"Agricultural associations and fair trade in the Peruvian rainforest: a socioeconomic and ecological analysis"

AUTHORS	Alexandra Barro-Chale Patricia Rivera-Castañeda Maria Jeanett Ramos-Cavero Franklin Cordova-Buiza R
ARTICLE INFO	Alexandra Barro-Chale, Patricia Rivera-Castañeda, Maria Jeanett Ramos-Cavero and Franklin Cordova-Buiza (2023). Agricultural associations and fair trade in the Peruvian rainforest: a socioeconomic and ecological analysis. <i>Environmental Economics</i> , <i>14</i> (1), 24-35. doi:10.21511/ee.14(1).2023.03
DOI	http://dx.doi.org/10.21511/ee.14(1).2023.03
RELEASED ON	Thursday, 16 March 2023
RECEIVED ON	Tuesday, 17 January 2023
ACCEPTED ON	Monday, 20 February 2023
LICENSE	This work is licensed under a Creative Commons Attribution 4.0 International License
JOURNAL	"Environmental Economics"
ISSN PRINT	1998-6041
ISSN ONLINE	1998-605X
PUBLISHER	LLC "Consulting Publishing Company "Business Perspectives"
FOUNDER	LLC "Consulting Publishing Company "Business Perspectives"

o [©]	B	===
NUMBER OF REFERENCES	NUMBER OF FIGURES	NUMBER OF TABLES
49	0	4

© The author(s) 2023. This publication is an open access article.





BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives" Hryhorii Skovoroda lane, 10, Sumy, 40022, Ukraine

www.businessperspectives.org

Received on: 17th of January, 2023 Accepted on: 20th of February, 2023 Published on: 16th of March, 2023

© Alexandra Barro-Chale, Patricia Rivera-Horna, Maria Jeanett Ramos-Cavero, Franklin Cordova-Buiza, 2023

Alexandra Barro-Chale, Bachellor, Business Faculty, Universidad Privada del Norte, Peru.

Patricia Rivera-Castañeda, Master, Escuela de Estudios Generales, Universidad Privada Norbert Wiener, Lima, Peru

Maria Jeanett Ramos-Cavero, Doctor, Business Faculty, Universidad Privada del Norte, Peru. (Corresponding author)

Franklin Cordova-Buiza, Master, Research and Innovation Department, Universidad Privada del Norte, Lima, Peru; Faculty of Business Sciences, Universidad Continental, Huancayo, Peru

(6)

This is an Open Access article, distributed under the terms of the Creative Commons Attribution 4.0 International license, which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

Conflict of interest statement: Author(s) reported no conflict of interest

Alexandra Barro-Chale (Peru), Patricia Rivera-Castañeda (Peru), Maria Jeanett Ramos-Cavero (Peru), Franklin Cordova-Buiza (Peru)

AGRICULTURAL ASSOCIATIONS AND FAIR TRADE IN THE PERUVIAN RAINFOREST: A SOCIOECONOMIC AND ECOLOGICAL ANALYSIS

Abstract

Fair trade initiatives represent an essential support for the scarce opportunities that have arisen in the agricultural sector, as they cover various areas that contribute to increasing good trade practices. It is essential to highlight the contribution of fair trade in urban and rural areas, as it becomes a valuable incentive for differentiation. The main objective of this study was to determine how Fair Trade is applied in the socioeconomic and ecological sphere in an association of sustainable agricultural producers in the Peruvian jungle. This is quantitative research with a non-experimental crosssectional design. The survey technique was used, and a questionnaire was applied to 99 agricultural producers in the Amazon region of northern Peru, because it would help to analyze the new challenges of fair trade. In addition, data analysis and processing was carried out with Microsoft Office Excel and SPSS. The results show that 51% of the producers surveyed have been sensitized to adopt socially responsible actions aimed at strengthening sustainable development, social responsibility and good practices for fair trade in favor of the preservation of the resources of the Peruvian Amazon, as well as the socioeconomic development of farmers and the region itself. Forty-seven percent carry out social responsibility activities under the guidance of the Fairtrade organization, which has accompanied farmers to obtain Fairtrade certification. In addition, 59% of respondents say that they engage in healthy competition that generates trust among farmers. Fairtrade enables associated farmers to improve their ethical behavior and respect for their rights as well as those of the entire community.

Keywords fair trade, agricultural producers, environmental

impact, social responsibility, economic development,

environmental footprint

JEL Classification D22, F18, Q01

INTRODUCTION

Fair trade initiative has been strengthening since 1940 until today as a manifestation of the deterioration of traditional trade. It aims to commit to better sustainable and environmental production standards and implement more incredible benefits for small producers with socio-economic and environmental disadvantages. However, gradual globalization has led less favored producers, who do not have alternative markets to trade, to be forced to supply their products at a limited price in comparison to their production costs (Sama et al., 2019).

In this perspective, the Fair trade initiatives represent essential support given the scarce opportunities for producers, as they cover several areas that will help developing countries increase their access routes. In the current context of COVID-19, in August, in the agricultural sector of Amazonas, the economic indicators showed a beneficial performance, growing by 2.7% over the same month of the previous year,

caused by the increase in livestock production by 2.6%, agricultural production by 2.7%, and larger harvested areas (BCRP, 2021). Rodriguez de Mendoza is one of the seven multicultural provinces of the Amazonas region, which is one of the 25 regions of Peru. At present, the decisions taken by the authorities regarding its progress are limited and inconsistent since the current quantity and circumstances are still being determined. Nevertheless, the data allow for adequate environmental policies and regulations to cooperate in making the right decisions at the local level (Rodriguez de Mendoza Provincial Municipality, 2021).

The Association of Sustainable Agricultural Producers of the Huayabamba Valley is located in the aforementioned province. It has been engaged in trading activities since 2004 to manufacture silk, as this market was minimal. However, there is greater awareness of the generated environmental problems, so more and more producers wish to commit to sustainable development and ecological agriculture.

In Peru, mainly in the leading coffee-producing regions, it is uncommon to implement commercial alternatives. Sustainability programs can help farmers adapt and integrate into larger markets. However, there is a gap, which is why small agricultural associations rarely implement such practices to a large extent. Therefore, this study covers these issues and allows linking areas for a greater impulse of sustainable development.

1. LITERATURE REVIEW

Montenegro and Cabrera (2018) determined that fair trade is an alternative trade practice that proposes greater moderation in international trade by establishing better trade circumstances respecting the rights of marginalized producers and workers. It also has a transcendental aim of reducing the circumstances of scarcity in which countless small producers in developing countries live. In turn, Hernandez et al. (2022) identified that fair trade is a social trend that helps to promote sustainability through fair trade practices, mainly following sustainable development goals and restoring social circumstances. Thus, fair trade is one of the systems created to boost sustainable production through an integrated multidimensional viewpoint and is closely related to providing better trade opportunities for producers. Specifically, Pyk and Hatab (2018) clarified that fair trade gives smallholder farmers advantages in pre-financing and support against price fluctuations. In conjunction, the findings should corroborate fair trade's accountability to smallholders. In addition, the applied instrument should be designed to balance economic, social, and environmental outcomes among smallholder farmers. Siegmann (2022) argues that Fairtrade initiative coordinates one of the most ambitious social movements in the agri-food sector focused

on integrity and economic concerns. The significant development of certification may address the unsustainable impacts on consumption.

According to Ribeiro-Duthie et al. (2021), fair trade is an administrative trade relationship that integrates various principles, including sustainable development practices. For this reason, the three dimensions of fair trade are interrelated. Ortiz (2015) described the dimensions of the phenomenon developed, what should be measured or evaluated and, simultaneously, determined the unit of analysis. Valenciano et al. (2021) emphasized that voluntary environmental certifications are more frequently used globally toward a vision of decarbonizing the economy and achieving sustainable development goals.

Posso et al. (2022) interpreted that the sustainable development dimension is the responsibility that implies ethical environmental behavior. It evaluates the strengths and weaknesses in decision-making about the possible environmental impacts. Awareness about the care and protection of the environment must be raised, which will allow actions to be taken from a social approach. A change of communicative activities must be proposed for a new perspective on growth. González (2017) identified that the initiatives of ecological problems derived from hyper-industrialization. Thus, individuals understand the possible con-

http://dx.doi.org/10.21511/ee.14(1).2023.03

sequences of economic, social, and environmental phenomena, rescuing the integrative values as drivers of the relationships between social systems and nature. It focuses on an evaluation concerning the environmental problems that are occurring today, which should include new areas related to fair trade. However, the study only analyzed environmental problems and the lack of commitment. Thus, new research fields should focus on the more significant impacts of certified products. The standards of the alternative trade movement prioritize better social and environmental practices, mainly related to sustainable practices: environmental, social, health and safety, economic and agricultural management.

Similarly, Kudama et al. (2021) explained that receiving instructions related to sustainable production and environmental practices teaches farmers the importance of sustainable practices in the face of current environmental and climate challenges and the urgency of lessening the harmful effects affecting sustainable production. However, this study could not gather a larger sample size, which generated a limitation for data collection. This also means that it was impossible to objectively assess the inequality of opportunity and the factors involved in the inequality of opportunities. Consequently, Sanhueza (2018) and Cóndor-Salvatierra et al. (2022) showed a holistic vision, which made it challenging to counteract the harmful effects of industrialization. Therefore, there is a need to originate a complete investigation of the principles of fair trade and link them for a greater understanding of sustainable development.

De Mesa and Cecchini (2022) showed that universal social protection is necessary to meet the Sustainable Development Goals as a critical policy for development toward sustainable development. In this way, the research should consider sustainable systems to lessen the limitations of the Fairtrade certification and thus lead to further progress.

Regarding social responsibility, Fonseca et al. (2022) focus on an ideology linked to actions and managed by company managers, either because of responsibility or commitment to the community. It means an ethical commitment due to moral responsibility, not because of a legal or regulated

need. Thus, there is a need for more publications on social commitment, so strategies should be implemented to promote and expand it. Likewise, it is vital to discover the contributions and limitations of corporate social responsibility. According to Sanchez and Bejarano (2022), it also encompasses those actions that seek to promote social well-being beyond the company's objectives and what the law establishes. These social responsibility actions generate value by increasing the possibility of success due to the long-term strengthening of social legitimacy; thus, from this perspective, value is generated. Therefore, social responsibility may become a value-creating activity, impacting, at the organizational level, ethical commitment. However, the sample of events for the Colombian context is relatively small, so it is impossible to assess the main inequalities of traditional trade and support producers in underdeveloped countries.

Medina et al. (2022) explained that social responsibility is challenging for companies, the state, and communities. These actions imply strategic development and integral well-being obtained through sustainable practices. It is accepted as a part of social philosophy and ethics concerning human acts in which being responsible is to be consistent with the damage that individual actions may cause to specific social and environmental groups. It implies an approach toward the future of leadership, with a more condescending commitment to others and the planet. This is in line with the proposed environmental policies' progress and the urgency of defending a fairer society. Thus, this paper must consider that corporate social responsibility is not exclusively legal regulations; it is an approach that prioritizes sustainable development. That is why it is necessary to implement social, economic, and environmental goals because this is the only way to be truly committed to environmental development.

Finally, the fair trade practice refers to the responsible commitment of companies, suppliers, and customers, showing solidarity and humility in trade. Synchronically, in the negotiations, it is desired to achieve the security of producers and not maximize profits at their expense. This allows differentiation and an incentive for sustainability (Promperu, 2020). According to World Fairtrade Organization Latin American (2022), marginal-

ized small producers must be committed to environmental and socio-economic well-being and equal opportunities. This study proposes key strategies and action plans to help small, marginalized producers to address the issue of inequality and represent a tool for organizational accountability and development.

Viswanathan (2021) examined the effects of various certification systems on the development of workers' socio-economic status and working circumstances. It was necessary to propose initiatives that could improve the participation of plantation workers and thereby foster the dynamism of this sector. The study also analyzed the various economic and social deprivation aspects that constantly affect workers. The plantations obtained slight improvements mainly because the premiums received by the plantations were changeable over time. Therefore, there is a need for certification standards to better integrate farmers' benefits. This would improve their current situation and increase their income. Herman (2021) and Abdu and Mutuku (2021) contributed to the literature by stating that it is essential to apply certain requirements in traceability, environmental protection, contracts, finance, social well-being, and safe working conditions. They found that fair trade has significantly changed since its emergence by encouraging fair practices and explaining the preference of consumers to appreciate the environmental and social attributes of goods sustainably produced. These findings can also be used as a tool to implement sustainable production. However, they could not provide a complete sample that covers how eco-labeling affects consumers' purchase decisions in this last period. Thus, these studies cannot be used as an instrument for sustainable production, so they only applied individual primary studies. Despite the literature review in which they detail that little certainty has been generated in commercial activities as well as little willingness to pay, it is still inaccurate.

Subsequently, Durevall (2020) details that Fairtrade labeling has the potential to increase market efficiency by linking farmers with altruistic consumers who are willing to pay a premium for sustainability-certified products. To recognize the impact of a Fairtrade label, the sale of Fairtrade products has proliferated in recent years,

partly due to increased consumer demand and to the certification of fairtrade cities, towns, and regions, which are committed to the promotion and purchase of Fairtrade-certified products. However, to achieve more significant benefits, authorities should provide them with financial support concerning the premium given to the associations directly. Similarly, Raynolds (2021) verifies how fair trade seeks to strengthen rights through individual actions and collective capacity-building standards. The findings reveal how the development of individual empowerment serves as a precondition for collective empowerment and a focus on traditional labor rights. However, there is no doubt that research analyzing the gender impacts of Fairtrade on farmers is limited. In addition, existing studies focus in-depth on small farmers in Latin America and Africa, which would not strengthen and provide better support to non-underdeveloped areas.

Sellare et al. (2020) and Knößlsdorfer et al. (2021) stated that fair trade deepens the social dimension of sustainability by considering particular environmental objectives and related rules and regulations that determine other sustainability standards for its improvement. Even if the results are limited, attention must be paid to some significant differences. Delimiting environmental effects and other standards is inappropriate since tools can be developed in opposite directions. Cooperatives represent the vital key for sustainability standards to improve and thus remedy the disadvantages they possess. Caviedes and Olaya (2020) and Aguiar et al. (2022) determined that the environmental impact is generated by the different seals of good agricultural and socio-economic practices in the various producing regions. These studies make it possible to assess the relationships of trust, collaboration, and communication between the actors in strengthening fair trade. However, there is a lack of clarification and recognition of how it would be ideal for motivating coffee growers to adopt this type of certification on their farms since it would improve the aspects that are supposed to differentiate.

In turn, D'Souza et al. (2020) and Stelzer and Gonçalves (2021) related to alternatives for fair trade practices. The World Trade Organization develops and experiments on a theoretical model that supports sustainable development goals, ad-

dressing the nexus between the beliefs of a just world. Considering the differences, the authorities must promote the autonomy of producers and implement alternative tools to allow for strategic development and integral well-being. Caviedes and Olaya (2020) and Suzianti et al. (2019) established the impacts of greater importance as well as those of greater uniqueness. In this sense, it is crucial to offer protection to less favored producers, especially those from developing countries, through the advantages of fair trade. In this way, it will be possible to constantly rethink the challenges toward the rise of fair trade practices. However, it is vital to increase the benefits for farmers, as they are rarely rewarded directly. When considered from an economic perspective, fair trade would provide solutions starting with fair wages for small producers and raw materials, resulting in more significant compensation throughout the supply chain.

Additionally, Lyall and Havice (2019), S. Araya and C. Araya (2019), and Montenegro and Cabrera (2018) evaluated that producers develop effective strategic marketing planning focused on the protection of consumption referring to the ethical and responsible principles with socially progressive behaviors. In turn, they prioritize that the main international markets demanding agri-food products allow fair trade certified producers to design effective marketing strategies focused on compliance with current requirements. However, there are several challenges to implement in the countries because there are great adversities for these types of products. For this reason, it is necessary to raise awareness about the urgency of requiring the production of various raw materials to comply with socially ethical criteria. A balance of benefits must be provided for all the most disadvantaged stakeholders.

Similarly, Kossmann and Gomez-Suarez (2019) and Aksoy and Özsönmez (2019) indicated that Fairtrade and other organizations seek to correct the effects of unregulated trade to ensure product valuations, mainly for less favored or little-known producers. The primary factor for the participation of these products is consumer confidence in the Fairtrade approach, generating a high level of loyalty to producers who implement sustainable trade practices. Despite that, there has been no notable evolution in recent years. Given this, it is

necessary to propose solutions oriented to take actions that imply strategic development. According to De Fries et al. (2017), voluntary certification has become critical to building sustainable supply chains for agricultural commodities. When establishing a new alternative system, a more rigorous analysis is needed, as well as an evaluation to follow up on the main benefits that Fairtrade certification has provided by obtaining it. Unfortunately, in Peru, sustainable production is not usually given due priority, and effective environmental and labor regulations are not usually implemented, which generates little integration of fair trade in non-underdeveloped countries.

Cermelli and Trapaga (2021) argue that change is necessary for the economic system to develop the labor market. Likewise, growth and decent employment must go hand in hand, together with cooperatives, which are the ideal entities to fulfill sustainable development objectives. Therefore, this paper is oriented toward achieving social and economic development to reduce inequality of opportunities, proposing an inclusive value that cooperates toward the objective of integration. Furthermore, the proposed economic system must provide benefits to optimize the progress of less-developed urban and rural areas. Do Nascimento et al. (2020) stated that climate change implies studying how to relocate economies, which is key for small-scale agriculture. Nonetheless, the new proposals that embrace sustainable development in various areas do not achieve the expected growth due to the use of external materials and the lack of knowledge of systems for sustainable production.

There is a relationship between fair trade and socio-economic and ecological sphere. Mendoza et al. (2020) researched socio-economic and ecological valuation in the dynamics of fair trade of the users of the mangrove ecosystem. They determined the valuation of the needs of a fair trade, which allows reaching a better price for the benefit of all consumers and favors a more significant social and ecological development of the communities of the natural area. Finally, their findings conclude that sustainability programs manage to adapt and integrate into larger markets. However, small agricultural associations still need to contribute more efforts, and the socio-economic ecological valuation is needed to implement better

strategies. Therefore, this study aims to determine how an association of sustainable agricultural producers in the Peruvian jungle apply fair trade in the socio-economic and ecological spheres.

2. AIM

The main objective of the study is to determine how Fair Trade is applied in the socioeconomic and ecological sphere in an association of sustainable agricultural producers in the Peruvian jungle.

3. METHODS

This study uses quantitative, non-experimental, and cross-sectional design; moreover, it is descriptive. The study was developed in a single period and without altering the variables. It is essential to mention that a quantitative study by Hernández and Mendoza (2018) is considered a primary method of data collection and analysis focused on generating new knowledge. The population consisted of 220 producers belonging to the Association of Sustainable Agricultural Producers of the Huayabamba Valley, aged between 18 and 65 years, and of both genders. The sample was probabilistic and comprised 99 producers.

Table 1 shows the basic characteristics of the participants. 99 farmers of both genders participated in a survey. They are residents of the district of Omia, province of Rodriguez de Mendoza. Males represented the majority with 65% compared to 35% of female farmers. About 51% were between 30 and 41 years old, 25% were between 42 and 53 years old, and 5% were between 54 and 65 years old.

Table 1. Demographic data

Characteristic	aracteristic Items Numbe		%
Gender	Female	34	34%
Gender	Male	65	66%
Age	18-29	19	19%
	30-41	50	51%
	42-53	25	25%
	54-65	5	5%
	66 or more	0	0%

Note: The paper identifies the basic characteristics of the farmers.

The paper employs a survey technique with a questionnaire consisting of 18 items that collected information based on the three dimensions: sustainable development, social responsibility, and good commercial practices. The first three items collected demographic data and the respondents' consent; the two items were related to the sustainable development dimension and collected information on the conservation of the Amazon and its resources. The following 13 items were related to social responsibility and fair trade practices. The scale for the alternatives ranged from 1 to 10, and the items were written so that the respondents easily understood them. Cronbach's alpha determined the instrument reliability with an optimal coefficient of 0.825. This instrument was adapted from Mendoza et al. (2020), who analyzed the socio-economic and ecological valuation in the dynamics of fair trade of the mangrove farmers in the Gulf of Guayaquil.

Data collection was performed through a Google Form and, in some cases, in person, where respondents marked their answers on a printed sheet. Data analysis and processing were carried out using Microsoft Office Excel. Statistical operations were applied to analyze the data.

This study considered all ethical aspects, respecting the veracity of the results, the informed consent of the respondents, and the data reliability. A total of 99 surveys were applied to the entire sample. On the other hand, all sources of information were cited correctly, respecting and acknowledging other authors' intellectual, scientific, and research work.

4. RESULTS

4.1. Sustainable development

Table 2 presents the answers of respondents regarding the conservation of the Amazon that they have now vs. what they knew three years ago. It was found that 44% of the participants who said 'almost always' have more knowledge now than 3 years ago. Furthermore, 42% claimed 'sometimes' since a good part of these participants were well trained in the care of the forests, consequently benefiting future generations. On the other hand,

2% considered 'never' since they received no training in how properly manage resources and waste. Finally, 5% stated 'rarely' due to their mastery in implementing environmentally sustainable practices that contribute to environmentally friendly production.

Table 2. Environmental conservation

Scale	Female	Male	Total	%
Always	0	6	6	6%
Almost always	15	29	44	44%
Sometimes	19	23	42	42%
Rarely	0	5	5	5%
Never	0	2	2	2%
Total	34	65	99	100%

4.2. Social responsibility

Table 3 shows the social responsibility dimension and the human rights sub-dimension. It reveals whether respondents respect and promote human rights in their daily work, as well as in their community. In this regard, 72% indicated that they always and almost always widely adopt these practices; subsequently, 18% of them expressed they sometimes do, while 5% responded 'rarely' and only 4% of respondents indicated that they never do. Furthermore, regarding the social commitment the respondents show in their community, 51% said 'always' and 21% 'almost always.' Thus, 72% of the farmers are respectful of social commitment. However, 11% said 'sometimes;' further, 15% and 2% claimed 'rarely' and 'never,' respectively, which reveals that most respondents are oriented toward social commitment in their community. Finally, concerning respect for the interests of the parties, where farmers take into account the opinions of their peers to make decisions, 47% of them stated that they 'always' and 'almost always' do so; 26% referred to 'sometimes,' 18% 'rarely' and 8%

'never.' The results reveal a tendency to strengthen healthy and socially-responsible practices that benefit the entire community.

4.3. Fairtrade practices

Table 4 shows that 39% of the participants always prefer to sell their products at similar prices to their competitors. In comparison, 28% indicated that they almost always prefer to do so, evidencing a tendency to increase good practices for fair trade. Furthermore, 13% expressed 'sometimes,' followed by 15% who responded 'rarely,' and only 4% said 'never.' Regarding external transparency, 80% noted that they always and almost always exercise healthy commercial competition; 10% claimed 'sometimes' followed by 3% that said 'rarely' and 7% that said 'never.' This shows that more and more farmers are looking for collective benefits for their communities.

Regarding price comparison, 20% said 'always' and 33% 'almost always.' This reveals that most participants consider that the supply of inputs is of high quality and at fair prices. 31% chose 'sometimes,' 5% 'rarely,' and 10% 'never.' These values indicate that almost a third of the participants could consider that the inputs from their suppliers are at a fair price, further strengthening the development of their excellent business practices. As for market conditions, findings reflect favorable circumstances for a healthy trade for farmers. 36% indicated that sometimes their competitors can sell their products unfairly. 8% chose 'always' and 18% 'almost always,' followed by 12% with 'rarely.' Finally, 25% claimed 'never'; this last value reflects the need to permanently continue implementing transparent and fair practices, which generates confidence in all farmers of the Peruvian Amazon.

Table 3. Social responsibility and sub-dimensions

Sub-dimensions	Always	Almost always	Sometimes	Rarely	Never	Total
Respect for human rights	47%	25%	18%	5%	4%	100%
Female	17.17%	14.14%	3.03%	0%	0%	34.34%
Male	30.30%	11.11%	15.15%	5.05%	4.04%	65.66%
Social commitment	51%	21%	11%	15%	2%	100%
Female	14.14%	10.10%	5.05%	5.05%	0%	34.34%
Male	36.36%	11.11%	6.06%	10.10%	2.02%	65.66%
Respect for the interests	24%	23%	26%	18%	8%	100%
Female	8.08%	9.09%	11.11%	3.03%	3.03%	34.34%
Male	16.16%	14.14%	15.15%	15.15%	5.05%	65.66%

Table 4.	Fairtrade	practices and	I sub-dimensions
----------	-----------	---------------	------------------

Sub-dimensions	Always	Almost always	Sometimes	Rarely	Never	Total
Collective negotiation	39%	28%	13%	15%	4%	100%
Female	13.13%	9.09%	6.06%	6.06%	0%	34.34%
Male	26.26%	19.19%	7.07%	9.09%	4.04%	65.66%
External transparency	59%	21%	10%	3%	7%	100%
Female	23.23%	6.06%	4.04%	1.01%	0%	34.34%
Male	35.35%	15.15%	6.06%	2.02%	7.07%	65.66%
Price comparison	20%	33%	31%	5%	10%	100%
Female	4.04%	10.10%	16.16%	0%	4.04%	34.34%
Male	16.16%	23.23%	15.15%	5.05%	6.06%	65.66%
Market conditions	8%	18%	36%	12%	25%	100%
Female	4.04%	8.08%	13.13%	2.02%	7.07%	34.34%
Male	4.04%	10.10%	23.23%	10.10%	18.18%	65.66%

5. DISCUSSION

Regarding sustainable development, most responses related to the scale of always, which means that the associated producers have a representative knowledge about the conservation of the Amazon and its primary natural resources compared to what they knew three years ago. The associates receive constant training on the proper management of resources and waste, as well as implementing environmentally sustainable practices for caring for forest trees. Fairtrade encourages sustainable agriculture, allowing more excellent environmental knowledge to implement new methods of care and sustainable development. Thus, the paper concludes that the average score regarding knowledge about the conservation of the Amazon now, compared to what was known three years ago, is 6.58 points, with a variation tendency of 1.5359 points. This finding shows that the range of values is wider than the average.

Regarding social responsibility, producers are becoming more aware of the need to apply responsible social actions by receiving training related to environmental problems. In addition, there is an incentive for responsible consumption and a preference for products that meet the standards of sustainable production. Likewise, supporting the rights of communities is an indispensable element for producers because they have a social commitment to integrate and reduce the discriminatory culture toward communities. On the other hand, social responsibility activities are essential for the associates because their initiative is to preserve the resources of the Peruvian Amazon through responsible practices.

Regarding fair trade practice, focusing on the economic strengthening of local productive activities will improve their development opportunities. Concerning this, producers rarely receive fair payment for their products because there is a slight improvement in access to adequate trade opportunities. However, fair trade, as a strategic tool, would allow the development of new capacities for producers. Furthermore, most respondents stated that they always engage in healthy competition and are generally provided with quality supplies at fair prices.

The associates mention that they rarely receive fair payment for their products, as economic profitability has decreased and market prices fluctuate suddenly. However, their compensation premium allows them to achieve their objectives. The Fairtrade minimum price and Fairtrade premium serve as a backstop when market prices are less estimated. In particular, Jena and Grote (2022) explained that the Fairtrade system focuses on poverty reduction and works with minimum prices as a safety net for farmers in times of low prices in the world market. The prices of organic products are usually higher than those of non-certified products and, therefore, often compensate for lower yields. Fairtrade is a policy instrument based on reducing poverty among the most vulnerable. In this vein, Herman (2021) specifies that insufficient economic security focuses on intervention in market relations, which remained limited due to the existing marginalization.

It is also worth noting that the associated producers indicate that sometimes there is unfair competition since they deflect their clients. Given the

above, Caviedes and Olaya (2020) explained that, although certification can consolidate commercial links between local production and international consumers, there is a probability and risk of creating more exploitation links.

According to the results, producers always care for the environment. Similarly, Cordova-Buiza et al. (2021) stated that recycling programs would ensure sustainable responsibility to the environment and communities. Likewise, regarding the comparative price indicator, it is mentioned that suppliers do not usually provide quality supplies at fair prices. This finding supports Lyall and Havice (2019), who commented on the barriers caused by the increase in the costs of supplies, as well as the high-interest rates for accessing bank loans and a consolidated market competition that has managed to gain customer loyalty.

It is explained that the associates support the rights of communities since they are part of the peasant patrols in defense of rural areas, strengthening a vision of equality. This point of view is consistent with Raynolds (2021), who argues that certified plantations are responsible for counteracting discrimination. These principles limit the bias against people with disabilities, indigenous communities, and women workers. According to Cordova-Buiza et al. (2021), producers carry out activities that improve environmental care. The results motivate responsible consumption, which

agrees with S. Araya and C. Araya (2019), who recommended that communities implement virtual platforms related to fair trade. Likewise, it is worth noting what Villacrés et al. (2018) mentioned how essential it is to participate actively and in compliance with fair trade standards.

The association of agricultural producers states that they are committed to soil conservation. This differs from Raynolds (2021), who argues that farmers in various parts of the world depend on chemical products, most of them toxic, which are, unfortunately, legal and polluting. Likewise, Sellare et al. (2020) affirmed that farmers potentially contribute to high levels of environmental toxicity, which are detrimental to health; regulations do not specify their prohibition, which originates their constant use. Unfortunately, the association of agricultural producers did not have an updated directory. Another limitation of the study is the focus on the Peruvian rainforest of the Amazonas region because they were located in remote areas with little coverage, causing difficulties in applying the instrument.

Finally, future research should explore the agro-export and manufacturing sectors, contributing to the reduction of inequalities with the fair trade approach. Likewise, it is necessary to consider the field of ethical consumption, contributing to a positive impact by generating more significant development opportunities.

CONCLUSION

Based on the objective of sustainable development, it is necessary to detail that, in order to hedge for the possible fluctuations of additional costs to their production, the associates receive a payment higher than the minimum price established by Fairtrade or receive from the latter an extra premium that offsets any economic inconvenience that may arise. In conclusion, the dynamics of fair trade allow the members of the Association of Sustainable Agricultural Producers of the Huayabamba Valley to achieve a better socio-economic valuation since there is a positive impact on aspects related to ethical behavior, respect for human rights, increased income, as well as improved working conditions. It is necessary to optimize the management of good commercial practices because it allows for fairer conditions among producers, protects the rights of communities, and, to a large extent, guarantees that producers receive fair prices that will help increase their profits by boosting reinvestment.

Regarding social responsibility, the increased knowledge of the conservation of the Amazon and its primary natural resources allows the association members to implement sustainable agricultural practices promoting food security. Likewise, they implement recycling and responsible environmental management activities, demonstrating social responsibility actions. In conclusion, healthy competition among

the members of the association is valued, developing actions that favor synergy for community development. Moreover, belonging to the fair trade dynamics provides a higher ecological value because it contributes to environment protection by improving the properties of the soil through the reuse of all the organic matter collected during production.

As a fair trade practice practical implication, it is argued that the increased knowledge related to the conservation of the Amazon and its primary natural resources allows the association members to implement sustainable agricultural practices promoting food security. Concerning this, producers rarely receive fair payment for their products. Most stated that they always engage in healthy competition and are generally provided with quality supplies at fair prices. The associates mention that they rarely receive fair payment for their products. It is concluded that it will help to determine how Fairtrade is applied in the socio-economic and ecological spheres of association of sustainable agricultural producers in the Peruvian jungle, which will serve as a basis for future research, all oriented toward a more significant promotion of sustainable development.

AUTHOR CONTRIBUTIONS

Conceptualization: Alexandra Barro-Chale, Patricia Rivera-Castañeda, Maria Jeanett Ramos-Cavero.

Data curation: Franklin Cordova-Buiza. Formal analysis: Alexandra Barro-Chale.

Investigation: Patricia Rivera-Castañeda, Maria Jeanett Ramos-Caver, Franklin Cordova-Buiza. Methodology: Alexandra Barro-Chale, Maria Jeanett Ramos-Caver, Franklin Cordova-Buiza.

Project administration: Patricia Rivera-Castañeda.

Resources: Alexandra Barro-Chale. Software: Patricia Rivera-Castañeda.

Supervision: Patricia Rivera-Castañeda, Franklin Cordova-Buiza.

Validation: Alexandra Barro-Chale, Patricia Rivera-Castañeda, Maria Jeanett Ramos-Caver, Franklin

Cordova-Buiza.

Writing – original draft: Alexandra Barro-Chale, Franklin Cordova-Buiza.

Writing – review & editing: Alexandra Barro-Chale, Patricia Rivera-Castañeda, Maria Jeanett Ramos-Caver, Franklin Cordova-Buiza.

REFERENCES

- Abdu, N., & Mutuku, J. (2021). Willingness to pay for socially responsible products: A metaanalysis of coffee ecolabelling. *Heliyon*, 7(6), E07043. https://doi. org/10.1016/j.heliyon.2021.e07043
- 2. Aguiar, B., Romaniello, M., & Pelegrini, D. (2022). The influence of fair-trade in the development of capital: The Dos Costas Coffee Cooperative case. *Revista de Economia e Sociologia Rural*, 60(2). (In Portuguese). https://doi.org/10.1590/1806-9479.2021.224545
- 3. Aksoy, H., & Özsönmez, C. (2019). How millennials' knowledge, trust, and product involvement affect the willingness to pay a premium

- price for fairtrade products? *Asian Journal of Business Research*, 9(2), 95-112. https://doi.org/10.14707/ajbr.190062
- Araya, S., & Araya, C. (2019). Priorización multicriterio de mercados potenciales de comercio justo. *Información Tecnológica*, 30(5), 309-318. (In Spanish). https://doi.org/10.4067/S0718-07642019000500309
- 5. Banco Central de Reserva del Perú (BCRP). (2021). *Amazonas:* Síntesis de actividad económica Agosto 2021. (In Spanish). Retrieved March 28, 2022, from https://www.bcrp.gob.pe/docs/Sucursales/Piura/2021/presentacionamazonas-08-2021.pdf
- 6. Caviedes, D., & Olaya, A. (2020). Impacto ecológico, social y económico de fincas certificadas en buenas prácticas agrícolas y comercio justo. *Cuadernos de Desarrollo Rural, 17*(85), 1-19. (In Spanish). https://doi.org/10.11144/ Javeriana.cdr17.iese
- Cermelli, M., & Trápaga, A.
 (2021). Sustainable development
 goals, economic growth, and
 decent work: Cooperatives as a
 way to achieve the goals. Boletin
 de la Asociación Internacional
 de Derecho Cooperativo, 59,
 339-361. (In Spanish). https://
 doi.org/10.18543/baidc-59 2021pp339-361
- 8. Commission for Promotion of Peru (Promperu). (2020).

- Comercio Sostenible. (In Spanish). Retrieved from http://repositorio. promperu.gob.pe/bitstream/handle/20.500.14152/4281/Comercio_sostenible_ingles_2020_keyword_principal.pdf
- Cóndor-Salvatierra, E., Yuli-Posadas, R., & Rutti-Marín, J.
 (2022). Environmental education: Challenges for the 2030 sustainable development agenda. Revista De Filosofía, 39(100), 448-460. https://doi.org/10.5281/zenodo.6001700
- Cordova-Buiza, F., Huaringa, F., & Trillo, C. (2021). Corporate social responsibility actions in agribusiness: Towards sustainable community development. *IEEE Sciences and Humanities International Research Conference* (pp. 1-4). Lima, Peru. https:// doi.org/10.1109/SHIR-CON53068.2021.9652243
- D'Souza, C., Apaolaza, V., Hartmann, P., & Gilmore, A. (2020). Fairtrade nexus between just-world beliefs and normative antecedents. *Marketing Intelligence* & Planning, 38(7), 991-1005. https://doi.org/10.1108/mip-04-2020-0170
- 12. De Fries, R., Fanzo, J., Mondal, P., Remans, R., & Wood, S. (2017). Is voluntary certification of tropical agricultural commodities achieving sustainability goals for small-scale producers? A review of the evidence. *Environmental Research Letters*, 12(3). https://doi.org/10.1088/1748-9326/aa625e
- 13. De Mesa, A., & Cecchini, S. (2022). Equality and social protection: Keys to inclusive and sustainable development. *Trimestre Económico*, 89(353), 277-309. (In Spanish). https://doi.org/10.20430/ETE. V89I352.1407
- 14. Do Nascimento, F., Calle-Collado, A., & Benito, R. (2020). Social and solidarity economy and agroecology in family agriculture cooperatives in Brazil as a form of development of sustainable agriculture. CIRIEC-España Revista de Economia Publica, Social y Cooperativa, 98, 189-211. (In Spanish). https://doi. org/10.7203/CIRIEC-E.98.14161

- Durevall, D. (2020). Fairtrade and market efficiency: Fairtradelabeled coffee in the Swedish coffee market. *Economies*, 8(2), 30. https://doi.org/10.3390/economies8020030
- Fairtrade Ibérica. (2022). Cómo certificar tus productos con Fairtrade? (In Spanish). Retrieved July 1, 2022, from https://www. fairtrade.es/empresas/como-certificar-tus-productos/
- Fonseca, I., Bernate, J., & Tuay, D. (2022). La responsabilidad social corporativa y los eventos deportivos. Una revisión sistemática de la producción científica. SPORT TK-Revista EuroAmericana de Ciencias del Deporte, 11(8). (In Spanish). Retrieved from https://doi. org/10.6018/sportk.470131
- 18. González, C. (2017). The environmental education on the ethical development problem. *Revista Electrónica Educare*, 21(2), 296-314. Retrieved from https://www.scielo.sa.cr/pdf/ree/v21n2/1409-4258-ree-21-02-00296.pdf
- Herman, A. (2019). Assembling fairtrade: Practices of progress and conventionalization in the Chilean wine industry. *Environment* and Planning A: Economy and Space, 51(1), 51-68. https://doi. org/10.1177/0308518X18805747
- 20. Herman, A. (2021). Governing fairtrade: Ethics of care and justice in the Argentinean wine industry. Social & Cultural Geography, 22(3), 425-446. https://doi.org/10.1080/14649365.2019.1593493
- Hernandez, G., Efraim, P., De Andrade Silva, A., & De Castilho Queiroz, G. (2022). Carbon footprint of Brazilian cocoa produced in Pará state. *Brazilian Journal of Food Technology*, 25. https://doi.org/10.1590/1981-6723.26320
- Hernández, R., & Mendoza, C. (2018). Metodología de la investigación: Las rutas cuantitativa, cualitativa y mixta. México: McGraw-Hill. (In Spanish).

- 23. Huerta, P., & Gaete, H. (2017). Responsabilidad social universitaria a través de los reportes de sostenibilidad del Global Reporting Initiative: Experiencia de una universidad pública. Revista iberoamericana de Educación Superior, 8(23), 120-137. (In Spanish). Retrieved from https://www.ries.universia. unam.mx/index.php/ries/article/view/252/1023
- 24. Jena, P., & Grote, U. (2022). Do certification schemes enhance coffee yields and household income? Lessons learned across continents. *Frontiers in Sustainable Food Systems*, 5, 716904. https://doi.org/10.3389/fsufs.2021.716904
- 25. Knößlsdorfer, I., Sellare, J., & Qaim, M. (2021). Effects of fairtrade on farm household food security and living standards: Insights from Côte d'Ivoire. *Global Food Security*, 29, 100535. https://doi.org/10.1016/j.gfs.2021.100535
- Kossmann, E., & Gomez-Suarez, M. (2019). Words-deeds gap for the purchase of fairtrade products: A systematic literature review. Frontiers in Psychology, 10, 2705. https://doi.org/10.3389/ fpsyg.2019.02705
- 27. Kudama, G., Wana, H., & Dangia, M. (2021). The adoption of bundled sustainable farm and environmental practices by coffee farmers in southwest Ethiopia. Scientific World Journal, 2021. https://doi.org/10.1155/2021/9954230
- 28. Lyall, A., & Havice, E. (2019). The politics of development metrics and measurement: Impact evaluations in fairtradecertified plantation agriculture. *Development & Change*, 50(6), 1531-1553. https://doi.org/10.1111/dech.12452
- 29. Medina, C., Segura, S., & Obando, E. (2022). Corporate social responsibility and sustainable development: Reflections from applied ethics. *Revista De Filosofía*, 39, 409-420. (In Spanish). https://doi.org/10.5281/zenodo.5990284
- Mendoza, H., Barreto, Á., Morla, J., Mera, P., & López, E. (2020). Valoración socioeconómica y

- ecológica en la dinámica del comercio justo de los usuarios del ecosistema de manglar. *Revista Universidad y Sociedad*, 12(6), 170-175. (In Spanish). Retrieved from https://rus.ucf.edu.cu/index.php/rus/article/view/1828
- 31. MINCETUR. (2021). Reporte del Comercio Regional. (In Spanish).
 Retrieved from https://reposito-rio.promperu.gob.pe/bitstream/handle/20.500.14152/4986/Reporte_Comercio_Regional_Amazonas_2020_keyword_principal.pdf
- 32. Montenegro, Y., & Cabrera, K. (2018). El mercado de los productos con denominación de origen a través del comercio justo. Perspectivas y retos. *Boletín mexicano de Derecho Comparado*, 51(152), 655-677. (In Spanish). https://doi.org/10.22201/iij.24484873e.2018.152.12921
- Ortiz, A. (2015). Enfoques y métodos de investigación en las ciencias sociales y humanas. Ediciones de la U. Bogotá. (In Spanish).
- 34. Posso, R., Cóndor, M., Cóndor, J., & Núñez, L. (2022). Sustainable environmental development: A new approach to physical education for post-pandemic in Ecuador. Revista Venezolana de Gerencia, 27(98), 464-478. (In Spanish). https://doi.org/10.52080/ rvgluz.27.98.6
- 35. Pyk, F., & Hatab, A. (2018). Fairtrade and sustainability: Motivations for fairtrade certification among smallholder coffee growers in Tanzania. Sustainability, 10(5), 1551. https://doi.org/10.3390/su10051551
- 36. Raynolds, L. (2021). Gender equity, labor rights, and women's empowerment: Lessons from fairtrade certification in Ecuador flower plantations. *Agriculture & Human Values*, 38(3), 657-675. https://doi.org/10.1007/s10460-020-10171-0
- 37. Ribeiro-Duthie, A., Gale, F., & Murphy-Gregory, H. (2021). Fair trade and staple foods: A systematic review. *Journal of Cleaner Production*, 279, 123586. https://doi.org/10.1016/j. jclepro.2020.123586

- Rodriguez de Mendoza Provincial Municipality. (2021). Resolución de Alcaldía. (In Spanish). Retrieved March 30, 2022, from http://siar.regionamazonas.gob. pe/fuente-informacion/municipalidad-provincial-rodriguezmendoza
- 39. Sama, C., Crespo, E., Díaz, C., & Mesías, F. (2019). Análisis de las preferencias de los consumidores españoles hacia la miel de producción social y ambientalmente responsable frente a la de Comercio Justo. *Archivos de Zootecnia*, 68(264), 495-503. (In Spanish). https://doi.org/10.21071/az.v68i264.4988
- Sanchez, J., & Bejarano, J. (2022). Does the market recognize corporate social responsibility? Rae Revista De Administracao De Empresas, 62(02). (In Spanish). https://doi.org/10.1590/S0034-759020220205
- 41. Sanhueza, C. (2018). Land ethic and environmental justice:
 Reflections about human beings' responsibility in current developments from a social and philosophical approach. *Atenea*, 517, 167-180. (In Spanish). https://doi.org/10.4067/S0718-04622018000100167
- Sellare, J., Meemken, E., & Qaim, M. (2020). Fairtrade, agrochemical input use, and effects on human health and the environment. *Ecological Economics*, 176, 106718. https://doi.org/10.1016/j.ecolecon.2020.106718
- Siegmann, K. (2022). Harvesting consent: South Asian tea plantation workers' experience of fairtrade certification. *Journal of Peasant Studies*. https://doi.org/10. 1080/03066150.2022.2060080
- 44. Stelzer, J., & Gonçalves, E. (2021). Fair trade e comércio justo: A justiça comercial sob diferentes perspectivas. *Revista Jurídica*, 1(63), 266-288. (In Spanish). Retrieved from http://revista.unicuritiba.edu.br/index.php/RevJur/article/view/5169
- 45. Suzianti, A., Mubarak, A., Firdaus, A., & Arif, N. (2019). Implementation of fairtrade at the early stage and its

- impact on sustainable supply chain. *IOP Conference Series:* Earth and Environmental Science, 219(1), 012028. https://doi.org/10.1088/1755-1315/219/1/012028
- Valenciano, J., André, F., & Soliño, M. (2021). Paying for sustainable coffee in a developing country: Consumers' profile in Costa Rica. Sustainability, 13(16), 9360. https://doi.org/10.3390/ su13169360
- 47. Villacrés, R., Bonilla, M., Fierro, S., & Escobar, M. (2018). El comercio justo: Factor clave de disminución de la pobreza en la Provincia Los Ríos, Ecuador. *European Scientific Journal*, *14*(9), 1857-7881. https://doi.org/10.19044/esj.2018. v14n9p382
- 48. Viswanathan, P. (2021). Do trade certifications alleviate economic and social deprivations of plantation workers? A study of the tea plantation sector in India. Work Organization, Labour & Globalization, 15(2), 46-72. https://doi.org/10.13169/workorgalaboglob.15.2.0046
- 49. World Fairtrade Organization Latin American. (2022). 10 principios del comercio justo. (In Spanish). Retrieved July 1, 2022, from https://www.wfto-la.org/ comerciojusto/

35