards. We analyze the conservation and social outcomes of this programme by studying peoples'

[1] Department of Geography, University Of Cambridge, Downing Place, Cambridge CB2 3EN, United Kingdom and arshiyabose@gmail.com
[2] Department of Geography, University Of Cambridge, Downing Place, Cambridge CB2 3EN, United Kingdom and bv101@cam.ac.uk.
[3] Forest Management and Development (ForDev), CHN F 75.2, Universitaetstraase 168092 Zurich, Switzerland and claude.garcia@usys.ethz.ch

experiences of participating in certification. Despite high compliance and effective implementation, we find a strong case for the endorsement of 'business as usual' with no changes in farm management as a result of certification. We find that such 'business as usual' participation in certification creates grounds for diminishing credibility and local support for conservation efforts. Working towards locally relevant conservation interventions, rather than implementing global blueprints, may lead to more meaningful biodiversity conservation and increased community support for conservation initiatives in coffee landscapes.

1. Introduction

In the recent past, normative frameworks for social justice, environmental issues and business ethics were vocalised by governments, labour unions and even religious institutions. However, in the current scenario of globalising economies, ideas and cultures in which social and environmental issues are transnational rather than national, regulation of these norms are increasingly provided by a new set of actors, such as NGOs, businesses and public-private partnerships (Giovannucci and Ponte 2005, Raynolds et al. 2007). In this 'regulatory wake' (Raynolds et al. 2007:147), national and transnational actors promote new governance mechanisms or voluntary regulatory systems such as certification, eco-labelling and production standards. These voluntary systems act as market-based incentives, which identify and reward commodities that are produced under acceptable social and environmental conditions (Muradian and Pelupessy 2005). As conscientious consumers embrace certification labels as guarantees of ethical and sustainable practices, certification schemes have expanded across the globe and most notably in Europe and North America (Linton 2005, Giovannucci et al. 2008). This is particularly valid for global agrifood systems, wherein governments were historically responsible for monitoring food safety and

47 quality standards and providing an assurance to the public about the conditions of
48 production. However, with a globalisation of the agrifood industry and the rise in
49 private retailers setting their own standards, there has been a shift in governance from
50 public to private actors, and indeed third-party certifiers (Hatanaka et al. 2005).

51 The coffee industry has been one of the most active spaces for voluntary regulatory
52 standards through certification oriented towards traceability, environmental
53 sustainability, fair treatment of workers, quality and price security (Marie-Vivien et
54 al. 2014). Most of these regulatory regimes are third-party certifications, with
55 potential to transform governance of global coffee chains (Muradian and Pelupessy
56 2005). A glance at a supermarket shelf reveals a diversity of packages branded with
57 imagery of resplendent tropical birds, shade trees, faces of farmers and geographic
58 origins. A closer look reveals stamps of certification labels; Fair Trade, Organic, Bird-
59 Friendly, Starbuck's C.A.F.E. Practices, UTZ-Certified and Rainforest Alliance
60 (Bacon 2010, Jha et al. 2011). This paper focuses on Rainforest Alliance (RA)
61 certification, one of the most widespread environmental certifications in the coffee
62 industry with 5.4% of the world's coffee as RA certified (3.7% of RA's certified
63 coffee comes from India) (SAN 2015).

64 The research framework for this study emerged from academic and policy discourses
65 on market-based incentives or direct payments for conserving biodiversity. Given this
66 starting point, our hypothesis was that RA certification was designed specifically to
67 achieve environmental change. The Alliance's stated mission is to "conserve
68 biodiversity and ensure sustainable livelihoods by transforming land-use practices,
69 business practices and consumer behaviour" (RA 2016). RA states, "We believe that
70 the best way to keep forests standing is by ensuring that it is profitable for businesses

71 and communities to do so. [...]. Once businesses meet certain environmental and
72 social standards, we link them up to the global marketplace where demand for
73 sustainable goods and services is on the rise" (RA 2016). Our assumption therefore,
74 was that RA certification had been a key driver of land-use and farming practices
75 amongst coffee growers who participated in RA certification. We also hypothesized
76 that coffee growers face significant economic costs associated with the actions needed
77 to meet certification standards, making certification price premiums a significant
78 driver of participation and influencer of farming and land-use practices in the region.
79 In 2010, Blackman and Rivera published an important study on the evidence base for
80 social and environmental impacts of sustainable certifications. They concluded that a
81 lack of empirical evidence and adequate counterfactuals made it difficult to draw any
82 conclusions about whether certifications had long-lasting impacts. In this study we
83 draw from their conclusions and identify further empirical gaps, such as a critical lack
84 of information on the perceptions of participating landowners (in this case coffee
85 growers) towards certification schemes (Siedenburg et al. 2012). We aim to better
86 understand the implications of sustainable coffee certifications by delving into the
87 lived experiences of producers. This study asks two questions: (a) how do coffee
88 growers experience changes associated with RA certification; (b) what are the impacts
89 of peoples' experiences on their views and overall willingness to participate in
90 conservation projects?

91 We explore these questions by carrying out detailed case study research of Rainforest
92 Alliance certification in Kodagu District, India.

93 **2. Study Site and Methods**

94 This study was carried out over a period of fifteen months from 2011 to 2014 in

95 Kodagu district in the state of Karnataka. The district falls within the Western Ghats,
96 one of 34 global 'biodiversity hotspots' (Mittermeier et al. 1998, Myers et al. 2000).

97 Coffee is one of the key drivers of the regional economy and the cultural identity of
98 Kodagu (Sathish et al. 2006, Ghazoul et al. 2009). Kodagu is the largest coffee
99 producing districts in India, producing about 37% of the total volume of green coffee
100 in India (CBI 2016). As of today, coffee plantations in the district cover a total of
101 104,000 ha (75,500 ha of Robusta [*Coffea canephora*] and 28,500 ha of Arabica
102 [*Coffea Arabica*]), with a production of 120,916 metric tonnes (CBI 2016). Coffee
103 production provides direct employment for about 500,000 people in India and
104 250,000 in Kodagu alone (Lee and Lee 2010). In fact, India is a comparatively lesser-
105 known but fairly significant producer, ranking 6th in the world for green coffee
106 production (ICO 2016).

107 The landscape of Kodagu is a complex mosaic of multiple elements, many of which
108 are tree based. Trees, in one form or the other, cover over 78% of the district. Outside
109 of protected areas, the district harbors about a thousand sacred groves under more or
110 less formal community management. Private owners control shaded-coffee
111 plantations and a few scattered remnants of private forest or cardamom plantations not
112 yet converted into coffee. Shade-grown coffee plantations comprise 33% of the tree
113 cover of the district (Bhagwat et al. 2008). Unlike other coffee production areas in the
114 world, farmers maintain multi-storied coffee agroforestry system for a variety of
115 reasons, including but not restricted to tenure rights, timber and pepper production,
116 and the protection of the coffee flower buds during the dry season (Garcia et al.
117 2010). As many of these trees are the remnants from the former forest covering the
118 district, shaded coffee plantations in Kodagu have a very high biodiversity, and are

119 shown to play a role in conservation outside protected areas (Depommier 2003,
120 Bhagwat et al. 2005, Garcia et al. 2009, Ghazoul et al. 2009). Tree densities on an
121 estate range from 285 to 1471 trees per hectare, a figure that is comparable to that of
122 surrounding forests (Desjeux 1999).

123 However, this landscape is undergoing transformations linked to the intensification of
124 coffee production, many of these leading to a biodiversity loss. Garcia et al. (2009)
125 suggest that 30% of forest cover was lost between 1977 and 1997 while the area under
126 coffee doubled, particularly between 1982 and 1986. The environmental impact of
127 intensification of coffee cultivation in Kodagu is well documented. Research projects
128 have studied the impact of intensification on tree biodiversity, bird and insect
129 diversity and pollination services (Muschler 2001, Vaast et al. 2006, Rao 2011, Garcia
130 et al. 2010, Bal et al. 2011). Therefore the three major drivers of this change are (a)
131 the loss of forest cover and expansion of commercial croplands; (b) the reduction of
132 shade canopy on coffee plantations; and (c) the increase of the proportion of exotic
133 tree species in the canopy.

134 Semi-structured and open-ended interviews constitute the main research method for
135 this study. Interviews were conducted through clustered sampling based on groups of
136 certified and non-certified farmers. A total of 222 coffee growers were covered,
137 including 142 certified and 80 non-certified producers. The average size of
138 landholding was 5.32 hectares (n=222). Each farmer incurred mean production costs
139 of USD$ 1180.4 per hectare (n=222) and yielded an average output crop of 2968.75
140 kilograms of coffee cherry per acre or approximately 1,662 kgs of green coffee per
141 hectare (n=222). (see Table 1 for descriptive statistics about coffee producers
142 interviewed in this study).

143 Narratives of change were the primary qualitative method used to explore the
144 perception of shade-grown certification by coffee growers. This was adapted from the
145 'Most Significant Change' (MSC) technique that was developed for use by
146 international development organisations to monitor the impact of their projects
147 (Davies and Dart 2005). In developing these narratives of change coffee growers were
148 asked to reflect on the most significant changes they had experienced as a result of
149 participating in RA certification. Data from open-ended interviews was recoded to
150 glean key elements of the interviewee's response to questions on changes experienced
151 as a result of RA certification. This process yielded three narratives on peoples'
152 experiences for participating in RA certification. Additionally, semi-structured
153 questionnaires were used to collect data on farmers' perceptions of changes in yield
154 and production costs and contribution of price premiums to annual. In addition, direct
155 evidence was collected on the average density of shade trees per acre, including exotic
156 silver oak to draw comparisons between certified and non-certified farms.

157 **3. Results**

158 In order to qualify for certification, producers have to ensure that their management
159 practices comply with RA's standards. Farms are verified by an external auditing
160 agency recruited directly by RA. In this case, IMO-Control (IMO) based in
161 Bangalore, India carries out annual audits to evaluate compliance with certification
162 standards. Once a farm is audited, its coffee is labeled as RA-certified and sold to
163 buyers of certified coffee. These certified buyers, mostly exporters purchase certified
164 coffee at a premium of between USD$1 for unwashed Robusta and Arabica and
165 USD$2 for washed Robusta and Arabica. Interviews with the audit agency and review
166 of official documents showed that coffee plantations in Kodagu demonstrated a high

degree of compliance with certification standards. It was difficult to directly verify this given the sensitivity associated with carrying out random inspections of farms and the confidentiality of evaluation reports. Auditors were also reluctant to share actual statistics on percentage of farms that qualify or disqualify annually. However, an auditor commented saying, “I have done dozens of audits and not had to disqualify any farm. Everyone is compliant”. All certified producers also attested to being audited before being awarded RA certification status. Given challenges of direct evidence collection and the focus of our study on peoples’ lived experiences, the core research approach was to create ‘Narratives of Change’.

3.1 Narratives of Change

RA certified coffee growers were requested to reflect on the certification process. Interviewees were asked to create narratives on change that reflected their lived experience of certification. For example, (a) have you modified farm management or any practices in order to qualify for RA certification? ;(b) what (if any) have been these modifications as a result of RA certification?; and (c) what are (if any) the challenges associated with qualifying for certification? This generated three key stories of change as described by certified coffee farmers, presented below:

3.1(a) Business as usual scenario (69.01%):

Most coffee growers in Kodagu expereience RA certification as ‘business as usual’. Farmers describe certification as a case where (a) almost negligible modifications are required to farm management in order to qualify for RA certification or (b) in cases where farm management modifications were required these were minor and easy to follow.

For example, 69.01% (n=142) of certified producers claimed that negligible modifications were required to farm management practice in order to qualify for RA certification. Farmers said "Certification was a business as usual scenario" (Certified Farmer (CF)-44), such that:

> "It is very simple to follow certification rules. I did not need to make any big changes to my estate's management" (CF-23).

> "My estate has always been eco-friendly. I didn't have to do anything new to get it certified" (CF)-10).

Farmers did not modify existing farming practices nor implement any additional social or environmental standards in order to meet RA's criterion. This view was consistent across the range of RA standards concerning ecosystem conservation, protection of water sources, wildlife conservation, occupational health and safety for workers, community relations and integrated crop and waste management. For example, an important critical criterion in RA standards prohibits the use of agrochemicals mentioned in the List of Banned and Severely Restricted Pesticides in the US by its Environmental Protection Agency or pesticides banned or severely restricted in the European Union. In response to adequately meeting this criterion, a certified grower commented, "I stopped using prohibited chemicals like Endosulfan over 5 years ago. I did not alter what chemicals or pesticides I was using or not using because of RA certification" (CF-130). While we did not directly test soil and water composition to verify claims made by farmers, we are able to compare these responses with those of non-certified growers. 135 of 142 certified coffee growers claimed they were not using prohibited chemicals even before they joined RA certification. In comparison 76 of 80 non-certified producers interviewed claimed

214 they did not use these chemicals. Seven certified coffee producers and four non-
215 certified producers asserted that many legally permitted chemicals are prohibited
216 chemicals sold under different manufacturing brands and therefore refused to answer
217 the question.

218 Concerning RA's critical criterion on wildlife protection, many certified and non-
219 certified growers claimed that traditional hunting was somewhat common despite it
220 being deemed illegal under the Wildlife Protection Act of India (1972) (WLPA).
221 However, all 142 of interviewed certified growers asserted that RA certification had
222 not added any additional wildlife protection measures to strengthen the
223 implementation of the WLPA or monitor wildlife present on coffee farms. RA
224 standards require farms to maintain a farm diary and record wildlife sightings. While
225 42.25% (60 of n=142) of certified growers had a folder for wildlife records as part of
226 the overall Farm Diary for RA, very few producers actually recorded sightings (7
227 individuals, 4.92%, n=142). These 7 growers also demonstrated that they had been
228 recording bird and wildlife sightings in journals even before they had decided to
229 participate in RA certification. For example, a farmer said, "I keep a field diary where
230 I record uncommon birds and wildlife. I enjoy watching wildlife. I was doing this
231 from many years before I joined RA certification" (CF-120). In fact, 8.75% or 7 of 80
232 non-certified growers also maintained similar wildlife journals.

233 When certified growers where asked whether they had found it challenging to meet
234 RA's standards, 84.50% (n=142) claimed that they had found qualifying easy and
235 straightforward. Describing the RA audit and qualification process, a producer stated
236 the following:

237 “I was first asked to join certification by Ecom[4]. One of their staff came to my farm
238 and explained RA certification. They said that I would not need to do much but I
239 could get a premium for my coffee. They would cover any certification fee so I agreed
240 just to see what it was all about. After some weeks someone from Ecom came back
241 and did a pre-audit. He told me I needed to put up signboards showing my coffee
242 storage godown and room where I keep any chemicals and fertilisers. A few months
243 later the auditors did a surprise inspection. Someone from Ecom called me the
244 evening before and said that he would bring the auditors the next morning. The
245 auditors came and spent about 2 hours on my farm. They walked around and
246 inspected my storage areas to see what types of chemicals were being used. They also
247 spoke to my workers in my absence and asked them about wages, health benefits and
248 whether they had to spray Endosulfan. They also asked me about a soil and water test
249 but I had already done these through the Coffee Board Research Station. I showed this
250 report to them which was a basic report telling me the pH and Nitrogen, Phosphorous
251 and Potassium composition of my soil. Then they looked at my wages diary and asked
252 me if I was employing children. I served them some of our farm’s coffee and a few
253 months later Ecom called me and said my farm had been RA certified. I have been
254 certified for three years and the audit is always the same” (CF-54).

255 Data from surveys shows that in 61.26% of audits (n=142), soil and water samples
256 were not directly tested and the qualification instead relied on most recent analysis
257 often conducted by the Coffee Board of India at the request of the producer.

258 When producers were asked to reflect on whether it was ‘difficult’ to qualify for
259 certification, 84.50% (n=142) said it was easy to qualify for certification, such as:

[4] Ecom Trading Pvt. Ltd. is a buyer and exporter of coffee, including RA and UTZ-Certified coffees from India.

"Certification is no big deal to qualify for" (CF-23). In addition, 125 of 142 farmers (88.02%) interviewed explained that they had experienced marginal or no increase in production costs as a result of investments required by certification. The 17 farmers who had experienced increased investments attributed it to the purchase of protective gear for their workforce, which is required under the Occupation Health & Safety standards of certification. The average production costs were USD$434 for certified Robusta farms and USD$396.61 for non-certified Robusta farms. For Arabica, production costs were USD$504.76 per acre for certified farmers and USD$ 644.37 per acre for non-certified farms.

Majority of certified producers, (98.59%, n=142) growers also stated they had experienced no changes to coffee yields after certification. The average yield was 3162.5 kilograms of unwashed coffee cherry per hectare (or approximately 1771 kg of green coffee) for certified growers (n=142) and 2913.5 kilograms per hectare (1631.56 kgs of green coffee) for non-certified growers (n=80).

With regards to ecosystem management and RA's standards on shade cover on coffee farms, we found that both certified and non-certified farms had comparable density of shade trees, including exotic silver oak (*Grevillea robusta*). For example, direct evidence revealed that certified farms had on average 170.07 native tree species (locally referred to as junglewood) per hectare while non-certified farms had 273.5 native trees per hectare (p=0.0424, Mann-Whitney Test). 29.39% of total shade trees on certified farms (SD±57.2, mean=51.95%) were silver oak. This figure was 22.85% (SD±51.3, mean=71.48%) for non-certified farms (p=0.0995, Mann-Whitney Test). Furthermore, 94.36% (n=142) of certified growers said that neither certified buyers nor auditors had actively encouraged shade-grown coffee during initial and follow up

meetings or inspections. Producers were told that RA is an environmental certification but no further details on the different RA principles were shared.

When certified growers were asked to reflect on RA standards and shade cover, one grower commented as follows:

"Planters are removing shade trees and planting exotics like silver oak but RA certification is not preventing this because shade cover is an optional criterion and not mandatory. When the auditors came I had to specially request them to mark that I was following RA's standards on shade cover (i.e. maintaining 40% shade and 12 tree species per hectare) but the auditor did not know how to measure shade cover or identify tree species to verify that it was indeed at least 12 species. I am a nature lover but what about the hundreds of farmers who are deforesting?" (CF-79).

A representative from Ecom, a key buyer of RA certified coffer is quoted as: "Right now maintaining 40% shade cover and 12 species per hectare is not a big issue. If RA guidelines required farmers to maintain 60% or plant more junglewood species then it would definitely impact our certification. If that is the case nobody will come and join. Openly speaking planters are joining because not much is needed" (Ecom-2).

Furthermore, only four of 142 growers (2.81%) claimed that certification had impacted their attitude towards conservation. These growers are quoted saying,

> "I was always aware about the environment but you could say I am more aware now. Only my attitude has changed. My practice is same as before" (CF-26).

However, majority of respondents (97.18%, n=142) stated that certification had not resulted in any changes in their attitudes towards ecologically acceptable farming

practices. Many of these growers also admitted that following certification had made them "disappointed with certification" (CF-13), as demonstrated by the following comment: "We always maintained this standard of production. It is not because of certification that I am farming this way and even if we didn't maintain these standards, I don't think we could have changed our practice so rapidly just for certification" (CF-16).

Overall, the lived experience of RA certification is described by most participating coffee growers as a 'business as usual' scenario.

3.1(b) Bookkeeping as biggest change (17.60%):

While the majority of certified farmers claimed that certification had resulted in no significant changes in farming practices, a few farmers had experienced modifications to the way they manage their plantations. These experiences of change, although minor in the number of respondents who ascribed to the narratives, are nevertheless relevant to gain a holistic understanding of how certification is perceived by coffee farmers on the ground.

The majority of coffee growers who experienced changes to their estate as a result of undertaking RA certification did so in the area of document management (17.60%, n=142). Coffee farmers talked about increased 'bookkeeping' to refer to the additional time and manpower invested in documentation required in certification. A significant portion of increased documentation concerned financial management and account-keeping concerning expenditures, which many growers claimed not to maintain in as much detail prior to certification. In addition to maintaining accounts, certified farmers are also required to maintain 'Farm Diaries'. These diaries require farmers to maintain records of the type, quantity and frequency of fertilisers and pesticides used.

The Farm Diary also consists of a record of meetings organised with plantation workforce concerning occupation health and safety and training workshops on waste management. The experience of "extra paperwork" (CF-1) has led to the perception that the most critical change generated through RA certification has been increased bookkeeping, as is verified by this statement by a certified farmer,

> "Bookkeeping is more disciplined after certification. This is the biggest change" (CF-17).

3.1(c) Modifications in Occupational Health & Safety (13.38%):

Of a total of 142 certified growers, 13.38% perceived certification standards as having resulted in modifications in Occupational Health & Safety of farm workers. These producers explain that the health and safety criterion requirements were experienced as the most significant change resulting from certification, such as:

> "The social obligations have become little more after certification. Environmental conditions are not at all an issue" (CF-27).

In Kodagu, complying with RA's certification standards on Occupational Health & Safety has centred on the following activities: (a) providing plantation work force with protective gear, e.g. rubber gloves, masks and coats to be used during application of chemical sprays; (b) construction of shower facilities for workers; (c) construction of additional toilets for workers; (d) construction of additional waste disposal units on farm and (e) designating and clearly sign boarding storage areas for coffee and chemical inputs. Farms who had to invest to purchase protective equipment directly as a result of RA, spent USD$192.30 as a one-time cost.

> "Biggest change was to provide workers with protective equipment. I used to

give gloves from before but after certification I had to give masks and coat also" (CF-35).

Finally, over 95.77% (n=142) of certified coffee growers interviewed said they were ambivalent about continuing their participation in certification. In fact 61.97% (n-142) of these certified growers claimed they were considering opting out of certification within the next year. They cited their mistrust of certification as being the primary rationale.

4. Discussion

This study explores the change experienced by coffee producers as a result of their joining and qualifying for RA certification. We demonstrate through a 'narratives of change' approach, corroborated with direct evidence concerning production costs, coffee yields and presence of shade trees, that the majority of producers who participate in RA certification experience it as maintaining 'business as usual'. Those coffee producers who claim to have changed their farm management practices describe these changes in the area of increased book-keeping and documentation and modifications in occupational health and safety. While certified producers would describe book-keeping and occupational health and safety measures as minor modifications, it could be argued that in fact RA's most important impact has been to ensure the safety of workers through the requirement of use of protective equipment. Although occupational health and safety may not reflect in RA's mission statement and the number of producers who claim they have had to modify farm management in this area, even 19 cases of increased safety for plantation workers should not be easily discounted.

However, the 'business as usual' scenario raises concerns and questions about the

design and implementation of RA certification. Evidence from this study suggests that the implementation and audits in particular, can be tightened such that the full potential of existing RA standards is achieved. For example, if soil and water samples from all certified farms is not directly tested by the auditors then the credibility regarding the use of prohibited chemicals is difficult to verify. Furthermore there are no clear stipulations on what methodology or lab tests would suffice and how recently these tests need to have been conducted. Similarly, if auditors were unable to measure shade canopy then it would be reasonable to assume that they would not actively encourage the 40% shade and 12 species per hectare requirements.

4.1. Hidden impacts of certification:

At the outset, while RA certification may not be achieving significant environmental outcomes, the business as usual scenario does not appear to be disruptive. Coffee growers are certainly receiving price premiums for being RA certified, their farm management and documentation systems are more streamlined and the occupational health and safety of a few farms has been improved all as a result of participating in certification. However a closer look at peoples' perceptions towards certification revealed a growing disenchantment with such schemes that ultimately impacted perceptions towards many other conservation projects in the region. The failure to alter status quo has left imprints on farmers' perceptions about which activities and ideologies constitute a conservation project. For example, reflecting on the experience of participating in RA certification, certified coffee growers said the following:

> "After doing certification, I don't understand what it means to grow sustainable coffee" (CF-20).

> "We have not done anything. I think certification is not at all concerned with

shade trees or environment" (CF-13).

"Why are you so interested to discuss conservation? They (referring to RA) itself are not interested" (CF-28).

These comments indicate confusion, disillusionment with certification that seems to stem from this experience of business as usual. Farmers have been recruited, audited, approved and rewarded for maintaining status quo on their farm. Producers are recruited, pre-audited, audited and awarded a certificate for few modifications, especially concerning environmental impacts of their farming and land-use practices. This experience has even caused suspicion regarding RA's motives and this is evident in the following comments:

"It is important to know what the goal of this project is. There is distrust in the village because of lack of knowledge. More trust would make it a partnership. Right now it is one-way traffic" (CF-18).

"Certification is started so traders can get more benefit than us. They get more business and profit. Certification has nothing to do with farmers or environment" (CF-7).

"Is it because RA wants my coffee? Are they keen about certification only to get high quality coffee from India? We do not know what their terms are or their main motive to go in for certification" (CF-30).

The lack of communication between RA, auditors, Ecom or other buyers of certified coffee and coffee producers has played a significant role in allowing speculation and mistrust of RA's motives and the purpose of certification. None of the 142 certified growers or 80 non-certified growers had ever interacted with an RA official. Their

first impression of RA certification is through communication with certified buyers and auditors, neither of who appear to actively communicate the conservation motives of RA standards. Producers are told RA is an environmental certification and a signboard with RA's logo (a tree frog) is put up. However, we argue that a lack of communication between RA representatives and producers is not the sole cause of this growing discontent. Producers' disillusionment is further strengthened when they are awarded a certificate without modifying many farm management practices, evident in the following comment:

"I was Rainforest Alliance certified for 4 years but I did not have to do a single thing. I do not think I am very eco-friendly but still I am given a certificate and premium. Certifiers try to pull wool over my eyes but I know that certification is not for real conservation" (CF-35).

RA certification is perceived as a market tool intended to serve the business interests of coffee traders and exporters worldwide. The majority view is that the lack of tangible changes to farm management is indicative of an underlying vested interest that has not been openly communicated to farmers.

In some cases, we found that peoples' perceptions towards certification impacted their perceptions towards conservation projects in general, even leading to an outright rejection of conservation ideals. For example, a farmer is quoted as saying:

> "If all environment projects are like certification, I am not interested in keeping my shade trees" (CF-57).

Subsequent conservation projects have been received with scepticism on account of peoples' participation in RA certification. For example, a local NGO attempting an

awareness campaign on the ecological importance of native shade trees was met with considerable apprehension. An employee from this organisation said, "Planters tell me that they already participated in a conservation scheme but it did not achieve anything. They keep asking me if I, like RA have some ulterior motive and they are reluctant to participate".

In fact many certified growers repeatedly make reference to an underlying agenda or vested interest in RA certification. For example, certified growers commented, "I am RA certified and I did not have to stop or start doing anything differently. I know that RA is certification is about biodiversity conservation because I see the frog label but how is it that I can remove my shade trees and still be certified? There must be some business agenda to certification that is not clear" (CF-31).

In this paper we argue that the growing discontent and perception of a hidden, vested interest in RA certification stems from the experience of business as usual. These perceptions of RA certification subsequently influence peoples' perceptions towards conservation projects and campaigns in general even if these are not associated with RA.

4.2 Limited impacts of RA certification

The core focus of this paper is on producers' perceptions of RA certification. Empirical evidence presented in this paper cannot fully analyse why RA certification standards present a business as usual scenario in Kodagu. However, empirical evidence presented in this paper raises two important questions: (a) Are RA standards themselves too low of a bar that allows nearly any coffee grower into the certification

programmes?; and (b) Is anyone allowed into certification regardless of whether they meet the full criteria at the outset?

Based on the narratives of change and experiences of certified coffee producers, primarily the business as usual scenario, evidence suggests that reality is a combination of both these questions. It could be argued that RA environmental and social standards are too low to drive significant modifications especially with respect to specific conservation outcomes such as maintaining native shade tree species or monitoring biodiversity. This study shows that the density of native shade trees and exotic tree species was not statistically significant between RA certified and non-certified farms. This finding is corroborated by existing ecological research in the landscape that shows that the coffee agroforestry system in Kodagu is already fairly biodiverse with tree densities comparable to natural forests (350 trees per hectare) and species diversity (280 species have been documented across coffee farms with an average of 55 species per hectare) (Garcia et al. 2010, Marie-Vivien et al. 2014, Rani et al. 2011).

With regards to whether all producers qualify for certification at the outset, the data is more ambiguous given that audit reports are not shared and auditors claim that all farms qualify. However, this study also reveals that with respect to some criteria, most notably the standards on chemical use, external evaluations are used to verify the use of prohibited chemicals rather than direct verification. Such external evaluations raise some questions about the chain of custody and auditing process.

Overall it could be argued that if RA's environmental standards were more specific and stringent, the business as usual scenario would play out quite differently. Only farms that met the criteria in their entirety would qualify for certification. Other farms

would have to make tangible modifications to farm management in order to be certified. A set of standards that resulted in tangible steps towards the improvement of ecosystem management could also address peoples' scepticism and mistrust of certification, at least from the point of view of RA's environmental objective. In its current avatar, RA certification is increasingly counterproductive and undermining local support for conservation projects as whole.

An interesting analytical comparison is scholarship on peoples' perceptions towards conservation projects (often in and around PAs) that restrict peoples' access and use. In such cases, negative perceptions stems from the strict restrictions on livelihood and land-use practices or in other words, imposing too much (Wells and McShane 2004). In the case of RA certification in Kodagu, peoples' lack of support for conservation efforts is rooted in mistrust emerging from a lack of visible restrictions on their farming practices.

5. Conclusion

Sustainability certifications have expanded across the globe and now cover a wide range of commodities, production systems and environmental and social concerns. Despite their proliferation, evidence on their impacts is limited (Blackman and Rivera 2010) and recent scholarship has focussed on the technicalities of how to measure impact and evaluate effectiveness. Tscharntke et al. (2015) advocate numerous recommendations to generate a more robust evidence base for impacts of certification, such as credible counterfactuals and the use of standardised indicators of sustainability. However, attention must also be directed towards fundamental assumptions about the willingness and perceptions of landowners to participate in such schemes. In this paper we highlight the perceptions of coffee growers

519 participating in RA certification and argue that the overall experience has been one of
520 business as usual thereby leading to a growing discontent with conservation measures.
521 We argue for a refined subset of standards that consider environmental threats and
522 social concerns that are important at the landscape level but may be overlooked by the
523 overall global certification. A global certification implemented in conjunction with a
524 local conservation project or measures might be better suited to address both
525 environmental outcomes as well as more adapted to alleviate peoples' mistrust
526 towards such initiatives. One way to address this could be Landscape Labelling, as
527 conceptualised by Ghazoul et. al (2009) and advocated more recently by Tscharntke
528 et al. (2015) might offer a strategy that combines global certifications with locally
529 meaningful PES schemes.

530 Finally this study also highlights the importance of implementing certification
531 measures that are ultimately farmer-friendly and flexible in their implementation in
532 design. In order for certification measures to attract and sustain large numbers of
533 producers, its implementation has to consider local effects and then quickly modify its
534 design so as to resolve any emerging issues. A credible way of achieving both
535 flexibility and higher outcomes would be to develop country or region specific RA
536 standards where coffee growers meet RA's global baselines standards but also receive
537 additional price premiums or in-kind benefits (e.g. agronomic or quality enhancement
538 support) for following these country-specific standards.

539 **Tables & Figures**

Table 1. Descriptive Statistics of Certified and Non-Certified Producers

Characteristic	RA Certified Producer	Non-Certified Producer
Farm Size (ha)	4.68	5.92
Green Coffee Yield (kg/ha)	1771	1631.56
Production costs (USD$/ha)	434	396.61
Native trees per hectare	170.07	273.5

Percentage of Silver Oak to total number of trees per hectare	29.39%	22.85%

540

Table 2	Ten Principles that Govern Rainforest Alliance's Sustainable Agriculture Certification
1.	Establishing and maintaining a social and environmental farm management system
2.	Ecosystem conservation through protection of waterways and wetlands
3.	Wildlife protection through monitoring presence
4.	Water conservation through monitoring of usage and non-contamination
5.	Fair treatment and good working conditions through prohibition of child labour and adherence of norms proposed by international bodies such as the United Nationals and International Labour Organisation
6.	Occupational health and safety to reduce the risk of accidents
7.	Building community relations through consultation with surrounding farms about certification processes
8.	Integrated crop management through restriction of chemicals that pose danger to people and the environment.
9.	Soil management and conservation through prevention of erosion and reduction of chemicals use, wherever possible
10.	Integrated waste management through recycling, reducing consumption and safe disposal
Source:	(SAN 2010)

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