

SUSTAINABLE GASTRONOMIC TOURISM IN THE CENTRAL HIGHLANDS OF ECUADOR: CHALLENGES, POTENTIALS AND PROPOSALS.

Bastidas- Aráuz

María Belén Bastidas, "Escuela Superior Politécnica de Chimborazo (ESPOCH)"
mbastidas@esPOCH.edu.ec <https://orcid.org/my-orcid?orcid=0000-0002-1746-7307>

Tapia-Segura

Silvia Gabriela, "Escuela Superior Politécnica de Chimborazo (ESPOCH)"
stapia@esPOCH.edu.ec <https://orcid.org/0000-0001-5911-3446>

Torres-Jara

Gabriela Natalia, "Universidad Estatal de Milagro", <https://orcid.org/0000-0001-9941-0621>

Molina-Núñez

Christian Roberto, "Universidad Técnica del Norte", crmolina@utn.edu.ec
<https://orcid.org/my-orcid?orcid=0000-0001-9326-6745>

Bastidas-Arauz

Carlos Andrés, carlosandre_008@outlook.com <https://orcid.org/0009-0002-9491-7882>

Abstract.

Sustainable gastronomic tourism has emerged as a development alternative in the sierra centro region of Ecuador, aiming to combine culinary experiences with environmental preservation, cultural heritage appreciation, and community empowerment. This research evaluated the challenges faced by tourism service providers in implementing sustainable gastronomic tourism in four provinces: Bolívar, Chimborazo, Cotopaxi, and Tungurahua.

Through surveys, focus groups, and opinion confrontation, common obstacles were identified, such as a lack of training in sustainable gastronomic tourism and difficulties accessing local and sustainable ingredients. However, potentials were also identified in each province, including service providers' commitment in Bolívar, gastronomic richness in Chimborazo, promotion of local ingredients in Cotopaxi, and customers' environmental awareness in Tungurahua.

To address these challenges and leverage opportunities, proposed actions include training programs, promotion of awareness and valorization of local gastronomy, implementation of appropriate regulations and policies, and establishment of alliances and collaboration networks.

This study highlights the importance of sustainable gastronomic tourism as a development opportunity for local communities and the preservation of ancestral cultural heritage. It also emphasizes the need to address the identified challenges to achieve sustainable growth in this form of tourism.

Keywords: sustainable gastronomic tourism, challenges, opportunities, training, access to local ingredients, environmental awareness, economic development.

Introduction:

Sustainable gastronomy tourism has gained worldwide recognition as an enriching way of travelling, combining culinary expertise with environmental conservation, promotion of cultural heritage and development of local communities(Forero, 2020). In this context, the peasant communities of Ecuador's Central Region, which include the provinces of Bolívar, Chimborazo, Cotopaxi and Tungurahua, possess a rich culinary heritage that could be a significant tourist attraction(Bastidas, 2023). However, these communities face a number of operational constraints that hinder their ability to develop sustainable gastronomy tourism effectively (Guevara et al. , 2017)

First, peasant communities in the central highlands of Ecuador are often geographically remote from large population centers and lack adequate access to transport infrastructure and basic tourism services. This lack of connectivity hinders the arrival of tourists and limits the visibility of the local gastronomic offer

In addition, the lack of training and specialized knowledge in tourism and gastronomic management issues is another major challenge. Peasant communities often have a long culinary tradition, but they need to develop business and marketing skills to make the most of their tourism potential and compete in an increasingly demanding market.

In addition, the scarcity of financial resources and limited investment capacity prevent the development of adequate infrastructure for the reception of visitors and the creation of attractive gastronomic experiences. The lack of funds also hinders the promotion and commercialization of the local gastronomic offer in national and international markets.

Finally, cultural barriers and resistance to change can also affect the adoption of sustainable practices in gastronomy tourism. Some peasant communities may be reluctant to modify their culinary traditions and adopt more sustainable practices, making it difficult to implement environmentally and culturally friendly approaches.

In this research article, we analyze the operational constraints faced by peasant communities in Ecuador to develop sustainable gastronomic tourism. and suggests possible solutions and strategies to overcome these limitations, with the aim of promoting a more equitable, sustainable and beneficial tourism development for local communities and the natural and cultural environment of the region.

Sustainable Tourism and Gastronomy.

The United Nations General Assembly Declaration for the International Year of Sustainable Tourism for Development in 2017,(UN, 2015) highlighted the importance of sustainable tourism as a tool for economic, social and environmental development. He recognized the potential of tourism as a positive force for the achievement of the Sustainable Development Goals (SDGs) and for the promotion of peace, prosperity and mutual understanding among nations.

The declaration called on UN Member States, international and regional organizations, the private sector and civil society to commit to promoting and adopting sustainable tourism practices

in all its dimensions. He stressed the need to ensure that tourism respects cultural and natural diversity, protects cultural heritage and contributes to the fight against poverty and inequality.

In addition, the declaration emphasized the importance of sustainable tourism planning and management, the promotion of responsible and ethical tourism, and the integration of local communities in tourism development. The need to promote education and awareness about sustainable tourism was also emphasized, both among tourists and among professionals in the sector.

The declaration of the International Year of Sustainable Tourism for Development in 2017 sought to promote the adoption of sustainable tourism practices and highlight the role of tourism in building a more inclusive, equitable and environmentally friendly future. Highlighting the importance of sustainable tourism as a tool for economic, social and environmental development, and recognizing its potential for promoting peace, prosperity and mutual understanding among nations. In turn, sustainable gastronomy tourism is based on the same principles and objectives, focusing on the promotion of authentic gastronomy, respect for culture and heritage, and protection of the environment.

In sustainable gastronomic tourism, the precepts of sustainable tourism are operated specifically in the culinary and gastronomic field. According to Navarro y González (2020), sustainable gastronomic tourism is based on three fundamental pillars: the preservation of culinary and cultural heritage, the promotion of environmentally responsible practices and the generation of socioeconomic benefits for local communities.

In terms of preserving culinary and cultural heritage, sustainable gastronomic tourism seeks to value and promote local culinary traditions, preparation techniques and indigenous ingredients (Bahls et al. , 2019) . This involves rescuing and transmitting traditional culinary knowledge from generation to generation, preserving the authenticity of gastronomy and strengthening the sense of cultural identity of local communities.

In terms of environmentally responsible practices, sustainable gastronomy tourism promotes the use of local and seasonal ingredients, which reduces the ecological footprint by minimizing dependence on imported foods. In addition, sustainable fishing and agriculture, the efficient use of natural resources and proper waste management are encouraged, thus reducing environmental impact and protecting local biodiversity (De Jong et al. , 2018) .

In terms of socio-economic benefits, sustainable gastronomy tourism boosts local development by generating employment, entrepreneurship opportunities and economic growth (Viskovic & Komac, 2021). The participation of local communities in decision-making and in the gastronomic value chain is essential to ensure that the benefits of tourism are equitable and contribute to long-term sustainable development (Nistoreanu et al. , 2018) . .

In such a way that sustainable gastronomic tourism operates the precepts of sustainable tourism by preserving culinary and cultural heritage, promoting environmentally responsible practices and generating socio-economic benefits for local communities. This approach resonates with the United Nations General Assembly Declaration for the International Year of Sustainable

Tourism for Development in 2017, by promoting tourism that is authentic, respectful and beneficial to all parties.

In the context of sustainable tourism and sustainable gastronomic tourism, it is important to analyze the definition of each of them to appreciate their relationship and differences. Gastronomic tourism refers to a form of travel that emphasizes the culinary experience of a destination. It focuses on exploring and enjoying the local food, regional products, cooking techniques and culinary traditions of a certain region. Gastronomic tourism seeks to delight travelers through gastronomic diversity and authenticity, and is a form of cultural immersion that allows you to know the identity of a place through its food (Sobrado, 2018). Gastronomic Tourism: It is defined as a trip motivated by the search for pleasure through authentic culinary experiences (Aguirregoitia & Fernández, 2019). The tourist seeks to know the local culture through its typical and traditional food, which has become a key element for destinations seeking to diversify.

On the other hand, sustainable gastronomic tourism goes beyond the simple culinary experience. It is based on the principles of sustainable tourism to ensure that gastronomic activity is developed in a responsible and respectful manner. Sustainable gastronomic tourism seeks to combine culinary experience with the preservation of the environment, the promotion of ancestral cultural heritage and the development of local communities. It focuses on the responsible use of natural resources, the promotion of traditional culinary practices, the use of local and sustainable ingredients, and the active participation of the local community in decision-making and economic benefits. Sustainable Gastronomic Tourism: It is a responsible and innovative way to make use of food cultural heritage and promote balanced economic and social development at different territorial scales (Paolo & Fontefrancesco, 2019). This type of tourism aims to respect local culture, encourage the use of local and sustainable products, minimize waste generated by gastronomic tourism activities and promote environmentally responsible culinary practices.

In short, gastronomy tourism focuses on the culinary experience of a destination, while sustainable gastronomy tourism incorporates the principles of sustainable tourism to ensure that the culinary experience is developed in a responsible, sustainable and respectful manner with the environment and the local community. Sustainable gastronomy tourism broadens the approach of gastronomy tourism by addressing economic, social and environmental aspects to achieve a positive and lasting impact on the destination and the people involved.

Sustainable gastronomic tourism is a form of tourism that combines culinary expertise with environmental conservation, promotion of cultural heritage and development of local communities. This analysis focuses on examining the key components of sustainable gastronomy tourism and their importance in the effective practice of this form of tourism. Components include preservation of culinary and cultural heritage, use of local and sustainable ingredients, responsible management of natural resources, involvement of local communities and promotion of environmental awareness and education.

These components work together to ensure an authentic, environmentally friendly dining experience that benefits local communities. By understanding the importance of each component,

progress can be made towards the development of sustainable gastronomic tourism that contributes to the equitable and sustainable growth of destinations.

One of the key components is the preservation of culinary and cultural heritage. This involves valuing and maintaining the culinary traditions and food preparation techniques of a region or community. The transmission and safeguarding of ancestral culinary knowledge, traditional recipes and cultural practices related to gastronomy are essential to maintain the authenticity and uniqueness of the gastronomic offer of a destination (Vallejos, 2017).

Another component is the use of local and sustainable ingredients. The use of ingredients from local and seasonal producers is promoted, reducing dependence on imported foods and promoting the conservation of the biological and agricultural diversity of the region (Junior et al., 2021). The incorporation of sustainable ingredients involves practices such as sustainable fishing and agriculture, the protection of endangered species and the responsible consumption of natural resources.

Responsible management of natural resources is also an essential component. This involves adopting responsible practices in the use and management of resources, such as efficient energy and water consumption in gastronomic facilities, proper waste management and reduction of food waste. Responsible management seeks to minimize environmental impact and promote long-term sustainability (Torres & Diaz, 2020).

The active participation of local communities is another key component. It seeks to involve local residents in decision-making and ensure that the economic benefits of tourism are equitable and contribute to local development. The participation of local communities strengthens the authenticity and quality of gastronomic experiences, as they are the guardians of culinary and cultural knowledge (Peña et al., 2020).

Finally, the promotion of environmental awareness and education is an important component. It seeks to sensitize both tourists and the local community about the importance of sustainable practices in gastronomy, such as responsible consumption, reduction of food waste and conservation of the environment (Agyeiwaah et al., 2019). The promotion of environmental awareness contributes to generating a change of attitude and behavior towards sustainability in both visitors and local actors.

Together, these components of sustainable gastronomy tourism work in synergy to promote an authentic, environmentally friendly and beneficial dining experience for local communities. The balance between the preservation of culinary and cultural heritage, the use of local and sustainable ingredients, the responsible management of natural resources, the participation of local communities and the promotion of environmental awareness is fundamental to achieve successful sustainable gastronomic tourism.

Current situation of sustainable gastronomic tourism

The development of sustainable gastronomy tourism in a systematic way can take place in different destinations and regions of the world, depending on local circumstances and priorities. However, some places have been pioneers and leaders in the promotion and practice of sustainable gastronomic tourism.

One of the outstanding examples is Spain, where the concept of "gastronomic tourism" has been promoted for decades. With its rich culinary diversity and renowned chefs, Spain has been a benchmark in the promotion of local gastronomy and the valorization of regional products. Destinations such as San Sebastian and Barcelona have been internationally recognized for their gastronomic offer and have implemented strategies to encourage sustainable gastronomic tourism, including the promotion of local products, the preservation of culinary traditions and the participation of the local community. (Hernandez, 2018)

In Latin America, Peru has been a leader in the development of sustainable gastronomic tourism. The country has stood out for its renowned gastronomy, with dishes such as ceviche and ají de gallina, and has implemented policies and programs to promote sustainability in the sector. Through initiatives such as Mistura, the largest gastronomic festival in Latin America, and the promotion of Peruvian cuisine worldwide, Peru has promoted sustainable gastronomic tourism as a tool for local development (Gálvez et al., 2017).

In addition, destinations such as Italy, France, Japan and Thailand have also been recognized for their focus on sustainable gastronomy tourism, leveraging their rich culinary heritage and promoting sustainable practices in food production, responsible consumption and cultural preservation. (Forero, 2020)

Importantly, sustainable food tourism can be developed in any destination that has a distinctive culinary identity and commitment to sustainability. As awareness of the importance of gastronomy and sustainability grows around the world, more destinations are adopting systematic approaches to developing sustainable gastronomy tourism, adapting it to their own local characteristics and contexts (Junior et al. , 2021) .

Sustainable gastronomic tourism in Ecuador has experienced significant growth in recent years. The country has a unique culinary diversity and a rich gastronomic tradition that has captured the attention of national and international tourists.

Ecuador is known for its varied gastronomic offer, which includes emblematic dishes such as ceviche, encebollado, hornado, llapingacho and guinea pig. Each region of the country has its own culinary identity, with ingredients and preparation techniques reflecting geographical and cultural diversity.

In terms of sustainable gastronomic tourism, Ecuador has worked to promote the use of local and sustainable ingredients in gastronomy. The consumption of fresh and seasonal products is encouraged, thus supporting local farmers and promoting sustainable agricultural practices. In addition, emphasis has been given to the conservation of species and natural resources through the promotion of sustainable fishing and the responsible use of ingredients from the country's biodiversity Sustainable tourism in Ecuador. An analysis from the Ecuadorian jurisdiction. (Plua, 2020)

The country has also excelled in promoting sustainable gastronomic tourism through festivals and gastronomic events. For example, in the city of Quito the Festival of the Colada Morada and the Guaguas de Pan is celebrated during the Day of the Dead, where traditional gastronomy is promoted and local producers are supported. Another outstanding event is the

International Chocolate Festival, which takes place in the city of Quito and highlights the production of cocoa and the elaboration of quality chocolate in the country.

Although sustainable gastronomy tourism has numerous positive aspects, there are also challenges and negatives that need to be addressed in order to achieve a more balanced and sustainable development. Next, I will analyze some of these negative aspects and project possible future scenarios:

As sustainable food tourism gains popularity, there is a risk that culinary experiences will become commercial and lose their authenticity. Over-commercialization can lead to a standardization of dishes and culinary practices, losing the diversity and uniqueness that makes them special. In the future, it is essential to find a balance between promoting sustainable gastronomy tourism and preserving cultural and culinary authenticity (Junior et al. , 2021) .

Sustainable food tourism can increase the demand for local ingredients, which is positive for the local economy. However, if not properly managed, it can also create pressures on local resources and shift local production in favour of more profitable products for tourism. To avoid this scenario, it is crucial to implement strategies that promote sustainable local production and support local producers. (Aguirregoitia & Fernández, 2019)

Although sustainable gastronomy tourism seeks to minimize its environmental impact, challenges remain in terms of waste management, water and energy consumption, and carbon emissions associated with travel. In the future, stricter sustainability practices will be required in gastronomy tourism, such as reducing food waste, using sustainable packaging, and promoting public transport and low-impact travel options (Bravo el al. , 2018) .

If not properly managed, sustainable gastronomy tourism can sideline local communities and benefit only external businesses and tour operators. It is essential to ensure that local communities actively participate in decision-making, benefit economically and have a voice in the promotion and development of sustainable gastronomy tourism.(Binz & De Conto, 2019)

As for the projection to the future, it is expected that sustainable gastronomic tourism will continue to grow in importance (Aguirregoitia & Fernández, 2019; Binz & De Conto, 2019; Forero, 2020; Plua, 2020; Bastidas, 2023). To address the aforementioned negative aspects, a comprehensive approach is needed that includes the implementation of effective policies and regulations, the education and awareness of travelers, the promotion of sustainable practices and the active participation of local communities. In addition, collaboration between different actors, such as governments, companies, communities and international organizations, will be key to ensuring that sustainable gastronomy tourism evolves in an equitable, respectful and sustainable way, benefiting both destinations and local communities and the environment.

Methodology

The research methodology used was a mixed approach combining qualitative and quantitative methods. A descriptive and exploratory design was carried out to evaluate the challenges faced by tourism servers in the central highlands region of Ecuador in relation to the implementation of sustainable gastronomic tourism. Field research was conducted to collect primary data directly from tour servers in the region.

The target population was the tourist servers involved in the gastronomic sector in the central highlands region of Ecuador. A stratified sample was selected that took into account the proportion of enterprises registered in each province. In total, 90 ventures were selected: 6 in Bolívar, 20 in Chimborazo, 19 in Cotopaxi and 45 in Tungurahua.

Structured questionnaires were used to collect quantitative data, including closed-ended and Likert scale questions. In addition, focus groups were conducted in each province to obtain more detailed qualitative data on the specific challenges and barriers faced by tourism servers.

The results obtained provided an in-depth understanding of the challenges and barriers faced by tourism servers in the implementation of sustainable gastronomic tourism in the central highlands region of Ecuador. Through analysis of the collected data, emerging patterns and trends were identified, as well as possible solutions and practical recommendations to address these challenges.

This methodology allowed to obtain valuable information on the challenges faced by tourism servers in the central highlands region of Ecuador in the implementation of sustainable gastronomic tourism. The results obtained will contribute to the formulation of strategies and policies that promote the development of sustainable gastronomic tourism in the region.

Results

Analysis of the survey.

A comparative analysis of the surveys applied to the tourist servers of four provinces was carried out: Bolívar, Chimborazo, Cotopaxi and Tungurahua. The objective was to identify the obstacles and limitations they face in relation to sustainable gastronomic tourism, and examine the results to propose alternative solutions and strategies that promote their development, the data provided by the respondents reflected the following information.

Onsila sustainable gastronomic tourism is a priority in the organization. In Bolívar, 80% of tourist servers agree or strongly agree that sustainable gastronomic tourism is a priority, while, in Chimborazo, Cotopaxi and Tungurahua, this percentage is 70%. This indicates that in general, there is a recognition of the importance of sustainable gastronomic tourism in all provinces, although Bolívar shows greater acceptance in this aspect.

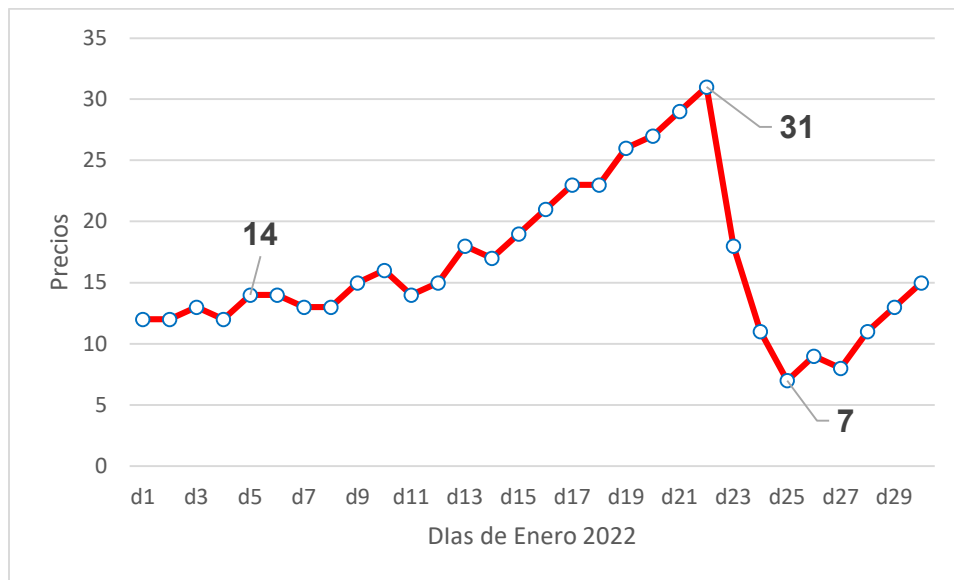
When asking the servers if a lack of training and knowledge about sustainable gastronomic tourism is a challenge to implement it in the company: In all provinces, more than 70% of tourism servers agree or strongly agree that it is a challenge. This reveals a common concern in all provinces about the need to improve training and knowledge in the field of sustainable gastronomy tourism.

Respondents were asked if there is a lack of access to local and sustainable ingredients in the region. In Bolívar, Chimborazo and Tungurahua, about 60% of tour servers agree or strongly agree that there is an irregular supply of local and sustainable ingredients. However, in Cotopaxi, this percentage is lower, with only 40% agreeing or strongly agreeing. This indicates that in Cotopaxi there may be better access to local and sustainable ingredients compared to the other provinces, this is because the vast majority of products are marketed to be taken to other provinces, and consumers are subject to a supply and demand of products with unpredictable price fluctuations and very extreme peaks, for example in the wholesale market of the city of Riobamba (EM-

EMMPA) at the beginning of 2022 the price of potatoes remained for two weeks at an average of 16 dollars per quintal at the end of the third week had almost doubled with an average of 31 dollars per bag, however, in less than three days the price of the chola potato plummeted to an average of 7 dollars per quintal, to remain with that price for about a week and stabilize Figure 1.

Figure 1

Variation of the price in dollars of the potato quintal in the EM-EMMPA in the month of January 2022



Source: Directorate of the EM-EMMPA

The perception of sustainable gastronomy tourism servers about the lack of awareness on the part of customers about the importance of sustainable gastronomic tourism is an obstacle to its implementation was that, in all provinces, more than 70% of tourism servers agree or totally agree that the lack of awareness of customers represents an obstacle. This highlights the need to educate and sensitize customers about the importance of sustainable gastronomy tourism in all provinces.

On whether the costs associated with implementing sustainable practices in gastronomy are a barrier for companies. In Bolívar and Tungurahua, more than 60% of tour servers agree or strongly agree that associated costs are a barrier. In Chimborazo and Cotopaxi, this percentage is lower, at around 50%. This indicates that in Chimborazo and Cotopaxi there may be a greater capacity to assume the costs associated with the implementation of sustainable practices compared to Bolívar and Tungurahua.

As for the lack of support and collaboration of local authorities as a difficulty for the integration of sustainable gastronomic tourism. In all provinces, more than 60% of tourism servers agree or strongly agree that the lack of support and collaboration from local authorities represents a challenge. This indicates the need to strengthen the collaboration and support of local authorities in all provinces.

When analyzing the company's ability to effectively communicate the principles and benefits of sustainable gastronomy tourism to its customers: In all provinces, more than 60% of

tourism servers agree or strongly agree that they have difficulty effectively communicating the principles and benefits of sustainable gastronomy tourism. This highlights the importance of improving communication skills and promoting sustainable gastronomy tourism in all provinces.

In relation to the lack of support and access to networks and associations related to sustainable gastronomic tourism as a challenge for their companies, the results were that, in all provinces, more than 60% of tourism servers agree or fully agree that the lack of support and access to networks and associations is a challenge. This indicates the need to strengthen participation in networks and associations related to sustainable gastronomy tourism in all provinces.

In all provinces, more than 70% of tour providers agree or strongly agree that staff lack skills and knowledge. This highlights the importance of staff training and skills development in all provinces. In all provinces, more than 60% of tour servers agree or strongly agree that customers' lack of environmental awareness is a challenge. This underlines the need to educate and sensitize customers on the importance of environmental sustainability in gastronomy tourism in all provinces,

In summary, the reported results of the survey application show widespread awareness of the importance of sustainable gastronomy tourism in the four provinces, with a majority of tourism servers agreeing or fully agreeing on the priority of this approach.

Common challenges identified include lack of training and knowledge, lack of customer awareness, lack of access to local and sustainable ingredients, associated costs, lack of support from local authorities, communication difficulties, lack of support and access to networks, lack of staff skills and lack of environmental awareness of customers. These challenges can be addressed through actions such as training and education programs, awareness campaigns, promotion of local ingredients, improved communication, strengthening partnerships and participation in networks, staff skills development and education on environmental sustainability.

The most relevant aspects as indicators for alternative proposals include the need to strengthen training and knowledge, improve communication and promotion, establish alliances and networks, and foster environmental awareness and sustainability among both tourism servers and customers.

In summary, sustainable gastronomic tourism in the Sierra Centro Region faces common challenges that require a comprehensive and collaborative approach. The awareness and commitment of tour servers are critical, along with training and access to resources and networks. Customer education and awareness are equally important. Strengthening communication, improving access to local and sustainable ingredients, and fostering collaboration between local authorities and tourism businesses are also key areas for the development of sustainable gastronomy tourism in the region.

The analysis of the focus group work carried out in the context of this research provides a valuable perspective on the challenges and limitations faced by tourism servers in the implementation of sustainable gastronomic tourism in the central highlands region of Ecuador. Through the interaction and active participation of the tourist servers in the focus groups, enriching and detailed information has been obtained about their experiences, perceptions and points of view.

Results of the Focus Group Analysis

The focus group work has allowed to explore and understand in depth the specific problems that tourist servers face in relation to sustainable gastronomic tourism. Through the exchange of ideas, discussions and collective reflections, common challenges and particularities of each province in the central highlands region have been identified.

This qualitative analysis provides a deeper and contextualized view of the obstacles that tourism servers encounter in the implementation of sustainable gastronomic tourism. In addition, it reveals possible solutions, innovative approaches and good practices that could be implemented to overcome the challenges identified.

The analysis of focus group work plays a crucial role in the development of specific strategies and recommendations, as it is based on the voice and direct experience of tour servers (Hernandez C., 2021). These contributions help to enrich the overall picture of sustainable gastronomy tourism in the central highlands region of Ecuador and provide a solid basis for future actions and projects in this field.

Analysis of the Focus Group Work by Province:

In the focus group held in the province of Bolívar, several challenges that tourism servers face in the implementation of sustainable gastronomic tourism were identified. These include the lack of access to local and sustainable ingredients, the lack of training and knowledge about sustainable gastronomic tourism, as well as the need to raise awareness among customers about the importance of this type of tourism. In addition, the importance of having the support and collaboration of local authorities was pointed out, as well as promoting effective communication of the principles and benefits of sustainable gastronomic tourism to customers.

In the focus group of the province of Chimborazo, it was observed that one of the main challenges is the lack of environmental awareness among customers, which hinders the implementation of sustainable gastronomic tourism. In addition, the need to access local and sustainable ingredients was mentioned, as well as to promote training and knowledge among tourism servers. The importance of having the support and collaboration of local authorities was also highlighted, as well as effectively communicating the principles and benefits of sustainable gastronomy tourism to customers.

In the focus group of the province of Cotopaxi, the lack of support and access to networks and associations related to sustainable gastronomic tourism is established as a major challenge. The need to raise awareness among customers about the importance of this type of tourism and promote effective communication of the principles and benefits of sustainable gastronomic tourism was also mentioned. In addition, the importance of accessing local and sustainable ingredients was highlighted, as well as promoting training and knowledge among tourism servers.

In the focus group of the province of Tungurahua, the lack of support and collaboration of local authorities in the implementation of sustainable gastronomic tourism is highlighted as one of the main challenges. The need to raise awareness among customers about the importance of this type of tourism was also mentioned, as well as access to local and sustainable ingredients. In addition, the importance of promoting effective communication of the principles and benefits of

sustainable gastronomic tourism was highlighted, as well as promoting training and knowledge among tourism servers.

The analysis of the focus groups in each province reveals that all face similar challenges in relation to sustainable gastronomy tourism. The presence of intransigent people and indifferent people suggests the need for awareness-raising and training actions to promote awareness and commitment in these provinces. However, there is also a considerable percentage of interested and highly interested people, indicating a potential for the development of sustainable gastronomy tourism.

The solutions proposed in each province focus on raising awareness, promoting the active participation of interested tourist servers, strengthening training and establishing partnerships with educational institutions and government agencies. These actions seek to promote the implementation of sustainable gastronomic tourism and overcome the obstacles identified.

Overall, it can be concluded that the four provinces have significant potential for the development of sustainable gastronomic tourism. However, a comprehensive and collaborative approach involving all relevant actors, including tourism servers, local authorities, educational institutions and the community at large, is required to achieve sustainable and successful growth of gastronomy tourism in the highlands region of Ecuador.

Coincidences and differences found in the analysis of the surveys and in the analysis of the results of the focus group work.

In the analysis of the surveys and in the analysis of the results of the focus group, both coincidences and differences were identified in relation to the challenges faced by tourism servers in the implementation of sustainable gastronomic tourism in the central highlands region of Ecuador.

In terms of coincidences, there was a common concern across provinces about the lack of access to local and sustainable ingredients. The tourist servers in Bolivar, Chimborazo, Cotopaxi and Tungurahua expressed the need for fresh and authentic products to offer a sustainable gastronomic experience to visitors.

In addition, both surveys and focus groups highlighted the importance of customer awareness and education on sustainable gastronomy tourism. The tour servers expressed the need to sensitize visitors about the importance of supporting sustainable practices and consuming local and seasonal products.

However, some differences were also observed between surveys and focus groups. In the surveys, the lack of training and knowledge on sustainable gastronomy tourism was highlighted as one of the main challenges, while in the focus groups the lack of support and collaboration from local authorities was highlighted as a significant obstacle.

Another difference found was in relation to the costs associated with the implementation of sustainable practices in gastronomy. While surveys identified this as a major barrier, focus groups did not mention it prominently, suggesting that its impact may vary depending on the specific context and circumstances of each province.

In summary, both surveys and focus groups revealed common ground on the need to access local and sustainable ingredients, as well as raise customer awareness of sustainable food tourism. However, differences were also evident in relation to other aspects, such as lack of training, support from local authorities and associated costs. These differences highlight the importance of considering the particularities of each province when designing strategies and actions to promote the development of sustainable gastronomic tourism in the central highlands region of Ecuador.

Discussion

According to Agyeiwaah et al.,(2019) sustainable gastronomy tourism is a unique opportunity to promote the preservation of culinary traditions and the economic development of local communities. By encouraging the use of local and sustainable ingredients, an authentic experience is ensured for visitors, while giving important support to local producers, while Sobrado shows disagreement (2018)with the idea of sustainable gastronomic tourism. Ensuring that there is a risk of cultural appropriation and excessive commercialization of local gastronomy. In addition, implementing sustainable practices can be costly for establishments and limit their profitability.

Responding to the concerns proposed by Sobrado, (2018) in his book "Cultural Identity and Gastronomic Tourism: The Commodification of Heritage", Junior et al., consider(2021)that sustainable gastronomic tourism can address these problems if properly implemented by ensuring that It is important to establish regulations and policies that protect culinary heritage and ensure sustainable management of resources. In this way, the authenticity of the local gastronomy can be safeguarded.

However, Trivi (2014) anticipated that the costs associated with implementing sustainable practices can be a barrier for businesses. However, I believe that this can be overcome through the collaboration and support of local authorities and other stakeholders. In addition, sustainable gastronomic tourism can generate a positive impact on the local economy and on the environmental awareness of visitors.

For Binz and De Conto(2019), sustainable gastronomy tourism is an opportunity to promote education and awareness of customers about the importance of supporting sustainable practices. We can use effective communication of the principles and benefits of sustainable gastronomy tourism to influence tourists' decisions and encourage positive change in their consumption habits. While Sobrado (2018)understands the potential benefits of sustainable gastronomic tourism, he expresses his concern about cultural appropriation and loss of authenticity. It is important to find a balance between promoting local gastronomy and preserving culinary traditions.

While some researchers emphasize economic and cultural benefits, others raise concerns about cultural appropriation and associated costs. This diversity of opinions provides a basis for

developing proposals that address the challenges and enhance the potential of sustainable gastronomic tourism in the central highlands region of Ecuador.

From this discussion, it is possible to identify some points of convergence among researchers. The authors, as in this research, recognize the importance of preserving the authenticity of local gastronomy and the need to educate customers about sustainable practices. There is also agreement on the importance of establishing regulations and policies that protect culinary heritage and promote sustainable resource management.

However, differences persist in the perception of costs associated with implementing sustainable practices and the balance between promoting and preserving culinary traditions. These differences underscore the importance of finding solutions that address these concerns and maximize the benefits of sustainable gastronomy tourism.

Based on this discussion and the results obtained in the analysis of surveys and focus groups, it is possible to highlight some relevant aspects for the development of sustainable gastronomic tourism in the central sierra region:

It is necessary to provide education and training programs for tourist servers, which allow them to acquire skills and knowledge about sustainable practices in gastronomy. This includes aspects such as the use of local and sustainable ingredients, proper management of resources and environmental awareness. Collaboration between tourism servers, local authorities and communities should be encouraged to promote sustainable gastronomy tourism. This involves establishing alliances, networks and partnerships that facilitate the exchange of knowledge, resources and good practices.

It is important to develop effective communication and promotion strategies to raise awareness among visitors about the importance of sustainable gastronomic tourism. This can include awareness campaigns, informational materials and the promotion of authentic and sustainable dining experiences. It requires the establishment of regulations and policies that protect culinary heritage and promote sustainable management of resources. This can include regulations for the responsible use of ingredients, promoting sustainable practices in establishments and protecting the authenticity of local cuisine.

The comparative analysis of the results of the surveys and focus groups, as well as the confrontation of opinions among researchers, allows to identify the challenges and opportunities of sustainable gastronomic tourism in the central highlands region of Ecuador. These findings provide a solid basis for proposing actions and strategies that boost the development of this form of tourism, promoting cultural preservation, environmental sustainability and economic development of local communities.

Research on the challenges and potentials of sustainable gastronomic tourism in the central highlands region of Ecuador has provided a broad and deep vision of this field. Through the analysis of surveys, focus groups and the confrontation of different perspectives, the obstacles faced by tourism servers have been identified, as well as the opportunities for the development of this form of tourism.

Importantly, sustainable gastronomy tourism presents significant benefits in terms of cultural preservation, economic development and environmental sustainability. However, challenges have also been identified, such as lack of training, difficulty of access to local and sustainable ingredients, and lack of awareness on the part of customers. To overcome these challenges, actions are proposed such as the promotion of education and training in sustainable gastronomic tourism, collaboration between the actors involved, the implementation of appropriate regulations and policies, and the promotion of awareness and valorization of local gastronomy.

Ultimately, the main objective is to boost the development of sustainable gastronomic tourism that benefits local communities, promotes the preservation of culinary traditions and contributes to the protection of the environment. This research has sought to suggestively provide a solid basis for informed decision-making and the implementation of strategic actions in the central highlands region of Ecuador.

Sustainable gastronomy tourism represents a valuable opportunity for the region, but it also requires a comprehensive and collaborative approach. With the commitment and active participation of tourism servers, local authorities and communities, it is possible to promote the sustainable development of this form of tourism, creating a long-term positive impact.

Conclusions

The analysis of the challenges and potentials of sustainable gastronomic tourism in the central highlands region of Ecuador has yielded significant and revealing results. Through surveys, focus groups and the confrontation of opinions, it has been possible to identify a series of key aspects that require attention and action for the development of this form of tourism.

First, the existence of common obstacles in the four provinces studied was evidenced. The lack of training and knowledge about sustainable gastronomic tourism, as well as the difficulty of access to local and sustainable ingredients, are recurring challenges that require special attention. Likewise, the lack of awareness on the part of customers about the importance of sustainable gastronomic tourism was identified as an additional barrier.

However, opportunities and potentials were also highlighted in each province. For example, in Bolívar, there was a greater interest and commitment on the part of tourism servers in the development of sustainable gastronomic tourism. In Chimborazo, the richness of the local

gastronomic offer was highlighted. In Cotopaxi, a potential was identified in the promotion of local and sustainable ingredients. And in Tungurahua, the importance of environmental awareness of customers was highlighted.

Based on these findings, concrete actions can be proposed to improve and develop sustainable gastronomic tourism in the central highlands region. These actions include training and education programs for tourist servers, the promotion of awareness and valorization of local gastronomy, the implementation of appropriate regulations and policies, and the creation of alliances and collaboration networks among the actors involved.

Sustainable gastronomic tourism has great potential to contribute to economic development, cultural preservation and environmental protection in the central highlands region of Ecuador. However, it is necessary to overcome the challenges identified and seize existing opportunities to achieve positive results. Through close collaboration and a comprehensive approach, it is possible to drive the sustainable growth of this form of tourism, generating benefits for both local communities and visitors.

References

- Aguirregoitia, A., & Fernández, M. (2019). Simplicity as a creative culinary process: a trend in gastronomic tourism. *Steps: Journal of Tourism and Cultural Heritage*, 17(5), 875-888. <https://riull.ull.es/xmlui/handle/915/16536>
- Agyeiwaah, E., Otoo, F., Suntutik, W., & Huang, W. (2019). Understanding culinary tourist motivation, experience, satisfaction, and loyalty using a structural approach. *Journal of Travel & Tourism Marketing*, 36(3), 295-313. <https://www.tandfonline.com/doi/abs/10.1080/10548408.2018.1541775>
- Bahls, Á., Wendhausen, R., & da Silva, A. (2019). Understanding the concepts of culinary and gastronomy: a review and conceptual proposal. *Studies and Perspectives in Tourism*, 28(2), 312-330. http://www.scielo.org.ar/scielo.php?script=sci_arttext&pid=S1851-17322019000200004
- Bastidas, M. (2023). *Structuring of Gastronomic Tourist Routes in the province of Chimborazo through the sweet Lupinus mutabilis. as a product with potential for Designation of Origin*. UTN.
- Binz, P., & De Conto, S. (2019). Management of sustainable gastronomy: practices of the food and beverage sector in lodgings. *Studies and Perspectives in Tourism*, 28(2), 507-525. http://www.scielo.org.ar/scielo.php?script=sci_arttext&pid=S1851-17322019000200014
- Bravo, L., Aleman, A., & Pérez, P. (2018). Tourist activity in Ecuador: Conscious tourism or traditional tourism?. *E. ca Synergy*, 9(1), 97-108. https://doi.org/https://doi.org/10.33936/eca_sinergia.v9i1.1195
- De Jong, A., Palladino, M., Puig, R., Romeo, G., & Fava, N. (2018). Gastronomy tourism: An interdisciplinary literature review of research areas, disciplines, and dynamics. *Journal of Gastronomy and Tourism*, 3(2), 131-146.

- Forero, M. (2020). Gastronomy, intangible cultural heritage in the management of local tourism. *PALMA Express*, 28-49. <https://cipres.sanmateo.edu.co/ojs/index.php/libros/article/view/248>
- Gálvez, C., López, T., Buiza, F., & Medina, M. (2017). Gastronomy as an element of attraction in a tourist destination: the case of Lima, Peru. *Journal of Ethnic Foods*, 4(4), 254-261. <https://doi.org/https://doi.org/10.1016/j.jef.2017.11.002>
- Guevara, P., Dominguez, C., del Arce, R., & Moreira, L. (2017). Limitations of sustainable tourism development: case of two ecolodges in the Ecuadorian Amazon. *Mastery of Science*, 3(4), 988-1007. <https://dialnet.unirioja.es/servlet/articulo?codigo=6325489>
- Hernandez, C. (2021). Focus groups as a tool for tourism research. Beacon. *Revista Extremeña de Ciencias Sociales*(13), 148-149. <https://publicaciones.unex.es/index.php/Almenara/article/view/661>
- Hernandez, R. (2018). Gastronomic tourism in Andalusia: analysis factors. *Espacios Magazine*, 39(22), 2-18. <https://www.revistaespacios.com/pdf.jpeg>
- Junior, A., de Oliviera, M., de Sousa, L., do Nascimento, V., & de Melo, D. (2021). Sustainability in contemporary gastronomy. *Research, Society and Development*, 10(9), e39510917508-e39510917508. <https://rsdjournal.org/index.php/rsd/article/view/17508>
- Navarro, J., & González, J. (2020). Gastronomy as a real agent of social change. *International Journal of Gastronomy and Food Science*, 21, 100240. <https://www.sciencedirect.com/science/article/pii/S1878450X20301177>
- Nistoreanu, G., Nicodim, L., & Diaconescu, D. (2018). Gastronomic tourism-stages and evolution. *In Proceedings of the International Conference on Business Excellence*, 12(1), 711-717. <https://sciendo.com/article/10.2478/picbe-2018-0063>
- UN. (2015). *The Declaration of the United Nations General Assembly for the International Year of Sustainable Tourism for Development in 2017*. UN.
- Paolo, C., & Fontefrancesco, F. (2019). Sustainable gastronomic tourism. *The Routledge handbook of gastronomic tourism*, 199-206. <https://doi.org/https://doi.org/10.4324/9781315147628>
- Peña, A., Reyes, J., Villafuerte, F., Flores, C., & Espitia, J. (2020). Participation of MSMEs in local development, as a result of gastronomic tourism activity: case study. *Scientist*, 24(1), 49-58. http://scielo.senescyt.gob.ec/scielo.php?script=sci_arttext&pid=S2477-88502019000100093
- Plua, N. (2020). Sustainable tourism in Ecuador. An analysis from the Ecuadorian jurisdiction. *Pole of Knowledge*, 5(9), 1103-1111. <https://polodelconocimiento.com/ojs/index.php/es/article/view/1773>
- Sobrado, D. (2018). Cultural identity and gastronomic tourism: the commodification of heritage. *International Journal of Scientific Management and Tourism*, 4(2), 51-71. <https://dialnet.unirioja.es/servlet/articulo?codigo=6640381>
- Torres, A., & Diaz, Á. (2020). Management model of gastronomic tourism for agrotourism farms, case canton Milagro. *Map Magazine*, 4(19). <http://www.revistamapa.org/index.php/es/article/view/240>
- Trivi, N. (2014). Tourism and food, a relationship put in tension. *Cardinalis*, 1-15. <http://sedici.unlp.edu.ar/handle/10915/75279>

- Vallejos, F. (2017). Food heritage and ancestral cuisine. *HOLOPRAXIS*, 1(1), 61-75.
<https://doi.org/https://revistaholopraxis.com/index.php/ojs/article/view/9>
- Viskovic, N., & Komac, B. (2021). Gastronomy tourism: A brief introduction. *Acta Geographica Slovenica*, 61(1), 95-105.
<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0246377>