

Environmental Protection Impacts of Fair-Trade Certification on Small Scale Coffee Producers: The Case of South Western Ethiopia, Jimma Zone

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ABSTRACT

Since more than one third of Ethiopia's foreign exchange is attributed to coffee product and the production process engages almost one fourth of the working population of the country, in Ethiopia coffee production is one of the most important sectors of livelihood. And the largest portion of coffee production comes from small holder farmers. Small-scale coffee farmers producing for fair-trade market outlets are frequently considered to benefit from better prices and stable market outlets by producing environmentally affable products. Nevertheless, some empirical studies are verifying this notion adversely. This study, therefore, tried to assess the impact of fair trade certification on environmental protection using econometrics techniques. The research applied cross-sectional study procedures for the selected 383 respondents in order to deal with environmental influences of fair trade introduction in the study area of Jimma Zone, Ethiopia. The study investigated that the introduction of fair trade certification among small-scale coffee producers matters the question of biodiversity or environmental conservation significantly and positively. Therefore, extension of fair-trade certification should be well thought-out as one of sustainable development riding engines and instruments among policy makers.

Keywords: Fair-Trade Certification, Environmental Protection, Coffee, Ethiopia

1. BACKGROUND OF THE STUDY

The fair-trade impression is considered as an approach for poverty mitigation and sustainable development expansion through guaranteeing the payment of a minimum product price and of a defined extra premium, democratically structured workplaces, technical or practical assistance, community programming, and biodiversity or environmental protection. Its intention is to create prospects for small scale farmers and workers who have been economically disadvantaged or marginalized by the usual trading system. Small producer organizations, farms with hired labor, and in a few cases unorganized farmers can become fair-trade certified if they adhere to values set by fair-trade labeling organizations or which are able to contribute to the social and economic progress of their members and communities and are democratically controlled by their staffs. Those values comprise social, economic, and environmental requirements, aimed at enhancing the lives of marginalized farmers and workers. Once a producer group or association is fair-trade certified, the outputs produced adhering to the values can be marked with the fair-trade tag or sticker where the product is sold. For these outputs, the fair-trade minimum price is paid. While the pertinent market price for a product is higher than the fair-trade minimum price, then in any case the market price must be paid. In the best position, an additional fair-trade premium is paid, which they can use on democratically agreed growth and development schemes (Klier and Possinger, 2012).

The certification of outputs including goods and services has gained escalating recognition in the last decade. In this era of globalization and trade liberalization, it can be anticipated that this trend will also become more widespread in the near future (Jenkins et al. 2004). Grounds behind this experience are particularly the growing alarm about environmental degradation and exploitation of employees. The charisma of certification or labeling schemes is derived from their market based and chosen approach to achieve environmental and/or socio-economic goals (Wissel et al., 2010).

The consequences of fair-trade certification for coffee farmers and their organizations have been analyzed in numerous studies. Detailed case studies from coffee cooperatives in Costa Rica (Ronchi, 2002), Nicaragua (Bacon, 2005) and Mexico (Calo and Wise, 2005; Jaffee, 2014) affirm that fair-trade certification strengthened producer organizations and suggest that fair-trade values improved returns to smallholder coffee producers, positively affected their quality of life and reinforced the strength of local organizations and environmental protection. Other lessons disclosed that fair-trade schemes improved the welfare of small-scale coffee farmers and their families, predominantly due to better access to credit facilities and external funds, plus through training and improving product organization (Murray et al., 2006).

Coffee has been used in Ethiopia as a food and drink for several hundred, unless thousands, of years. Hence, Ethiopia can be considered as the biological and cultural home of coffee. Today, a projected 525,000 hectares (5,250 km²) of coffee are planted in Ethiopia, though the actual area is most likely in excess of 20,000 km². Coffee provides Ethiopia with its most significant agricultural commodity, contributing around one quarter of its total export earnings (Minten et al., 2014).

Arabica coffee is an economically key crop, which is contributing the highest of all export revenues in Ethiopia. It is also the main cash crop of Jimma Zone and produced in eight woredas or districts. In spite of the flattering climatic conditions, coffee production is not as expected considering long history of its production in this Zone. And fair-trade certification designs tend to follow an inclusive life cycle approach which takes independently into

account production and processing stages, and environmental aspects including resource and energy wise usage, waste disposal management. Consequently, this paper investigated the environmental effects of fair-trade certification on small scale coffee producers in the south western part of Ethiopia, one of the African's leading coffee producers.

2. RATIONALE OF THE STUDY

Fair-trade certification is a device to add value to a product, and it addresses a growing universal demand for healthier and more socially and environmentally friendly products. It is based on the idea that consumers are motivated to pay price premium for products that convene precisely defined and guaranteed values (Ponte, 2002). These price premiums can assist internalizing environmental costs of the product by supporting more healthy production, processing and marketing. However, price premium can also encourage incentives that lead to unwanted effects. For example, many farmers remained in poverty despite being connected to fair-trade organic markets (Bacon et al., 2008). Whilst the center of the fair-trade approach is clearly on social and economic progress, it also engages environmental concerns. The common fair-trade values for small scale coffee farmers state that the reservation of areas for biodiversity and natural resource management is critical to guaranteeing the long-term health and balance of natural ecosystems (FLO, 2005).

Even though agricultural production is an imperative source of income and employment for developing countries like Ethiopia, it also is responsible for severe environmental damage or break, including depletion, land degradation, water pollution, soil erosion, deforestation, and biodiversity failure (World Bank, 2008). And certification such as fair-trade is a non regulatory environmental management approach that pledges to both control for the negative environmental externalities and increase the income of rural poor (Rice and Ward, 1996). Ethiopia is stard as arabica coffee's place of birth, whereas the country's high-quality coffee has made it to the epicure shelves of main coffee houses around the world, many of its growers stay deprived. Ethiopian coffee cooperatives have achieved decisive access to international coffee markets including the fair trade campaign, but questions remain about socio-economic and environmental impacts of fair trade certification.

And so far there is lack of reflective evaluation works to recognize fair-trade certification as a remedy for environmental damage resulted from regular coffee production in Jimma Zone of Ethiopia. The significance of the environmental protection efforts of fair-trade certification programs remains unclear due to shortage of empirical evidences. Also good environmental practices were frequently initiated to be being practiced according to the majority of studies, although it is not doable to generalize across different products and situations without more organized and logical evidences. Given the existing fine points, therefore, this study was conducted with the objectives of assessing the impact of fair trade certification on biodiversity conservation, and identifying the impact of fair trade certification on small scale coffee farmer's awareness towards environmental protection.

3. RESEARCH METHODOLOGY

A cross-sectional study design was employed to look for impact of fair-trade certification on environmental protection (natural resource management) among small scale coffee producers.

3.1 Description Of The Study Area

The proposed study was conducted in four districts or woredas in Jimma zone, Mana woreda 22 km Northeast, Limmu Seka woreda in south east, Limmu Kosa woreda 70 km north west, and Goma woreda 35 km north east from Jimma town. Jimma Town is the capital of Jimma zone that is 345 km far away from capital city of Ethiopia, Addis Ababa. The study areas were selected from latent coffee producing area. Jimma Zone is one of the 20 administrative zones in Oromia Regional State of Ethiopia, is alienated under 18 administrative districts or woredas. Jimma zone is one of the key coffee growing areas of Ethiopia and well gifted with natural resources contributing significantly to the national economy of the country. Jimma zone wraps total areas of 19,300 km that obtain reliably good rains ranging from 1,200–2,800 mm per annum. From the total land of the zone, coffee land covers 274423 hectare among this 94597 hectares are currently on cultivation. Jimma zone is classified in to three agro-climatic zones: kolla (14.9% - highland); woina dega (64.6% - mid highland); dega (20.5% - lowland). Cereals (maize, teff, sorghum and barley), pulses (beans and peas), cash crops (coffee and khat-cathaedulis), and root crops (enset ventricosum-false banana and potato) are the key crops produced in the area (Jimma Zone Agricultural Bureau report,2017).

3.2 Sample Size Determination And Sampling Techniques

Three-stage sampling techniques were applied. At the first stage, four districts or woredas were selected purposively by the decisive factor of area coverage and major coffee producing areas of Jimma zone. In this setting, all the selected districts or woredas are among the place where fair-trade certification has been working extensively. Peasant associations or Kebeles and the final respondents were selected randomly at second and third stage correspondingly. Generally, total of 383 sample respondents were selected by applying the following sample size formula considering total population.

$$n \geq \frac{N}{1 + (N - 1)\left(\frac{2d}{z}\right)^2} \approx \frac{N}{1 + Nd^2}$$

Where, N = is the total population, n is the required sample size, $d = 0.05$ margin of error, $z = 1.96$ for $\alpha = 0.05$ is the confidence level. And $n=383$ for total population (N) =8934.

Last but not least, to make the investigation inclusive the sample respondents were shared equally among fair trade certified and non-certified small scale coffee producers.

3.3 Sources Of Data And Data Collection Method

This study was conducted based on both primary and secondary data, using a structured questionnaire that was filled by target groups with the help of trained enumerators. The primary data were collected by face to face interviews using structured questionnaire. And survey questionnaire was developed by revising various related studies. The questionnaire included both closed and open-ended questions. The closed-ended questions were used to collect background information about the respondents. It covered the personal information, institutional, economic, social structure, and natural resource management related questions. The open-ended questions dealt with the challenges to be certified and financial problem of small scale coffee producers including the perception of farmers and cooperative union leaders towards the fair-trade certification as a whole. The questionnaire was prepared in English language and then translated into local or native language of selected areas. In addition, qualitative data were collected through semi-structured interviews and discussions which were made with selected small scale coffee producers and cooperative unions.

Secondary sources were included unpublished and published materials about fair trade certification impacts.

3.4 Data Analysis

Coded data were analyzed using STATA software package version 13.0 for regression analysis.

The functional relationship between the probabilities of ecosystem and natural resource management (environmental protection) and explanatory variables is specified as:

The binary logistic regression analysis was used to answer the query of environmental protection impact of fair-trade certification. Thus, to deal with status of environmental conservation and awareness generated on environmental protection, this study was based on the following Logistic Regression model, given by

$$(p) = \ln \left[\frac{p}{1-p} \right] = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_n x_n$$

Where X_1, \dots, X_n are the predictor variables.

To evaluate environmental and natural resource management impact, the researchers selected proxy variables (impact indicators). The proxies as dependent variables for this study were: Status of Environmental Conservation after Fair-Trade Introduction, and Awareness on Environmental Protection.

The environmental and natural resource management impact of fair trade certification function of this study was defined as follow:

SECAFTI (Status of Environmental Conservation after Fair-Trade Introduction)

= F (FTMS, AHH, EduLev, HHH, FS, NTACU, NTBC)

Where, SECAFTI = (dependent variable), and independent variables are stated as follow:

FTMS= Fair Trade Membership Status

AHH= Age of Household Head

EduLev= Educational Level of Household Head

HHH= Household Headship

FS= Family Size

NTACU=Nature of Transparency and Accountability in Cooperative

Union

NTBC (Number of Training on Biodiversity Conservation)

Furthermore, to analyze the impact of fair-trade introduction on awareness creation regarding environment protection, the following function is applied

AEP (Awareness on Environmental Protection) = F (FTMS, EduLev, FS, NTACU, ID)

Where, AEP =Awareness on Environmental Protection (dependent variable) and independent variables are stated as follow:

FTMS= Fair Trade Membership Status

EduLev= Educational Level of Household Head

FS= Family Size

NTACU=Nature of Transparency and Accountability in Cooperative

Union

IDI=Infrastructural Development Index

3.5 Variable Description

Dependent variables are Status of Environmental Conservation after Fair-Trade Introduction and Awareness on Environmental Protection. “Status of Environmental Conservation after Fair-Trade Introduction” is a dummy variable, which takes 1 if there is improvement regarding environmental conservation due to fair trade introduction and 0 otherwise. Again “Awareness on Environmental Protection” is a categorical variable enchanting 1 if there is affirmative awareness or consciousness on environmental protection after fair trade prologue and 0 otherwise.

Independent variables are; Fair Trade Membership Status, Age of Household Head, Educational Level of Household Head, Household Headship, Family Size, Nature of Transparency and Accountability in Cooperative Union, Numbers of Training on Biodiversity Conservation, and Infrastructural Development Index. “Fair Trade Membership Status” is a dummy variable indicating whether the respondent is fair-trade certified or not. It takes 1 if the respondent is member of fair trade certification and 0 unless. “Age of Household Head” is a continuous variable measured in years. “Educational Level of Household Head” is a continuous variable implying years of schooling. “Household Headship” is a dummy variable showing whether the household is headed by male or female. It takes 1 if the household is headed by male and 0 if not. “Family Size” is a continuous variable reflecting the number of household members. “Nature of Transparency and Accountability in Cooperative Union” is a categorical variable intriguing 1 if there is intelligibility and responsibility in cooperative union and 0 otherwise. “Numbers of Training on Biodiversity Conservation” is a continuous variable implying the number of times the respondent experienced environmental conservation training or working out. “Infrastructural Development Index” is a continuous variable providing information about the average level of infrastructural development in the study area.

4. DATA ANALYSIS AND DISCUSSIONS

The qualitative and quantitative analysis of environmental protection impacts of fair-trade certification on coffee producer areas which is aimed at corroborating the empirical results is presented. The intentions of fair-trade certification are different from the predictable economic goals, and are not situated on purely pecuniary objectives. Nevertheless, it includes a fair price for outputs and employment generation, sustainable and prudent utilize of natural possessions, and reinvestment of profits in the community to offer shared structures; like education and health concern. From this version it is latent to say, it is difficult or impossible to achieve sustainable development without amalgamation of communal and environmental effects within related patterns of financial effect.

Small scale coffee farmers are excessively vulnerable to the impacts of climate change as a result of reliance on natural resources. Climate change is likely to lead to decreasing crop outputs in most tropical and sub-tropical regions, adversely impacting agricultural sectors and reducing food security in many developing countries. Fair-trade certification addresses a growing universal demand for healthier and more socially and environmentally friendly or affable yields and is based on the idea that consumers or users are motivated to pay a price premium for products that meet certain precisely defined and assured standards or values (Wissel et al., 2010).

The price premiums, therefore, are intended to be used to promote socio-economic alteration and environmental sustainability in the areas of production. Voluntary product certification values such as fair trade are promoted as decisive devices to make small-scale coffee farmers in developing countries less susceptible to volatile ‘free’ world market prices and to enhance their market assimilation in order to increase their socio-economic state of affairs.

4.1 The Impact Of Fair-Trade Certification On Biodiversity Conservation

Africa is a continent prosperous or affluent in biodiversity and natural resources. The livelihood of much of the African population depends on agriculture, yet rising soil degradation, deforestation and desertification threaten current living values and future production competence (World Bank, 2005).

According to the United Nations Environment Programme, provincial or local poverty could be eliminated in the course of further reasonable and sustainable environmental resource management (UNEP, 2006). Ethiopia is the motherland and centre of genetic diversity of Arabica coffee or Coffee Arabica. Ethiopian coffee is chiefly produced in traditional coffee production systems. This means wild coffee is simply picked inside the forest, or managed within the forest by removing competing undergrowth vegetation and some covering trees.

Table 4.1 *The Impact of Fair-Trade Certification on Environmental Conservation*

SECAFTI	Coefficient	P Value	(95% Confidence Interval)	
AHH	-.0254352	0.064	(-.0014619	.0523323)
EduLev	.425291	0.127	(-.1213334	.9719153)
FTMS	2.448986	0.000***	(1.470479	3.427492)
HHH	1.543385	0.000***	(.879302	2.207468)
NTBC	-.0076556	0.868	(-.0982259	.0829146)
FS	-.7095848	0.003***	(-1.177575	-.2415949)
NATICU	-.1609284	0.387	(-.525661	.2038041)
-cons	-.3265128	0.749	(-2.329305	1.67628)
Number of Obs =383	Prob>chi2 =0.000	LRchi2(7) = 123.94	Pseudo R2 =0.2553	

*** refers to significant at 1 percent significant level.

Source: Compute from own survey, 2017

Prob > chi2 – This is the probability of obtaining the chi-square statistic given that the null hypothesis is true. In other words, this is the probability of obtaining this chi-square statistic (123.94) if there is in fact no effect of the independent variables, taken together, on the dependent variable. This is, of course, the p-value, which is compared to a critical value, perhaps .05 or .01 to determine if the overall model is statistically significant. In this case, the model is statistically significant because the p-value is less than .000.

The estimated results for logit model of this study in table 4.1 confirmed that from the total of 7 variables only 3 variables are statistically significant at 1% significance level. The coefficient (or parameter estimate) for the variable FTMS is 2.448986. This implies that the probability of achieving improved environment is positively affected by fair trade membership status in this model.

The coefficient (or parameter estimate) for the variable HHH is 1.543385. The sign of the coefficient of household headship shows a positive relationship with the probability of having a preserved environment. This implies the probability that an environment will be conserved is lower for female headed households than male headed. The coefficient (or parameter estimate) for the variable FS is -.7095848. It reflects that family size affects the prospect of realizing preserved environment negatively.

The significance of environmental conservation efforts of fair trade certification result of this study related with empirical evidence conducted on impact of coffee certification program on forest conservation in the Belete-Gera Regional Forest Priority Area in Ethiopia. And the result of this study found that forests under the coffee certification program were less likely to be deforested than forests without forest coffee certification. The results also suggested that the certification program has had a large effect on forest protection, decreasing the probability of deforestation by 1.7 percentage points (Takahashi and Todo, 2013). Small-scale farmers in developing countries like Ethiopia are bearing the burden of climate change, which is causing erratic weather patterns, the appearance of new pests and the rapid spread of diseases. The standards of fair trade endorse best agricultural practices, which guide producers in adapting to climate change and mitigate their force.

Most of the time, when we think of fair-trade, we might think of fair prices for farmers, better labor standards, or maybe even safe working conditions. However, fair-trade is by the same token invested in protecting the environment. Fair-trade not only helps progress farmers' wellbeing and working conditions, but also helps them become better stewards of the environment. Indeed, farmers who struggle to make ends meet are frequently forced to engage in cheap agricultural practices that compromise surrounding ecosystems or biodiversity.

Amongst the many achievement of fair-trade certified cooperatives in Jimma zone of south west Ethiopia, it highly prohibits the application of certain agrochemicals that are harmful to the environment and center on reducing the use of pesticides. It encourages activities to enhance biodiversity or environment conservation. The standards of fair-trade also support training for farmers, which can lead to good agricultural practices that can encourage environmentally sustainable production. And some coffee co-operatives have chosen to invest in reforestation projects such as tree-planting to assist improve the micro-climate, protect soils and provide a habitat for indigenous flora and fauna. Fair-trade standards or values drive up the quality of environmentally sensitive production and better protects workers and environment from harmful chemicals used in production and fabrication.

The growth of fair trade certification in Africa works to guard environmental resources in three main ways. First, fair-trade certification standards necessitate that producer groups uphold a set of wide-ranging environmental criteria that address key ecological concerns in Africa. Soil and water management standards avert soil degradation and erosion, dropping the risk of desertification. Preventions against cutting virgin forests reduce deforestation, while buffer zone requirements serve to protect natural areas. The second way that fair-trade is able to augment environmental stewardship lies in its trade circumstances. Fair-trade goes afar ecology certifications in ensuring that producers have the financial and organizational possessions to maintain environmental standards. Poverty tends to aggravate environmental deprivation as people eke out a living in whatever way they can. By working to make sure that producers have a protected and livable income, fair-trade reduces the need of

impoverished households in Africa to ruin natural resources. By promoting the organizational capability of producer groups, fair-trade fosters shared capacity to address environmental problems (Raynolds, 2000). The third key ways that fair-trade works to protect environmental resources is by assisting the emerging rise of certified organic production in Africa. Fair trade has proved critical in promoting certified organic production in Africa by availing the informational, organizational and financial means necessary for producers to enter these demanding structures.

4.2 The Impact Of Fair-Trade Certification On Small Scale Coffee Farmer’s Awareness Toward Environmental Protection

Awareness creation or discussion concerning environmental protection frequently focuses on the function of government, legislation, and law enforcement. Nevertheless, in its broadest sense, environmental protection may be seen to be the responsibility of all the people and not merely that of government. Environmental protection or fortification is a practice of protecting the natural environment on individual, on institutional or governmental levels, for the benefit or advantage of both the environment and humans in general. Attributable to the pressures of over consumption, population and technology, the biophysical environment is being degraded, sometimes enduringly.

The objective of creating environmental awareness among small scale coffee farmers is to stimulate the farmers to practice environmental conservation techniques and environment-friendly farming by deepening their acquaintance and understanding of the importance of preserving the natural resources in which they live. Regarding the raising of environmental awareness of small scale coffee farmers, it would be recommendable to draw attention to those issues that are directly related to the daily situations of local inhabitants.

Table 4.2. The Impact of Fair-Trade Certification on Small Household Coffee Farmer’s Awareness Towards Environmental Protection

AEP	Coefficient	P Value	(95% Confidence Interval)	
EduLev	3.187424	0.000***	(2.484364	3.890483)
FTMS	2.642801	0.000***	(1.963321	3.322282)
IDI	.8457745	0.000***	(.4355874	1.255962)
NTACU	-.2969756	0.165	(-.7159561	.1220049)
FS	-.0077573	0.889	(-.1164091	.1008946)
-cons	-6.81787	0.000***	(-8.659289	-4.976451)
Number of Obs =383	Prob>chi2 =0.000	LRchi2(5) = 254.41	Pseudo R2 =0.4836	

*** refers to significant at 1 percent significant level.

Source: Compute from own survey, 2017

Prob > chi2 – This is the probability of obtaining the chi-square statistic given that the null hypothesis is true. In other words, this is the probability of obtaining this chi-square statistic (254.41) if there is in fact no effect of the independent variables, taken together, on the dependent variable. This is, of course, the p-value, which is compared to a critical value, perhaps .05 or .01 to determine if the overall model is statistically significant. In this case, the model is statistically significant because the p-value is less than .000.

The estimated coefficients in table 4.2 show that important variables such as household head education level, fair trade membership status and infrastructural development index have positive coefficients that are statistically significant meaning that these factors enhance farmer's awareness about environmental protection.

The coefficient (or parameter estimate) for the variable FTMS is 2.642801. This entails that the likelihood of achieving improved awareness on environmental preservation is positively affected by fair trade membership status at 1% significance level.

The coefficient (or parameter estimate) for the variable EduLev is 3.187424. Education of the household head is basically contributed to ensure better level of consciousness about environmental conservation. This variable affects the probability to be aware of environmental protection positively and significantly at 1 percent significance level.

The coefficient (or parameter estimate) for the variable ID is .8457745. The sign of the coefficient of infrastructural development index in the regression result shows a positive relationship with the probability of attaining enhanced awareness on environmental protection.

There are coffee cooperatives located in Jimma zone of south western Ethiopia, which is the most famous coffee-growing region in Ethiopia. Using the fair-trade premium, cooperatives in Jimma zone has developed a program that provides trainings, capacity building, and environmental leadership to its members for better management of biodiversity. And the main reason of this program is raising awareness of environmental protection through a strong educational curriculum for fair trade membership's assessment of the sustainable use, storage and control of agrochemicals on their farm lands. The awareness creation aimed particularly on incentives for the rational use of fertilizers and soil remediation, increased monitoring of crops, recycling campaigns for waste and residual materials and the implementation of land conservation initiatives. Small scale coffee farmers are conserving presented biodiversity and aid in the ecological restoration of critical areas. They are achieving this by taking steps that protect waterways and wetlands from erosion and contamination, forbid logging and other deforestation, maintain vegetation barriers and prevent negative impacts on natural areas outside coffee farmlands.

4.3 Limitations Of Fair Trade Certifications

Being a small scale coffee farmers in the rural areas of Jimma Zone of Ethiopia is not about making big money or make success in a career. Life is all about making food for the day and takes care of the family. Fair trade observes environmental sustainability as necessary to strengthen sustainable livelihoods. Fair trade certification has played a significant role at times of low prices, for instance during the coffee crisis. For very poor producers, minimum prices and market access via fair trade networks has been decisive. Also fair trade can act as an important safety net and can reduce price instability. However, according to open-ended questionnaires, fair trade premiums and minimum prices have lost worth in real terms over time and need to be recalibrated if they are to formulate a considerable difference to small holder coffee producer's livelihoods. Focus group discussion reflected that fair trade certification alone is not adequate to make major reductions in poverty. Fair trade certification needs to go hand-in-hand with investments to progress productivity, management skills and better stipulation of public extension services and production support systems. According to focal group discussions between coffee producers and representatives,

among the various challenges, strict governments rule and regulations, non inclusive nature of fair trade certification and complex bureaucracy were the main obstacles not to achieve optimal outcomes.

An in-depth focus group discussion with the small holder coffee producers in cooperatives reveals that the only institution providing financial services to producers in their area is government supported microfinance. The availability microfinance institution is at the district level. However, the service is very limited and not available to all producers who need credit. Most of the discussion participant farmers have expressed their favorite to sell their coffee to the primary cooperative in form of red cherries for wet processing. This is due to the fact that fresh cherries fetch relatively higher price than the sundried coffee and also due to the farmers' expectation to get a secondary payment from the cooperative as a dividend in a good year when the cooperative makes plenty profit. According to the output of the discussions, the price of coffee at the beginning of the buying period will start low and then augments as the cooperatives and private traders compete against each other to purchase their coffee. Nonetheless, the financial capital of the investigated cooperatives in Jimma Zone of Ethiopia is rather limited.

5. CONCLUSION AND RECOMMENDATIONS

The core of the research design was a cross-sectional based survey, with two main research objectives focused on the investigation of the impact of fair-trade certification on environmental protection and awareness creation on biodiversity conservation. This research paper adopted a combination of research tools, generally both quantitative and qualitative. This study generated remarkable empirical findings concerns environmental protection.

This research was able to find evidences that fair-trade certification has made a positive and an important impact on environmental or biodiversity conservation. Indeed, the data suggested that those who are members of fair-trade group have developed the awareness of the necessity of protecting biodiversity for achieving best possible and sustainable returns. As for the effectiveness and efficiency of the fair-trade approach in general, it has been shown that the awareness of fair-trade members about environment protections and sustainable development, the motivation of the respective decision-makers and the general information and understanding of fair-trade impact among the respective farmers and workers are decisive success factors. Therefore, fair-trade certification should be considered as one of development riding forces and instruments among policy makers. And for further protection of biodiversity and sustainable returns, stakeholders like farmers and both government and non government organization must comply with the standards of fair-trade certification including; soil enhancement by applying sustainable irrigation practices such as crop rotation and water conservation; agrochemicals safely and use management.

At the very least, this research suggests that office holders regarding fair-trade administration need to pay far more attention to make working procedures of fair-trade certification more flexible, easy and inclusive. And small scale coffee farmers need to establish internal control systems to facilitate traceability.

6. ACKNOWLEDGMENTS

We are grateful to Jimma zone coffee farmers, cooperative managers, and laborers for their valuable contributions to field research. Special thanks are owed to Jimma University for funding this research.

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