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## Sustainability in Nature Tourism in Navachiste Bay, Juan José Ríos, Sinaloa

Sustentabilidad en Turismo de Naturaleza en la Bahía de Navachiste, Juan  
José Ríos, Sinaloa

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### Resumen

La presente investigación, está orientada hacia la sustentabilidad del Turismo de Naturaleza en la Bahía de Navachiste, Comunidad Cerro Cabezón, Juan José Ríos, Sinaloa. La Bahía cuenta con gran variedad de recursos naturales y culturales que no han tenido contacto directo con el hombre, y son un detonante para el turismo. El objetivo fue elaborar un diagnóstico de las actividades turísticas actuales y potenciales de la Bahía, con la finalidad de proponer prácticas orientadas al cuidado y protección del medio ambiente. La metodología empleada, fue cualitativa utilizando técnicas como la observación a través de recorridos de campo y la entrevista semiestructurada con una guía de entrevista en el trabajo de campo, lo que, permitió identificar las principales opciones de turismo de naturaleza basadas en sus recursos. Se presenta un listado de actividades turísticas potenciales, centradas principalmente en senderismos, campamentos, actividades recreativas, montañismo, aviturismo y recorridos guiados que fomentaran el Turismo en la Bahía.

**Palabras claves:** Sustentabilidad del Turismo, Turismo de Naturaleza, Actividades Turísticas.

### Abstract

This research focuses on the sustainability of nature tourism in Navachiste Bay, Cerro Cabezón Community, Juan José Ríos, Sinaloa. The Bay boasts a wide variety of natural and cultural resources that have not had direct contact with humans and are a driving force for tourism. The objective was to conduct a diagnosis of current and potential tourism activities in the Bay, with the goal of proposing practices aimed at environmental care and protection. The methodology employed was qualitative, using techniques such as observation and interviews during fieldwork, which allowed for the identification of the main nature tourism options based on these resources. A list of potential tourism activities is presented, focusing primarily on hiking, camping, recreational activities, mountaineering, birdwatching, and guided tours that would promote tourism in the Bay.

**Keywords:** Sustainable Tourism, Nature Tourism, Tourism Activities.

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## Introduction

Navachiste Bay is located in the community of Cerro Cabezón, in the municipality of Juan José Ríos, in the northern part of the state of Sinaloa, approximately 40 kilometers southeast of the city of Los Mochis. This region has high potential for the development of nature tourism due to the diverse topography and landforms that make up its territory, including islands, mountain ranges, hills, bays, caves, and a large body of saltwater. These characteristics foster a wide variety of ecological niches, fauna, microclimates, and endemic vegetation, which together create a unique landscape.

In addition to this potential, the area boasts a rich cultural heritage, as the aforementioned community is known for its celebrations, traditions, and customs that further enhance its appeal to tourists. Given the importance of this geographic area in the region, the aim is to identify the natural and cultural attractions that make it possible to develop a tourist site in accordance with sustainable policies, respecting local customs, beliefs, religion, community organization, and nature tourism practices to preserve, conserve, and utilize its territories.

Changes in social structure, the consequences of mass tourism, and increased environmental awareness have created a favorable context for the consolidation of sustainable, specialized, and environmentally responsible tourism models. Currently, various studies show that traditional tourism, due to its negative impacts, has been superseded by more sustainable local development approaches, which progressively integrate environmental and social responsibility criteria in destinations located in natural areas (Quintana, 2017).

Mass tourism was initially a great business opportunity, but it soon generated various problems due to its own initial assumptions, such as the nonexistent absence of environmental risks and planning, which led to uncontrolled and speculative growth. Therefore, one of the fundamental factors driving social change will be humanity's relationship with nature, so heavily influenced by the ecological, environmental, and conservation movements that, more than a fad, have spread throughout society, shaping a lifestyle. For nature tourism, the environment is not an obstacle, but rather a primary resource that generates an opportunity for growth.

Under this approach, tourism is no longer conceived exclusively as a predatory activity, and nature tourism presents itself as a viable alternative to contribute to

environmental conservation. In this sense, the present research was developed with the purpose of analyzing the availability of tourist attractions that, through rational and sustainable planning, can position Navachiste Bay as a recognized tourist destination. Likewise, the aim is to propose an alternative tailored to the community's real needs, the sustainability of resources, and social and economic profitability, which requires the support of specialized knowledge in the area.

Beyond formulating proposals, it is essential that the design and implementation of these initiatives be based on the community's actual conditions, allowing them to be consolidated as tourism development projects. This approach is presented as an option to reorient tourism practices toward alternative ways of using leisure time, through activities that generate economic benefits, foster learning through experience, and promote the conservation of natural and cultural resources—the pillars of sustainable tourism. In this way, tourism is configured as a viable strategy to drive economic, social, and environmental development.

Based on the above, the need arises to identify sustainable tourism alternatives that allow for leveraging the region's natural and cultural wealth. Within this framework, the general objective of this research was to conduct a diagnostic assessment of current and potential tourism activities in Navachiste Bay, located in the community of Cerro Cabezón, Juan José Ríos, Sinaloa. Based on this assessment, this work proposes that the proper implementation of sustainable tourism activities can consolidate nature tourism as a strategy to respond to the demands of the environment. Thus, the following research question is formulated: What are the current and potential tourism activities in Navachiste Bay in the community of Cerro Cabezón, Juan José Ríos, Sinaloa?

## Theoretical Framework

### Nature Tourism

Nature tourism is defined as a set of unique, unrepeatable, and personal experiences that take place in a high-quality environment; This is understood as the quality of the tourist's leisure time, which allows them to perceive their relationships with the geographical and cultural environment, with other tourists and their hosts, in a different way, within the parameters of sustainable human development that envisions economic development and growth, social equity, and environmental sustainability (Zamorano, 2002).

In accordance with this definition, Quintana (2017) points out that nature tourism is closely linked to

sustainable development, since it takes place primarily in natural habitats characterized by their biodiversity. In this context, natural parks, protected natural areas, ecotourism, rural tourism, and agritourism acquire special relevance, as does the active participation of the local population in the planning and implementation processes of tourism activities.

Nature tourism is driven by a motivation to travel to natural areas to engage in recreational activities, leisure, interpretation, and learning about natural and cultural resources, thereby altering the balance of the environment and promoting the conservation, care, and strengthening of nature and ecosystems. (Ministry of Environment and Natural Resources (2009), Ministry of Tourism Development (2020), Ministry of Tourism (2017), and Blanco (2006). In addition to concurring with the previous concept, Blanco (2006) specifically mentions nature tourism activities, arguing that these vary in depth and physical intensity, and that their implementation involves risk. In line with this, Ceballos-Lascuráin (1998) and Font (2006) expand on the concept, arguing that its main objective is to study, admire, and enjoy the panorama of plants, animals, and cultural expressions, achieving a complete appreciation of the environment. For its part, (Secretariat for the Promotion of Tourism, 2020) infers that nature tourism aims to improve the quality of life of communities by seeking to encourage sustainable development.

Duque (2022), for his part, argues that people who engage in this type of tourism come from overcrowded areas and seek an environment where they can disconnect and connect with nature, learning more about all it has to offer, in addition to the many recreational activities related to the environment. As a result of the theoretical analysis, it is concluded that nature tourism consists of all those trips and recreational activities, leisure and relaxation, developed in contact with nature and cultural expressions far from urban centers.

### **Sustainability**

The term "sustainability" has undergone different transformations over time until reaching the modern concept based on the development of socio-ecological systems to achieve a new configuration in the three central dimensions of sustainable development: the economic, the social, and the environmental. For his part, Ávila (2018) argues that the definition of the word "sustainable" involves several very important aspects, among which the following can be considered: Sustainability is related to the finite and delimited

nature of the planet, as well as the scarcity of Earth's resources, the exponential growth of its population, clean production in both industry and agriculture, and the pollution and depletion of natural resources.

From an intergenerational perspective, sustainability raises the need to satisfy the needs of the present without compromising the ability of future generations to satisfy their own. In terms of economic prosperity, this approach implies the capacity to maintain sustained growth over time, simultaneously protecting the planet's natural systems and guaranteeing an adequate quality of life for the population.

In contrast, as cited by Foladori and Tommasino (2000), Pearce points out that sustainability consists of ensuring the availability of substitute products as non-renewable resources become physically limited, and ensuring that the environmental impacts resulting from their use remain within the planet's capacity to absorb them. Sustainability is a multidimensional concept that seeks to balance human needs with the capacity of ecosystems to regenerate.

According to Ávila (2023), sustainability implies a critical reflection on the current development model, by integrating social, economic, and environmental aspects in a coherent manner. Along similar lines, López (2020) argues that sustainability constitutes an emerging scientific concept from an interdisciplinary vision of reality, achieving the status of a new paradigm. This position is reinforced by Toledo (2023), who emphasizes that sustainability, beyond its ideological dimension, should be understood as a scientific approach grounded in interdisciplinarity.

When analyzing the different theoretical approaches to the concept of sustainability, the need to rationally utilize natural and cultural resources is recognized, under an ethical approach committed to the environment. This approach implies reducing waste generation and pollution, with the aim of preventing imbalances that affect social and environmental harmony. Furthermore, sustainability transcends the ecological dimension to encompass the social and economic spheres, guaranteeing equitable access to resources, the preservation of biocultural heritage, and intergenerational justice.

Currently, sustainability has become an indispensable practice in the development of any tourism activity. Its fundamental principles are geared towards satisfying the needs of visitors while promoting solidarity with future generations through the conservation, preservation,

and care of natural and cultural resources, as well as the environment in general. This approach requires the active participation of the local population in building a social system that guarantees decent employment, social security, and respect for cultural diversity, supported by education, awareness, and tourism culture programs. In this context, sustainability plays a vital role in the economic, social, and environmental development of communities, since the conservation of resources and their transmission to future generations is key to maintaining and strengthening the tourist appeal of destinations.

### Methodology

This section describes the methodological design. The research approach is qualitative, a process that collects, analyzes, and links data on the perceptions and opinions of key informants based on the research problem and context. Its scope is descriptive, serving as an initial and preparatory process for further research. This is because the phenomenon under study forms a complex and broad system, allowing for its delimitation, organization, characterization, and classification—that is, creating the most precise and accurate description of the phenomenon possible.

To support the research and methodology, a documentary investigation was conducted, consulting various sources, references, and scientific documents. Information and data were primarily obtained from documentary sources such as books, scientific articles, journals, magazines, newspapers, videos, and websites with search profiles related to the topic. This information was obtained through various physical and electronic means focused on the research area and objectives of this work.

Likewise, it is a field study because it is carried out using information or data obtained primarily from the direct observation of a phenomenon or the main actors in a social or natural event. This involves empirical work during fieldwork, reinforced with methodological tools such as interviews and observation. The results obtained yielded relevant and precise information about the current situation of the population and the natural and cultural resources.

In order to concretely deduce the information obtained about the natural, cultural, and environmental resources, the deductive method was used, as it proceeds from the general to the specific. Subsequently, it was necessary to describe each of the characteristics, such as:

the current state of the attractions and their surroundings, access routes, and general data on the natural, cultural, and environmental resources of Navachiste Bay in the community of El Cerro Cabezón, Juan José Ríos, Sinaloa.

On the other hand, to gain a detailed understanding of the endemic natural and cultural resources in the community, field research was conducted. This allowed for an in-depth connection with the object of study and also provided insight into the characteristics of the environment where each of the aforementioned tourist resources is located. The qualitative methodological approach employed focuses on the collection of non-quantitative data in order to explore social issues and describe the reality of the inhabitants of Navachiste Bay, a community in Cerro Cabezón, Juan José Ríos, Sinaloa. It also aimed to understand the community's perceptions of tourism and the current natural, cultural, and environmental situation of the aforementioned geographic area.

The techniques used for this research included semi-structured interviews with fishermen from the community, who remained anonymous for the purposes of this study. The criteria used for the interviews included understanding the fishermen's experiences and perceptions of their current situation, their customs and traditions, and environmental and tourism development aspects within the community. To this end, an interview guide was developed, along with a 12-item questionnaire. Interviews were conducted between August and December 2024, visiting fishermen in the community. The primary purpose of the interviews was to identify the area's natural and cultural resources that, through sustainable planning, could generate positive tourism development.

Additionally, field observation was carried out in different areas of the community and the bay to identify the current and potential conditions of existing resources. These visits included walks through the community's main streets and boat trips on Navachiste Bay, allowing for direct inspection of the territory through systematic observation. Furthermore, an exploratory inventory of the community's tourism resources was compiled. Some of these resources remain virtually untouched, while others have already been visited by tourists.

### Results

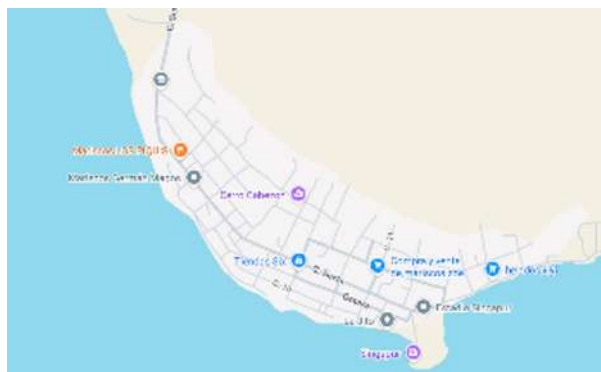
The community of El Cerro Cabezón, located in Navachiste Bay, is situated in the northern part of the

state of Sinaloa, within a mountain range and bay that form part of the Gulf of California Protected Natural Area. It is located approximately 40 km southeast of the city of Los Mochis, Sinaloa, as shown in Figure 1.

To access Navachiste Bay from the city of Los Mochis, take the Mexico 15 International Highway on the Los Mochis–Juan José Ríos section, a four-lane road. After passing through the community of Juan José Ríos, approximately 6 km further on, you will find the community of Babujaqui. Turn right at the intersection and continue to the community of Bachoco. Then, turn left onto Calle 300, and a few meters ahead, you will find the first intersection, with an airstrip on your right as a landmark. At this point, turn right again to continue along Sixth Street, which leads directly to the community of El Cerro Cabezón.

**Figure 1**

*Macro-location of Navachiste Bay in the community of El Cerro Cabezón*



*Source: Google Maps (2025a)*

**Microlocation**

According to the Population and Housing Census of the National Institute of Statistics and Geography (INEGI, 2020), the total population of the fishing community of El Cerro Cabezón is 2,734 inhabitants, of which 1,907 are adults, that is, 18 years of age or older. This population group was used as a reference for obtaining the data of interest in this research.

The community has 37 speakers of the Mayo indigenous language, who maintain the traditional customs and practices of the Yoreme-Mayo ethnic group. Figure 2 shows the microlocation map of the study area.

**Figure 2**

*Microlocation of Navachiste Bay in the community of El Cerro Cabezón*



*Source: Google Maps (2025b).*

Navachiste Bay, in the community of El Cerro Cabezón, is registered as part of the Islands of the Gulf of California Biosphere Reserve, recognized by UNESCO since 1995, as well as within the Reserve and Refuge Zone for Migratory Birds and Wildlife of the Islands of the Gulf of California. Furthermore, as part of this island group, the bay was declared a World Heritage Site by UNESCO in 2005.

According to Díaz (2008), floristic studies conducted in Navachiste Bay have recorded a total of 258 plant species, distributed among 181 genera and 61 families. Among the most representative families are Fabaceae, Euphorbiaceae, Poaceae, Cactaceae, and Asteraceae. The richest plant communities correspond to the thorn forest, followed by xerophytic scrubland, halophytic vegetation, dune vegetation, grasslands, and aquatic species.

The area also contains fruit trees, mangroves, shrubs, scrubland, and grasslands. However, some wild plant species have been affected by livestock trampling, resulting in the partial loss of the natural seed bank.

Regarding fauna, the bay is home to various commercially valuable marine species, such as shrimp, crab, Spanish mackerel, clams, snapper, oysters, and tilapia, among others. Protected species such as dolphins, porpoises, sea lions, turtles, boobies, and blue-footed gulls are also present, with a total of 12 species of birds, reptiles, and marine mammals under some form of special protection. In addition, at least 21 marine species are present, some of them endangered, such as certain turtle species and the bottlenose dolphin.

**Experiences and perceptions of the fishermen of the El Cerro Cabezón community in Navachistes Bay.**

During the field research, it was observed that the population of the El Cerro Cabezón community in Navachistes Bay is characterized by its primary economic activity being fishing, which is the most important fishing area in the municipality of Juan José Ríos, Sinaloa. The interviews revealed that the fishermen identify as belonging to the Mayo Yoreme indigenous community, and some of them speak the language. Furthermore, it was identified that the community members are predominantly elderly. They began this economic activity as children, accompanied by their fathers or other relatives, and it became their family's livelihood.

In their experience, fishing has changed significantly over the years due to climate change, increased restrictions from fishing bans, and greater competition. Previously, it was easier to go fishing and obtain a catch; currently, income is not as high as before, prices are high, and money is insufficient. Among the opportunities available to them is the proximity to Navachiste Bay, which allows them to work without having to spend a lot of money on transportation. The tranquility offered by nature allows them to spend time with their family and friends.

Their perception of nature tourism is that it brings numerous benefits and can generate positive impacts

on the community. They also point out that its natural and cultural richness can be of interest to other people and that there are many places that could be attractive to visit. Furthermore, it was observed that some of the fishermen offer boat tours of the bay to visitors who occasionally arrive at the destination and request their service.

Among the difficulties they mentioned, they noted: “There are very bad seasons and the services aren't always good. Sometimes the roads get bad, there's a lack of drainage in parts of the countryside, and access to support is complicated. But even so, one stays because this is the place one knows and where one feels at home.” Similarly, they are concerned about environmental protection and recognize that there is a lack of awareness and tourism culture necessary to serve tourists, as well as a lack of sustainable work plans.

**Current and Potential Nature Tourism Activities in the Community of El Cerro Cabezón, Navachistes Bay.**

Nature tourism activities take place outdoors and involve direct contact with nature and the customs and traditions of the communities. It is important to note that these activities are geared towards the conservation, care, and preservation of natural resources. Table 1 below shows the main natural sites and attractions in Navachistes Bay, as well as a list of current activities and a proposal for potential activities to be developed in the future with sustainable planning.

**Table 1**  
*Tourism Activities in Natural and Cultural Areas*

Tourist Activities			
Attractive	Description and Features	Actual Activities	Potential Activities
<b>The Apparition</b>	One of the islands in the bay where the Tutsi ecotourism center is located is one of the few islands accessible by car from Cerro Cabezón in approximately 50 minutes, making the boat trip a more convenient option. Here you'll find a small cave and a trail leading to the summit for panoramic views of the entire bay.	Trail Site tours	- Interpretive trails. - Mountaineering. - Semi-climbing. - Caving. - Boat trips. - Kayaking. - Snorkeling.
<b>The Toto's Leg</b>	This island, located in the bay, was named by locals for its distinctive shape, resembling a toto's (a type of fish) leg.	Boat trips	-Site tours. -Interpretive trails. -Swimming. -Kayaking. -Mountaineering. -Photography. -Snorkeling.
<b>The Little Beach</b>	It consists of a small sand dune that rises from the depths of the sea and connects two islands in the bay. Its main attraction is that it serves as a haven for hundreds of endemic and migratory birds. However, the small beach disappears at certain times of day due to the tide, leaving only a very shallow area.	Birdwatching Hiking	- Birdwatching, including endemic and migratory species. - Photography.

<b>El Tutsi Ecotourism Center</b>	<b>This ecotourism center is located on the island called El Aparecido within Navachiste Bay. It consists of 4 cabins, a palapa, a restaurant, a camping area, and recreational activities. Currently, it only offers services during peak seasons or with prior reservation.</b>	<b>Recreational activities. Area tours. Boat trips.</b>	<b>-Recreational activities -Area tours. -Swimming at the beach. -Kayaking. -Mountain biking. -Mountaineering -Environmental education workshops -Camping -Cooking workshops.</b>
<b>Poets' Island Los Relices</b>	This is the name of one of the beaches located in the bay. It features some rock sculptures created by artists who have visited the area, and every year during Holy Week, the Navachiste International Arts Festival takes place. It includes various artists such as musicians, actors, painters, sculptors, artisans, and especially poets, hence its name.	Annual international arts camp for musicians, poets, sculptors, craftspeople, painters and artists	- Art camp more than once a year. - Recreational camps. - Themed camps. - Interpretive trails. - Kayaking. - Snorkeling. - Observation of endemic flora and fauna. - Environmental education workshops.
<b>Navachiste Hill</b>	An island located in the middle of the bay, off the coast of the community of El Cerro Cabezón.	It is only observed by those who take walks around the bay.	- Flora and fauna observation. - Interpretive trail. - Mountaineering.
<b>Virgin's Hill</b>	It is a small rocky elevation within the bay where, in a small cave, there is a stone that, according to visitors and residents, is the image of the Virgin Mary. For this reason, it is known as such.	Observation of the attraction	Because it is located in a rocky area, it is difficult to access by boat, so attendees will have to approach on foot depending on the tide level.
<b>San Ignacio Island</b>	It is the only beach in the bay where there are vacation homes and apartments. That is, their owners come to spend time there seasonally. They are not inhabited year-round. Likewise, these are among the few beaches accessible by car, although it takes longer than by boat.	Currently, activities are only offered on days when the houses are occupied.	-Recreational activities -Area tours. -Swimming at the beach. -Kayaking. -Mountain biking. -Mountaineering -Environmental education workshops
<b>The Little Arch</b>	It's a stone arch located on one of the bay's beaches. It's called this because it's said to be an exact replica of the arch in Los Cabos, Baja California. It's approximately 5 meters tall.	Site tours. Photography at the arch.	- Interpretive trail. - Swimming at the beach. - Partial climb of the arch. - Photo session. - Camping. - Mountaineering.
<b>Little Ball Hill</b>	It's an island within the bay, approximately 50 meters high, whose main feature is a small ball, hence its name.	Flora and fauna observation. Boat trip.	- Boat trip. - Birdwatching. - Hiking. - Photography.
<b>White Rock or Duck Island</b>	It's a rocky island, approximately 20 meters high, located in the bay and serving as a stopover for various species of seabirds. Depending on the season and migration period, it's called "White Stone" because it acquires this color from bird droppings.	Birdwatching.	- Flora and fauna observation. - Birdwatching. - Photography. - Swimming (without climbing on the rocks). - Snorkeling.
<b>Cabezon Hill</b>	The hill from which the community takes its name can be seen from Highway 15. The summit forms a large ball, which is said to resemble a head. It has endemic flora and fauna.	Currently, no activities are offered. Only locals occasionally take the boat up.	- Interpretive trail. - Mountaineering. - Semi-climbing. - Bay viewpoint. - 360° view of the bay and the community.

As can be seen, Navachiste Bay boasts a wide variety of tourist resources. According to Beltrán and Bravo (2008), and Ceballos-Lascuráin (1998), the classification of tourist activities coincides with the fact that those with the greatest potential as tourism products are centered on ecotourism, adventure tourism, mountaineering, and guided tours—all of which are part of nature tourism. Based on the opinions of those interviewed, these activities must be carried out with respect and care for the environment.

Furthermore, it is important to highlight that among the observations presented by key informants, they indicated that to promote tourism, it is important to provide training, develop a work plan, and, above all, reduce negative environmental impacts. As Foladori and Tommasino (2000) point out, the availability of tourist resources must be guaranteed and they must be used sustainably. To achieve this, the participation of community members and stakeholders involved in tourism must be respectful and committed to the care and use of resources to ensure the preservation of biocultural heritage.

Likewise, they must promote the fundamental principles of sustainability, with active participation that guarantees the care of natural and cultural resources, social security, respect for community customs and traditions, and foster training through educational programs to create tourism awareness among service providers, visitors, and the general population, with the aim of suggesting actions focused on the preservation and protection of the natural environment.

### Conclusion

This research stems from the problem of the lack of organized tourism activities that comprehensively and sustainably leverage the tourism potential of Navachiste Bay in the community of El Cerro Cabezón. Therefore, the main objective of the study was to identify current tourism activities, as well as those with development potential, through the application of strategies focused on environmental, social, and economic sustainability.

To achieve this objective, a diagnostic study was conducted to identify the main natural and cultural sites and attractions in Navachiste Bay where tourism activities are currently taking place. Based on an analysis of the physical, environmental, and sociocultural characteristics of each area, potential tourism activities were proposed that, with proper and organized planning, could trigger a process of sustainable tourism

development in the community.

Through the construction of a survey administered to local residents, their perceptions of nature tourism development and their knowledge of the area's natural and cultural attractions were assessed. The survey revealed that the population supports the development of tourism, with interviewees consistently mentioning that it would provide year-round economic activity, not just during the fishing season, which, at the time of this research, remains the primary source of income. Furthermore, they believe that tourism will generate employment and improve the community's image while sustainably managing its tourism resources.

Navachiste Bay, Juan José Ríos, Sinaloa, is located in an area surrounded by natural and cultural attractions, endemic flora and fauna, and unique seascapes, making it a viable option for nature tourism development. Throughout the research and for its substantiation, a large number of bibliographic sources were consulted, including books, scientific journals, theses, documentaries, websites, and other relevant documents. Despite the availability of a good body of literature on topics related to the objectives of this work, some minor obstacles arose due to the large number of sources consulted to revisit certain topics and restructure some textual descriptions. A proposal for improvement in Sustainability is presented, focusing on three key aspects:

### I. Consolidation of the Tourism Development Model:

Navachiste Bay is viable for the development of nature tourism due to its wealth of natural and cultural attractions, flora, endemic fauna, and unique seascapes. This development should pursue a model that:

#### 1. Guarantees Economic Diversification:

Leveraging tourism to generate economic activity and employment year-round, reducing the current dependence on fishing as the primary source of income.

#### 2 Improves the Social Environment:

Contributing to improving the community's image and sustainably maintaining tourism resources.

### II. Preventive Research and Carrying Capacity:

Before implementing or expanding any potential tourism activity (such as ecotourism, adventure tourism,

mountaineering, and guided tours), it is recommended that future work include conducting research to study the carrying capacity and environmental impact of the proposed activities. It is essential to guarantee the availability of tourism resources and use them sustainably, ensuring their preservation and avoiding the negative impacts that have historically overwhelmed traditional or mass tourism.

### III. Community Strengthening and Sustainable Planning:

To ensure that new activities are carried out with respect and care for the environment, it is essential to consider the observations of key informants and apply the fundamental principles of sustainability:

**1. Training and Work Plan:** According to local residents, promoting tourism requires training and the development of a work plan focused on reducing negative environmental impacts.

**2. Active Participation and Cultural Respect:** It is vital to promote the active participation of residents and stakeholders, within a framework of respect for the community's customs and traditions. This ensures the preservation of biocultural heritage.

**3. Tourism Education and Awareness:** Fostering tourism awareness through education and outreach programs aimed at service providers, visitors, and the general population.

**4. Social Security:** Ensuring that tourism development contributes to improving the quality of life for residents.

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