

The Role of Sustainability in the Implementation of Tourism Projects as a Conservation Strategy of the Sierra Patlachique ANP, Case Cuevas de la amistad

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Abstract: *Sustainability today has taken on great importance in many aspects of our daily lives, due to the need to conserve and avoid the depletion of our resources. The term 'sustainability' first appeared in the Brundtland Report (1987) in response to the need to moderate our consumption of resources, which was getting out of hand. It refers to the capacity of the environment to provide us with resources so that we can consume them, while at the same time avoiding exhausting them to meet our daily needs and, above all, the needs of future generations. In this article, we will address how the natural resources of the ecotourism park 'Cuevas de la Amistad,' located in the community of San Miguel Xometla, Acolman, State of Mexico, have been utilized. As this ecotourism park is the main tourist resource of this community and is part of the Protected Natural Area of the Sierra Patlachique State Park, we seek to know if sustainability has been applied to it, how the components of this important resource are maintained, and how it has impacted the environment and rural areas. We will analyze whether there are sustainable development structures at the site*

Keywords: Sustainability; Ecotourism Park; ANP; Tourism

1. Introduction

The purpose of this article is to analyze the impacts that have arisen in the ecotourism park "Cuevas de la Amistad" located in the municipality of Acolman, State of Mexico, 45 minutes from Mexico City, in the environmental and rural aspect, in the same way to know if measures are used or have been used for the sustainability of the place, this park makes use of its natural resources as tourist attractions due to its location, in addition to belonging to a Natural Protected Area (ANP) which are defined by the General Law of Ecological Balance and Environmental Protection (LGEEPA) as areas of the national territory and those over which the Nation exercises sovereignty and jurisdiction. in which the original environments have not been significantly altered by human activity, or in which their ecosystems and integral functions require preservation and restoration (SEMARNAT, 2023), it is important to match sustainability with the tourist development that this place has had, today they are terms applied in a large part of tourist destinations, sustainable development allows the resources of a tourist destination, large or small, to continue to conserve them, make them prevail and, above all, allow future generations to enjoy them; In the case of the Ecotourism Park "Cuevas de la Amistad" it seeks to identify, analyze and propose elements for the sustainable development of the place and in this way preserve the elements that make up its attraction, allowing and improving tourism development.

This place was selected for analysis considering that it is a tourist destination located within an ANP, it is necessary to identify which strategies are the most appropriate for its management and conservation, as well as to know if they have

been implemented, to know which ones have been implemented and if they have worked properly.

2. Natural Protected Areas

After knowing the need for environmental care, new strategies were created that would make an important change possible, in the case of Mexico, there are the ANPs whose objective is merely preservation, they have had an important role in the tourism industry, the conservation strategies equivalent to the ANPs of today, formally began in Mexico in 1876 with the protection of the Desert of the Lions, whose original purpose was to ensure the conservation of 14 springs that supply water to Mexico City. It was not until the publication of the Political Constitution of 1917 that the concept of property was integrated as a social function, and regulations and limitations were established for the use of natural resources susceptible to appropriation. On this basis, the Desierto de los Leones was decreed as the first National Park. From the seventies onwards, a new stage began where conservation focused more importantly, on the one hand, on conserving biodiversity, and as a complement to environmental or ecological services; and on the other hand, to the express incorporation of human communities into the model through biosphere reserves. It is evident that the future of the ANPs required a commitment to achieve decent levels of well - being for residents, on whom, at the same time, their ability to continue offering their environmental services, ecotourism, etc., depends. During the following two decades, based on the great efforts of society and with the leadership of important academic groups from the main institutions of the country in alliance with civil society organizations, the creation of ANPs was reactivated (CONANP, 2011).

Among the objectives that became relevant during the development of the NPAs we can find that the well-being of the residents of these areas and ecotourism were taken into account, the creation of the ANPs marked a real commitment and an alliance between different sectors for the conservation and protection of our natural environment and the coexistence of human beings with it. It is important to highlight other moments aimed at strengthening this commitment such as the Earth Summit in 1992, which represented, in the international arena, the opportunity for environmental change that Mexico is experiencing today in the political sphere. It is there that our country, within the framework of Agenda 21, assumed important commitments to make effective the will that the decrees of Natural Protected Areas had represented on paper for 75 years. In the same period, civil society had grown in its knowledge, awareness and sophistication of national conservation organizations and those international organizations with a presence in Mexico, sometimes allied with environmental and environmental groups (idem).

The development of the ANPs entailed different alliances and unions to be able to consolidate themselves as an environmental protection structure in Mexico, each step focused on increasing the support of this environmental protection system through public policies already focused on or related to the issue, it is important to highlight the constant participation of different organizations, in 1992 the National Commission for the Knowledge and Use of Biodiversity (CONABIO) was created and shortly after the Mexican Fund for the Conservation of Nature (FMCN). Together they continue to project and strengthen the country's image in this area at the national and international levels, and have an impact on public policies. In the 1990s, the PNAs rapidly gained the ground they had lost for decades. Institutionally, they went from an area directorate, with a small budget and a centralized, distant and basically normative role, to becoming a coordinating unit within the National Institute of Ecology (INE) in 1996 and this in turn in the structure of a Secretariat, with direct operational capacity, although minimal, in more than 80% of the area under protection. Finally, in 2000, the National Commission of Natural Protected Areas (CONANP) was created as a decentralized body of what is now SEMARNAT (idem).

After the consolidation of CONANP as an organization dedicated to preserving ecosystems and areas of greatest risk or in need of greater environmental protection, many aspects of our relationship with nature became more present by highlighting the importance of environmental care and its relationship with human development.

The pillars on which CONANP's vision as a conservation agency is based are:

- 1) Preserving and preventing with protection
- 2) Use and maintain through handling
- 3) Recover and restore through restoration
- 4) Understanding and deciding with knowledge
- 5) Valuing and participating through culture
- 6) Regulate and promote through management

The NPAs are very specific areas, which is why they entail a different administration, security and management than other areas in which we find a lower concentration of nature and/or

wildlife, the NPAs help the distribution and conservation of recently introduced species, in the same way they allow these species to adapt adequately to climate changes or changes in their habitats. The National Commission of Natural Protected Areas (CONANP) currently manages 203 federal Natural Protected Areas representing 91, 608, 327.23 hectares and supports 395 Areas Voluntarily Designated for Conservation, with an area of 701, 760 hectares. (SEMARNAT, Protected Natural Areas, 2023).



Figure 1: Natural Protected Areas of Mexico

Source: SEMARNAT, 2023

These PNAs are found throughout our national territory and are divided into seven categories, the first category is Biosphere Reserves, these areas represent one or more ecosystems that have not been significantly altered by man or that want to be preserved and restored, where representative species of the country live. endemic, threatened or endangered. In the core zones, only activities of preservation of ecosystems, scientific research, environmental education can be carried out, and exploitation that alters ecosystems is prohibited (idem). The second category is National Parks in these areas we find mainly beauty in their landscapes, scientific, educational, recreational value, their historical value, for the flora and fauna, for their suitability for the development of tourism, or for other reasons of general interest. It allows the performance of activities related to the protection of its natural resources, the increase of its flora and fauna, preservation of ecosystems, traditional uses, research, recreation, tourism and ecological education (idem). The third category is Flora and Fauna Protection Areas, which are places that contain the habitat on whose balance and preservation the existence, transformation and development of species of wild flora and fauna depend. Activities of preservation, repopulation, propagation, acclimatization, refuge, research and sustainable use of the species can be carried out, as well as education and dissemination on the subject. Communities can take advantage of natural resources in accordance with official Mexican standards and land uses that are established in the declaration of the Area (idem). The fourth category is Natural Resources Protection Areas covers reserves, forest areas, protection zones of rivers, lakes, lagoons, springs and bodies considered national waters, particularly those that supply water to the population. Activities related to the preservation, protection and sustainable use of natural resources, research, education and tourism (idem) can be carried out. The fifth category is Natural Monuments are areas with one or more natural elements, consisting of natural places or objects, which, due

to their unique character, aesthetic interest, historical or scientific value, are incorporated into a regime of absolute protection. They do not have the variety of ecosystems or the necessary area to be included in other categories. Only activities related to their preservation, scientific research, recreation and education (idem) can be carried out. Sanctuaries are those areas that are established in areas characterized by a considerable richness of flora or fauna, or by the presence of species, subspecies or habitat of restricted distribution. Only research, recreation and environmental education activities compatible with the nature and characteristics of the area (idem) are allowed. The seventh category is Areas Voluntarily Designated for Conservation are ANPs with initiatives by indigenous peoples, social organizations, legal entities, public or private, to allocate their lands to conservation actions; These people manage and sustainably manage their lands, while favoring the conservation of natural ecosystems and maintaining local biodiversity. They favor the connectivity of natural ecosystems, the flow of species and the maintenance of environmental services, since they are located in areas close to the ANPs. They allow communities to increase their adaptive capacity to face climate change. (idem).

3. The Beginning of Tourism as an Economic Strategy in Mexico

It is necessary to mention the way in which tourism was introduced in our country, this activity is the basis of different projects and organizations that today aim to reduce the wear and tear and impact that it has left in different places, as well as certain and planned areas to be able to carry out tourism and leisure activities in an adequate and responsible way.

In 1921, the first tourist company in Mexico was founded and its creation was directly linked to the vestiges of Chichén Itzá. A year later, the socialist government headed by Felipe Carrillo promoted tourism in the country, and, for the first time, included it as a priority interest of the Mexican State. Finally, the beginning of scientific archaeology in Chichén Itzá in 1923 was the starting point of the "invention of the Mayan world", that is, the process of international diffusion of the indigenous settlements of the region (Moreno and Enseñat, 2021). Soon this tourist destination became a target for investors and a new vision for the development of our country, these investments allowed us to use our natural resources and cultural resources for the first time, the vestiges of a mythical civilization attracted the interest of national and foreign tourists and, with the construction of roads and good press dissemination, Chichén Itzá became one of the first Mexican tourist destinations of international interest (idem).

In 1927, the then president of our country, Plutarco Elías Calles, chose Acapulco, located in the State of Guerrero, as a result of the search among the options as possible tourist destinations, an action that arose after the creation of the first official tourism organizations in the Mexican country a year earlier (Bergeret and Castillo, 2021), Acapulco had different points that would facilitate its development as a tourist destination, one of them and perhaps the most important was its proximity to Mexico City, they are approximately 4 to 5 hours away, since the route is 379 km, this point influenced the port to be chosen as the host place to create the first tourist

destination in the country (idem). Acapulco at that time was seen as a driver of the economy thanks to the tourism that continuously arrived on its beaches, for decades it had an important role in the tourism industry of our country, especially in the eighties it had its greatest boom and investment, it was at the end of this decade, under the state governorship of José Francisco Ruiz Massieu (1987 – 1993). the development of the infrastructure of a new tourist area begins, which was called Acapulco Diamante. As a result of this, the geographical delimitation of the already established tourist area was made, which they divided into three, which are called Acapulco Tradicional, Acapulco Dorado and the aforementioned Acapulco Diamante (idem). Acapulco marks a fundamental part of tourism in Mexico, it is the area where sun and beach tourism was born in Mexico by having the first services and infrastructures dedicated to lodging and tourism in general (Escudero, 1997). These are obstacles that Acapulco faces today, which is a destination of high tourist density and very populated, which stands out for a large occupation along the coast. (Bergeret & Castillo, 2021).

Another of the first and most important tourist destinations in our country was the Yucatan Peninsula, tourism emerged early in a peripheral region of the country, in Yucatan, as a result of the confluence of three processes: one economic, another political and the third of a scientific nature. (Moreno & Enseñat, 2021) in this way, tourism began to have prominence in Mexico, allowing us to see that it would be an extraordinary source of income and to know the capacity and natural attractions that are available to make tourism an entire industry, today one of those that keeps the economy of our country afloat, Tourism activity already had a premise in our country since during the years of the administration of the socialist governor Felipe Carrillo Puerto in Yucatán, from 1922 to 1924, which brought with them changes in the local sphere, which meant a profound revaluation of the indigenous past and, for the first time, tourism was mentioned as a social and economic activity of interest to the State. (idem), from this point we can consider that there was already a slight vision of the resources that could be used to develop tourism activity, however, the boom of this development occurred around the forties.

As for the beginnings of tourism for the political aspect, the federal law of tourism was applied, this was promulgated by President Miguel Alemán in 1947, this point marked a clear difference on the future of our country, since importance was given to tourist activity, taking into account the benefits that it would attract to our country. The visit of international tourists would leave a significant economic impact, however, until this point, there was no major concern about the environmental impact that such activity would have in the future.

The fact that Mexico has important tourist destinations and that these have and continue to be used to obtain important benefits in the economy and development of our country, has not prevented the significant deterioration and exploitation of these destinations, mainly those whose most important attraction is nature, when this deterioration occurred, it became a priority to raise awareness and above all to look for a way to reduce the environmental impact and to reduce the environmental impact of the environment. at the same time,

to look for new strategies that would allow generating change without sacrificing an activity as important as tourism.

Not only Mexico was affected by the environmental impact, it was necessary to generate a change in many countries, to avoid further deterioration of the environment and thus avoid reaching an irreversible point, for this action was taken by holding the United Nations Conference on the Human Environment, it was the first of its kind held in Stockholm, Sweden in 1972, was the first world conference to make the environment an important issue (United Nations), it addressed the Stockholm Declaration and Plan for the Human Environment and, in turn, the Report of the United Nations Conference on the Human Environment in 1972 in which the following is proclaimed:

"Man is both the work and the architect of the environment that surrounds him, which gives him material sustenance and provides him the opportunity to develop intellectually, morally, socially and spiritually. In the long and tortuous evolution of the human race on this planet, a stage has been reached where, thanks to the rapid acceleration of science and technology, man has acquired the power to transform, in innumerable ways and on an unprecedented scale, everything around him. The two aspects of the human environment, the natural and the artificial, are essential for the well - being of man and for the enjoyment of fundamental human rights, including the right to life itself. "

The Stockholm Declaration, which contained 26 principles, placed environmental issues at the forefront of international concerns and marked the beginning of a dialogue between industrialized and developing countries on the link between economic growth, air, water and ocean pollution and the well - being of people around the world (United Nations). This marked a before and after in terms of environmental protection, the development of countries, environmental laws and above all the relationship of man with his natural environment. In the case of Mexico and the environmental impact on tourist destinations such as Acapulco, all the points mentioned above take on great importance, since they are precisely sun and beach tourist destinations in which there is no control over the waste that is dumped into the sea, but at the same time generates an important economic spillover for the development and well - being of the country.

Following the Stockholm Declaration, an action plan was carried out that took into account three main main actions: (a) The Global Human Environment Assessment Programme (Global Monitoring); (b) Human environment management activities; (c) International measures ancillary to national and international assessment and management efforts. (United Nations), similarly, one of the main outcomes of the Stockholm conference was the creation of the United Nations Environment Programme (UNEP), whose purpose is to analyse the state of the global environment and assess global and regional environmental trends, provide policy advice, provide early information on environmental threats, and catalyse and promote international cooperation and action based on the more advanced scientific and technical knowledge; Promote the development of the international environmental legal regime with a view to sustainable development, including the development of coherent linkages

between international environmental conventions (SEMARNAT, 2015).

During the twentieth anniversary of the United Nations Conference on the Human Environment, the United Nations Conference on Environment and Human Development (UNCED), also known as the Earth Summit, was held in Rio de Janeiro, Brazil in 1992, in which Non - Governmental Organizations (NGOs) from 179 countries met, in a massive effort to reconcile the impact of human socio - economic activities on the environment and vice versa. (Johannesburg Summit, 2002)

The United Nations Tourism Organization has been working in the field of ecotourism since the early 1990s and has prepared a set of guidelines focusing on the close link between protected areas and tourism, in order to ensure that tourism contributes to the purposes of protected areas without negative effects on them. (UN Tourism, Ecotourism and Protected Areas). According to this, we know that Ecotourism is not a new term, even the year 2022 was declared the "International Year of Ecotourism", however, work has not been done on it, especially considering that in some places the necessary characteristics or measures are not taken into account, there are different aspects that must be taken into account to develop this activity in the natural environment.

In the case of Mexico, the Stockholm Convention was signed on 23 May 2001 in Sweden and ratified on 10 February 2003. It was the first country in Latin America to ratify this convention, which entered into force on May 17, 2004. (SEMARNAT, Stockholm Convention, 2015), in which the main objectives are to promote global action regarding persistent organic pollutants POPs that threaten the health and development of human beings and wildlife, for which it provides a series of control measures on their production, import, disposal, use and disposal, This in the field of tourism helps us to prevent in part the control and management of waste left by tourist activity, such as waste from the hotel and restaurant industry, in the same way by protecting wildlife, it helps us to preserve our natural attractions in areas where nature predominates and adventure tourism is carried out or those in which there is close contact with the environment. nature. Since the creation of this agreement, the rules of procedure and the necessary subsidiary bodies, such as the POPs Review Committee, have been established to ensure its operation. In addition to promoting that the Party countries integrate their National Implementation Plans (NIPs) to comply with the commitments established by this instrument. Mexico's PNI was integrated in October 2007, when approved by Mexico's multisectoral National Coordination Committee, it was sent to the secretariat of the agreement in February 2008. (SEMARNAT, Stockholm Convention, 2015).

This is one of the measures that indirectly protects our environment from tourist activity, since in our country tourist activity has taken different ways of being carried out, today we know different types of tourism in which the tourist has direct contact with the natural environment.

As mentioned by The British Ecotourism Market, UNWTO in 2002, in the tourism industry "Ecotourism" has gained strength in which the tourist intends to coexist with nature

without damaging the environment, the UN Tourism provides specifications that must be met to consider that the activity is Ecotourism

- 1) It revolves around nature and the main motivation of tourists is the observation and appreciation of the natural environment, as well as the traditional cultures prevalent in the natural areas.
- 2) It includes pedagogical aspects and interpretation of nature.
- 3) Usually, but not always, the organization is in charge of specialized tour operators and is oriented to small groups. At destinations, partner service providers are often small, locally - owned companies.
- 4) Minimizes negative impacts on the natural and sociocultural environment.
- 5) It contributes to the maintenance of the natural areas that constitute the ecotourism attraction, since:
 - It generates economic benefits for host communities, organizations and authorities that manage natural areas for conservation purposes;
 - Provides local communities with alternative employment and income opportunities;
 - It raises awareness among local populations and tourists of the importance of the conservation of natural and cultural assets.

4. Sustainability and Sustainable Development

The concept of sustainability emerged in 1987 in the Brundtland Report, after covering the need to name a way to avoid continuing to damage and deplete our resources, in this article we will take the definition of sustainable development as that which satisfies the needs of the present without compromising the ability of future generations to satisfy their own (Madroñero and Guzmán, 2018), for decades industries around the world began to use the resources of our environment excessively, the term was used to give a clearer name and concept to the policies that sought to curb the use of resources and in this way companies became aware and were forced to look for different ways to replenish or minimize the exhaustible resources they were using to satisfy their supply of materials premiums, the term sustainability encompasses all those activities that are necessary to precisely "sustain" and make prevail the resources that are used for a purpose, in this case we focus on tourism, tourism is also an industry whose activities can have a serious and negative impact on the environment if not carried out properly, Which leads us to a next term, which is sustainable development, which is established that it is aimed at responding to a great diversity of components that interact with each other (idem) and that do not always do so in the same way, they have different ways of acting, hence, the importance of adapting sustainable development for each tourist destination, since they all have different elements, components and needs.

Sustainable development has allowed the innovation of many tourist destinations that have changed the way of seeing tourism from the perspective of researchers, tourists and companies, sustainable development has a political, social, economic and ecological connotation that establishes the interaction of them in such a way that this interaction occurs in a balanced way (idem) which is the mere objective of the implementation of sustainability in tourism, seek a balance of

the factors that make up and create the tourist destination, in the same way, this balance provides the destination with a tourist resource, this is how sustainability works hand in hand with the tourist destination and in turn with the same tourist activity that provides different benefits to the community and its inhabitants.

Tourism activity has an impact on all the destinations in which it is practiced, the impact can be negative or positive, this depends on the factors that make up the tourism development plan for the place, sustainability plays a very important role in the impact that the tourist destination will have, since the actions taken so that the resources of this prevail, define everything, as does the participation of the actors who have a role in that place.

Tourism actors are the ones who have in their hands the power and possibilities to follow tourism and sustainable development plans, sustainability is possible thanks to the fact that the necessary and relevant actions are carried out in the appropriate way (SEMARNAT, 2017)

It is very important to recognize that sustainable tourism has a great influence on the sustainable development of a tourist destination, which is defined by the World Tourism Organization as "tourism that takes full account of the current and future economic, social and environmental impacts of meeting the needs of visitors, the industry, the environment and host communities" (UNWTO, 2016), it is very important that when carrying out this type of tourism there is a participation of the social groups that are involved in tourist activities, since it is precisely sought that the benefits are for them, hence the importance of their participation in the decisions made for the tourist destination, in this case, we are talking about the community and ejidatarios who have part in the tourist activity of the ecotourism park "Cuevas de la amistad", the economic, social and cultural aspect must flow in a positive and egalitarian way, when carrying out a tourism project that includes sustainability we must take into account two aspects that require this, we must focus on cultural sustainability, which focuses on the sustainability and preservation of the cultural diversity of the territory, and the political and social sustainability which focuses on the policies of the governance of the territory and the introduction of the appropriate methods for its development (SEMARNAT, 2017).

Sustainable tourism is a way of maintaining, preserving and continuing with the natural, social and cultural legacy of a destination, it allows us to maintain the balance between tourism activity, nature, the community and its culture. In many of the cases of destinations that implement sustainable tourism in them, it aims to avoid and/or minimize the environmental impact.

Tourism has a special relationship with the environment since it is deeply linked to natural resources. The combination of beautiful landscapes, abundance of animal and plant species, heritage sites, indigenous cultures and local cultures, provides the main reasons why tourists visit countries like Mexico. The conservation of these assets and resources is extremely important, therefore, the tourism sector has to ensure that its activities and infrastructures do not damage biocultural

assets; it should even promote, sustain and contribute to their care (SEMARNAT, 2017 p 17).

5. Sustainable Development Goals (SDGs)

As part of the movement to reduce the impact of human activity, the United Nations (UN) created in 2015, together with all Member States, the Agenda for Sustainable Development or Agenda 3030, 17 Sustainable Development Goals (SDGs) were approved whose objective is to improve the quality of life of people in different aspects.

The first objective is to put an end to poverty, putting into practice actions that help reduce the number of people living in a state of poverty, guaranteeing the same rights to economic resources that allow them a better standard of living; The second objective is to end hunger, ensuring healthy and nutritious food for all, especially for those with low resources and/or in vulnerable situations, ensuring the sustainability of food production systems and applying resilient agricultural practices that increase productivity and production, contribute to the maintenance of ecosystems, strengthen the capacity to adapt to climate change; the third objective is to guarantee a healthy life and promote well - being for all at all ages, in order to reduce the rate of avoidable mortality, diseases and offer better health services to the most vulnerable groups, accessibility to treatments and prevention of accidents; the fourth objective is to guarantee inclusive, equitable and quality education and promote lifelong learning opportunities for all, this objective seeks to ensure access to education for all children for their proper development and learning from preschool to university; The fifth objective is to achieve gender equality and empower women and girls, this objective consists of ending the violence and discrimination that exists against girls and women, as well as ending practices that put their integrity and development at risk, ensuring their protection and defense through appropriate laws; the sixth objective is to ensure the availability and sustainable management of water and sanitation for all, so that everyone has access to drinking water at a low cost for sanitation and hygiene; the seventh objective is to guarantee access to affordable, safe, sustainable and modern energy in order to improve energy efficiency and accessibility for better interactivity with new technologies for all; the eighth objective is to promote inclusive and sustainable economic growth, employment and decent work for all by ensuring decent conditions and wages of employment for men and women: the ninth objective is to build resilient infrastructure, promote sustainable industrialisation and foster innovation aimed at developing reliable, sustainable, resilient and quality infrastructure, including regional and cross - border infrastructure, to support economic development and human well - being, with particular emphasis on affordable and equitable access for all; the tenth objective is to reduce inequality within and between countries to ensure and promote equity, inclusion, accessibility, and rights in vulnerable groups in which the quality of life in different aspects is low; The eleventh objective is to make cities more inclusive, safe, resilient and sustainable by ensuring decent housing for all with basic services, security and sustainability; the twelfth objective is to guarantee sustainable consumption and production patterns by responsibly using the resources we have and achieving sustainable management of these

resources; the thirteenth objective is to adopt urgent measures to combat climate change and its effects, incorporating all the necessary measures and strategies to generate change and at the same time have a better adaptation to the possible changes that interfere with the quality of life; The fourteenth objective is to conserve and sustainably use the oceans, seas and marine resources by considerably reducing pollution and impact on our seas due to human activity, regulating human activities in the marine environment, promoting sustainable management; The fifteenth objective is to sustainably manage forests, fight desertification, halt and reverse land degradation, halt biodiversity loss by ending activities that have an excessive impact on these ecosystems, ensuring clean air and crops for future generations thanks to the oxygen and food generated by ecosystems on our planet; the sixteenth objective is to promote just, peaceful and inclusive societies by ensuring protection, equality and justice in both national and international societies and environments; Goal seventeen seeks to revitalize the global partnership for sustainable development by strengthening domestic resource mobilization, including through the provision of international support to developing countries, in order to enhance national capacities to raise tax and other revenues. (United Nations, n. d.)

It was proposed to achieve these objectives by 2030, taking action by all member states and annually analyzing what progress has been, these objectives are focused on seeking global well - being for our present and for future generations, Sustainable Development is an issue of great relevance, since it proposes a quality of life capable of being maintained, a perfect balance between human activity and our interaction with nature.

Pillars of Sustainable Development

Sustainable development implies how we must live today if we want a better future, taking care of present needs without compromising the opportunities of future generations to meet theirs (United Nations), sustainable development is understood as the constant improvement of human well - being over time (Arias, 2006), it has a political, social, economic and ecological that establishes their interaction in such a way that such interaction occurs in a balanced way (Madroñero & Guzmán, 2018).

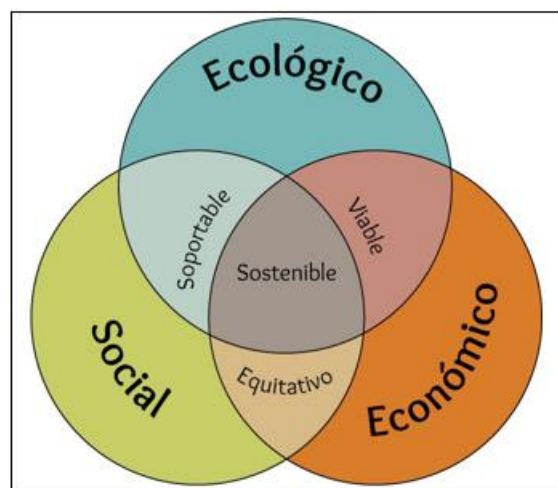


Figure 2: Sustainable Development Scheme

Source: CCH Academic Portal

The economic, social and environmental aspects of any action are interconnected. Considering only one of them at a time generates errors in judgment and "unsustainable" results (Strange & Bayley, 2012).

A central element of sustainable development is the need to consider "three pillars" together: society, the economy and the environment. The relationship that exists between these three pillars begins from the fact that ecosystems and natural areas provide us mostly with food, drinking water and oxygen thanks to vegetation, this in turn allows a development of the well-being of the population, since it is absolutely necessary to maintain a healthy and productive population that in turn also allows constant economic development (idem).

In this article we will address more about the Sustainable Development Goals that apply in the Case of the Cuevas de la Amistad Ecotourism Park, we will carry out an in-depth analysis of how tourism activity is carried out in this place, its impact and what can be improved to implement for a harmony between tourist activity and interaction with the natural environment.

The Sustainable Development Goals that we can apply to the Case of the Friendship Caves Park are to end poverty by analyzing the way in which this park brings economic benefits to the community in which it is located; health and well-being, analyzing how it benefits the quality of life of the inhabitants of the community; quality education, analyzing what educational levels the youngest in the community have access to; gender equality, observing how the Cuevas de la Amistad park is managed, how women participate and what are the opportunities to which they have access; clean water and sanitation, we will take into account how we can obtain access to drinking water from this point of the community and what is the quality of hygiene offered in it; decent work and economic growth, we will analyze what jobs are generated through the Cuevas de la Amistad park and what quality of employment, conditions and well-being is offered; sustainable cities and communities, we will analyze how this project has remained afloat and if it can be maintained without generating a negative environmental, social or economic impact; responsible production and consumption, we will analyze the way in which the natural resources that are available in the Cuevas de la Amistad Park are managed.

6. Tourism in Protected Natural Areas

The ANPs have been taken advantage of by tourism, as they have great natural beauty, they turn out to be a great tourist attraction, people seek to visit them and at the same time it is expected that there are services that make this visit comfortable, that is, that tourist activities are carried out, every protected zone or area is a potential tourist destination (Serrano, n. f), when carrying out tourist activities and implementing services that meet the needs of visitors, the minimum wear and tear of the resources of the ANP must be verified, when carrying out tourism in these sites, the planning for the use of these must be meticulous, all the necessary factors must be included to carry out sustainable tourism, The main needs of such planning are adequate training and awareness of the inhabitants about the benefits generated by tourism activity; with the appropriate means of promotion and

marketing; with the corresponding means of approach; and with an excellent public-private relationship for decision-making where both parties have an opinion and have the possibility of choice (idem), strengthening the relationship of the community with the tourist activity is one of the main aspects that ensure the correct tourist development of the place, the more the inhabitants have more participation and can give their opinions, the more the possibility of moving forward hand in hand with them opens up and in turn, obtain greater benefits, both economic and growth and development for the community in general.

While it is true that the ANPs are the key element in some communities to attract tourism, it is also true that change in these communities is inevitable, which is why the need arises to create a sustainable tourism development plan, this, by covering different factors that must be preserved, provides us with a better vision of the benefits that will be obtained from adequate tourism management (idem). At this point, it should be noted that the process of sustainable tourism development begins with the acceptance and participation of the community, since in seeking their well-being and quality of life, they will be the first to participate and collaborate actively offering their services to tourism (idem), for these services to be of quality, training and knowledge of how the change will be essential. what will be the benefits and above all how the place should be promoted, since this last point allows the tourist to be aware of the place he visits, its importance and the importance of its care, when combining tourism with the ANPs we must take into account that the priority is to provide quality tourism that offers pleasant and comfortable experiences while taking care of the ecosystems and the environment, This leads us to delve into the importance of the interpretation of the heritage that we are taking advantage of as a tourist attraction, because it is of great importance that from the promotion of the destination to the mere service given to the tourist it implicitly carries the fact of the importance of the care and preservation of the destination, the interpretation of the tourist server and the perception of the tourist are points that we cannot overlook for the success in the management and conservation of tourism in the ANPs.

Tourism "can bring great advantages in the economic sphere, while it can be socio-culturally corrosive, contribute to environmental degradation and the loss of local identity" (idem), the ANPs are spaces that can be used as tourist destinations, today, "according to the National Commission of Natural Protected Areas, tourism within these areas should be seen as a great opportunity for the development of Mexico, as long as it gives significant value to the natural elements of the area, generates economic spillover to the local population and does not modify or put at risk the natural environment of the area" (SEMARNAT, 2018) The activities carried out in ANP are mainly "hiking, rappelling, mountaineering, diving, environmental education, rafting, bird watching, hiking and cycling. As they are activities identified with nature tourism (ecotourism, rural tourism and adventure tourism), the ANPs offer the best places to carry them out and find unique and unmissable experiences" (SEMARNAT, 2019).

In the specific case of the ecotourism park "Cuevas de la Amistad" it is important to emphasize that it is located in part

of what is the Sierra Patlachique State Park, a State Park is defined by the State Commission of Natural Parks and Fauna (CEPANAF) and according to the Code for Biodiversity of the State of Mexico, as areas "that are important for their scenic beauty, their scientific, educational, recreational value, their historical value and for the existence of flora and fauna, for their aptitude for the development of sustainable tourism or for other similar reasons of general interest". The Sierra Patlachique State Park was named on May 26, 1977 under the objective of the Environmental Management program to raise the quality of life of the inhabitants of the Metropolitan Area of Mexico City (Government Gazette, 2000), this program also met the objectives of the Ecological Conservation Project of the Metropolitan Area of Mexico City. This project seeks to rescue and preserve the vegetation cover in the urban area of the Federal District and Metropolitan Municipalities of the State of Mexico and contemplates several actions to achieve an improvement in air quality (idem) It is worth noting the proximity of this State Park to Mexico City, since it is 45 minutes away, for this reason it belongs to the improvement and management projects of the Metropolitan Area.

The Sierra Patlachique State Park covers the municipalities of Acolman, Chiautla, Tepetlaoxtoc, San Martín de las Pirámides and Teotihuacán, belonging to the Northeast of the Valley of Mexico.



Figure 3: Location of Sierra Patlachique Park

Source: Government Gazette (2000)

The ecotourism park "Cuevas de la Amistad" is located a few minutes from the center of the community of San Miguel Xometla, Acolman, State of Mexico, on the hill shared by this community and the community of San Lucas Tepango, which is a few minutes from the ecotourism park, "The Friendship Caves are ancient cavities that are located in the Sierra Patlachique State Park, a place of recreation and coexistence that offers a beautiful view of the Teotihuacán Archaeological Monuments Zone. The park has soccer fields, a bike track, palapas, a barbecue area, a swimming pool and warm water splash pads, you can practice various sports and activities" (EDOMEX Experience, n. d.) is open to the public seven days a week from 9AM to 6PM.

Ecotourism is precisely the type of tourism that has been planned and approved in the "Sierra Patlachique" NPA with the implementation of the "Cuevas de la Amistad" ecotourism park, "ecotourism is considered to be a modality of sustainable development" (Galicía, 2006) and in turn this type of development allows the obtaining of various benefits for the community receiving tourism. as Galicía (2006) mentions:

Ecotourism is distinguished from simple nature tourism by its emphasis on nature conservation, education, traveler responsibility, and community involvement. Specifically, ecotourism is characterized by the following features:

- Visitor behavior that is conscious and low - impact
- Sensitivity and appreciation to local cultures and biological diversity.

The ecotourism park "Cuevas de la Amistad" already has several resources that we can consider tourist attractions, such as merely the rock formations in which visitors can enter and walk inside them, the implementation of zip lines, pools, gotcha, soccer fields and a large space with palapas to live with family and friends, the implementation of these tourist attractions in "this ANP has not been adequately used or encouraged tourism, despite the fact that it is one of the closest green spaces to the Teotihuacán Archaeological Zone" (Espinoza, 2021) it is also one of the places with green areas closest to the metropolitan area of Mexico City, this proximity makes the ecotourism park an attractive place to visit for people from both areas.

According to (Galindo, 2006) the population of San Miguel Xometla, in which the ecotourism park "Cuevas de la Amistad" is located, does not take tourism as one of its main economic activities, since these are mining and commerce in the community, which makes it clear to us that the community does not focus its economic well - being on tourism. in addition to the fact that the park is not close to the center of the community, where the largest number of inhabitants are concentrated, in addition to the fact that the businesses that are established in the community are not adapted to offer tourist quality, however, the habilitation and implementation of the ecotourism park had a planning.

The public utility that justifies the creation of the park is the afforestation, creation and improvement of the environment, as well as the prevention of human settlements in the area. Among the activities that can be carried out in the park are the establishment of wooded and recreational areas, as well as tourism in general, the latter is essential for the community development of the member municipalities, since it has natural attractions, flora, fauna to be able to undertake ecotourism projects in the area. (Galindo, 2006)

In the case of this ecotourism park, "those in charge of community management are the communities involved, which are represented by the ejidatarios, " (Galicía, 2006) in the same way they are part of the communities, and their participation in the project allows the needs of the community to be considered and attended, we can consider the ejidatarios as the first contact between the project and the community.

This Natural Protected Area was decreed in 1977, but it was not until 2015 that the park's ecotourism activities were monitored, in order to prevent the entry of businessmen for mining activities and for the community to interact with the environment (Espinoza, 2021). The activities carried out within the Cuevas de la Amistad Ecotourism Park are moderated and supervised by the ejidatarios of the community of San Miguel Xometla, who are inhabitants of the community and in turn maintain direct contact with the other inhabitants, it is necessary to take into account the

participation of the community in order to generate an adequate development of a tourism project such as this park whose main activities belong to the ecotourism.

7. Tourism and Sustainability in the Implementation of Tourism Projects in the Sierra Patlachique State Park, Friendship Caves Case

Article 15 of the General Law on Ecological Balance and Environmental Protection (LEEPEA) establishes that the use of renewable natural resources must be carried out in such a way as to ensure the maintenance of their diversity and renewability; likewise, this law establishes that within the ANPs ecotourism is a permitted activity, which is why the fact that the implementation of the Cuevas de la Amistad Ecotourism Park was precisely with the objective of carrying out within it, only activities related to ecotourism, that is, that did not cause damage to the natural resources that the ANP has, and at the same time, the sustainable development of the community was allowed, mainly focused on creating an economic benefit to the community through tourism development, from this objective the creation of this ecotourism park started.

To know in depth the type of administration and methods of conservation and sustainability that is practiced in the Ecotourism Park "Cuevas de la Amistad" we consider it necessary to interview the ejidatarios involved in the development of this project, from the community of San Miguel Xometla, in this way we will know in depth and first - hand the management of the place. Taking into account that they are the ones who have developed the project since its inception, in addition to also interviewing different members of the community whose businesses are involved in the tourism sector to know different perspectives of the benefits and/or effects that this project entails, we will carry out a qualitative analysis of the information obtained, it is important to know what are the priorities of care and conservation of those in charge of the development of the park ecotourism in order to learn about the way in which tourism and sustainability are mixed in a place where nature, flora, fauna and their conservation predominate and are promoted. It is very important to mark the main points of our research, for them we will take the following topics as a priority:

- The Ecotourism Park "Cuevas de la Amistad" as a project for ecological conservation.
- Tourism in the Community of San Miguel Xometla attracted by the Ecotourism Park "Cuevas de la Amistad" (Affectations and Benefits)
- Conservation and sustainability measures in the "Cuevas de la Amistad" Ecotourism Park.
- Administration and management of natural resources in the Ecotourism Park "Cuevas de la Amistad"

We consider these points as the most important to take into account for an adequate investigation of the subject.

The people who have been interviewed to learn about the beginnings of the administration and development of the Ecotourism Park "Cuevas de la Amistad" are the Ejidal Commissioner President Arsenio Gonzáles Galicia and the

Treasurer Margarita Miranda Badillo. Both have a side in terms of the administration, development and monitoring of the projects of the Sierra Patlachique in their community, in this way we can learn more about the beginnings of this project and its implementation, especially the reason why this project is administered by the ejidatarios of the community, as well as the administration committee of the Cuevas de la Amistad Park.

The ejido commissioner assures that within this park we can find a great variety of fauna, flora and attractive activities for tourists, in the same way, he referred to the economic importance for the community of the arrival of tourists, since in the high season, which is considered to be the Easter holidays, a considerable number of visitors enter, sharing this point of view with the Administrative Committee of the Park, which generates an important economic spillover for the people who are dedicated to the sale of food, despite the fact that the sale of such food is not allowed at a moderately distant distance from the Park, for safety and care of the ecosystem, as reported by the Administrative Committee of the Park, sales are high and support the economy of the inhabitants of the community, the sale of alcoholic beverages is also prohibited near the park in order to avoid misconduct by consumers.

The ejido commissioner mentioned the care and maintenance that the administrative committee gives to the park, and above all the intention to make it grow in the tourist aspect, makes it very clear that the economic support that has been received from the government has been properly used, and above all he gives credit to the good administration that the park has had since it has allowed the ejidatarios to make improvements to the place, such as the implementation of swimming pools, zip line, gotcha, among others, thanks to the economic sustainability that the park has maintained for 21 years that was created thanks to support from the Delegation of Ecology of Texcoco, however, it was a unique support in which there were only monetary resources, but not resources for training, as mentioned by the ejido commissioner.

In the case of the interview conducted with the park's administrative committee, citizen Flora Gonzales Flores, president of said committee, mentions that the park is sustainable in the economic aspect, referring to the fact that the economic income is sufficient to maintain the aspects that the park requires, however, it does not receive any type of support from the other ejidatarios or government support. more than for reforestation by the National Forestry Commission (CONAFOR).

8. Conclusions

According to the information obtained through the main people involved with the development and maintenance of the Cuevas de la Amistad Ecotourism Park, there is a notorious interest in the growth and tourist development of the place, however, since the project was implemented, adequate training has not been carried out for its correct management. which does not allow one hundred percent adequate attention and management of the resources that this park belonging to an ANP has, it is necessary to provide adequate training to those in charge of the place to be able to meet the needs of the

place, focusing on the environmental aspect, in the tourist aspect it is also necessary that a trained person has a part in customer service, the carrying capacity of the place and an adequate sustainable management, as well as creating alliances with tourism companies that can provide visitors with ecotourism activities that allow an environmental balance, the "Friendship Caves" project has already been in operation for twenty years, however, its operation has not been entirely adequate to the needs of the tourist, nor to the care, management and protection of natural resources, which is why it has not been considered as one of the main places to visit by tourists or by tourism companies in the area, in the same way, the ejidatarios do not receive much support from the community, since they have not received the necessary information to know the benefits and impacts that tourism activity can have. since the only inhabitants benefited by tourism are those who have food businesses whose sales go up at Easter when the largest number of tourists arrive to visit the park.

In my opinion, this is a project whose objective is good and has served as motivation for ejidatarios of the community, they give it importance since they create a specific committee to watch over the park, however, their main objective is to obtain economic benefits, leaving aside the importance of environmental care, this because they were not provided with adequate training for it either. the economic aspect is also fundamental for the sustainability of a tourism project, but the location of the park cannot be left aside, nor the name of ANP State Park of the area in which it is located, I consider that the intentions of improvement that the ejidatarios in charge of monitoring and maintaining the park have are good, since they seek to advance, grow and make their community known and more specifically the park, but it is essential to have trained personnel to take advantage of the place properly and without causing damage, in addition to the fact that this in turn will allow the development of new forms of sustainability and/or focus on different points that benefit the community and allow its participation for better tourism development.

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