Planning and perception of sustainable tourism in ethnic group of Mexico

Percepción y planificación del turismo sostenible en comunidades indígenas de México

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Abstract

The study shows the necessity of preserving the cultural richness of ethnic groups when in their own communities some touristic activities that endanger their identity as local cultures and preservers of their traditions and mother tongues are carried out. This is the case of Maya Chontal communities in Nacajuca, Tabasco, Mexico, where ancient traditions like Chontal language and the elaboration of art crafts are preserved. The aim of this work is to analyze the level of active participation of ethnic groups in four communities that belong to corridor Bijí Yokotán in which the local people are considered part of the touristic offer. The methodology used has a mixed approach and the collection of data included direct observation, exploratory interviews, and surveys with opinion probing. The sample was determined through a random sampling in each community using an estimated rate, which result was the application of 304 questionnaires in the communities of study. Results show that in those communities the practice of sustainable tourism is not promoted. Even some artisans remain as spectators of the touristic product developed in their communities. Thus, this study demonstrates the absent of a planned touristic offer as well as the lack of awareness and participation of the majority of the local population.

Keywords | palabras clave
Ethnic group, planning, tourism, sustainable development, crafts.
Comunidades indígenas, planificación, turismo, desarrollo sostenible, artesanías.

1. Introduction and state of the issue
Tourism is an important economic sector in Mexico. In 2014, it directly represented 8.5% of GDP, 5.8% of full-time paid employment and 77.2% of service exports. In addition, it is identified as one of the six priority economic sectors in the National Development Plan, PND 2013-2018. However, the potential of tourism to promote local and regional development still has a wide margin of exploitation (Organization for Economic Cooperation and Development in Mexico, OECD, 2017).

In recent years the trend of tourists has leaned towards coexistence with natural environments. At the end of the 20th century some authors referred to this practice as alternative tourism, because “it was characterized by having nature as a destination and because it implied a more active attitude of the tourist and a growing concern for the welfare of local populations” (Palomino, Gasca & López, 2016, p.12). The Ministry of Tourism in Mexico, SECTUR defines eco-tourism as:

*The travels that have as purpose to realize recreational activities in direct contact with the nature and the cultural expressions that surround it, with an attitude and commitment to know, to respect, to enjoy and to participate in the conservation of the natural and cultural resources (SECTUR, 2006, p. 2).*

On the other hand, the business of nature tourism and that which takes place in rural environments, allows to diversify production, create employment, promote rural roots, work opportunities for women and young people, revalue environmental and cultural heritage, improve the commercialization of primary products and add value, promote associations, incorporate different sizes of establishments, expand the tourist offer and add value to the existing one, develop new investments, revalue people linked to the rural environment and contribute to local development (OMT, 2003).

Therefore, nature tourism promotes a better quality of physical and mental life by breaking the cultural barrier and expanding the knowledge of new customs and ways of life (Medina, 2011). That is, it promotes cultural revaluation in areas that are at risk of losing their traditions. In other words, nature tourism can lead to the conservation of intangible cultural heritage, defined by the United Nations Educational, Scientific and Cultural Organization, UNESCO, as:

*...the uses, representations, expressions, knowledge and techniques -together with the instruments, objects, artifacts and cultural spaces that are inherent to them- which communities, groups and in some cases, individuals recognize as an integral part of their cultural heritage. This intangible cultural heritage, which is transmitted from generation to generation, is constantly recreated by communities and groups according to their environment, their interaction with nature and their history, instilling a sense of identity and continuity and thus contributing to promote respect of cultural diversity and human creativity (2016, p.5).*

The World Tourism Organization (2018a), regarding tourism activity in intangible cultural heritage sites, states that “The cultural exchange promoted by these meetings; favors dialogue, strengthens understanding and, therefore, fosters peace and tolerance” (paragraph 2); which promotes the conservation of cultural heritage, since the income generated by visitors can be channeled towards conservation.
Also, it is essential that tourism development in these locations be carried out in conjunction with the local population, as stated by Casas, Soler & Pastor (2011):

...the objective of community tourism... is essentially to improve the standard of living of the inhabitants of the native communities, through the use of tourism resources. With this, it is possible to revive the depressed areas, increase and guarantee the permanence of traditional ways of life, create an economic activity complementary to the traditional productive forms... (p. 17).

Community tourism “allows for the generation of wealth in rural areas of developing countries, through the participation of the local community in tourism management, so that the benefits have an impact on the community itself” (Casas, Soler & Pastor, 2012, p.93). In this regard, Ruiz (2008) states that “for the practice of sustainable tourism to be successful, the formation of an environmental conscience and culture is essential, which constitutes an interest shared by all the agents involved” (cited in Montaño et al., 2012., p.497).

Therefore, tourist activity is seen as an effective opportunity to improve the precarious situation of rural environments, because unlike cities, rural communities are characterized by living in conditions of extreme poverty, and despite the efforts made by different organisms, this condition has been increasing in recent years. In this regard, the National Council for the Evaluation of Social Development Policy in Mexico, CONEVAL reported that the percentage of the population living in poverty in rural areas went from 61.1% in 2014 to 58.2% in 2016 (CONEVAL, 2017). These communities tend to be characterized by dispersed and isolated settlements, which is directly related to their degree of marginalization, which is why they face greater problems of social backwardness (National Council of Population in Mexico, CONAPO, 2014). For this reason, urban centers have constantly attracted the rural population that surrounds them, as more and more people are migrating from the countryside to the cities. Paradoxically, although in the rural world most of the goods are produced for the inhabitants of the city, this population has the least access to these resources (Chaves et al., 2008).

It should be noted that 61% of the indigenous population of Mexico lives in these communities. These peoples give a sense of belonging and identity to the country due to their culture, history and languages (National Institute of Statistics and Geography in Mexico, INEGI, 2016). Among its heritage is also traditional medicine and crafts, whose practices conserve and reproduce ancestral knowledge. The contribution of these peoples is multiple and has several dimensions, so they deserve a decent future (López-Hernández, 2011). Their practices can become an alternative source of employment in rural communities (Rivera, Alberti, Vázquez & Mendoza, 2008). However, by 2015 only 7.2 million indigenous people were registered, representing 6.6% of the total population (INEGI, 2015). Among these, the most spoken languages are: Nahuatl (23.4%), Maya (11.6%), Tseltal (7.5%), Mixteco (7.0%), Tsotsil (6.6%), Zapotec (6.5%), Otomi (4.2%), Totonaco (3.6%), Chol (3.4%), Mazateco (3.2%), Huasteco (2.4%) and Mazahua (2, 0%) (INEGI, 2016). These languages, despite representing a cultural heritage for the country, are at risk of disappearing, according to the census statistics of the late nineteenth to the twentieth century (National Institute of Indigenous Languages in Mexico, INALI, 2012).
Therefore, the Declaration of the Nations on the Rights of Indigenous Peoples, states that “respect for indigenous knowledge, cultures and traditional practices contributes to sustainable and equitable development and to the proper management of the environment.” They are also authorized to freely engage in the economic activity of their choice, whether traditional or otherwise, as well as encourage and transmit their stories, philosophies and customs to future generations (United Nations Organization, UN, 2007).

This is where the uncertainty of the viability of tourism activity in indigenous populations arises, since the development of tourism activities has implicit negative impacts, as the mere presence of humans represents changes in the natural environment of the destination; and in the sociocultural field it can cause de-culturalization when local traditions are improperly marketed. In addition, we know of many places where tourism has increased the cases of prostitution in all its manifestations and effects: sexually transmitted diseases; transculturation; price increase; delinquency; drug addiction; migration; alteration of the demography of the sector; xenophobia; changes in agricultural production; and strong impacts on the environment due to pollution (Orozco, Núñez & Virgen, 2008).

In the search to diminish the negative effects of the tourist activity, sustainable tourism is presented as a viable way to combat the problem. The issue of sustainable tourism has been widely discussed by various scholars, professionals and organizations. Moreno (2007), for example, affirms that in order to achieve sustainable development, it is necessary, among other things, to have a political system that ensures citizen participation in decision-making, an economic system that generates surpluses and knowledge on a self-sustaining and self-sufficient basis, and a social system that provides solutions for the tensions of non-harmonic development. Thus, the National Commission of Natural Protected Areas of Mexico, CONANP, mentions that sustainable tourism is one that fulfills the optimal use of environmental resources while respecting the socio-cultural authenticity of the host communities, conserving their architectural cultural assets and their traditional values, and contributing to intercultural understanding and tolerance. Lastly, it ensures viable long-term economic activities that provide well-distributed socio-economic benefits to all agents, such as stable employment opportunities and the obtaining of income and social services for host communities, thus contributing to the reduction of poverty (CONANP, 2006).

UNWTO (2018b) states that sustainable tourism “takes full account of current and future economic, social and environmental impacts to meet the needs of visitors, the industry, the environment and host communities” (paragraph 1). In this regard, Virgen (2014) points out that “today there is no development or management of tourism if planning and management are not based on solid bases of sustainability” (page 206). That is, when planning is done without sufficient information about the social and environmental repercussions of the activity, the well-being of the destination becomes vulnerable to the negative impacts of tourism activity. In this sense, planning is a necessary tool in the design of a tourism product and ideally, this tool is made within a sustainable framework. Therefore, the indicators constitute an early warning system that allows the managers of these places to anticipate the potential risks and adopt the relevant measures for each situation (UNWTO, 2009). Through these it is possible to formulate measures to maintain tourist attractions, increase economic
benefits, raise the level and quality of life of the communities and achieve a satisfactory experience for visitors (Ibáñez & Ángeles, 2012).

However, setting aside the importance of planning, many destinations, for lack of knowledge about sustainable tourism practices, have suffered serious damage to their social structure, causing the loss of traditions, customs, religious ceremonies, language, clothing and other manifestations of the residents, or simply the disintegration of projects that could, with better planning, obtain successful results.

Such is the case of the state of Tabasco, located in the southeast of the country with a total population of 2 395 272 inhabitants (Ministry of Economy in Mexico, SE, 2015). This area is inhabited by the smallest part of indigenous groups of Mexico, the most spoken languages are: the Chontal de Tabasco (37 072 speakers), Chol (13 840 speakers), Tzeltal (2 849 speakers) and Tzotzil (1 379 speakers). Thus, there are 60,526 people who speak an indigenous language, which represents 3% of the total population (INEGI, 2010).

The potential for tourism growth in the state is evident due to its natural attractions and cultural diversity (Special Tourism Program, PET, 2014), the latter mainly in the municipalities of Villahermosa, Nacajuca and Macuspana, where the largest indigenous population is concentrated (Flores, 2006). However, by 2016, 50.9% of the population of Tabasco lives in poverty and 11.8% in extreme poverty (CONEVAL, 2017). These localities do not have enough income to cover their basic needs of food, housing, clothing, education, etc.

The figures presented reveal the need to preserve the cultural heritage that has survived various hostile situations, as well as the notable social backwardness, presumably the lack of planning in the failure of many tourism projects in the State, such as the Reserve Ecological Rio Playa in Comalcalco, Agua Jungle in Huimanguillo, or Tucta’s tourist hostel in the Nacajuca chontal ridges, to name a few (Liévano, Juárez & Mazó, 2014, Mazó, 2010).

Considering the role played by indigenous peoples in tourism, the knowledge of new cultures and experiences with the natural environment is appropriate to take advantage of this demand, without losing the sense of conservation and protection of the traditions treasured by the Tabasco indigenous areas. This can be achieved by promoting sustainable tourism practices in communities that, although they lack technical training, have the potential to develop the activity. Such is the case of the Mayan Chontal communities of Nacajuca. In this regard, it is known that these communities have characteristics with tourism potential, especially for the practice of ecotourism and those related to artisanal resources (Sánchez & López, 2011, Flores, 2011, Rivera et al., 2008).

The contextual framework of this research focuses on a case study regarding the Mayan Chontal indigenous communities of Nacajuca, Tabasco and their performance as part of the tourist offer of the Biji Yokot’an corridor. The tourist offer of the Biji Yokot’an corridor is integrated into two municipalities: Jalpa de Méndez and Nacajuca. Its main offer corresponds to the realization of activities immersed in nature tourism, specifically ecotourism and rural tourism; standouts include gastronomy, natural resources, culture, history and crafts. Currently, the Biji Yokot’an corridor has thirteen tourist resources classified into: three natural resources, five cultural resources and five historical monumental resources.
The main offer of the Mayan Chontal communities is the elaboration of crafts of different kinds, whose prices vary depending on several factors: the supplier, the size of the craft, the quality of the raw material and even the location of the point of sale. These are made from resources that are part of the local vegetation and can be easily obtained by artisans (See chart 1), with the exception of wicker and rattan that are transported from Tapijulapa and Mexico City.

**Chart 1. Use of vegetation in craftsmanship**

<table>
<thead>
<tr>
<th>Common name</th>
<th>Scientific name</th>
<th>Handicrafts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cañita</td>
<td>Cyperus canus</td>
<td>Sandals, folders, backpacks</td>
</tr>
<tr>
<td>Carrizo</td>
<td>Phagmites australis</td>
<td>Baskets</td>
</tr>
<tr>
<td>Cedro rojo</td>
<td>Cederla odorata</td>
<td>Drums</td>
</tr>
<tr>
<td>Coco</td>
<td>Cocos nucifera</td>
<td>Ornamental figures</td>
</tr>
<tr>
<td>Espadillo</td>
<td>Gladiolus spp</td>
<td>Fan</td>
</tr>
<tr>
<td>Guano redondo</td>
<td>Sabal mexicana</td>
<td>Hats</td>
</tr>
<tr>
<td>Jacinto</td>
<td>Eichhornia crassipes</td>
<td>Porta portraits, fans, boxes, cushions</td>
</tr>
<tr>
<td>Jícaro</td>
<td>Crescentia alata</td>
<td>Mugs</td>
</tr>
<tr>
<td>Joloché</td>
<td>Zea maíz</td>
<td>Artificial flowers</td>
</tr>
<tr>
<td>Jolocín</td>
<td>Heliocarpus appendiculatus</td>
<td>Mask hair</td>
</tr>
<tr>
<td>Junco</td>
<td>Scirpus lacustris</td>
<td>Curtains, tablecloths</td>
</tr>
<tr>
<td>Madera de sauce</td>
<td>Salix chilemnis</td>
<td>Masks, key rings, carved figures</td>
</tr>
<tr>
<td>Mango</td>
<td>Manguifera indica</td>
<td>Cayucos</td>
</tr>
<tr>
<td>Palma real</td>
<td>Roystonia regia</td>
<td>Fans</td>
</tr>
<tr>
<td>Mimbre</td>
<td>Salix</td>
<td>Furniture and baskets</td>
</tr>
<tr>
<td>Rattán</td>
<td>Calameae</td>
<td>Furniture</td>
</tr>
<tr>
<td>Tule</td>
<td>Taxodium mucronato</td>
<td>Vases, baskets, ornate figures</td>
</tr>
</tbody>
</table>

Source: own elaboration based on the application of surveys and Pérez (2007).

The research tackles the question: is the tourism activity carried out in the Mayan Chontal communities perceived as sustainable among its inhabitants? To answer the research question, the work was based on a Sustainable Development Indicators Guide for tourism destination proposed by the UNWTO (2009), which refers to the sustainability of tourism, specifically addressing the degree of integration and participation of the community in the planning of tourist activities.

**2. Materials and methods**

The methodological design used is based on a mixed approach to research, since it involved the collection and analysis of quantitative and qualitative information. The procedure is basically concentrated in two stages: the first consisted in the collection,
classification and analysis of documentary information regarding the actions of artisans, the local population, and tourists; which was obtained from secondary sources such as fascicles, publications in newspapers and scientific journals, population censuses, bulletins, reports, books, undergraduate and postgraduate theses, plans and programs, encyclopedias, as well as electronic sites of official organizations such as the UNWTO and SECTUR. And in a second stage, the field work was carried out that combined the techniques of interview, survey and observation.

The field research was developed through the Sequential Exploratory Design, DEXPLOS, understood as a design that integrates “an initial phase of qualitative data analysis collection followed by another where quantitative data are collected and analyzed” (Hernández, Fernández & Baptista, 2010, p 551).

As DEXPLOS points out in its comparative modality, the first phase of the research was focused on the collection and analysis of qualitative data, for which interviews were conducted with two key informants: the Director of Economic Development and Tourism of the municipality of Nacajuca, DFET, and a Catholic priest who is in charge of the coordination and integration of the Mayan Chontal communities. The first one we inquired about the joint work and the planning of tourism projects with the artisans, as well as providing relevant information on the structure and location of the artisanal zones, which allowed identifying the ideal indigenous areas to carry out the research. For its part, the priest was a source of valuable information regarding the behavior and participation of villagers in local festivals and traditions. It should be noted that their indigenous beliefs are mainly based on their religious tradition, and since Catholicism is the predominant religion with 73% of parishioners in the municipality (Municipal Development Plan, PMD, 2015), the priest’s knowledge and experience would provide information relevant to the study.

In the first phase, the communities were selected based on their tourist-artisan participation, which is why communities historically recognized for their artisanal vocation were sought out and are part of the offer of the Biji Yokot’an tourist corridor. This is how the communities that met both criteria were selected: Tucta, Mazateupa, Tecoluta 1ra. and Tecoluta 2da., which facilitated the search for information, as well as reducing the economic and time costs.

Subsequently, the sample size was calculated using the estimation of a proportion through the following formula:

\[
 n = \frac{P (1 - P)}{\left( \frac{\ell}{z_{\alpha/2}} \right)^2 + \frac{P (1 - P)}{N}}
\]

Where:
- \( n \) = Sample size
- \( P \) = Parameter
- \( \ell \) = estimation error
- \( z_{\alpha/2} \) = value of \( z \) that delimits an area of \( \alpha / 2 \) to its right in the normal curve
- \( N \) = Size of the population
In this way a random sampling was carried out, where any of the individuals of a population had the same probability of being chosen (Gómez, 2012). Thus, a total of 304 questionnaires were printed, 78 for Tucta, 81 for Mazateupa, 69 for Tecoluta 1st. and 76 to Tecoluta 2nd.

In the second phase, the collection of quantitative information through surveys began. The source of information at this stage was the receiving population and the artisans. The questionnaires were directed to people of legal age, mainly parents. Most women were surveyed between 30 and 50 years of age, especially in the communities of Tucta, Tecoluta 1st. and Tecoluta 2nd., where they were regularly doing housework. In the case of Mazateupa, surveys of men prevailed, most of them were in their homes attending a craft or grocery business.

Regarding the research instruments for the interviews and surveys, several topics related to the accessibility of information regarding the activity of sustainable tourism and the participation of the local community in the decision making of tourism projects were addressed. The questionnaires for the interviews include, in addition to the categories that refer to the sustainability indicators, some demographic aspects and job functions of the interviewees. On the other hand, questionnaires for surveys address demographic, socio-economic and socio-cultural aspects. In the specific case of the questionnaire to artisans, it was considered pertinent to add a section that would provide descriptive information on the characteristics of the crafts, given that these products constitute the main tourist attraction of their communities (See chart 2).

**Chart 2. Structure of research instruments**

<table>
<thead>
<tr>
<th>Instruments</th>
<th>Analysis categories</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interview with the coordination of Economic Development and Tourism (1)</td>
<td>Demographic aspects</td>
<td>Name-Origin</td>
</tr>
<tr>
<td></td>
<td>Job description</td>
<td>Main function-Time in office-Tourism projects that have been worked or are currently active</td>
</tr>
<tr>
<td></td>
<td>Community awareness and participation</td>
<td>Means used to promote sustainable tourism-Tourism information in the destination-Access to information-Understanding the concept of sustainable tourism planning-Understanding the practice of sustainable tourism-Understanding the effects of tourism</td>
</tr>
<tr>
<td>Interview with religious leader (2)</td>
<td>Demographic aspects</td>
<td>Name-Community</td>
</tr>
<tr>
<td></td>
<td>Job description</td>
<td>Name of the church-Time as minister in the community</td>
</tr>
<tr>
<td></td>
<td>Community awareness and participation</td>
<td>Address all the items indicated in the instrument 1</td>
</tr>
</tbody>
</table>
The application of each questionnaire lasted about 10 minutes. The structure of the questions included closed questions, multiple choice, affirmations with answers based on the five-point Likert scale that ranged from the «strongly agree» category to the «strongly disagree» category and finally open questions were posed that gave a pattern the interviewee to express his opinion on the subject.

In the third phase of the research, the interpretation of the data is compared and integrated, the analysis of the results was done using the Excel tool of the parcel office 2010, for the quantitative data, through which the necessary charts and graphs were generated. Finally, the qualitative data that resulted from the interviews were worked on Atlas-ti 8 Windows.

### 3. Analysis and results

#### 3.1. Sociodemographic, socio-economic and socio-cultural aspects of the community

The communities studied have very similar demographic characteristics, in principle they are rural communities, with a population of less than 2,500 inhabitants (See chart 3). Likewise, more than 50% of their homes are inhabited by an average of four to six people (Liévano, 2016).
As is characteristic of rural communities, there is a certain educational lag in the area. 34% of the respondents have not completed the primary level, 22% have completed middle school, 16% have completed the upper secondary level (high school) and only 6% have completed their university studies. It should be noted that the communities Tecoluta 2da. and Mazateupa have a higher level of educational lag with 44% and 39% of the population without studies, respectively. Tucta with 10% of its inhabitants achieves a greater scope in university studies. It should be noted that these results correspond mostly to women, since it was the prevailing gender during the surveys.

Adult women are engaged in housework. The youngest work in the tertiary sector outside their community or they are studying high school or university. Men mainly carry out primary activities, whether fishing or farming. However, in the specific case of Mazateupa, followed by Tucta, there is a considerable number of family crafts businesses, which complements the income of the inhabitants.

It should be noted that in the town there are also teachers who work in bilingual schools within the same community, where children are taught in Spanish and Chontal language. The latter is spoken in the four communities by more than 87% of households. Parents try to preserve the language by teaching it to their children from an early age, which is why many children dominate the Chontal language and Spanish at the age of 5, especially in the Tecoluta 1st communities and Tecoluta 2da., where there is no constant tourist interaction (See figure 1).

**Figure 1. Number of speakers of Chontal indigenous language**

<table>
<thead>
<tr>
<th>Community</th>
<th>Population</th>
<th>Homes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tucta</td>
<td>2,015</td>
<td>418</td>
</tr>
<tr>
<td>Mazateupa</td>
<td>2,304</td>
<td>531</td>
</tr>
<tr>
<td>Tecoluta 1st.</td>
<td>1,689</td>
<td>354</td>
</tr>
<tr>
<td>Tecoluta 2nd.</td>
<td>1,132</td>
<td>245</td>
</tr>
</tbody>
</table>

**Chart 3. Population numbers of the study area**

<table>
<thead>
<tr>
<th>Community</th>
<th>Population</th>
<th>Homes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tucta</td>
<td>2,015</td>
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<td>1,132</td>
<td>245</td>
</tr>
</tbody>
</table>
It is also evident that in Tucta there has been a majority loss of the Chontal language, with 27% of respondents who do not speak that language. The 40% of respondents in this community are housewives, whose activities are concentrated in their home, doing work that does not imply their constant transfer to places outside their environment. It is likely that the head of family and children, who have greater interaction with the external environment due to work and studies, present a higher degree of loss of the language.

Regarding the religion professed by these communities, Catholicism is with more than 85% of parishioners the predominant religion, this figure is followed by a minority of evangelicals, including Pentecostals, Presbyterians and Adventists. It should be noted that Catholicism in Mexico is emerging as one of the religions with greater festivities. Specifically, in the Chontal culture, which has also contributed to the diversification of its tourist offer, since the celebrations of the indigenous peoples are an important cultural attraction for tourists.

3.2. Community awareness and participation

Most of the artisans began with this activity from very young, having on average ten years of age; tradition that they want to inculcate also to their children. However, at present, this tradition, as well as the speaking of the indigenous language, has been lost in many children and young people of the community. In this regard, one of the key informants reported that in the last ten years the behavior of the inhabitants has changed in various aspects, for example, the number of participants in the cultural practices has decreased, that is to say: celebrations of the saints, the fairs, offerings, dances, etc... He also commented that young people are increasingly independent; and he even resumed that the Chontal language is being lost in the children and youth of the locality.

In Tecoluta 1st. and 2nd, a large number of craftsmen who do not have an established business were reported, the housewives made the guano fabrics, and these are sold at $ 10 pesos to other communities that finish the craft, transforming it into a useful object. Artisans say that at least 30% their income comes from the sale of handicrafts although this is not their main economic activity.

Although the majority of the inhabitants do not know that the elaboration of crafts is part of a tourist attraction, during the field work it was observed that more than 50% of the inhabitants in the four communities carry out this activity, either for direct sale to tourists or for sale to other communities.

When inquiring about the greatest concern that the population has with respect to tourism in their community, the responses of the respondents in Tucta and Mazateupa showed disgruntledness in the inhabitants regarding previous tourism projects (See chart 4). For its part, in Tecoluta 1st. and Tecoluta 2nd. they insisted on the need to improve the infrastructure of their streets so that tourists can have access to their communities.
Chart 4. Concerns regarding tourism activity

<table>
<thead>
<tr>
<th>Community</th>
<th>Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tucta</td>
<td>«There is no integration within the community»</td>
</tr>
<tr>
<td></td>
<td>«There is a lack of knowledge of the people responsible for executing projects»</td>
</tr>
<tr>
<td>Mazateupa</td>
<td>«I wish there was more tourism»</td>
</tr>
<tr>
<td></td>
<td>«The community does not look pretty enough for tourists to stay»</td>
</tr>
<tr>
<td></td>
<td>«There is no support for all artisans»</td>
</tr>
<tr>
<td>Tecoluta 1st.</td>
<td>«Here there are no tourists»</td>
</tr>
<tr>
<td></td>
<td>«The poor state of the roads does not let tourists come»</td>
</tr>
<tr>
<td>Tecoluta 2nd.</td>
<td>«I would like tourism to get here»</td>
</tr>
<tr>
<td></td>
<td>«The government is not willing to invest here»</td>
</tr>
</tbody>
</table>

In this regard, none of the respondents has presented their disagreements or ideas to the authorities, because they consider that their community is not a tourist site and therefore will not be taken into account. However, 95% of respondents believe that tourism can find new opportunities for recreation and 20% agree that projects should be carried out to encourage the sale of handicrafts and tourist tours in the lagoon or the riverbank.

The case of artisans in Nacajuca is contradictory to the premise of community participation, since most of them have refused to participate with the City Council in the exhibitions that are organized. In this sense, only a minority are able to advertise their products at the Villahermosa or Nacajuca fairs.

In addition to the above, the DFET lacks a plan that allows the establishment of specific goals and objectives that promote tourism development and even less the involvement of the artisanal community, nor are reports on the economic and social development of the communities that produce handicrafts performed. In this regard, Sánchez & López (2011) state that:

*It is very important the incorporation of local population through participatory methodologies for project generation... Therefore, they must internalize the local problem, through rounds within the area, to achieve social, economic and environmental sensitivity for the sustainable management of resources...* (p.87)

The respondents report that they are unaware of the existence of plans or strategies that involve them in the development of tourism projects. In addition, few residents attend community meetings and those who attend ensure that issues related to tourism activity are not addressed.

Of the studied communities, Tucta and Mazateupa are aware that their community is touristy, so the application of the questionnaires was facilitated, since most of its inhabitants are people who have had contact with tourists. A different story is the one of the communities Tecoluta 1st. and Tecoluta 2da., where a complete ignorance of tourism on the part of the inhabitants is perceived, which made the application of the questionnaire difficult. However, the above showed an inkling of response to the research question posed at the beginning, since one of the main indicators to identify
sustainability in a tourist destination is that the population is aware that it is part of said activity.

It was found that the population does not understand what the tourism activity implies and even less know the meaning of sustainability, since in the Mayan Chontal communities the practice of sustainable tourism is not promoted. Even many artisans had not even heard the term (See Figure 2), consequently they also do not know its meaning.

![Figure 2. Knowledge of the respondents about sustainable tourism](image)

However, more than 70% of respondents in each community, say they are interested in receiving training courses on the development of sustainable tourism, which is a good forecast for future projects.

### 4. Discussion and conclusions

It is important to mention that “there is a complex and constantly evolving relationship between indigenous tourism and the concepts and practices of sustainable tourism” (Carr; Ruhanen, & Whitford, 2016, p.1067). This complexity is mainly due to the fact that, through activities such as tourism, many indigenous peoples have been colonized, being stripped of their lands and denied the total or partial right to access the natural, historical and cultural resources of their localities, which can support their basic food needs (Carr et al., 2016). Given this situation, the application of sustainability indicators is a necessary tool in planning tourism activities, because through them you can adopt early measures to prevent the negative impacts of tourism.

The application of the indicators in the Mayan Chontal communities had more limitations than expected, the characteristics presented by these communities do not match with common tourist centers, therefore, during the research process the instruments were adapted to the socio-cultural characteristics of the community.

The research yielded homogeneous responses in the four communities. The inhabitants perceive tourism as an activity where new leisure opportunities can be found, even though they are disappointed by previous tourism projects. However, they
express their desire for there to be a greater tourist influx in their communities in the coming years.

Butler & Hinch (2007) expose the importance of the inhabitants of indigenous communities being informed about the tourist activity, since it often represents a new experience for them. However, the research shows a clear ignorance of the practices of sustainable tourism on the part of the inhabitants, including the service providers and the agents in charge of the planning; which demands and invites the implementation of training programs in the area of tourism sustainability where all the agents involved can participate, since the knowledge of this practice is the basis for making the right decisions in future projects.

The Mayan Chontal communities represent a development opportunity for the municipality. The cultural wealth that they harbor can be the trigger for the development of various projects. However, successful cases are not based on the beauty of their resources. Success implies a joint effort of work and strategic planning for the benefit of the community.

In this sense, the participation of the government becomes necessary; as well as the participation of: private sector companies; artisans, restaurateurs, and other businesses; schools of all educational levels; professionals specialized in diverse areas; biologists, environmentalists, sociologists, economists, etc.; the health sector; security; but above all, the local population, as it will receive the greatest impact from tourism.

Therefore, there is a need to design a strategic plan for tourism development involving the local population, together with the development of sustainable projects that diversify the current offer and regular community meetings where advances, complaints or suggestions are recorded during the start-up of each project.

On the other hand, it is important to carry out periodic trainings for the providers of tourist services: restaurateurs, artisans, hoteliers, guides, transporters, etc., providing them with the necessary information to perform efficiently in their daily activities. In addition, it is important to manage the resources necessary for the construction, maintenance and remodeling of roads in the Mayan Chontal communities, as well as the implementation of adequate signage within the Chontal Maya area.

In order to promote their roots, traditions and language of origin in children and adolescents, it is important to build a space where bimonthly exhibitions of handicrafts and typical gastronomy of the municipality are held, as well as workshops on environmental and cultural education for children. Finally, it is proposed to sensitize the population and service providers about sustainable tourism practices, and work towards the consolidation of this approach so that it affects the fair distribution of the goods generated by tourism, the security of the community, the training of service providers and in all the required areas.

5. References


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