

Ecotourism for the sustainable development of the municipality of Costa de Oro, Venezuela

Ecoturismo para el desarrollo sustentable del municipio costa de oro, Venezuela

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ABSTRACT

Sustainable development is the promotion of the well-being of communities, especially those located in environmentally significant areas and subject to some form of protection. As an alternative to contribute to their economic and social development, the state has proposed various social programs and laws that propose the preservation of the environment with a focus on sustainability and careful use of tourism resources, guaranteeing not only their existence but also their permanence as an economic activity that yields economic returns for the protection of the environment in order to safeguard its existence, through strategies designed within parameters based on the development of sustainable ecotourism. This study was carried out using the feasible project research method as a reference, supported by field and documentary research, the results of which made it possible to identify and characterize the cultural heritage and natural resources that characterize the geographical area studied. The study units provided relevant information for developing the indicators established in the table of variables and are represented by the inhabitants of the three communities located in the geographical area of Caserío Periquitos and its visitors. The proposal focused on three strategies: resource inventory, zoning, and studies of tourist carrying capacity. The proposal was defined based on the recommendations made by the members of the populations under study and the legal framework on environmental matters, as well as the regulations governing the use and enjoyment of natural resources. In addition to being innovative, since the state of Aragua has not implemented environmental tourism strategies of an educational and recreational nature that offer the environment and tourist awareness.

Keywords: Ecotourism; Sustainable; Tourism Inventory; Zoning; Tourist Route; Carrying Capacity; Educational; Recreational; Tourist Awareness.

RESUMEN

El desarrollo sustentable es la promoción del bienestar de las comunidades, sobre todo aquellas asentadas en áreas de relevancia ambiental y sujeta a algún esquema de protección. Como una alternativa para coadyuvar con su desarrollo económico y social el estado ha propuesto diversos programas sociales y leyes en las que se plantea la preservación del medio ambiente con un enfoque de sustentabilidad con un trato cuidadoso en el uso de los recursos turísticos, garantizando no solo su existencia, sino su permanencia como una actividad económica que reditué económicamente la protección del ambiente para salvaguardar su existencia, a través de estrategias diseñada en parámetros basados en el Desarrollo del Ecoturismo Sustentable. Este estudio, se efectuó utilizando como referencia la modalidad de investigación proyecto factible, apoyado en una investigación de campo y documental, cuyos resultados permitieron identificar y caracterizar el patrimonio cultural y recursos naturales que caracterizan el área geográfica estudiada, las unidades de estudio aportaron información relevante para desarrollar los indicadores establecidos en el cuadro de variables, están representadas por los pobladores asentados en las 3 comunidades ubicadas en el área geográfica de Caserío Periquitos, y sus visitantes La propuesta se centró tres estrategias: inventario de recursos, zonificación y estudios de capacidad de carga turística. La propuesta se definió en función a las recomendaciones en formular los integrantes de las poblaciones objeto de estudio y del ordenamiento jurídico en materia ambiental; así como las normas que regulan el uso y disfrute de los recursos naturales. Además de ser innovadora puesto que en el estado Aragua no

se ha implementado estrategias turísticas ambientalista de carácter formativo recreativo que ofrece el medio ambiente y la conciencia turística.

Palabras clave: Ecoturismo; Sustentable; Inventario Turístico; Zonificación; Ruta Turística; Capacidad de Carga; Formativo; Recreativo; Conciencia Turística.

INTRODUCTION

Tourism, as an economic activity, has excellent potential for territorial development. Many countries around the world have been implementing tourism marketing plans as a tool to promote socio-economic development. To achieve this benefit is to increase the influx of visitors to tourist sites in areas where these plans are implemented; apart from being eye-catching, these plans are important because they generate income, provide sources of employment for various strata of society, help to improve relations with other countries in terms of tourism development, as well as economic development that is transformed into socioeconomic improvements that contribute to the development of the country.

As a complement to this process, there is the humanist, environmentalist trend, which is the birthplace of the paradigm of sustainability. This paradigm presupposes reaching harmony among the aspects of human development, such as economy, society, nature, culture, and technology, where environmental dimensions cross this development process transversally. On the other hand, sustainable development requires promoting values that stimulate consumption patterns within the limits of what is ecologically possible.

The above evidence gives way to ecologically sustainable tourism, which is good business for everyone in the long term. This alternative tourism, called ECOTOURISM⁽¹⁾, focuses on conserving or preserving nature and generating income that meets the community's needs. It is the word that commercially has been most successful in the development and marketing of a novel (non-conventional) tourism activity associated with the use of the natural and cultural resources of a region. This is contextualized by the IUCN (World Conservation Union) as "environmentally responsible tourism consisting of traveling or visiting natural areas relatively undisturbed, in order to enjoy, appreciate and study the natural attractions (landscape, flora, and fauna) of these areas, as well as any cultural manifestations (present and past) that may be found there, through a process that promotes conservation, has low environmental and cultural impact and fosters an active and socioeconomically beneficial involvement of local populations." Likewise Ceballos⁽²⁾ states that ecotourism activities require tourism products in remote, rare areas with spectacular environmental and scenic settings.

However, ecotourism is only one part of a group called sustainable tourism. It has also become one of the segments whose demand is growing at higher rates than the average growth of traditional tourism.

For this effect, the organized community must participate in diagnosing, proposing, and resolving the problems afflicting it, using the ways it considers necessary, within which we have environmental projects and educational programs. The implementation of plans, among other resources, allows the organization of the same with the sole purpose of managing the resources required to meet the population's needs and be friendly to the environment.

Currently, tourism trends are changing, and human beings are more concerned about environmental and social issues; that is, they are looking for new experiences where they have contact with cultures of different ways of life and where they can also appreciate beautiful natural landscapes, as preserved as possible. This is the case of the community located in the municipality of Ocumare de la Costa de Oro in the state of Aragua; El Caserío Periquito, which is a sector rich in natural attractions, the main reason that has motivated the development of this research, since the main element that a place needs to become a competitive tourist destination is precisely its natural attractiveness.

The Ecotourism Context

Tourism is essential for a country's socioeconomic and cultural development, given the diversity of favorable activities that bring economic prosperity. It becomes an instrument that generates foreign exchange, as it is part of an activity that channels an investment to produce economic expansion. Likewise, it drives a diversified employment market with a relatively low investment compared to other sectors of the economy, creating a favorable balance of payments and developing local economic activities. Tourism is defined by the WTO (World Tourism Organization) as those activities that people carry out while traveling in environments where they are not usually found, whose purposes are leisure, business, or others, and last for less than one year.

Tourism is a means of social exchange since it effectively shows that the society that develops this activity is trained towards understanding and adapting their usual means, positively judging their society. As for culture, it is the epicenter of the field of action of the tourist enterprise since culture is the term that determines the attraction that regions have for tourism, framing their geography, history, customs, traditions, folklore, and craftsmanship.

It is precisely through sustainable development that values should be promoted to stimulate consumption patterns within the limits of what is ecologically possible and to which everyone can aspire. Reasonably implies that society satisfies human needs by increasing productive potential and ensuring equitable opportunities for all.⁽³⁾

The United Nations (UN) defines "sustainable development" as meeting "the needs of the present generation without compromising the ability of future generations to meet their own needs" (Report entitled "Our Common Future" of 1987, World Commission on Environment and Development). Sustainable development has emerged as the guiding principle for long-term global growth.

In Latin America, many of these activities are carried out in protected areas that represent sources of valuable natural resources

for the subsistence of life on the planet, such as water, biodiversity, erosion control, watershed protection, maintenance of the local climate, protection of genetic resources, provision of spaces for research, preparation for environmental education, support of historical, cultural and traditional values, objects and buildings, among others.^(4,5,6)

Venezuela has a favorable geographical location which presents innumerable landscapes such as mountains, beaches, deserts, jungles, plains, and modern cities, among others that allow travelers to enjoy each of the regions of the country; despite this privilege, tourism was not considered, and all the natural beauties that the country has were wasted, this because the government policies had based the Venezuelan economy on the oil income. However, thanks to government support through promotion, training, and project financing in recent decades, tourism has become a matter of state.^(7,8)

However, all these efforts have not yielded the expected results since there is still much to be done to strengthen the country's tourism sector. According to a study, "An essential element in developing tourism as an industry is the financing factor. Investors and entrepreneurs must have the credit facilities and financial support to carry out initiatives of hotels of different classifications and services, as well as inns and campsites, and related services (transportation, roads, electricity, medical services, among others)".^(9,10)

However, Aragua has one of the most important mountain tourist centers in the Central Region of the country, the "Henri Pittier" National Park; in fact, it is one of the most desired regions due to its environmental diversity. Beaches, mountains, rivers, and landscapes make this a national and international tourist attraction. One of the most visited areas is the Parish of Ocumare de la Costa de Oro, which is located in the Henri Pittier National Park and is currently classified as "threatened," mainly due to the degree of deterioration caused by fires, whether forest fires or human factors, as well as human invasions which have contributed to the destruction of the forest area.^(11,12)

Background of the municipality

In the Law of Territorial Political Division of Aragua State dated November 26, 1987, it was established that Aragua State was divided into 15 municipalities, including the Mario Briceño Iragorry municipality, whose capital is El Limón. This municipality included, among its territorial divisions, the foreign municipality of Ocumare de la Costa, which included a series of hamlets such as the hamlets of Periquito, Cumboto, Turiamo, Independencia, La Boca, El Playón, Cata and Cuyagua.

On December 28, 1989, the Legislative Assembly of the State of Aragua approved the Reform of the Law of Political-Territorial Division of said Federal Entity, and on March 19, 1990, the current Governor approved the reform contained in this Law in which, among other provisions, he established the change of "Foreign Municipality" to "Parish," since it was known that in an autonomous municipality there could not and should not be another or other municipalities, even if they were foreign, much less urban. For this reason, the aforementioned Law was reformed, and the division of the municipalities was designated as "Parroquia," one of them being "Ocumare de la Costa." This municipality and all its hamlets would continue to depend on the autonomous municipality Mario Briceño Iragorry.^(13,14)

As a result of the problems suffered by the Parish Ocumare de la Costa due to its dependence on the Mario Briceño Iragorry municipality, a group of inhabitants of the place (Ocumareños) among which the Association of Neighbors, the Neighborhood Block, the Chamber of Commerce and the community in general, emphasized that Ocumare had to be elevated to an autonomous municipality as it had been until 1917, time in which it had been a Department or District of the state of Carabobo.

The idea of elevating Ocumare de la Costa to an autonomous municipality materialized and was accepted in the Aragonese Parliament, where it was widely discussed. Then, on November 3, 1999, the "Organizing Board" came into operation, which, among its functions, had the mission of transitional government while the new municipal authorities were elected. On July 30, 2000, the mayoral elections were held; later, on December 3 of the same year, the council members elections were held. On December 11 of the same month and year, the "Mayor's Office of Ocumare de la Costa de Oro" was inaugurated.

Geographical context and description of the study area

It is located 43 km from the city of Maracay; its coordinates Latitude: 10,4861, Longitude: -67,7725, 10° 29' 10" North, 67° 46' 21" West, and it has an area of 34,000 hectares, 340,00 km² (131,27 sq mi) altitude 13 msnm, and has a dry tropical climate; its principal rivers are La Trilla, Cata, and Ocumare; these water courses present variations in their flows in the year and generate 30l/s, the temperature is 26 to 28°C, in its vegetation predominate the card ones, Yaurero, Ororo, Ororo, Guamacho and others like the Cordia bush, the tunas, the character, the campanile, the juncos, among others, its fauna: rabipelados, cachicamos, laps, acquires, araguatos, maturities, saguaros, bovines, cochinos, báquiros, Venado camera, also consists of Vallecitos that flow into the sea as Turiamo, Cata, Playón, Cuyagua and Aroa.

The land is used for agriculture, with high agricultural potential, intensive citrus fruit farming, and coastal and maritime farming. The artisanal fishing activity is carried out in coral reefs, but the dominant economic activity is fishing, cocoa cultivation, and tourism activities (lodging-food); on the other hand, the municipality of the Gold Coast bordering the municipality Girardot, Mario Briceño Iragorry, and the state of Carabobo, was decreed on May 26, 1995, by Article 3 of the Management Plan and Regulations for the Use of "Henri Pittier" National Park, where the administration and management of the National Park will aim to protect and conserve renewable natural resources and balance, in the collective interest of current and future generations.

The secondary objective is to provide the community with facilities for education, research, recreation, and tourism in an orderly manner and within the policy of conservation, defense, and improvement of the environment, respecting the potential and restrictions of each of the areas that make up the National Park.

INPARQUES, Instituto Nacional de Parques⁽⁴⁾, divided Henri Pittier Park into different areas, defined as follows: Integral Protection Zone of restricted use (scientific), Primitive Zones of exclusive access (for research), and finally the Managed Natural Environment

Zone or coastal region, which is for public use (known as Ocumare), within certain norms established by the aforementioned institution, which allows residents and visitors to know that the park is a World Heritage Site. However, the possibility of creating environmental awareness is reduced because the park's proper function is unknown, which results in a gradual environmental deterioration of the entire coastal zone, although not alarming. After all, there are no industries, and it is accelerating to—000.

Special-use zones within the park have allowed populations with a proven history to remain within the park. However, in these and other zones, illegal invasions have taken over new lands in violation of all legal regulations. The growth experienced by the entities where the park is located indicates that their populations have increased to varying degrees, and perhaps a similar growth is occurring in the park's areas. The park's tourism value lies in the cloud forest zone and its flora, which includes a great variety of orchids, bromelias, ferns, mosses, and lichens, as well as its fauna since approximately 50 % of Venezuela's mammal species are found in these forests.^(15,16)

On the other hand, the flow of tourists through the park's roads is mainly due to people heading to the beach resorts in the adjacent coastal towns of Playón, Cata, and Cuyagua. INPARQUES has also established other reasons for this situation: Vegetation fires remain the park's main problem. Awareness campaigns directed at those who cause them do not seem to have had the expected impact. On the other hand, the accumulation of solid waste is a problem that continues at the same intensity, but no solutions have been found to control dumping along roadsides and in the park.

Hunting is also well-known among park stakeholders and has not changed much in the last five years. The species generally affected are the macaw, picture, collared peccary, red brocket deer, caramerudo, tapir, puma, and jaguar. It also includes birds such as the curassow and the guacharaca, among others.⁽¹⁷⁾

Ocumare de la Costa de Oro has excellent potential for ecotourism because it has a great variety of attractions that offer the opportunity to promote tourism in its different natural areas.⁽¹⁸⁾

This beautiful town is a place of rhythms, fertile lands, unforgettable beaches, and a native people with grace, flavor, and hospitality. This allegorical capital of the town distinguishes it among the municipalities of the central region of the Bolivarian Republic of Venezuela and, with respect to the rest of the municipalities of the state of Aragua, makes it worthy of national and international fame.

This territory is geographically divided into the towns of Aponte, Cumboto, El Playón, Cata, Cuyagua, and Turismo. Before entering the capital of the municipality, you will find the hamlet of Los Periquitos, which includes the areas of La Trilla, Cansamacho, and Aponte, which begins at km 28 to km 39, taking as a reference point of departure the Alcabala de la Guardia Nacional (El Limón) and arrival at the Arco de la entrada al pueblo Ocumare. This town offers a great variety of environments, each one of them with its fauna and flora such as cardinals and seminars, deduced forests, savannahs, and the majestic cloud forest, in addition to the passage of the river and numerous streams from the cold and high mountains of the region. Of course, El Caserío Periquito also has peculiar aspects that offer a magnificent natural landscape and a great variety of plant and animal species; many are the wonders of this place, which has a unique landscape and biodiversity, which allows an unforgettable visit.^(19,20)

The most important thing about this territory from a cultural point of view is its population, which is characterized by its industriousness in cultivating bananas, cassava, and Sarasota, and the main ingredient of all its products is cocoa. All these destinations undoubtedly have an ancestral history of cocoa with cocoa plantations, peasant companies dedicated to the cultivation of this precious fruit, and entrepreneurs who have incorporated a cultural and social value to the use of cocoa for the preparation of handmade derivatives with national and international recognition and reception, in addition to handicrafts, drums among others.

He also indicated their particular way of being, their joy and hospitality, and the numerous beliefs and customs that identify them, mainly those of a religious nature, specifically the tributes they pay to San Juan Bautista every year and the traditions corresponding to their patron saint, San Sebastian, and their particular and unique gastronomy.

El Caserío Periquito has deep-rooted traditions and customs that constitute a trace and symbol of human activity and the registry of historical and natural processes. Because of its values, it represents a natural and unique evolutionary monument by preserving its roots intact, which makes this territory an option to enjoy.

It is well known that tourists seek direct contact with nature, completely different from their natural habitat. Therefore, it is essential to preserve nature by mixing some necessary conditions, such as comfort and safety required by mass tourism, as well as the conservation of customs, modalities, folklore, handicrafts, music, and beliefs, among others that make this site the main interest for visitors, where you can develop activities framed within ecotourism.

However, this natural and geographical landscape that has the village of Periquito with its roots and customs is being affected in a progressive and sustained way from the displacement in the heart of the mountain to reach the river, a natural symbol of the area because the unconsciousness of visitors who throw solid waste that often cause forest fires that break the water level and pollute not only the space but also the sources in the various rivers that serve an important part of the Caribbean Sea basin. Moreover, even more so when seasonal visitors enjoy the Caserío's wells, it generates other environmental problems because water contamination by chemicals (such as detergents) is of great concern since the over-enrichment of phosphate can cause the water body to be choked with algae and other plants. The eutrophication of the water deprives it of oxygen, causing the death of other organisms. In fact, according to EnviroharvestInc, "Detergents may contain carcinogens and ingredients that are not fully biodegradable."^(21,22)

It can also be observed that the Ocumare River at the height of Aponte has suffered topographic changes due to the construction of dams, large-scale tree felling (for the construction of inns and businesses), Paradores without sanitary or engineering controls on the roadside (kiosks), and the movement and extraction of sand, stone, and concrete by people who trade in this type of material, among other factors that affect the area under study.^(23,24)

Similarly, it is necessary to point out the existence of other degrading factors such as the large volume of waste generated by the

inhabitants, harmful fishing methods, poaching, sonic pollution, the number of visitors exceeding the capacity of the area causing collapse, the development of bonfires on the banks of the river without control causing effects on the environment or ecosystem, The final disposal of waste and wastewater generated by roadside kiosks, and the construction of infrastructure that does not comply with the planning proposed in the land-use plan indicate a lack of policy aimed at protecting and conserving natural resources.^(25,26)

However, the zone is in the process of consolidation because some basic services are still lacking, and those that are available often fail for days. These services, such as electricity, domestic gas, and drinking water, among others, cause discomfort and inconvenience to travelers, tourists, and locals. For this reason, they generate environmental, social, and economic problems.⁽²⁷⁾

Therefore, it is necessary that the conditions for offering sustainable ecotourism are adequate and that infrastructure and basic services guarantee the necessary conditions for carrying out this environmental recreational activity. This activity is oriented toward creating awareness among locals and visitors about the importance of natural resources and their preservation for future generations.

Suppose the necessary measures are not taken to stop the deterioration of the natural area. In that case, the loss of biodiversity, the contamination of soils and watersheds, the extinction of animal and plant species, the degradation of the tourist area, and the spread of fires, among others, can cause a negative and irreversible environmental and sociocultural impact, which will be regrettable.⁽²⁸⁾

The need to mitigate, eradicate, or control the biophysical and social impact caused by the presence of tourists is born, for which Ecotourism for Sustainable Development in the Periquito Village is proposed through strategies that allow to make:

First is the inventory of resources, where the natural, historical, artistic, and cultural ones will be studied, as well as the need for tourist facilities and infrastructures.^(29,30) Knowledge of these will measure the region's potential, detect its insufficiencies, and evaluate the impact of the tourism proposal after some years in the territory. An inventory is necessary, especially of natural attractions: fauna, flora, vegetation, and old coffee plantations.⁽³¹⁾

Then, the zoning will serve to map the territory according to the tourist uses that will be proposed, from the most intensive to the least intensive, according to the fragility of the territory and the location of infrastructures. The promotion of lodging in inns or rooms in houses to value the history of Gómez, the cocoa farms and its derivatives, observations of fauna, vegetation and flora, fishing, local and Negroid ethnic gastronomy (kanga, Lungu Lungu, curacao, loch, banana cake, among others). The exposed ideas will allow Sustainable Ecotourism in the Periquito Village of the Costa de Oro municipality to reinforce the culture, history, handicraft development, and the profile of ecotourism.⁽³²⁾

Table 1. SWOT Matrix on the Application of Ecotourism for Sustainable Development in the Caserío Periquito, Costa de Oro Municipality, Aragua State

	Strengths	Weaknesses
Opportunities	<ul style="list-style-type: none"> -Ability to offer tourism services in the area under study. -Ability to generate employment in the ecotourism area. 	<ul style="list-style-type: none"> -Low quality of the services offered. -Staff that is not trained for the tourist activity.
-Natural scenarios of the geographical area favorable for the environmental tourism context based on the ecotourism strategy.	-Maintenance of the environmental areas of the area.	-Lack of management information on tourism services.
Threats	Strategies Strengths Opportunities	Strategies Weaknesses Opportunities
-Accelerated population growth.	-Promote community engagement to develop activities and programs linked to ecotourism.	-Promote ecotourism strategies within the studied village community
-Environmental destruction	-Partner with environmental conservation organizations to diversify tourism while making rational use of natural resources.	-Develop programs to boost tourism services in the area under study
		-Drive environmental protection actions

RESULTS

Proposal of ecotourism strategies for sustainable development

The different crops that exist in the Periquito hamlet in the municipality of Costa de Oro, Aragua state, are looking for ecotourism strategies for sustainable development as alternatives to respond to the tourist development of the area under study, considering the techniques and skills that are oriented to the conservation of natural resources. In this context, this proposal is focused on expanding the knowledge related to the environmental field because it requires the formulation of activities focused on caring for natural resources to strengthen tourism.

From this perspective, the proposal is based on the diagnosis made in the sector under study and seeks to contribute a series of strategies for applying ecotourism for sustainable development in the Periquito hamlet of the Costa de Oro municipality, Aragua state.

Justification of the Proposal

The ecotourism strategies are relevant because, through them, alternatives are sought to carry out sustainable development, promoting actions that are linked to the preservation of the environment and tourism; in the same way, tools that support the sustainability of the area arise, giving rise to measures that are aimed at the quality of tourism and minimize environmental problems in the locality under analysis by promoting community participation in activities that include the vision of preserving nature.

Thus, the need arises to create and implement measures that allow the management of tourist activity sustainably, balancing the benefits of the growing development with the least possible impact. Hence, this research benefits from the following aspects:

- It promotes training in the people residing in the hamlet under study towards conservationist biodiversity management.
- It promotes changes in consumption habits and tourism quality.
- Promotes tourism development under analysis related to visitor levels, visitor typology, tourism investment, biodiversity, and tourism impacts.
- Developing ecotourism strategies immersed in the environmental context to maintain a balance in maintaining natural resources.
- Promotes sustainable development in the institutional, social, economic, cultural, and environmental spheres.

From there, this study is proposed because it promotes knowledge and alternatives directed to sustainable development. Its purpose is to integrate theoretical and empirical knowledge acquired to generate techniques that conserve nature and diversify tourism.

Foundation

The ecotourism strategies for sustainable development in the Periquito hamlet of the Costa de Oro municipality, Aragua state, are based on the results that generate forecasts, considering the theoretical support and the legal bases exposed in this investigation. Based on the aforementioned, the inhabitants of the hamlet under analysis will be able to transform their daily work to maintain sustainability in tourism in the area by rationally using the soil, water, and air components.

Consequently, the proposed proposal is supported by a practical vision of the results obtained in the data collection through the development of the objectives directed to the inhabitants of the farmhouse under study concerning the natural resources, promoting ecotourism to make a rationed use of the natural resources, considering the plan that is required to carry out a tourist and conservationist management to plan and promote the strategies in the application of Ecotourism for the Sustainable Development in the Periquito Farmhouse of the Costa de Oro municipality, Aragua state.

Objectives of the Proposal

General Objective

To provide ecotourism strategies for sustainable development in the Periquito hamlet of the Costa de Oro municipality, Aragua state.

Specific Objectives

- To promote ecotourism management in the Periquito hamlet of the Costa de Oro municipality, Aragua state.
- Promote sustainable tourism to strengthen ecotourism in the area under study.
- Promote sustainable development in the different economic, social, ecological, and political spheres.
- To identify the planning, implementation, and control processes.

Structure of the Proposal

The proposed proposal has objectives linked to ecotourism strategies for sustainable development in the Periquito hamlet of the Costa de Oro municipality, Aragua state. Also, the structure of the proposal is derived where the specific objectives proposed in the proposed study are developed.



Figure 1. Structure of the proposal

After structuring the proposal, the four (04) phases are specified, where the components related to the proposed research are explained.

Phase I: ecotourism management in the Periquito hamlet of the Costa de Oro municipality, Aragua state

In this stage, the inhabitants and visitors of the Periquito hamlet of the Costa de Oro municipality in Aragua state should be informed about the use of natural resources, tourism and the existing biodiversity in the sector under study, considering the following:

Biodiversity and location of the Periquito hamlet of the Costa de Oro municipality Aragua state



Figure 2. Geographic location of the Periquito hamlet of the Costa de Oro municipality, Aragua state

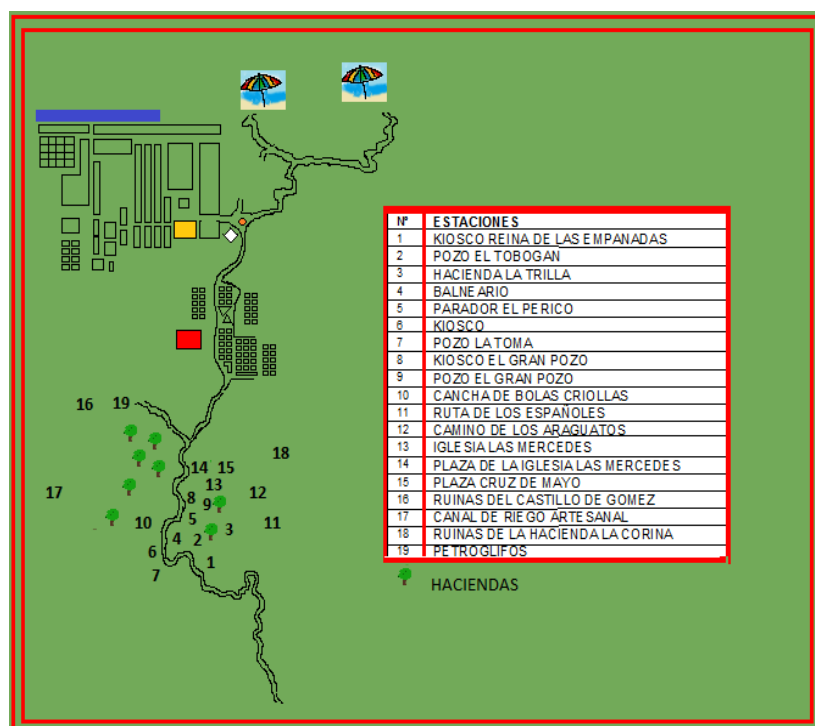


Figure 3. Ecotourism Route established in the Periquito hamlet of the Costa de Oro municipality, Aragua state

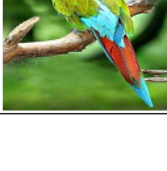
Biodiversity (flora and fauna) in the Periquito hamlet of the Costa de Oro municipality, Aragua state

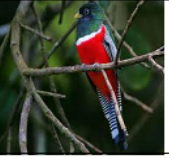
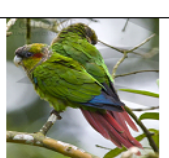
ESPECIE	NOMBRE COMÚN	NOMBRE CIENTÍFICO
	Riquiriqui	Heliconia bihai
	Carne de fiambre	Curatella americana
	Las majaguas	Heliocarpus sp.
	El palo maria	Triplaris sp.
	El cucharón o niño	Gyranthera caribensis
	Palmas macanilla	Bactris setulosa

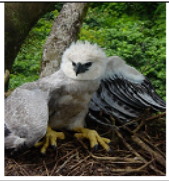
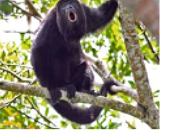
ESPECIE	NOMBRE COMÚN	NOMBRE CIENTÍFICO
	Palmas macanilla	Bactris setulosa
	Caña molinillo	Chamaedorea pinnatifrons
	Palma prapa	Wettinia praemorsa
	Aráceas	Aráceae
	Flamboyán	Delonix regia

ESPECIE	NOMBRE COMÚN	NOMBRE CIENTÍFICO
	Orquídea	Maxillaria uncata
	Orquídea	Chapada Diamantina
	Orquídea	Zygopetalum maculatum
	Bromelias	Bromelia humillis
	Bromelias	Bromelia balansae.

Figure 4. Flower Inventory

ESPECIE	NOMBRE COMÚN	NOMBRE CIENTÍFICO
	Golondrina	-Hirundo rustica
	Aguila arpia	-Harpia harpyja
	Águila solitaria	Buteogallus solitarius
	La Guacharaca	Ortalis
	Guacamayo verde	Ara militaris

ESPECIE	NOMBRE COMÚN	NOMBRE CIENTÍFICO
	El cardenalito	<i>Spinus cucullata</i>
	Tangara Cabeza de Lacre	<i>Tangara gyrola</i>
	Sorocua	<i>Trogon collaris</i>
	Pico de Frasco Esmeralda	<i>Aulacorhynchus sulcatus</i>
	Azulejo	<i>Euphonia xanthogaster</i>
	Perico cola roja	<i>Pyrrhura hoematotis</i>

ESPECIE	NOMBRE COMÚN	NOMBRE CIENTÍFICO
	Conoto	<i>Psarocolius decumanus</i>
	Aguila Real	<i>Aquila chrysaetos</i>
	Mono araguato	<i>Alouatta caraya</i>
	Mono lunar blanco	<i>Ateles</i>
	Mono auyador	<i>Alouatta caraya</i>

ESPECIE	NOMBRE COMÚN	NOMBRE CIENTÍFICO
	Mono titi	Callicebus
	Pereza	Bradypus variegatus
	Cunaguaro	Leopardus pardalis
	Puma	Puma concolor
	Lapa	Agouti paca
	Mapanare	Bothrops medusa (H)

Source: Rios, (2017)

Figure 5. Fauna Inventory

Activities of the Periquito hamlet in the municipality of Costa de Oro, Aragua state.

Table 2. List of Tourist Sites	
Nº	Tourist Sites
1	Site of the petroglyphs on the right bank of the Cumboto river.
2	Hacienda Santa Maria ascent of the avocados
3	road of the araguatos via san Joaquin from Cumboto
4	Old route of the Spaniards
5	Pozo de la toma
6	The Parador El Perico
7	The ruins of the castle of Gomez
8	Artisanal irrigation canal
9	Ruins of the hacienda la trilla
10	The great well
11	Haciendas of cocoa-banana-banana-banana-plantain-café plantations
12	Plaza de la cruz de mayo
13	Plaza de la iglesia de las Mercedes
14	Church of Las Mercedes
15	Ruin of the hacienda la corina
16	Kiosks of typical food vending kiosks
17	Creole ball court
Source: Ríos (2017)	

Table 3. Important Peronajes

N°	Name	Activity
1	Ignacio Flores	President of the brotherhood of san juan
2	Salvador Concepcion	And singer-songwriter of mermaids
3	Tulio Gabino Mijares	The Forest Ranger
4	† Graciela Reyes	Singer-Author, Cultor
5	† Isidra Mijares	(Maestro Gabino)
Source: Ríos (2017)		

Table 4. Holidays and Celebrations

N°	Party	Date
1	The birthing of the child	January 6th
2	The Virgin of Lourdes	February 11th
3	The dancing devils	9 Thursdays after Holy Thursday
4	(visit 2 weeks after the celebration)	Corpus Christi Day
5	Cross of May	May 3rd
6	Saint John	June 24th
7	The virgin of Mercedes	September 24th
8	Santa Barbara	December 4th
Source: Ríos (2017)		

Table 5. Ecotourism Activities

N°	Activity
1	Hiking
2	Bird watching walks
3	Butterfly watching
4	Photographic spots
5	Flora observation
7	River walks
8	Hiking
9	Bathing in rivers and wells
10	Guide of recipes of autochthonous plants
11	Tasting of typical food
12	Creole ball competitions
14	Guided visits to vestiges present in the area.
15	Participation in religious festivals
16	Guided visits to the cocoa process
17	Musical encounters
18	Stories of myths, tales and legends.
19	Tasting of typical local sweets of the area
20	Acquisition of agricultural products of the area.
21	Parrandas songs
Source: Ríos (2017)	

Table 6. Myths and Legends

N°	Name	Short Story
1	The sayona	A beautiful woman who goes out to men who whistle and brings disgrace and death
2	The whistle	A man who whistles and brings misfortune and death
3	The cochina	A pig with three little pigs passes by and then they don't see her.

5	The dead man of the pass	When they go down the road a man on a mule appears
6	The owl and the lion	When the owl sings and the lion appears surprising his prey
7	The full moon	When the full moon rises, the scares come out
8	Burials	Hidden treasures that run away when you look for them
Source: Ríos (2017)		

Situation about the use of environmental conservation

This part considers environmental conservation, according to Vitalis (2014:4), which is:

- The rational and sustainable use of natural resources and the environment. Among its objectives are guaranteeing the persistence of species and ecosystems and improving the quality of life of populations for the benefit of present and future generations.

Based on the author's presentation, environmental conservation is an important aspect since its purpose is to provide the people of the Periquito hamlet of the Costa de Oro Municipality, Aragua State, with knowledge regarding the preservation of the environment and the management of tourism.

Actions for ecotourism, conservation, and recovery of natural areas

From this point of view, the problem of conservation, recovery of nature, and the lack of tourism training that exists in the people who reside in the target area, such as the natural areas and the areas of tourism services, where a sustainable approach is sought where there is an interaction of nature, ecotourism, and the individual over a long period of time in conjunction with the characteristics of the area.

Phase II: Sustainable Tourism to strengthen ecotourism in the area under study

According to the National Strategies for Sustainable Development (2006), Sustainable Tourism is tourism that complies with the following guidelines:

1. To make optimal use of environmental resources that are a fundamental element of tourism development, maintaining essential ecological processes and helping to conserve natural resources and biological diversity.
2. Respect the socio-cultural authenticity of the host communities, conserve their architectural, cultural assets, and traditional values, and contribute to intercultural understanding and tolerance.
3. Ensure viable long-term economic activities that provide well-distributed socio-economic benefits to all stakeholders, including stable employment opportunities, income, and social services for host communities, and contribute to poverty reduction.

These strategies will help promote ecotourism for sustainability in the Periquito hamlet of the Costa de Oro municipality in Aragua.

Phase III: Sustainable Development in the different economic, social, ecological, and political spheres

To promote the sustainable agricultural development of the area under study

Regarding Vitalis (2014:3), he argues that sustainable development is considered as a:

The process of social change aims to promote the improvement of the quality of life in human societies. In this society, the harmonious use of natural resources and the environment guarantees its use by present and future generations.

Based on the above mentioned by the author, sustainability is based on the improvement of the economic, social, ecological, and political areas, emphasizing that in the Periquito hamlet of the Costa de Oro municipality, Aragua state, it is necessary to develop activities that are focused on maintaining the environment, ecotourism and improving the living conditions of the inhabitants who reside in the place.

Establish activities related to the use of natural resources

According to this point, activities should be established to encourage the community's respect for preserving biodiversity. That is why Anzil (2014:1) argues that a natural resource is "any component of nature, susceptible of being exploited in its natural state by human beings for the satisfaction of their needs." Therefore, the author's statement refers to the commitment that environmental responsibility should be focused on conserving biodiversity and sustainable use, promoting learning about the environment through workshops, lectures, knowledge meetings, and newsletters, among others.

From the above, it is clear that there must be environmental responsibility, and it depends on the degree of knowledge that man has about the structure of the environment and the activities that make up ecosystems.

Phase IV: Planning, implementation, and control processes

ISO 14001:14 (2002) highlights the following processes:

Planning

This is the second element developed by the standard; it is made up of the following components:

- Environmental aspects and their impacts.
- Legal requirements and others.

Implementation

It is made up of the following components:

- Structure and responsibility.
- Training, awareness, and professional competence.
- Communication.

Administration of the Proposal

The inhabitants located in the Caserío Periquito of the municipality Costa de Oro Aragua state will be in charge of administering the proposal. Once this work is finished, the phases of the proposal are carried out, making planning, implementation, and control for the follow-up of the different environmental and tourist actions in the place of study.

Feasibility of the Proposal

The implementation of the set of environmental strategies to strengthen the sustainable and ecotourism development of the Periquito hamlet of the Costa de Oro municipality, Aragua state, requires different technical, human, and financial resources.

Technical Feasibility

From the technical point of view, the objective is to follow up and accompany the different organizations in order to guarantee an environment and tourism in balance with the surroundings, promoting the theoretical and practical knowledge in the ecotourism area to keep the inhabitants of the locality in study informed about the protection of natural resources and to manage tourism in an ecological context.

Human Feasibility

In this aspect, we have the human feasibility to organize the community and the inhabitants living in the Periquito hamlet of the Costa de Oro municipality in Aragua state to promote actions that understand the environmental context, promoting sustainability in tourism and helping to impart the different ecotourism strategies that contribute to favor the environment and improve their living conditions through tourism in the locality under analysis.

Financial Feasibility

The function of the financial feasibility is directed to support the investment economically, highlighting that putting into practice the work that is proposed originates a cost reduction in the planning, implementation, and control of a tourist and conservationist management, the inhabitants located in the area under analysis have public or private financial institutions that are focused on promoting ecotourism strategies for sustainable development in the Periquito hamlet of the Costa de Oro municipality, Aragua state.

Contributions

About the characterization of the environmental and socio-cultural variables through an inventory considering its variability and the degree of intervention of the study area, the following weaknesses are presented:

- Lack of solid waste collection.
- Lack of water and sewage systems.
- Lack of necessities
- Medical service 24 hours a day.
- Internal transportation route.
- Complete school system with a specialty in tourism.
- Streets and sidewalks deteriorated and, in some cases, nonexistent.
- Deficient electrical lighting.
- Street lighting.
- Permanent security.
- There is no budget for developing tourism as a socioeconomic instrument.

In terms of the diagnosis of the location and current situation of resource use, taking into consideration its potential, restrictions, conservation status, alteration, and degradation of environmental attributes, it can be deduced that:

- This natural space suffers an andragogic mutation by being invaded by part of its area and changing its use abruptly from natural space to geographic space; it should be remembered that this area is susceptible to ABRAE.
- It should also be noted that its morphoanthropic and geoclimatic formation makes it a problematic area to structure, making it viable for ecotourism.
- Also, invasions of areas where archeological vestiges are found, such as in the case of the Hacienda La Trilla, put traces of the culture of our ancestors at risk.

- Uncontrolled hunting endangering various species.
- Construction on riverbanks and in areas susceptible to the forces of nature.
- Burning and logging of vegetation causes soil degradation, biodiversity loss, and species migration.
- Locals and tourists pollute rivers, use chemical substances, and dump waste.

In attention to the Determination of the aspects of Ecotourism, it is evident that at the moment, a tourist development is implemented discrepant with the environment adopting the following characteristics:

- Disrespect towards the environment, which modifies the landscape.
- Only promotes specific attractions (cultural and natural).
- Historical spaces in progressive form have been suffering a detriment, which has led to their permanent disappearance.

There is a lack of organization on the part of the municipality, state, and nation in charge of their recovery, maintenance, and care.

- Lack of alternative tourism activities (sports and scientific).

Recommendations

Taking into account the results obtained and the conclusions, the following recommendations are formulated:

To the Inhabitants of the hamlet

- Implement the proposed proposal to incorporate the strategies for applying ecotourism for sustainable development in the Periquito Village of the Costa de Oro municipality, Aragua state.
- To provide visitors with knowledge about ecotourism for sustainable management to preserve natural resources for future generations.
- The valorization of the natural and cultural resources of the region as an action that will contribute to the conservation of the patrimonies of the region.
- The practice of scientific tourism to ensure greater compatibility between anthropic impact and better use of a fragile ecosystem.
- Interrelate with public and private institutions to maintain and conserve the environmental and tourist conditions of the locality.

To the governmental entities



Figure 6. Data Analysis Summary

- Promote programs focused on the elements that make up sustainable development, aiming to promote environmental conservation and sustainable tourism management.
- Establish plans and programs directed to the knowledge of the locality under analysis to strengthen ecotourism strategies.

- A flexible, permanent organization based on high performance is recommended for efficient management.

FINANCING

None.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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