




Research trends in socio-environmental and sociocultural aspects of ecotourism in Latin America (2015-2020)

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Abstract

In Latin America, ecotourism has been relevant in recent years. The objective is to explain research trends in socio-environmental and sociocultural aspects of ecotourism in Latin America between 2015 and 2020 through the documentary review of scientific publications on ecotourism. Quantitative and qualitative data were used. The type of research is descriptive-interpretative and transversal. The hermeneutic method was developed in two phases: heuristic, in which 57 research studies were searched and systematized; and hermeneutic, where data were interpreted with the content analysis technique. Since ecotourism is an emerging field, the trends in socio-environmental problems are sustainable development, environmental management and protection, and socioeconomic aspects. The sociocultural trends are agency, participation, and research. Regarding methodologies, there is a transition from quantitative to mixed, with a predominance of qualitative. In the practices of knowledge production, there are interesting collective experiences, but individual research prevails. The years with most publications in this field were 2019, 2018, and 2017. Mexico stands out as the country with the highest number of studies. Finally, a proposal is presented to integrate two dimensions: (a) sustainability: socio-environmental and socioeconomic, and (b) environmental culture: sociopolitical, socio-educational, and scientific-technological, all mediated by interdisciplinarity. It is important the connection of problems, methodologies, and participation of diverse researchers and communities.

Keywords: ecotourism, sociocultural, socio-environmental, problems, methodology, research, Latin America



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Tendencias de investigación en aspectos socioambientales y socioculturales del ecoturismo en América Latina (2015-2020)

Resumen

En América Latina, el ecoturismo ha sido relevante en los últimos años. El objetivo es explicar las tendencias de investigación en aspectos socioambientales y socioculturales del ecoturismo en América Latina entre 2015 y 2020 a través de la revisión documental de las publicaciones científicas sobre ecoturismo. Se utilizaron datos cuantitativos y cualitativos. El carácter de la investigación es descriptivo-interpretativo y transversal. El método hermenéutico se desarrolló en dos fases: heurística, en la que se buscaron y se sistematizaron 57 investigaciones; y hermenéutica, en la que se interpretaron los datos con la técnica de análisis de contenido. Dado que el ecoturismo es un campo emergente, las tendencias de los problemas socioambientales son el desarrollo sostenible, la gestión y protección del medio ambiente y los aspectos socioeconómicos. Las tendencias socioculturales son la agencia, la participación y la investigación. En cuanto a las metodologías, hay una transición de las cuantitativas a las mixtas, con predominio de las cualitativas. En las prácticas de producción de conocimiento, hay interesantes experiencias colectivas, pero predomina la investigación individual. Los años con más publicaciones en este campo fueron 2019, 2018 y 2017. México destaca como el país con mayor número de estudios. Finalmente, se presenta una propuesta para integrar dos dimensiones: (a) la sustentabilidad: socioambiental y socioeconómica, y (b) la cultura ambiental: sociopolítica, socioeducativa y científico-tecnológica, todas mediadas por la interdisciplinariedad. Es importante la conexión de problemas, metodologías y participación de diversos investigadores y comunidades.

Palabras clave: ecoturismo, sociocultural, socioambiental, problemas, metodología, investigación, América Latina

Tendências de pesquisa em aspectos socioambientais e socioculturais do ecoturismo na América Latina (2015-2020)

Resumo

Na América Latina, o ecoturismo tem sido relevante nos últimos anos. O objetivo é explicar as tendências de pesquisa em aspectos socioambientais e socioculturais do ecoturismo na América Latina entre 2015 e 2020 através de uma revisão documental das publicações científicas sobre ecoturismo. Dados quantitativos e qualitativos foram utilizados. O caráter da pesquisa é descritivo-interpretativo e transversal. O método hermenéutico foi desenvolvido em duas fases: heurística, na qual 57 estudos de pesquisa foram consultados e sistematizados; e hermenéutica, na qual os dados foram interpretados utilizando a técnica de análise de conteúdo. Sendo o ecoturismo um campo emergente, as tendências em questões socioambientais são o desenvolvimento sustentável, a gestão e proteção ambiental e os aspectos socioeconômicos. As tendências socioculturais são agência, participação e pesquisa. Em termos de metodologias, há uma transição de metodologias quantitativas para mistas, com predominância de metodologias qualitativas. Nas práticas de produção de conhecimento, há experiências coletivas interessantes, mas predomina a pesquisa individual. Os anos com mais publicações neste campo foram 2019, 2018 e 2017. O México se destaca como o país com o maior número de estudos. Finalmente, é apresentada uma proposta para integrar duas dimensões: (a) sustentabilidade: socioambiental e socioeconômica, e (b) cultura ambiental: sociopolítica, socioeducacional e científico-tecnológica; tudo mediado pela interdisciplinaridade. A conexão de problemas, metodologias e participação de diversos pesquisadores e comunidades é importante.

Palavras-chave: ecoturismo, sociocultural, socioambiental, problemas, metodologia, pesquisa, América Latina

¹Since the 1980s, ecotourism has been promoted as an alternative to minimize the devastating impact of mass tourism. From the sociocultural point of view, the promotion of community ecotourism has the potential to generate conditions for the proactivity of the participating actors to improve, on the one hand, the quality of life and, on the other, the rootedness and cultural identity of the inhabitants due to the demand for the authenticity of the tourist activity. The purpose is to promote sustainable rural development that contributes to the general welfare, social progress, institutional strengthening, and peaceful coexistence in the territories, since it allows the integration of the community for its self-management. This implies planning, managing, executing, and evaluating tourism initiatives that are proposed in a communitarian way with the purpose of achieving a better quality of life and social equity. Culturally, it contributes to sustainable human development, in relation to recreation, education, and appreciation of the cultural heritage aspects of areas with special natural attractions.

The socio-environmental aspect is associated with sustainable development based on meeting the needs of the present without compromising the natural wealth of future generations. It involves the promotion of conservation, which requires, on the one hand, the planning of integrated management and zoning of the areas, with the respective design of strategies for monitoring and follow-up; on the other hand, the identification of possible interactions in the natural and human context to reduce impacts on it. In synergy with the sociocultural aspect, it is about:

- the promotion of ecotourism services responsible with the environment, particularly with water preservation.
- the generation of alternative energies for the ecotourism empowerment of the region from the self-management of its models.
- the management of ecotourism in a novel and innovative way using information and communication technologies.

As a result of the growing boom in ecotourism, researchers have been interested in investigating its main problems, given the perspectives and possibilities formulated to contribute to the promotion of environmental, cultural, social, and economic aspects of the territory where it is offered, hence the inquiry about how this field of research has been configured in the last five years. Approaching the study of how science and, therefore, research are conducted has to do with the relationships between institutional and epistemological practices that generate the perception and organization of the world (Popkewitz, 1994).

Practices are assumed as experiences, reasoning processes, and research activities for the production and dissemination of scientific knowledge. They imply the assumption of norms defined by the field of science in which the research is configured. Therefore, they are institutionalized in social use.

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In this perspective, knowledge of research practices in the field of ecotourism is considered important, particularly because of the interest in ecotourism in Latin America. To understand them requires technical competence and an adequate theory that allows an authentic knowledge of the practices. In this regard, from the point of view of the state of the art, research on ecotourism is scarce. Specifically, two articles were found that report on this topic of a localized nature, in the geographical context of Costa Rica and the Dominican Republic. Hernández and Picón (2016) conducted the academic inquiry on ecotourism disclosed in scientific journals of public universities. They analyzed the thematic, geographic, and methodological guidelines, conceptual contributions, and research challenges.

Correspondingly, the following question is formulated: what are the research trends in the socio-environmental and sociocultural aspects of ecotourism in Latin America between 2015 and 2020? The objective is to explain the research trends in the socio-environmental and sociocultural aspects of ecotourism in Latin America during that period. Resolving the question posed is important because this topic is considered emerging from the diverse experiences of ecotourism in this region, and the contributions of researchers can strengthen and enrich them. Likewise, given the potentialities attributed to ecotourism, the aspects addressed in the research problems and the methodological perspectives of the researchers are unknown, which can be the starting point for other research processes.

Materials and methods

This work is a documentary exploration of scientific publications on ecotourism. Quantitative and qualitative data were used. It is descriptive-interpretative and transversal in nature with the purpose of identifying and explaining the tendencies of the concept of *ecotourism*, themes and aspects of the problems addressed, and the methodologies used in this field of research. It is also transversal because it considers the research production carried out on the subject during the last five years. The method is hermeneutic because it seeks the critical interpretation of the practices or ways of researching to understand the positions or meanings given to the research carried out.

The criteria for the data inquiry were the following:

- search in the Google academic database.
- search categories were *ecotourism* and *ecotourism in Latin America*—specified by country.
- production span: from 2015 to 2020.
- type of document: articles published in scientific journals, master's theses, doctoral theses, book chapters, papers in events, and scientific documents on the web.
- more than fifty documents.

The implemented heuristic phases were:

- a. search for research according to the previously defined criteria. As a result, 57 scientific productions were found: articles published in scientific journals (80.7%), master's theses

(7.0%), book chapters (3.5%), papers in events (3.5%), doctoral theses (1.7%), scientific documents on the web (1.7%).

b. systematization, through which the research was compiled in a database elaborated in Windows Access. There, data were stored according to these fields: author, title, year, edition data, problems, objectives, theoretical foundations, methodological aspects, results, and conclusions.

c. identification of the most relevant data using SPSS software.

The other phase was the hermeneutic one, in which the concepts considered as core and peripheral to ecotourism, the themes and sociocultural and environmental aspects of the problems considered most relevant for the researchers, and the characteristics of the methodology used in the corpus of research consulted were identified. Likewise, the interpretative analysis of data was carried out based on the theoretical elements of the second way of doing science² through the technique of content analysis to find relevant aspects such as production mechanisms: what, how, when, and where research is carried out. For this purpose, data were systematized using SPSS software, with dendrogram and frequency graphs. In the discussion section, a proposal of dimensions for ecotourism research from an interdisciplinary perspective is presented. Also, some of the practices implemented in the production of knowledge are described.

Results

In coherence with the objective, the identification and characterization of trends in the concept of *ecotourism*, sociocultural and environmental aspects of the problems addressed, and the methodology are presented:

Trends in the concept of ecotourism

The trend is the predominance of the socio-environmental aspect, based on several representations such as the following. In each semantic nucleus, other concepts converge:

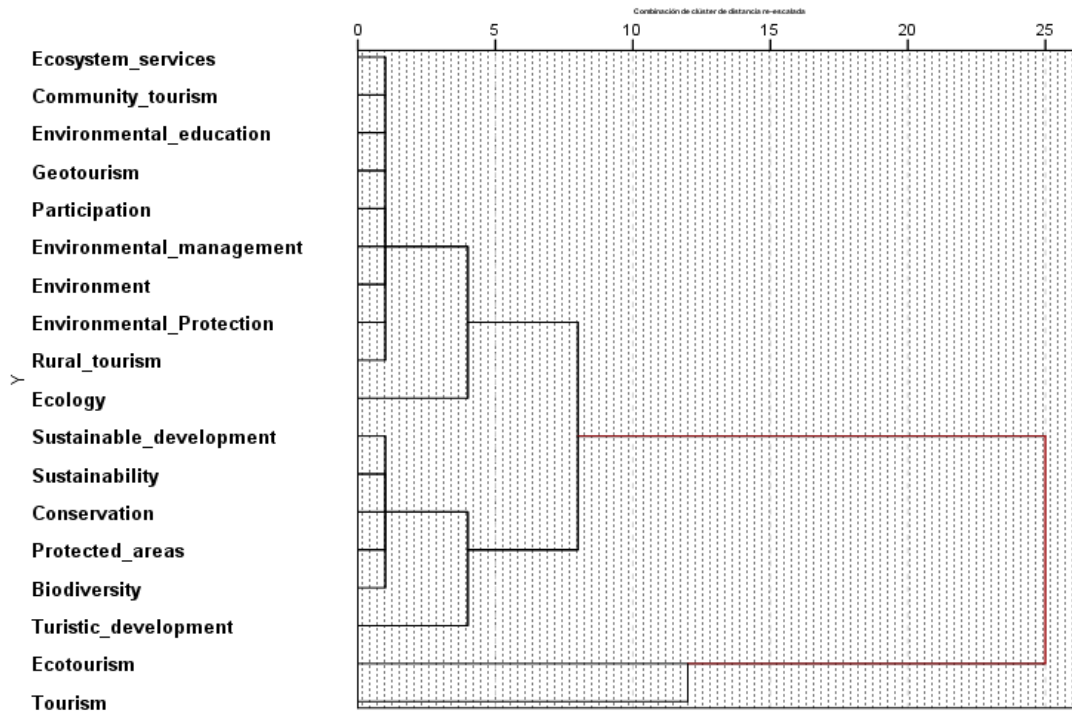
- *Ecosystem services*: community tourism, environmental education, geotourism and participation, environmental management, environment, environmental protection, and rural tourism.
- *Environmental management*: environment, environmental protection, rural tourism, and ecology.
- *Environmental protection*: rural tourism, ecology, sustainable development, sustainability, conservation, and protected areas.
- *Sustainable development*: sustainability, conservation, protected areas, and biodiversity. This cluster has a strong impact on the concept of *ecotourism*. In addition to the inclusion of the above, it also includes other concepts such as tourism development and ecotourism.

² Analyzing the dimensions, relationships, and strategic positions that characterize and constitute a field of knowledge. Approaching its different approaches, methods, and achievements.

In summary, the peripheral reiterative terms are environmental management, environment, environmental protection, rural tourism, sustainable development, conservation, and protected areas (figure 1).

Figure 1

Terms more related to ecotourism 2015-2020



According to figure 1, ecotourism is directly related to a form of tourism that has been approached in terms of environmental management from the ecological perspective and tourism development for conservation and sustainability. That is, as mentioned above, the predominant aspect in its conceptualization is the socio-environmental one, from different perspectives, such as:

Sustainable development. One of the main purposes is local development (Carrillo et al., 2017; García et al., 2017; García et al., 2018; González & Neger, 2020; Moretti et al., 2016; Orgaz & Cañero, 2016) because it generates socioeconomic benefits, dynamic development of local capacities and, mainly, of the territory that becomes the tourism product. In addition, it has sociocultural effects due to the possibility of change in symbolic and social structures and in the political, the economic, and the institutional. In this sense, new institutional frameworks are required for new economic activities through cooperation networks for self-sufficiency and sustainability. Basically, development is understood in the socioeconomic and sociopolitical aspect (Camacho et al., 2016), hence the requirement about the reflection on the development model (Sánchez, 2019). In this sense, the socio-environmental aspect is closely linked to the sociocultural one.

Conservation. This perspective emerges in connection with *sustainable* or *sustainable development* (Obombo et al., 2017; Palacio & Mantilla, 2018; Peralta et al., 2018). Actually, this should be the central object of ecotourism activity. However, given the prevailing neoliberal model, economic development is the central object. From this perspective, nature is understood as a natural resource, which can be used without destroying it to conserve it over time for the benefit of future generations. However, it is important to understand that the attribute of ecotourism is to consider nature as an essential part of the human being, hence the importance of ethical values and social responsibility in the relationships established with it. It would imply assuming sustainability as the substantive, based on reflection through the critical spirit to promote, according to J. Moreno (2017), new types of life and modes of social organization with effective commitments to live in harmony, with an alternative proposal such as *ethno-development*, and with contributions from traditional knowledge. This last vision does not yet permeate the concept of *ecotourism* because it emerges without forcefulness.

Nature tourism. This is considered as one of its modalities, (Díaz et al., 2017; González & Neger, 2020; Moretti et al., 2016) because its fundamental objective is the trip to share with nature, to enjoy it, to appreciate it, and to value it, generally, in protected areas.

Also, the concept of *ecotourism* has correlations with other concepts that, although studied to a lesser extent, carry a high meaning and symbolism, such as: *community*, *environment*, and *cultural services*. From the sustainable vision, the concept of *ecotourism* is highly interrelated with the cultural and social welfare (González & Neger, 2020; Moretti et al., 2016; Pérez et al., 2018). Nature is conceived as a protected heritage through ethical values and social responsibility cemented through environmental education. That is, the sociocultural emerges in the studies but not in a significant way.

Trends in socio-environmental and sociocultural aspects of ecotourism problems

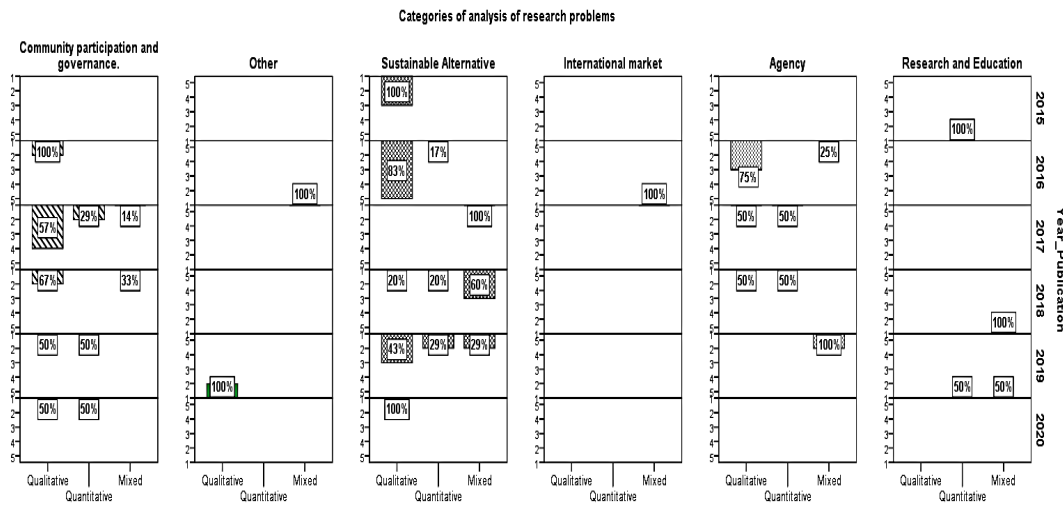
The socio-environmental is also the axis of the problem that most arouses interest. It is related to the concern for the development and conservation of protected areas in each geographical region. Figure 2 shows the categories of analysis involved in the research problems.

After the bibliographic review and categorization of the dimensions of the theoretical foundations used in the research documents, it is identified that the studies of the last five years have focused on addressing sustainability alternatives, the international market, agency, community participation, and research. These, with the passing of time and the socioeconomic and ecological reality that each period brings, have shifted from theoretical rhetoric to the perspective of scientific co-construction of ecotourism.

Ecotourism approached from the sustainable dimension had its greatest role in the years 2015, 2016, and 2019 from the qualitative approach; and in 2018 from the mixed approach. The term *development* is understood and represented with others as *growth* and *change in favor of environmental conservation*; especially, of protected areas such as nature reserves and parks. In the 57 papers studied, in 66.4% of them the main problem addressed has to do with *development* in connection with: environmental conservation (12.28%), weak sustainability (7.0%)

strong sustainability (8.7%), and peace and conflict (10.5%). In other words, it is seen as a process through which benefits are obtained for the territory. However, interest in biodiversity and ecosystem protection in general is not a wide-ranging concern. It is also important to emphasize the role given to the communities in obtaining this development, which gives rise to new problems related to education when considering development through the web, social learning, and the study of attitudes for the promotion of tourism.

Figure 2
Categories of analysis of research problems 2015-2020



It is noteworthy that the representation of its analysis is made from the communities. However, *development* is assumed from the economists and the utilitarian perspective in the sense of better management of natural resources. The fundamental concern is the incidence of ecotourism on local economic development (Carrillo et al., 2017; Obombo & Velarde, 2019; Villanueva, 2019) and of ecotourism and conservation therein (Jacob & Echeverry, 2019; Peralta et al., 2018; Rosas, 2016). Most research does not address the problems in a complex way to consider the analysis of the social, the biodiversity of ecosystems, and the relationships with the government or power entities. In this regard, the relationship between development and poverty in ecotourism areas is little studied (Díaz et al., 2017).

On the other hand, the dimension of the agency was deepened from the qualitative approach in 2016 and 2019 from the mixed approach, coinciding in some way with the dimension of the international market that was addressed in 2016 from the mixed approach. Regarding the dimension of community participation and governance, the scientific production was mostly from the qualitative approach in the years 2017 and 2018. Finally, the dimension of research and education in ecotourism was prioritized from the quantitative and mixed approach for the years 2015, 2018, and 2019.

Although the sociocultural aspect is not the most studied in the problems, the following are considered as novelties in the research: the sociopolitical effects of ecotourism (Montenegro, 2017; J. Moreno, 2017), specifically in relation to the consolidation of peace processes (Cairo et al., 2018; Henao et al., 2018); and the analysis of the socioecological transformations of

ecotourism. In them, the study of the problematic of the relationships between ecotourism, community, valuation of cultural traditions, and environmental education is considered (Cujía et al., 2017; Luna et al., 2020). Another change is the study of life experiences in ecotourism based on social representations (Sandoval et al., 2019).

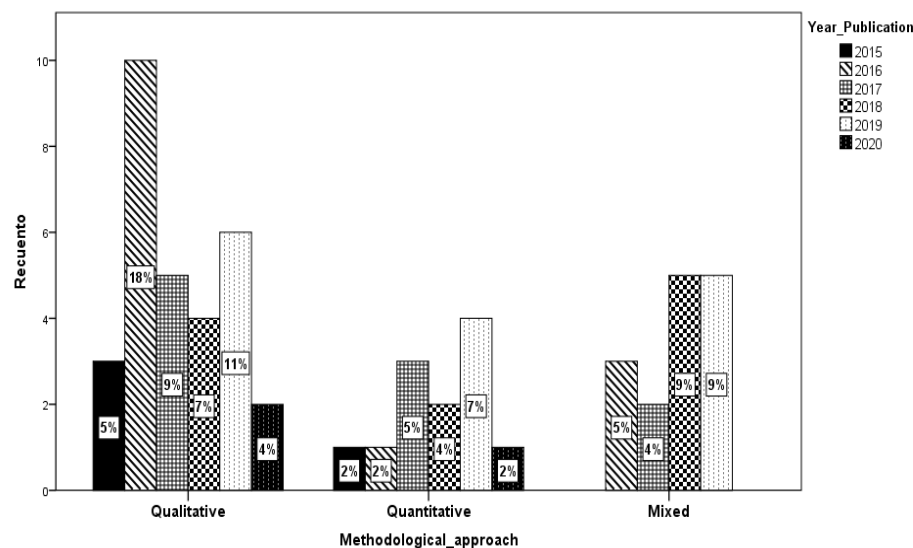
Trends in the characteristics of ecotourism research methodology

Figure 3 shows the data related to the type of research and years of greatest production in this field of knowledge:

Years of production. In general, it is evident that the years with the highest production related to ecotourism were 2019 (27%), 2016 (25%), 2018 (20%), and 2017 (18%). Likewise, it is possible to identify that the trends of the research approach were transcending towards the relationship and complementation between qualitative and quantitative approaches. There was also an increase in production, except for the year 2020, possibly caused by the Covid-19 pandemic.

Figure 3

Scientific production and research approaches 2015-2020



In 2015 and 2016 the scientific papers focused on the qualitative approach. In 2017 the works were developed in a shared way between qualitative and quantitative approaches. In 2018 the scientific production from the mixed approach increased exponentially. Likewise, in 2019 the production from the mixed approach was maintained and the production from the qualitative perspective increased. Finally, in 2020 the scientific production facing ecotourism decreased and returned to focus on research of qualitative and quantitative types.

Places of production. The countries with the highest research production in recent years on ecotourism are Mexico (35%), Colombia (24.5%), Brazil (15.7%), Ecuador (10.5%), Peru (5.2%), Dominican Republic (3.5%), and Argentina and Cuba (1.7% each). Due to its economic, environmental, and social importance, ecotourism plays a significant role in

Latin America. Their main interest is the conservation of natural reserves and parks from a sustainable perspective. In addition, it is important to highlight the social perspective in the following thematic approaches:

- community management and solidarity economy.
- social metabolism.
- intercultural.
- perception, perspectives, and attitudes of community actors.
- social learning.
- transversality of ecotourism.

In Colombia, the particular interest in the impact of ecotourism as an alternative for the consolidation of peace processes in territories where political violence has been experienced is an emerging and specific issue in the country. The relationship of ecotourism with politics and regulations is distinctive; this is taken as the object of study. Similarly, two pertinent and novel topics are addressed, such as the question about the perceptions of young people with respect to ecotourism, since they are the ones who will be able to strengthen these processes, and the reflection on the connection between education, technology, and ecotourism.

Characteristics of the research methodology. Regarding the question “How is research conducted?”, it was found that, in the Latin American region, Mexico in 2015 concentrated 66.67% of the scientific production from a qualitative approach; while Brazil, 33.33%. On the other hand, 100% of the scientific production carried out from the quantitative approach in 2015 was generated in Brazil, which evidenced that for the period in question the region did not produce scientific documents from a mixed approach. The types of data analyzed are (47.3%), quantitative (26.3%), and mixed (26.3%) natures. In the quantitative type research, work is done on the correlation of two variables (Domínguez et al., 2019; Silva et al., 2018). It is evident in all of them the concern for the validity of the data. However, in the deepening of the analyses, the triangulation of the data is not used (Correa et al., 2017; Obombo & Velarde, 2019) for the understanding and explanation of the realities that become evident.

Figure 4 shows the types of research on ecotourism conducted in Latin America. As for 2016, scientific production on ecotourism diversified research approaches and new countries are participating. Mexico was characterized by having 50% of the production carried out in the region from the qualitative approach; 100% from the quantitative approach and 33.3% from the mixed approach. At the same time, Brazil, Costa Rica, Ecuador, and Argentina explored scientific production from the qualitative approach with 10% respectively. In addition to Mexico, Brazil and the Dominican Republic published 66.6% of the scientific production created from the mixed approach.

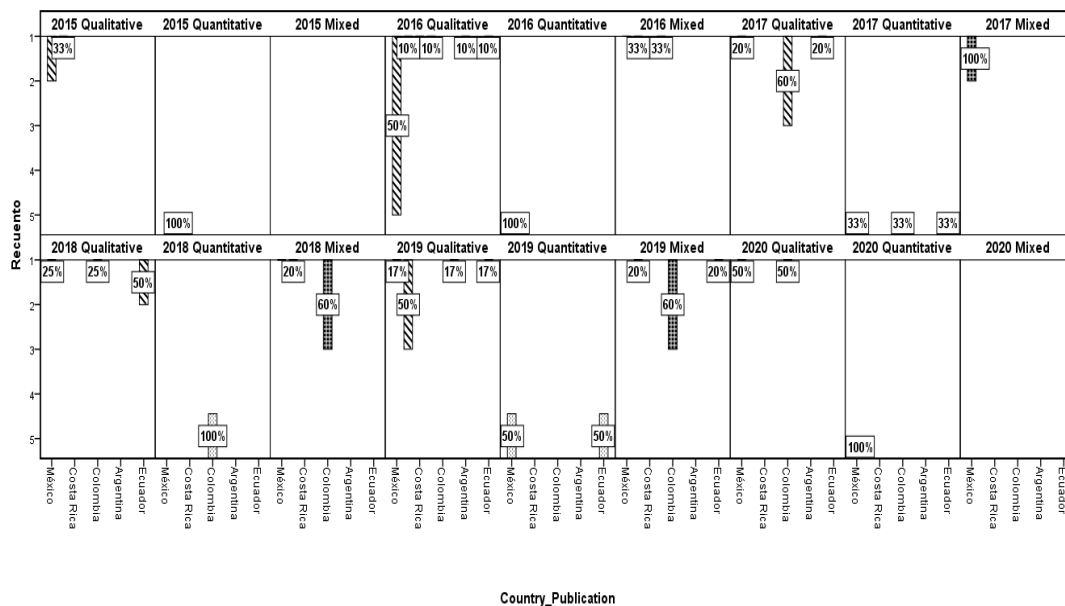
For 2017, the research approaches of Latin American scientific production related to ecotourism is pluralized but concentrated in some countries. Colombia with 60% displaced Mexico in terms of production made from the qualitative approach and is equal with 33% regarding products made from the quantitative approach. Similarly, Cuba was visible with 20%

of the products approached from the qualitative approach, and Ecuador with 33.3% of the production developed from the quantitative approach. Finally, there was an increase in the production of ecotourism products from the mixed approach, monopolized by Mexico.

Fundamentally, the following year stood out as the year of the revolution of the mixed research approach. Despite continuing with a concentration of scientific production in Latin America, new protagonists were observed in comparison to previous years. Colombia led with 60% of the research carried out from the mixed approach, with 100% of those developed from the quantitative perspective, and shared second place with Mexico with 25% of the studies carried out from the qualitative approach, an approach led by Ecuador with 50% of the scientific production.

It can be sustained that Colombia has a very important role in the region in scientific production from the mixed approach on ecotourism. In 2019 it generated 60% of the research, followed by Ecuador and Mexico with 20% respectively. On the other hand, productions with a qualitative approach were led by Brazil with 50%. Those with a quantitative approach were shared equally between Ecuador and Mexico. Likewise, a negative impact is observed in the scientific production of ecotourism in the region for 2020, possibly caused by the Covid-19 pandemic. This is the year in which the production of the mixed approach slowed down, and Mexico once again was the leader in scientific production from the quantitative approach, sharing the production of qualitative approach with Colombia, both with 50%.

Figure 4
Types of ecotourism research in Latin America



Moreover, the character of the studies is: *exploratory* (González & Neri, 2015; Obombo & Velarde, 2019) and *exploratory-descriptive* (Cardoso et al., 2015; Maranhão & Azevedo, 2019). The most explicit methods are those of qualitative type research. Table 1 shows the most applied research methods:

Table 1*Methods applied in research 2015-2020*

No.	Method	Authors
1	Documentary review	<ul style="list-style-type: none"> • Camacho et al. (2016) • Carvache (2019) • Castro et al. (2019) • Caviedes and Olaya (2017) • Correa et al. (2017) • Cujía et al. (2017) • Henao et al. (2018) • Hernández and Picón (2016) • Jaimes et al. (2018) • Mercado (2017) • Montenegro (2017) • J. Moreno (2017) • Obombo and Velarde (2019) • Orgaz (2016) • Sánchez (2019) • Santos and López (2016) • Voumard (2019)
2	Case studies	<ul style="list-style-type: none"> • Gonzáles (2018) • González and Neger (2020) • Jaimes et al. (2018) • Lozano (2017) • Maranhão and Azevedo (2019) • Márquez et al. (2016) • Obombo and Velarde (2019) • Obombo et al. (2017) • Rangel and Sinay (2019) • Tavares and Albuquerque (2016) • Vila-Freyer (2016)
3	Ethnographic	<ul style="list-style-type: none"> • Gonzáles (2018) • González and Neger (2020) • Montenegro (2017) • U. Moreno (2019) • Pérez et al. (2018)
4	Direct or participant observation	<ul style="list-style-type: none"> • Pereira et al. (2019) • Pinkus and Pinkus (2015)
5	Participatory Action Research	<ul style="list-style-type: none"> • Martí et al. (2016)
5	Cartographic	<ul style="list-style-type: none"> • González and Neger (2020)
5	Web application through <i>Scrum</i> software	<ul style="list-style-type: none"> • Quezada and Mengual (2019)

The predominance of documentary review research is evident. Although it is very important, there is still a need to broaden the scope of research in which not only diagnoses are made but also solution alternatives are proposed with their respective evaluations to enrich this field of ecotourism with their generalizations. Despite the perspective of community participation through research has been emerging, it is not significant. For example, the application of the action research participation method has only one research.

The qualitative techniques most commonly used in the research are:

- semi-structured and informal interviews with the participation of different local actors (González & Neger, 2020).

- unstructured open interviews (Correa et al., 2017).
- spatial analysis and representation, using geographic information systems (González & Neger, 2020).
- content analysis (Hernández & Picón, 2016).
- workshops or group work (U. Moreno, 2019; Rangel & Sinay, 2019).
- observation (García et al., 2018; Peralta et al., 2018).
- focus groups (García et al., 2017; Pinkus & Pinkus, 2015; Sandoval et al., 2019).

For data analysis one research used Atlas Ti software (Obombo et al., 2017), and another used the freely distributed qualitative analysis software Weft QDA (Díaz & Vega, 2015).

The techniques for the quantitative analysis were survey, factor analysis and non-hierarchical segmentation (Carvache, 2019). The programs used for the systematization and analysis of the data were: the SPSS statistician (Obombo & Velarde, 2019; Obombo et al., 2017; Orgaz & Cañero, 2016), the ANOVA F (Díaz *et al.*, 2017), and Microsoft Office Excel and Statistic Program for Social Sciences version 20.0 (Correa et al., 2017). However, for mixed type research, only few expressed having used the triangulation technique for the analysis of quantitative and qualitative data, which contributes to the validity control (Jacob & Echeverry, 2019; Obombo et al., 2017).

Discussion

Research on ecotourism, despite employing a diversity of techniques and strategies to approach the study of reality with multiple perspectives and the analysis of qualitative, quantitative, and mixed data, has not yet adopted a strongly reflexive approach. It is more concerned with the validity of the data as in the case of quantitative and mixed research than with the generation and deepening of theories to consolidate consistent theoretical explanations that lead to the understanding and possible transformation of the analyzed reality. In this case, the theories mentioned are:

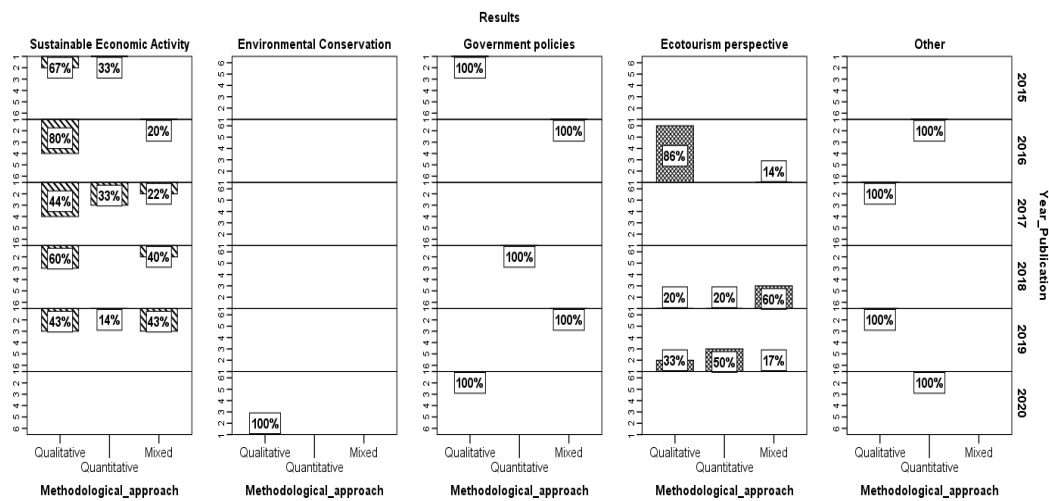
- environmental justice (Sánchez, 2019).
- social exchange (Obombo et al., 2017).
- political ecology (Cairo et al., 2018).
- utility theory (Mercado, 2017).
- world systems approach theory (Villanueva, 2019).

This indicates that even the postulates of the positivist approach are very strong given its concern with the criteria of validity of actions and not acts, interpretations of human and social actions. In this dynamic, although there is an advance in qualitative and mixed research because the qualitative proposal is to do science to understand the particularities and specificities of the multiple and diverse social phenomena, in reality, the methods used in this framework are few: ethnographic and participatory action research. The latter is striking

because the community is identified as a concept inherent to ecotourism; however, in research practices, it is still absent and only plays the role of information units. There is a concern for description, correlation, analysis, and not for understanding.

In coherence with the results obtained in this work, ecotourism as a field of research in Latin America has progressively gained interest from researchers. The nuclear themes are ecotourism and environmental conservation in very localized sites, especially, in reserve areas and natural parks. These themes relate to the concept of *development*, mainly from the economic management, with the novelty of the contributions about solidarity economy (Rosas, 2016). In the social, in addition to the economic, other relationships also emerge but not in an integrated and forceful way. In this perspective, there are few investigations that address the sociocultural (J. Moreno, 2017; Martí et al., 2016; Olmos, 2016), the socio-educational (Quezada & Mengual, 2019; Sánchez, 2019; Vila-Freyer, 2016) and the community participation (Cairo et al., 2018; Gonzáles, 2018; Márquez et al., 2016). That is, it is a field in constitution. According to the research, these trends resulting from research practices on ecotourism obey a historical and social context, which is embodied in the emphases of the problems and methodologies addressed in the research practices (figure 5).

Figure 5
Emphasis on the results of ecotourism research practices

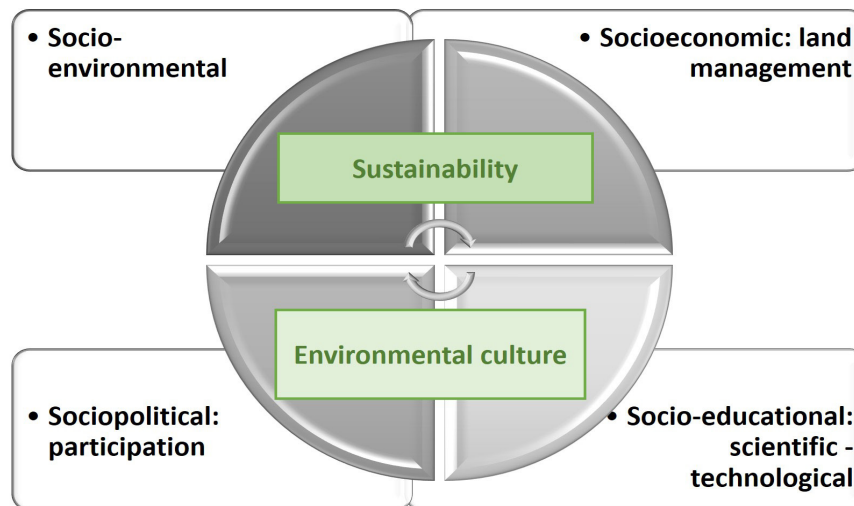


Regarding the categorization for the identification of the dimensions resulting from the scientific production of ecotourism in Latin America, it is determined that in 2015 the results addressed from the qualitative and quantitative approach were directed to define ecotourism as a *sustainable economic activity*, and from the qualitative approach as an activity that requires *government policies* for its promotion. In 2016, the results tended to mention ecotourism as a *sustainable economic activity* and a *biocentric perspective* of the activity. Likewise, in 2017 ecotourism from the three research approaches is defined as a *sustainable economic activity*. On the other hand, for the years 2018 and 2019, the results coincide with those obtained in 2016. In 2020, despite the low scientific production related to ecotourism, the results tend to revolve around the dimension of *environmental conservation*, *government policies* and other aspects such as *technology*. In these, sustainable economic activities and the biocentric are mostly

related. These can be integrated into two dimensions: (a) *sustainability*: socio-environmental and socioeconomic; and (b) *environmental culture*: sociopolitical, socio-educational, and scientific-technological, shown in figure 6:

Figure 6

Dimensions of ecotourism according to research tendencies



Two dimensions are integrated in this proposal:

- *sustainability* as a macro concept, integrating at the same time the socio-environmental and the socioeconomic—in fact, these are the problems of greatest interest to researchers.
- *environmental culture*, in which the sociopolitical, socio-educational, and scientific-technological aspects are integrated at the same time. All of them, mediated by *interdisciplinarity* from: the actors, the problems, the theoretical foundations, the methodologies; that is, starting from the knowledge of each researcher, from the knowledge required in each discipline, and from the methodological alternatives to propose appropriate, pertinent, and satisfactory solutions for the context studied.

Regarding the way research is produced, it is noted that research teams have been formed between three or more researchers (45%), two researchers (26.3%) and with only one researcher (28%). This may show an advance in collaborative work. However, it is not evident the formation of interdisciplinary groups to deal with a complex topic such as ecotourism, neither the existence of a research program that is promoted in an institutional or interinstitutional way that leads to overcome the insularity of researchers through the association of these.

On the other hand, with respect to other research practices, the following are discussed: (a) socialization and dissemination of knowledge, (b) relevance of the research, and (c) usefulness and applicability. Regarding socialization and dissemination, the researchers do not point out this process in the methodological phases of the research. They do not point out how the knowledge obtained with the communities returns to them to enrich their own ecotourism processes. In this aspect, it is important to keep in mind that knowledge is more scientific

the higher the levels of socialization, systematization, and theoretical foundation, hence the recommendation to place this aspect as one of the phases to be developed in the execution of the projects.

With reference to relevance, work was done to solve knowledge questions related to problems of local contexts. That is, the research has a high social relevance. The research problem arises from the needs of the environment. It is addressed to provide guidelines, strategies, and recommendations to improve the quality of life of communities promoting ecotourism, hence the predominance of the case study method (García et al., 2018; Gonzáles, 2018; Moreno, 2019; Tavares & Albuquerque, 2016).

Similarly, the above has to do with what is useful and, therefore, we speak of applied research. In the findings of the corpus reviewed, application is presented in the following aspects:

- promotion of training and education in various aspects of ecotourism.
- research with the support of universities and, in general, of the institutional to lessen or mitigate possible negative effects.
- exhaustive reflection on the weaknesses and strengths of ecotourism carried out by the communities themselves.
- formulation of strategic plans for the promotion of ecotourism.
- dissemination of tourist attractions.
- adequate relationship between the different ecotourism actors to integrate the tourist offer and provide it with more diversified quality at the regional level.
- transfer of acquired experiences.
- understanding of the logic of thinking and acting of the community generating ecotourism—their participation is considered fundamental, especially the inclusion of the gender perspective.
- construction of a measurement system based on tourism planning where priority is given to the environment over the economic component and to the consensual intervention of all social actors.
- knowledge of the profile of tourists and the demands of tourist sites to improve complementary offerings.

The most recommended practice is to hold workshops for the provision of integrated and contextualized environmental education, in accordance with the diverse real training needs of ecotourism stakeholders, in favor of the sustainability of the territories and the valuation of their cultures. It is recommended that scientific and technical education be promoted, in the first place, by universities and local communities; secondly, by the institutions of the State or institutions such as NGOs interested in promoting it.

From this point of view, it is very important to consider the contributions of the research carried out on the problem because in this way it can be guaranteed that the scientific knowledge is disseminated to the appropriate and final users such as the members of the communities

executing ecotourism projects. With the participation of the communities in the planning, design, execution, and evaluation of the environmental education processes, innovation and creativity can be generated so that these, in an autonomous and creative way, can give their particular and distinctive seal to the training to contribute to the realization of ecotourism projects with identity, novelty, and context.

In summary, research practices are based on sustainable development, environmental protection, and economic sustainability. From this perspective, the positivist vision of science predominates, interested more in tangible, useful, and pragmatic results than in enriching the epistemological and methodological aspects of research work, hence the need to carry out pertinent, practical, and useful research practices with an integrating vision that contribute to the enrichment of the study of the complexity of the problems to be addressed from the perspective of interdisciplinarity.

Conclusions

The core themes of ecotourism research form a triad: conservation, environment, and development. Around them are related: natural resources, activities, local communities, and tourists. Research emerges as important, as the basis for development and environmental education processes.

Although social aspects are not predominant, the perspective of inclusion and participation of local communities in project management is a dimension that should be further explored through research.

In addition, it is required through research to nurture the field of ecotourism with the theoretical and methodological conceptualization of epistemological and theoretical approaches that support it. Therefore, it is important the reflexivity of researchers and the analysis of problems with a holistic and integral vision based on *sustainability*: socio-environmental and socioeconomic, and on *environmental culture*: from the sociopolitical, the socioeconomic, the socio-educational, and the scientific-technological. These connections and interrelations are considered substantive in ecotourism studies.

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