



Chapter 87

Sustainable use of the natural resources of the Tentzo ecological reserve in the municipality of San Juan Atzompa, Puebla

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ABSTRACT

The municipality of San Juan Atzompa is located within the area of the Sierra del Tentzo state reserve, which was declared a protected natural area, with 57,815 hectares in 13 municipalities of the state of Puebla, said the reserve is home to a large number of animal species. and vegetables, endemic and of economic importance for its inhabitants; hence the importance of using natural resources sustainably through the proposal of an ecotourism service that is provided by the inhabitants of the municipality of San Juan Atzompa and serves as a support in the preservation of biological, social, cultural and economic value. from the area.

Keywords: reserve, ecotourism, community members, sustainable.

1 INTRODUCTION

In Mexico, natural reserves are created to preserve the natural habitat that nature has provided to humanity to maintain it in its original state; even with the changes in the ecosystem, reduce the damage caused by people with their daily activities, and consciously take advantage of what nature offers.

According to the official newspaper of the state of Puebla, creating natural reserves is an environmental policy decision, declared by the law for the protection of the Natural Environment and the Sustainable Development of the State, this law provides for public order and social interest guiding actions of sustainable development through the prevention, preservation, and restoration of the ecological balance and the protection of the environment regulating the establishment, protection, and management of protected natural areas, remaining outside the private domain, to be state public property, to protect the

flora and fauna. These reserves are created in places where natural resources are abundant and have a territory little dominated by man to protect the natural resources that the areas have and promote their proper use, develop recreational activities to attract the attention of visitors and tourists in these reserves is to admire the beauty of nature without altering its ecosystem. In this natural area, you can practice sports, and carry out commercial, agricultural, and industrial activities, except for mining exploitation, being able to settle population, for example, for tourism purposes, without altering the ecosystem.

In the natural or ecological reserves it is prohibited to introduce exotic fauna, hunt, and fish, which in the latter case, is subject to regulation; what is prohibited is hunting for commercial purposes.

Within the state of Puebla is the ecological reserve of the Sierra del Tentzo declared as a protected natural area in 2011, a decree of the executive power of the state, declaring it a protected natural area of state jurisdiction, located in 13 municipalities, which are: Atlixco, Atoyatempan, Huaquechula, Huehuetlán el Grande, Molcaxac, Ocoyucan, Puebla, San Diego, the Tochimilzingo Table, San Juan Atzompa, Teopatlán, Tepeojuma, and Tzicatlacoyan, with a total area of 57,815.28193 hectares. (Official Newspaper, 2011). Of which 24.7 km belong to the municipality of San Juan Atzompa since flora and fauna conservation activities are not currently carried out in said municipality, as well as ecotourism development actions, since it can be seen that this is a good place to carry out such activities; The proposal for the implementation of an ecotourism service which is provided by the inhabitants of San Juan Atzompa and serves as a support in the preservation of the biological, social, cultural and economic value of the area is considered.

2 METHOD DESCRIPTION

To help preserve the natural resources and to take advantage of them in the municipality of San Juan Atzompa, the proposal is made to generate an ecotourism service; The idea was born from the generation of a project that aims to disseminate environmental care for the subject of sustainable development taught in the Bachelor's degree in Administration within the Higher Technological Institute of Tepexi de Rodríguez by the student Donaldo Barrales Ayon; since he is a native of that municipality, where it has been observed that natural resources are not used adequately and even some of them are already deteriorating due to their overexploitation; An example of this is in the case of the state and palm plants that are used by the inhabitants to make handicrafts, such as chiquigüites, baskets, mats, and palm figures; In the case of fauna, the decrease in the deer population due to excessive hunting is visible. Another aspect that can be identified in the social field is the migration of people to cities in other states of the republic or to the United States, this in search of employment and better living conditions.

The ecotourism project seeks to combat part of these problems faced by the population, through the generation of jobs for the inhabitants of the municipality of San Juan Atzompa, through the sustainable use of natural resources. Ecotourism implies a responsible environmental trip, to places and natural regions that are a little disturbed (damaged) to take advantage of and enjoy the natural environment, as well as to

preserve the culture of the inhabitants to which such region belongs, both the appreciation of the natural and cultural riches of the places to visit.

Although there are different interpretations, eco-tourism is generally promoted as "ethical" tourism, in which the well-being of local populations is also presumed paramount, and this presumption is generally reflected in the structure and functioning of the companies/groups/cooperatives dedicated to offering such a service (SEMARNAT, 2006). In the project proposal, it is being proposed that the community members are direct participants in the administration of the ecotourism service, through the generation of a cooperative society that provides the service and takes control of the activities; Thus, it is also proposed to have the participation of municipal authorities and public and private institutions to offer a service that can meet the demands of potential visitors or tourists, both national and foreign.





The offer of the ecotourism service is intended to reinforce and incorporate global criteria that integrate concepts such as agriculture, conservation of culture, natural resources, and recreational activities that do not affect nature. All the activities that will be carried out in the ecotourism proposal were chosen according to the visits that were made to the municipality with the support of the authorities of the H. Ayuntamiento 2014-2018 that gave us permission to carry out tours and observe the conditions and opportunities offered by its territory according to the geographical and climatic conditions. The proposed activities would be the following: raising and caring for deer, cycling, horseback riding, camping, and two-seater flights. The facilities will be located as shown below in Figure 1.

Figure 1. Photograph of the area contemplated for the ecotourism service and the routes for the proposed activities in the municipality of San Juan Atzompa



1. The blue line delimits the territory belonging to the municipality of San Juan Atzompa.
2. A proposed orange line for horseback, bicycle, and/or walking tours.
3. Yellow line zone proposed for deer breeding.
4. Red line zone proposed for camp.

Table 1. Proposals for routes and photographs of the areas contemplated for them in the municipality of San Juan Atzompa.

Program of Proposed Tours		
Place	Distance	Picture
Entrance to the reserve at the foot of the Tentzo	5 km	
From the foot to the chasm of	800 m	
Return by the chasm of the mountain range - zip line	5 km	
Zipline - entrance	500 m	

3 FINAL COMMENTS

3.1 CONCLUSION

Seeking to reduce the impact of humans on nature is of the utmost importance since in the future there will be repercussions that may be irreversible and of consequence for future generations. The natural resources in the municipality of San Juan Atzompa are extremely important since a large part of its economic activities depend on them, the management and moderate use of natural resources in that locality is an activity that must be promoted by the authorities and supported. by all sectors of society; since by using the natural resources of the Tentzo ecological reserve sustainably through the implementation of ecotourism in the area, the main benefit for the community members will be the generation of economic income and a greater livelihood for their families, in the same way, reactivate the economy of the population and impact on the migration of the population through the generation of jobs and the sustainable use of their natural resources that they have.

RECOMMENDATIONS

It is recommended that the community members be in charge of operating and carrying out control in the reserve, with ecotourism activities, the care of flora and fauna, and surveillance, to achieve the participation of the inhabitants of the municipality and in the same way create for them a source of work and income. In the same way, the community is recommended to participate, to create a trustworthy and pleasant environment for visitors; to obtain a greater economic, social, and environmental benefit; as well as highlight and value their culture and traditions. The participation of the municipal authorities (municipal police), together with institutions such as the Secretary of Environment and Natural Resources "SEMARNAT" to integrate a group of rangers and vigilantes who are in charge of providing security to all those visitors in the natural reserve of the Tenzo, both inside and outside of it.

Have the support of the educational institutions of the community of San Juan Atzompa to work on the realization of projects that are related to the conservation of the reserve, strengthen the culture of care for the environment, and in some way support ecotourism. Strengthen security measures for the treatment and control of accidents that originate in the routes and activities that are proposed within the reserve, so that collaborative work between the institutions, for example, have the support of the health center of the municipality of San Juan Atzompa in order to quickly and timely attend to accidents that visitors may have.

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