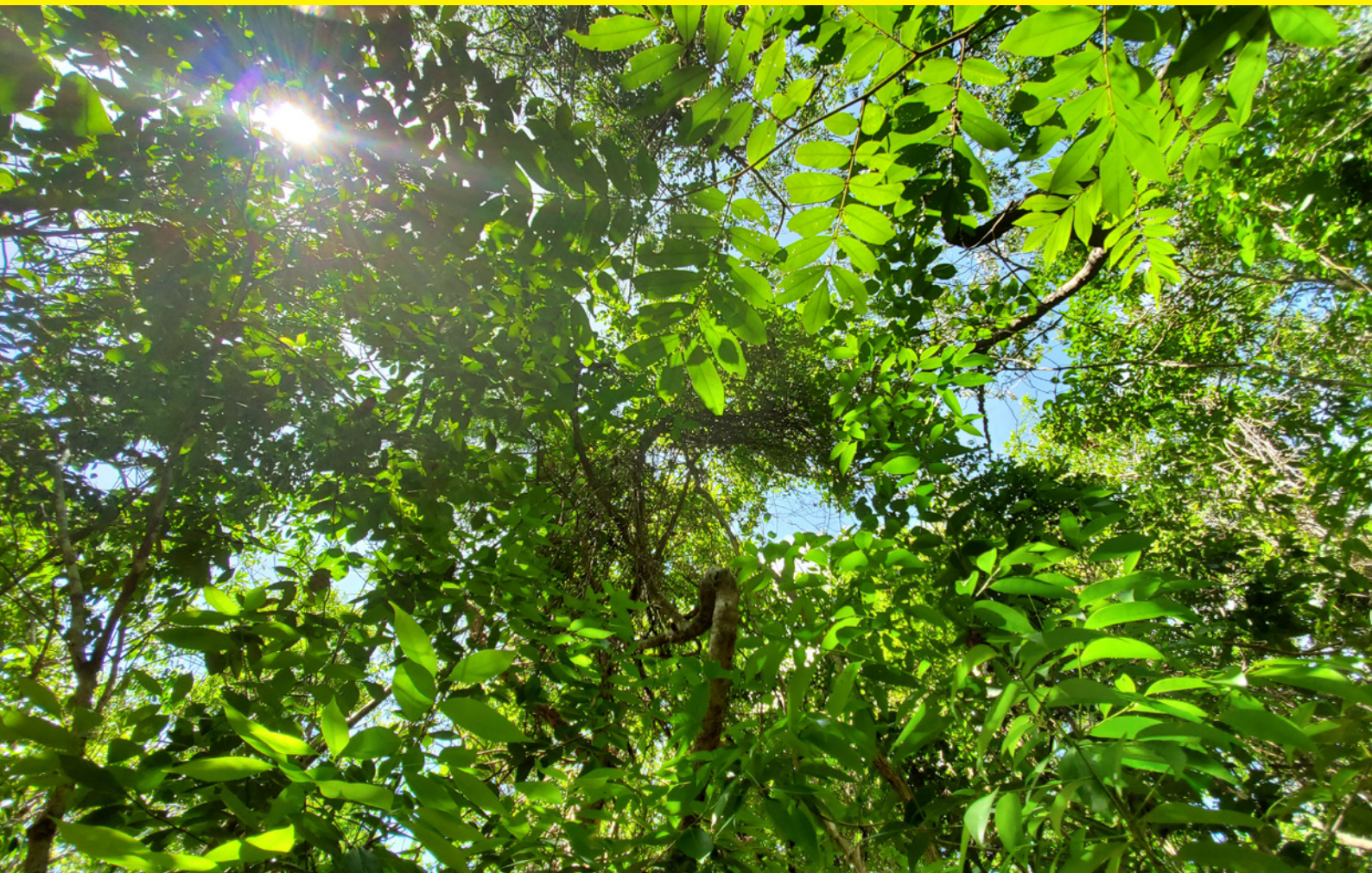


# Sustainable Tourism and Conservation of Natural Resources

Educator Guide – Quintana Roo, Mexico



# Contents

Introduction	3
About – About the Activity Guide	3
Who is the Guide for?	4
What topics does this Guide cover?	4
Glossary	5
Unit 1 – Tourism and my Community	8
Activity 1.1 – Where do we come from?	10
Activity 1.2 – 20 years later	11
Activity 1.3 – What do we know about Tourism?	12
Activity 1.4 – My productive environment	13
Suggested readings	13
Unit 2 – Sustainability in Tourism	15
Activity 2.1 – Sustainability gallery	17
Activity 2.2 – Challenges and opportunities	18
Activity 2.3 Local reality of sustainable tourism	19
Case study #1	20
Activity 2.4 – Quality or Quantity?	23
Suggested readings	24
Unit 3 – Sustainable Tourism and Cultural Conservation	26
Case study #2	28
Activity 3.1 – The building blocks of community-based tourism	31
Case study #3	32
Activity 3.2 – Interpreting community-based tourism	35
Activity 3.3 – Folk tales and legends	36
Unit 4 – Sustainable Tourism and Environmental Conservation	37
Activity 4.1 – Environmental services	40
Activity 4.2 – Building an ecosystem profile	41
Activity 4.3 – Value of Ecosystems	42
Activity 4.4 – Interconnectivity	42
Case study #4	43
Unit 5 – Social Dynamics behind Tourism	46
Activity 5.1 – Visitors and hosts	48
Activity 5.2 – The mark tourism leaves on society	48
Activity 5.3 – Roots, gender, sexuality, and tourism	49
Activity 5.4 – The tug-of-war between tourism and sustainability	50
Case study #5	51
References	54



# Introduction

**Rainforest Alliance** is an international non-profit organization working to create a future where nature is protected, biodiversity flourishes, where farmers, workers and communities prosper, and where the sustainable use of land and responsible business practices are the new norm. We envision a world where people and nature thrive in harmony. In this context, sustainable tourism has been one of Rainforest Alliance's areas of action. RA promotes training and certification of environmentally friendly best practices among travel and tourism businesses, both rural and urban, who are aiming at the implementation of sustainable development models.

Rainforest Alliance's sustainability approach targets the following three factors: 1) tourism products, 2) travelers' needs and profiles, and 3) local communities and their influence. These elements have a direct impact on the social dynamics of communities that have a tourism industry of their own and host thousands of visitors. In tourist hotspots like these, natural and cultural heritage sites also suffer from the impact of their own success.

Capacity-building in communities is essential to promote economically, socially, and environmentally sustainable models. Stakeholders who can decide on a community's future should have access to credible information and opportunities for learning and capacity-building.

In this context, Rainforest Alliance has invested efforts for training and capacity building of key groups – rural entrepreneurs, youth, technicians, farmers, teachers, etc.– who will spur economic activity and thus have a direct impact on their community's development.

**TUI Care Foundation** is TUI's independent non-profit. TUI is the world's leading tourism group. It is present in 180 regions and serves 27 million users annually. One of TUI's main areas of operation is the state of Quintana Roo in Mexico. Aware of the need for responsible travelers, TUI Care Foundation developed the "*Better World Detectives*" initiative, whereby the Foundation provides European teachers with teaching materials about specific destinations and best practices for travelers. Thousands of children, who either travel or will travel one day, thus learn about tourist destinations, such as Quintana Roo.

But what happens with the children and youth who are either born or raised in tourist hotspots? What decisions will they make for their communities regarding this economic activity? Capacity-building is, therefore, key when addressing that question. In this context, Rainforest Alliance and TUI Care Foundation launched the "Sustainable Tourism Education as a Natural Resource Conservation Strategy" in 2018. Its main goal is:

*To build a network of local teachers who become leaders on tourism and sustainability issues. They will then transfer knowledge to their students and schools, laying a bridge between existing local sustainable tourism initiatives and the educational sector so that social and environmental awareness are instilled in the next generation of community leaders.*

Sustainable tourism education for teachers in Quintana Roo is, thus, priority for Rainforest Alliance and TUI Care Foundation. The RA/TUI partnership thus fosters continuous training among experts in the latest sustainable growth models, experts who can harness and appreciate natural resources, and recognize the regional historic and cultural heritage of their communities.

In 2017, RA and TUI Care assessed tourism, environmental education, and sustainability-related efforts in Quintana Roo. The study included the input from stakeholders and organizations working on environmental education and sustainability training. The study revealed potential training opportunities for high-impact groups who need specialized sustainability-related knowledge. The study's main results showed that high school teachers have a great potential to further growth. They can be the source of knowledge for local youth groups, between the ages of 15 and 19. As future workers and decision-makers, these young people will be the backbone of a local economy whose predominant economic activity may be tourism.

## About this Activity Guide

The lack of educational material about community-specific issues is one of the main weaknesses in sustainability training and education in Mexico. Even though sustainability and tourism are a global concern, country and regional scenarios vary to a great extent. Conservation and training must therefore be extremely specific in order to create solid community engagement.

This Activity Guide is the result of a participatory process between RA/TUI and civil society organizations, entities dedicated to sustainability education, and sustainable tourism experts. The Guide addresses a local need for an educational tool about natural resource conservation, cultural heritage and its relationship with sustainable tourism in Quintana Roo.

This material seeks to serve as training and capacity-building material for teachers in Quintana Roo, both in urban and rural areas. They will thus be able to introduce sustainable tourism, environmental conservation, and cultural heritage to their students, deepening their knowledge about these topics through a series of activities that foster critical thinking, collective knowledge-building, meaningful learning, and active student engagement.

The materials included in this Guide are the outcome of the training sessions with high school teachers who were part of the Network of Leading Teachers on Sustainable Tourism's 14-month training. Quintana Roo teachers are welcome to use these materials as additional educational resources to build knowledge, values, and skills among students.

## Who is the Guide for?

Materials have been designed for high school teachers, teaching students ages 15 to 19. RA/TUI Care's assessment identified that few organizations train teachers in environmental conservation, tourism, and sustainability. Most training opportunities are available only to elementary school teachers.

This provides an outstanding window of opportunity in Quintana Roo's higher education sector. Educational resources for teachers would enable them to have an influence on the local youth's development, who are on their way to becoming active members of their communities.

The materials included in this Guide follow a progressive thematic order. However, the main challenge for teachers and facilitators is creating a meaningful learning experience tailored to the students' context, life experiences, knowledge, and their community's sense of belonging and identity towards their natural resources, historical legacy, traditions and the productive activities. Activities were designed to lead students to identify problems in their communities and region, their relationship with tourism, and what they can do address the issue and strive for sustainable development models. However, teachers and facilitators are welcome to adapt the materials in this Guide to meet specific student needs.

## What topics does this Guide cover?

**Sustainable tourism** is the guiding thread of this educational guide. Materials address the main components to understand sustainable tourism from a social, environmental, economic, and cultural perspective. Students will therefore have a holistic approach to tourism.

The Guide is divided into units, each of which covers a specific topic. Yet, the Guide does not need to be taught in sequential order. The topics each unit covers are:

Main topic: Sustainable Tourism				
Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
Tourism and My Community	Sustainability in Tourism	Sustainable Tourism and Heritage Conservation	Sustainable Tourism and Environmental Conservation	Social Dynamics behind Tourism

Each unit includes topic-specific information, activities, case studies, and suggested readings. Teacher training activities have been designed to create a meaningful learning<sup>1</sup>, constructivist<sup>2</sup>, and collective knowledge-building. Thus, the following units are structured in a way that teachers can progressively guide students through the topic and enrich their learning experience with additional resources.

Activities have also been designed to create a hands-on learning experience. Experiential learning is the process whereby knowledge is built as a result of reflection and transformational experiences. The cycle begins when a person has a concrete experience –such as participating in an activity–, followed by observation of and reflection upon that experience, leading to abstract conceptualization, generalizations, and a change of mindset or attitudes, which are then used to test hypothesis for future case scenarios<sup>3</sup>.

# Glossary<sup>4</sup>

**Benchmarking:** management technique that aims at discovering and defining the aspects that make a business more profitable than another, in order to adapt that knowledge to the business itself.

**Carrying capacity:** total number of visitors that an area can manage to ensure high satisfaction levels and minimum impact on natural and cultural resources.

**Competitiveness:** the ability of an organization, public or private, for-profit or non-profit, to obtain and maintain comparative advantages that enable it to achieve, sustain and improve a given position in the socio-economic environment.

**Heritage:** set of tangible and intangible assets, whether known or unknown, available to humanity to meet needs of the tourism industry through a process of transformation.

**Impact:** for the purposes of this context, the difference between living conditions of a population and a project's outputs and results. A project's outcome after its implementation in a community. Development occurs when a project yields all the benefits it had originally forecasted.

**Indicator:** useful data that measures to what extent goals and objectives have been achieved. At least two specific variables -objective and verifiable - that are analyzed as a single unit to identify situational changes and activity results.

**Marketing:** process of giving a product the right conditions and organizing logistics for its sale. Marketing covers aspects such as distribution, sales strategies, sales conditions, pricing policy, etc.

**Planning:** the continuous process of taking advantage of opportunities, reducing threats, consolidating strengths, transforming weaknesses, solving problems and meeting needs in order to achieve goals and objectives through strategic efficiency.

**Production chain:** group of economic agents directly involved in the production, processing and transfer of a product to the marketplace.

**Sustainable tourism development:** tourism that ensures a proper use of natural and cultural resources, guaranteeing that future generations will also benefit from them. Determining a place's carrying capacity is essential to observe this principle. The three cornerstones of sustainable tourism are the environment, society, and economy.

**Territorial development:** process of progressive change that seeks to create a balance between the well-being of the population, land use, and the conservation and protection of natural resources and productive activities. Its aim is to improve the quality of life of the population through a sustainable approach.

**Thematic tourism:** tourist offer linked to the motivation behind a trip, normally related to a specific activity. Some examples of thematic tourism include ecotourism, cultur-

al tourism, conference tourism, health tourism, adventure tourism, and ethno-tourism, among others.

**Tour operator:** companies that are formally incorporated as a natural or legal entity and are professionally engaged in making travel arrangements.

**Tourism:** phenomenon which entails the movement of people -tourists- to places outside their usual environment for personal or business/professional purposes, as well as the activities performed by them.

**Tourism cluster:** group of related companies, specialized providers, institutions that operate within a specific geographical location, and who are both competing and co-operating with one another.

**Tourism competitiveness:** tourism competitiveness has two approaches, the product approach and the business approach. Product competitiveness is the ability of a tourist attraction to combine conditions that differentiate it from other places and turn it into a product that can be commercialized. Product competitiveness, therefore, relates not only to the quality of the tourist attraction itself, but also to the factors that differentiate it and make it appealing to tourists. Examples of these factors include accessibility, infrastructure, tourist facilities, price/quality ratio, safety, image and overall quality. Business competitiveness is the ability to make profit and sustain a business over time.

**Tourism product:** attractions and services available in the market to meet tourists' needs, requirements, and wishes.

**Tourist area:** physical space of variable extension, with similar physical characteristics and landscapes. Small areas that are grouped together are known as tourist areas. All the elements that comprise a tourist area must have a common infrastructure and communication services.

**Tourist attraction:** a place, object or event that people visit while they are on holiday. It is the fundamental component of the tourist product.

**Tourist destination:** physical space where a visitor stays at least one night and which has tourism products, such as infrastructure, attractions, and tourism resources. Its competitiveness in the market is based on the general public's perceptions, management policy, and images based on its physical and administrative boundaries.

**Tourist service provider:** any natural or legal person providing tourism-related services -as a provider, intermediary or contractor - directly or indirectly to tourists.

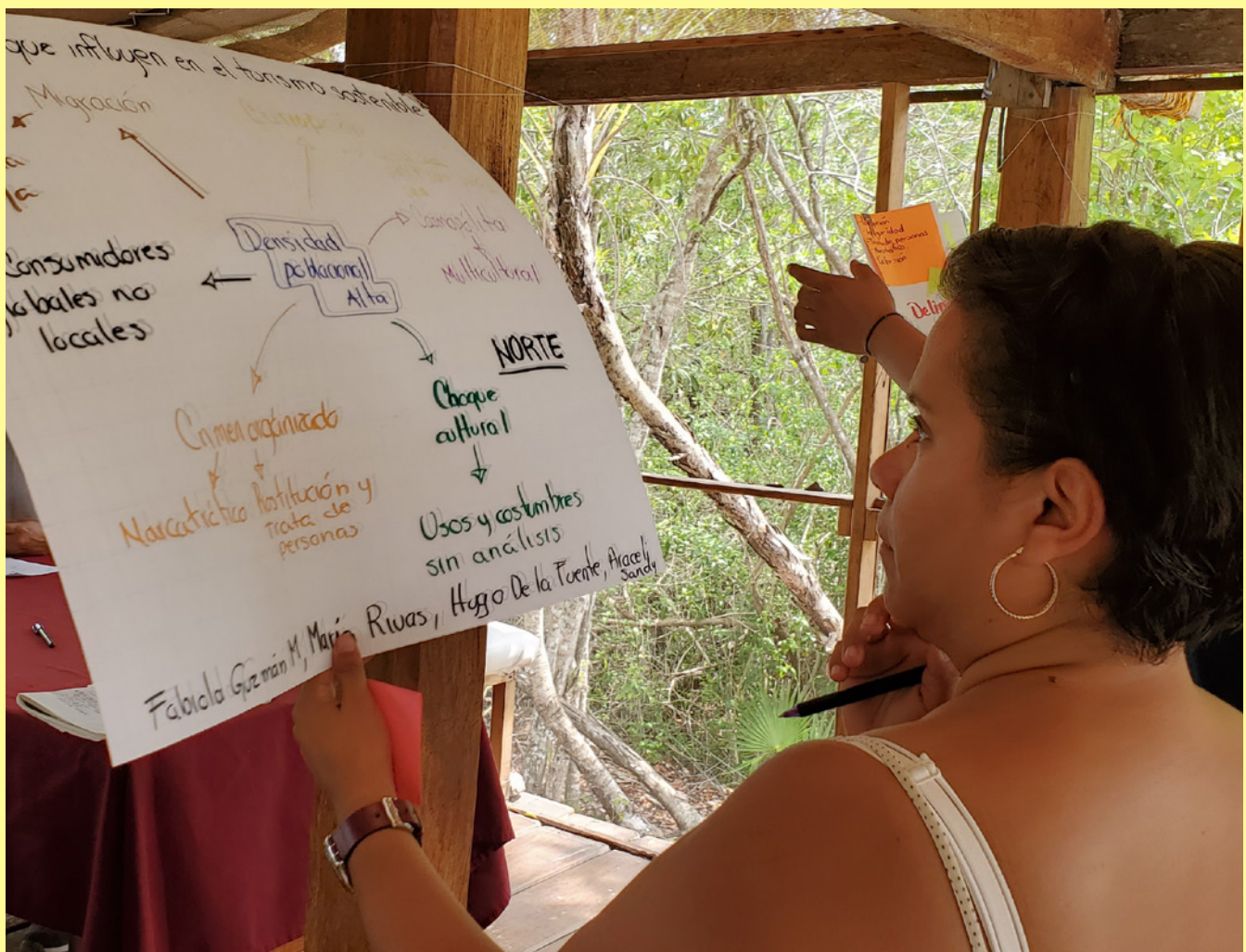
**Traditional or *ejido* authority:** members of an indigenous community who hold -within the structure of their own culture - power of to organize, lead a government, perform management tasks or exert social control.

**Training:** planned, systematic, and organized process that seeks to modify, improve and expand the staff's knowledge, skills and attitudes to further natural change, growth and adaptation to new internal and external circumstances. Training improves performance and is considered an indicator of competitiveness in the current labor market.

**Travel agencies:** Companies that are formally incorporated as a natural or legal entity and are professionally engaged in selling travel plans.

**UNESCO World Heritage:** monuments, ensembles, and sites of outstanding universal value from a historic, artistic, or scientific point of view. Heritage also includes natural assets, geological formations, and natural landscapes of outstanding value from an aesthetic, scientific, heritage-related, and cultural perspective.

**World Tourism Organization (UNWTO):** United Nations agency responsible for the promotion of responsible, sustainable and universally accessible tourism. As the leading international organization in the field of tourism, UNWTO promotes tourism as a driver of economic growth, inclusive development and environmental sustainability, and offers leadership and support to the sector in advancing knowledge and tourism policies worldwide.





## Unit 1: Tourism and My Community



Playa del Carmen, Solidaridad, Quintana Roo

# Unit 1 – Tourism and My Community

## Background

The biological richness and cultural heritage of Quintana Roo has made it one of Mexico's strongest natural capital

powerhouses. On the other hand, the state's outstanding contribution to the national economy thanks to tourism have put pressure on ecosystems, biodiversity and the preservation of the state's cultural wealth.

### An overview of Quintana Roo:



- Population: 1,502,000 inhabitants<sup>5</sup>
- Municipalities: Cozumel, Felipe Carrillo Puerto, Isla Mujeres, Othón P. Blanco, Benito Juárez, José María Morelos, Lázaro Cárdenas, Solidaridad, Tulum, Bacalar and Puerto Morelos
- Surface area: 50,843 km<sup>2</sup>, representing 2.2 % of the national territory
- Predominant vegetation: medium semi-evergreen forest
- Biodiversity (number of registered species)<sup>6</sup>: 405 fungi, 1,700 vascular plants, 1,335 insects, 644 fish, 22 amphibians, 106 reptiles, 483 birds, 129 mammals
- Natural protected areas: falling within federal jurisdiction: 17; within state jurisdiction: 10; within municipal jurisdiction: 1
- World Heritage Sites (UNESCO): Sian Ka'an Nature Reserve
- Ramsar sites: 13 out of the 142 registered in Mexico.

- Wetlands of international importance, considered as fundamental ecosystems in building resilience, and ensuring conservation and a sustainable use of natural resources
- Education: six out of 100 inhabitants of Quintana Roo have no schooling at all, 13 have unfinished elementary studies, 15 have completed primary education, 5 have unfinished secondary studies, 27 have completed secondary education, 7 have unfinished upper secondary studies, 15 have completed upper secondary education, 3 unfinished undergraduate degrees, 8 have obtained undergraduate degrees, 1 has post-graduate studies.
- Hotel rooms<sup>7</sup>: 101,493 rooms (increasing)
- Average annual tourists: 17 million
- Tourism spillover: 8.81 billion USD



According to the World Tourism Organization (UNWTO) tourism is a social, cultural and economic phenomenon related to the movement of people to places outside their usual place of residence for personal or business/professional reasons. These people are called visitors and tourism is related to what they do in the place of destination. Some of these activities include tourists spending in the local communities.

Tourism is a social phenomenon that consists of the voluntary and temporary displacement of individuals or groups of people who move from their place of regular residence to another in quest for recreation, rest, cultural experiences or health services. They do not perform any lucrative or remunerated activity, generating mutually-relevant social, economic and cultural exchanges.

International tourism has become as one of the most important economic activities worldwide, furthering development and yielding economic benefits for the local population. Tourism boosts the host's communities' economy directly and indirectly, mainly due to the demand for goods and services that must be produced and provided, even beyond the local communities' borders. In Mexico, tourism generates about 9 million jobs, 4 million direct jobs and about 5 million indirect jobs.

An economic sector is an area of the economy of a state or territory characterized by a specific type of productive process. Economic sectors are divided into primary (raw materials), secondary (manufacturing) and tertiary (services). They are the basis of every country's economy and the more solid they are, the more growth and development they spur. Since they are the source of formal employment, their main task is to increase the quality of life of a country's inhabitants, provide them with social security and prevent unemployment.

The economy of the state of Quintana Roo is based on foreign and national private investment in the tourism sector. As tourism has soared in the state, the number of people from other states that have migrated to join the state's labor force has exponentially increased due to the demand for skilled labor, especially in the tertiary sector. This phenomenon has triggered the need to expand social infrastructure and public services.

The economy of Quintana Roo works around tourism. It is therefore considered the state's main development driver. Tourism in the state of Quintana Roo contributes to 80% of the state's Gross Domestic Product (GDP) and 27.4% of the foreign currencies it attracts come from tourism, which translates into about 3.3 billion dollars, according to the Quintana Roo Department of Tourism (SEDETUR.) The northern part of the state is where most tourism activities take place due to the presence of destinations such as Cancun, Riviera Maya (Puerto Morelos, Playa del Carmen, Akumal and Tulum.) As for the south of the state, Cozumel's tourist activity development rate is slow.

Quintana Roo's tourism depends on natural resources, which main threats are changes in land use and the rapid urban sprawl. In the future, tourism in the state will face major challenges. It is essential therefore to build economic development models that foresee environmental conservation, and community well-being and a dignified

quality of life for locals. Development models must adhere to sustainable development practices that include diversified supply networks, the integration of rural areas, and the promotion of tourism products that suit visitors' profiles and global industry trends.

**Table 1.3**

Quintana Roo 2015, percentage share per sector in constant values

Activity	Percentage share 2014
<b>Primary Activities</b>	<b>0.72</b>
Agriculture, livestock farming, forestry, fishing and hunting	0.72
<b>Secondary activities</b>	<b>11.8</b>
Mining	0.46
Oil mining	0
Non-oil mining	0.46
Electric power, water and gas generation and distribution through pipelines	1.07
Construction	6.98
Manufacturing industries	3.31
Food industry	2.52
Beverage and tobacco industries	0.3
Textile manufacture and finishing; manufacturing of textile products (except garment production)	0.02
Garment production; leather and fur tanning and finishing; production of leather, fur and substitute materials	0.07
Wood industry	0
Paper industry; printing and related industries	0.04
Oil & gas; coal extraction; petroleum products; chemical industry; plastic and rubber industries	0.03
Manufacturing of non-metal mineral products	0.1
Basic metal industries; metal product manufacturing	0.03
Machinery and equipment manufacturing; computer, communications, and measurement equipment manufacturing; electrical components and accessories; manufacturing of spare parts, electrical devices and power generation equipment; transportation equipment manufacturing	0.01
Furniture, mattresses and blinds	0.11
Other manufacturing industries	0.09
<b>Tertiary activities</b>	<b>87.48</b>
Trade	18.67
Transportation, mailing and storage	8.15
Mass media	1.22
Financial and insurance services	2.51
Real estate and movable assets sales and lease	12.38
Professional, scientific and technical services	1.38
Corporate services	0
Business support and waste management and remediation services	5.81
Educational services	2.9
Healthcare and social security services	2.07
Culture and sports services; other recreational or leisure services	1.41
Temporary accommodation; food and beverage preparation services	21.53
Other services, except government activities	6.19

Source: Plan Estatal de Desarrollo 2016 - 2022

# Where do we come from?

## Objectives:

To know where students come from by locating their places of origin in a map of Mexico. To recognize the group's diversity to further inclusion and respect. To encourage participation from all students.

## Materials and instructions:

1. Ask each student to place a stamp or their nametag on a map of Mexico, indicating their state or community of origin.
2. Ask students to share with the group a trait of their place of origin when they place their identifier.
3. If most of the students in the group belong to the same hometown, the map can then be from their home community so students can mark the specific place they live in, sharing the main characteristics of their home, the things their families do, or if their parents come from a different community.
4. Ask the rest of the group to talk about their places of origin, their diversity, features and the different communities that live within the same area to start a conversation about diversity, cultural richness, multiculturalism, respect and inclusion.

## Recap:

At the end of the session, teachers can do a recap by asking the following prompting questions:

- What is the importance of recognizing diversity in a group?
- What traditions/activities do we share in common and what traditions differentiate us from the rest of the group?
- How can we make the most of a diverse group?
- How can we practice respect
- when a group is diverse?



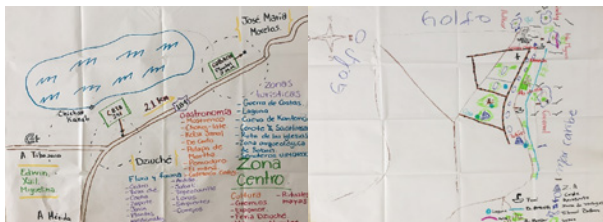
## 20 years later

### Objectives:

To raise awareness of the territory's fragility and natural resources. To discover the importance of land use and land exploitation by analyzing how land has been used in Quintana Roo in the past 20 years.

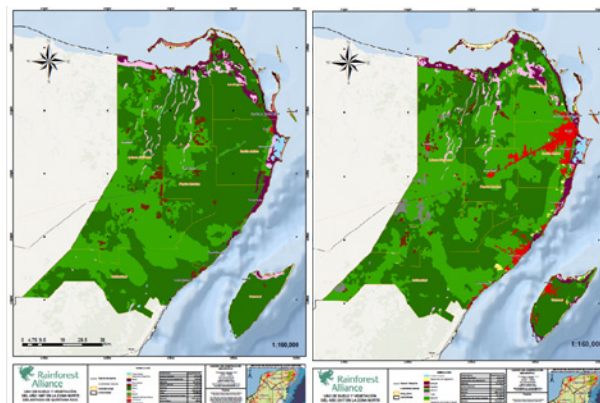
### Materials and instructions:

1. Download the maps that will be used in this activity at: <https://www.rainforest-alliance.org/curricula/eco-tourism> (available in Spanish)
2. Group students according to the geographical areas they come from. If all of them live in the same community, let them choose if they want to pick a specific area of their municipality or state.
3. Ask them to draw on a flip chart a map of what their communities have, including services, businesses, natural wealth, cultural heritage, social groups, i.e. all the elements they can identify from their designated geographical area.
4. Ask them to paste their maps on the walls or in a place where they are visible to the whole group. Ask each team to explain what they included in their work. Teachers should help students identify the similarities and differences of each geographic region, highlighting what factors are unique to each area.



5. Ask students to research into the changes their communities have gone through. In order to do this, students should ask someone from their community (parent, grandparent, uncle or neighbor) about the changes they have observed over the years. Ask students to think of 5 interview questions that will help them visualize what their community was like 10, 20, or 30 years ago.
6. Ask students to share their interviews' findings. What changes have people noticed over the past 10 to 30 years? What could be causing these changes? How could these changes affect the community?

7. Give each team the 1997 geographical land use maps corresponding to the area they are studying. Ask them to analyze what they see in the types of land use that were in force 20 years ago in their community and ask them to write down their observations. Teachers should gather the teams' observations, making reference to the maps worked on in the beginning and finding the similarities, differences and new findings.
8. Break students into teams again, and ask them to make a list of productive activities that take place in the community they are studying. Ask them to pay special attention to those activities that contribute to the local economy the most, particularly those they can relate to tourism.
9. Give each team its area's 2017 land use map. Ask them to compare the 1997 and the 2017 map and note down their observations. Ask teams to share their observations with the rest of the group.



Land use comparison in Northern Quintana Roo 1997 (left) and 2017 (right). Maps by Rainforest Alliance, 2018.

### Recap:

The teacher asks the participants to draw a new map of their community with the goods, services, resources and activities they envision for 2037 (in 20-years' time) on the back of the first maps. Ask students to explain their new maps by asking the following prompting questions:

- How does this activity help us understand development in Quintana Roo?
- What past actions have eroded our territory and favored the loss of our natural and cultural resources?
- If you could make decisions to change your community's development plan, what would you do differently?



# What do we know about tourism?

## Objectives:

To identify how much the group knows about sustainability, tourism and environmental education through qualitative diagnostic tools. To provide students with a baseline knowledge about sustainable tourism.

## Materials and instructions:

1. Hand out paper and pens and ask students to answer the following questions individually:
  - How do you define sustainable tourism?
  - How is tourism present in your community?
  - What do you understand by environmental education?
2. When students are ready, ask them to share their answers in pairs.
3. Ask them to share their answer sheets with another student.
4. Discuss the answers to questions 1 and 3 as a group by analyzing the content<sup>9</sup>. Ask them to use a highlighter or a color pencil to highlight the key words they find in each of the answers they wrote down.
5. Write down the key words for each answer on a board or a flip chart and mark the number of times each word appears or has been mentioned in the students' answers. The list will serve as a diagnostic of how much students knew about the concepts addressed in each question.

## Recap:

Ask some students to share the answers they wrote down to the rest of the group. Take some of the most precise answers shared during the group discussion and invite the rest of the group to build on them and the concepts of tourism, sustainability and environmental education.

At the end of the session, teachers can do a recap by asking the following prompting questions:

- Based on our answers, what are our former ideas on tourism, sustainability, and environmental education?
- How do we notice that tourism is present in our communities?
- Why is it worthy to recap on our initial knowledge as a group?

¿Como defines turismo Sostenible.-  
Es aquel que en base a nuestro ecosistemas podemos mostrar a los demas la biodiversidad que existe en ellos, siempre y cuando sea respetado el lugar en todos los aspectos y a su vez este ser o tener todo para desarrollarse sin modificar o dañar el ecosistema. de tal manera que al presentar todos los servicios no dañe a nuestro ecosistema.

De que forma el Turismo esta presente en tu comunidad.

1) ¿Cómo defines turismo sostenible?  
R= Las prácticas recreativas donde se aprovecha ciertos recursos naturales, paisajes, prácticas de producción sin tener un impacto ambiental negativo. Este aprovechar ciertos de recursos puede ser lucrativo o No lucrativo.

1) ¿Cómo defines turismo sustentable?  
Son las prácticas que en una área turística en particular tiene para fomentar, proteger o conservar el medio ambiente en el que se encuentra reduciendo así su impacto ambiental. (sustentable a las comunidades).

De que forma el turismo sustentable está presente en

# My productive environment

## Objectives:

To make a list that helps students understand the dynamics of the productive activities in their community and how they are related to productivity. To identify the activities that create development and economic growth in their local environment.

## Materials and instructions:

1. Students must have been asked in advance to research into their community's productive activities, that is, all the activities that create employment and economic profit in the place they live in.
2. Give students some blank flash cards and ask them to write down the economic activities they found during their research. They must write down one activity per card.
3. Ask them to make a circle and place the cards with the activities at the center. Group similar or repeated activities.
4. Ask students to get into teams and make a concept map of the productive activities in their community, including all the activities identified by the group and highlighting those that were repeated the most.
5. When the maps are ready, ask each team to share with the rest of the group.

6. Ask students to write down a scale that shows how much each activity depends directly or indirectly on tourism. Rate each activity on a scale from 1 to 5, where 1 means that the activity is completely independent from tourism, and 5 shows absolute dependence on tourism, as shown in the table below:

Productive activity in my community	Dependence on Tourism				
	1	2	3	4	5
Vegetable production			X		
Boat trips on the reefs					X

7. When students are ready, ask them to share what they wrote on their assessment scales.

## Recap:

At the end of the session, teachers can do a recap by asking the following prompting questions:

- How diverse are economic activities in our community?
- How does tourism influence our community's productivity?
- How can our community's productive activities become more diverse?
- How can our community's productive activities benefit tourism without having an impact on land use, natural resources, and cultural assets?

## Suggested readings

Formation of the State of Quintana Roo  
<http://identidadesmexico.com/2013/02/de-territorio-a-estado-la-creacion-del-estado-de-quintana-roo/>

Global Vision of Tourism to Mexico  
<https://www.datatur.sectur.gob.mx/Documentos%20compartidos/VisionGlobalTurismoAMexAbr2018.pdf>

Tourism in Mexico  
<https://www.redalyc.org/pdf/276/27611202.pdf>

## Reference sites

World Tourism Organization (UNWTO) <http://www2.unwto.org/es>

Global Sustainable Tourism Council (GSTC) <https://www.gstccouncil.org/?lang=es>

Department of Environment and Natural Resources (SEMARNAT) Sustainable Tourism <https://bit.ly/2LBpFMS>

University of Aragon. Sustainable Tourism and Environment <https://bit.ly/2qxDoLA>

## Unit 2: Sustainability in Tourism



*Sijil Noh Ha, Felipe Carrillo Puerto, Quintana Roo*



## Unit 2 – Sustainability in Tourism

Sustainable development is a process that strives for holistic and orderly resource management to ensure their long-term availability, allowing the conservation of natural and cultural capital, including protected areas. As a powerful development tool, tourism can and should actively participate in sustainable development strategies. Good tourism management practices require resources to be used sustainably, since these are the backbone of tourism itself.

The World Tourism Organization (UNWTO) defines sustainable tourism as a way to manage all resources so that they can meet economic, social and aesthetic needs, while respecting culture, essential ecological processes, biological diversity and other life-sustaining systems.

Sustainable development guidelines for tourism and sustainable management practices apply to all forms of tourism in all types of destinations, including mass tourism and specific industry segments. The principles of sustainability address the environmental, economic and sociocultural components of tourism. Creating a balance among these three dimensions is key to ensure their long-term sustainability.

Sustainable tourism should therefore<sup>9</sup>:

1. Optimize the use of natural resources, which are a fundamental element of tourism, preserving key natural processes, natural resources and biological diversity.
2. Respect the sociocultural identity of the host communities, preserving their cultural and architectural assets and their traditional values, and contributing to intercultural understanding and respect.
3. Ensure viable long-term economic activities that yield well-distributed socio-economic benefits to community members, such as opportunities for stable employment and income, and social services for the host communities, contributing to poverty reduction.

Sustainable development in tourism requires the informed participation of all stakeholders, as well as a strong political leadership to achieve high levels of engagement and reach a consensus. The quest for sustainable tourism is a continuous process that requires constant monitoring, as to implement preventive or corrective measures in case of incidents.

Sustainable tourism must also ensure high levels of satisfaction among tourists, giving them a meaningful experience that makes them more aware of sustainability issues, fostering sustainable tourism practices. Tourism is an industry in constant evolution, which changes according to economic, political and demographic factors. Nowadays, leisure travel is an ordinary thing in our lives, but this was not the case only a few decades ago.

For centuries, tourism was only available to a select group of people, mainly in Europe. The rise of commercial aviation in the 60s led to the growth of international tourism, as airlines allowed people to reach destinations which had previously been difficult to visit.

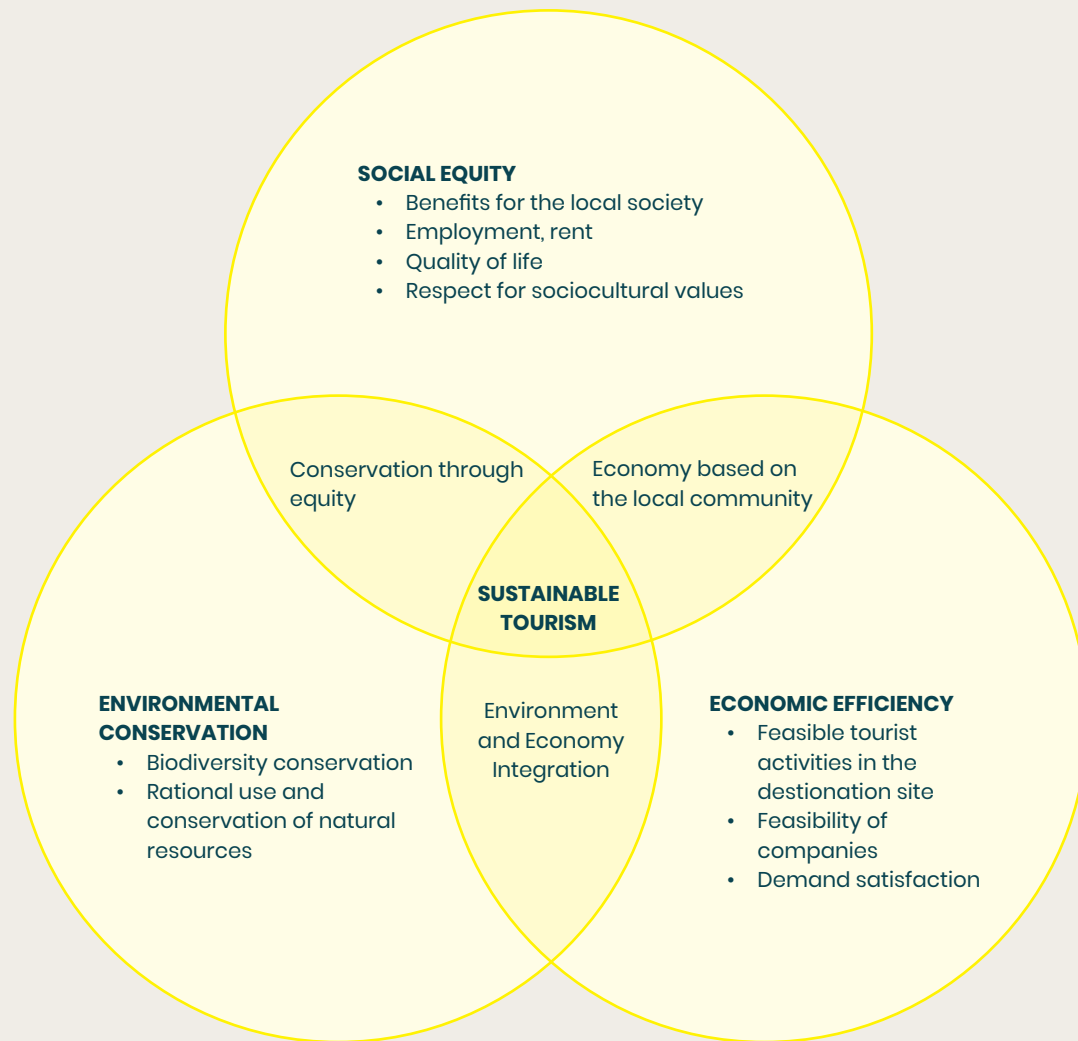
According to the World Travel and Tourism Council (WTTC), in the last 20 years the growth of tourism has gone through the roof for several reasons:

- Travelling became the rule, not the exception. We all seek to make a trip somewhere we see leisure travel as an ordinary thing, when only a few decades ago, international travel was reserved for small elite.
- The arrival of the internet has created new communication and sales channels that consumers can go directly to if they want a tourism products and services.
- The growth of emerging economies has generated new tourist flows. In these countries, the rising middle class aspires to travel, and travelling is a sign of status.
- The rise of low-cost airlines has reduced the price of regional travel.
- A greater number of possibilities: with the rise of tourism, all destinations in the world have begun to promote themselves internationally to attract new tourists.
- New types of accommodation emerged as a result of a collaborative economy model (e.g. Airbnb, couch surfing, among others.)

The exponential growth of tourism has made some destinations overflow with more tourists than they can manage. This industry already represents 10 percent of the global GDP and generates one in every 11 jobs worldwide. The world has gone from seeing 25 million tourists in 1950, to more than 1.5 billion in 2018.

Few industries have skyrocketed as tourism has, and tourism is expected to grow steadily at a rate of 4% per year. Not surprisingly, mass tourism has started to have negative effects on tourist destinations.

Therefore, the conventional tourism development model was questioned, especially in more traditional destinations that seek to create a balanced relationship between tourists and local citizens. Mass tourism first took its toll on local ecosystems, due to the arrival of large numbers of people, sometimes in very short periods.



Rapid-growing tourism has created five major future challenges to destinations and to the tourism industry<sup>10</sup>:

1. Tourism growth management: tourist destinations will have to create robust tourism development plans, so that it does not jeopardize the local resources (natural, historical and artistic) that tourists find appealing.
2. Climate change: on the one hand, tourism is directly affected by climate change-related events, such as greater weather instability and rising sea levels. Yet, tourism also contributes significantly to global warming and climate change because the industry is estimated to cause up to 5% of global greenhouse gas emissions. Tourist transportation alone accounts for 90% of all the tourist sector's emissions.
3. Poverty reduction: the natural and cultural resources of developing countries give them a relative economic advantage, since they are an attraction for the tourist sector. In this sense, tourism can become a tool to reduce poverty.
4. Preservation efforts: tourism is an essential source of income, and profits can be used to preserve natural resources. This factor is increasingly relevant because, due to long economic crises, many developing countries have reduced their preservation budget, while developed countries have cut back their funding toward cooperation for development and environmental protection.
5. Health and safety: in recent years, the impact of tourism on the health, quality of life and security in some host communities has raised concern, causing changes in tourist flow patterns mainly in tourist hotspots. Today, flows are directly affected by factors such as potential health contingencies, terrorism, and organized criminal activity.

# Sustainability gallery

## Objectives:

To collectively define the concept of sustainable tourism based on the information provided above, promoting a clear understanding of the concepts of sustainability and tourism, how they are interconnected, as well as the way in which they manifest themselves in the students' community.

## Materials and instructions:

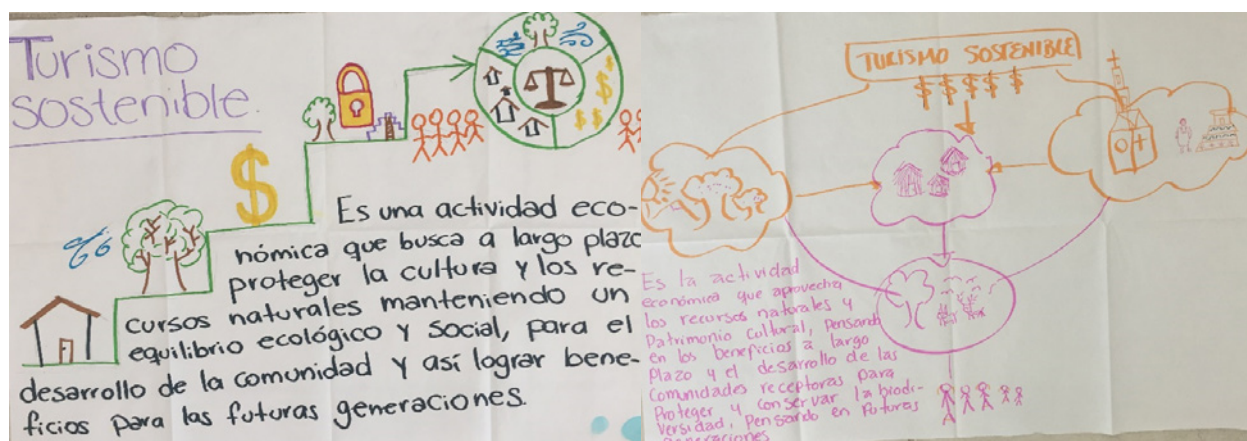
1. Use any game to group students into teams of 5 (max.)
2. Show students the list of keywords they identified as key components of sustainable tourism in Activity 1.3, or hold a brainstorming session to come up with a list of words related to tourism and sustainability.
3. Ask students to pick a maximum of ten words from the list and build their own definition of sustainable tourism.
4. Have a group discussion to allow students to share some of their definitions.
5. Give each team a specific time to share its definitions with other groups and then ask each group to draw or make a diagram of the definition of sustainable tourism based on the other groups' input. The intention is to put into a single drawing the graphic elements and words that synthesize everybody's definition of sustainable tourism.

6. Ask students to create a gallery, either by hanging their work with thread or clothespins or gluing them to the classroom walls.
7. Invite students from other groups to visit the gallery and ask the students that participated in the activity to explain their work.

## Recap:

At the end of the session, teachers can do a recap with each team by asking the following prompting questions, so as to share, later on, their thoughts in plenary:

- What is the general perception of the group on sustainable tourism?
- Should we change our definitions in any way?
- What are the key aspects of the definition of sustainable tourism?
- Do our communities have sustainable tourism models in place? Which ones do you know?





# Challenges and opportunities

## Objectives:

To analyze challenges, opportunities, threats and strengths that the students' communities face toward the development of sustainable tourism through a SWOT analysis that helps them understand where their communities stand.

## Materials and instructions:

1. Group students into teams of a five (max., depending on the number of participants). Ask them to perform a SWOT analysis<sup>1</sup> (Strengths, Weaknesses, Opportunities, and Threats) that responds to the following question: *How is sustainable tourism present in my community?* If students come from different locations, the teams can be divided by geographic areas to obtain more detailed input.
2. Give each team a flipchart and ask them to divide it into four sections: Strengths, Weaknesses, Opportunities, and Threats.
3. Ask students to fill in each section according to what they see happening in their community regarding sustainable tourism. Explain that strengths and weaknesses are related to activities, while challenges and opportunities are external factors.
4. When students are ready, ask each team to share their analysis. Presentations should be given to the whole group. Highlight the similarities and identify the differences among each team's work.

## Recap:

At the end of the session, teachers can do a recap by asking the following prompting questions:

- According to the teams' presentations, what are the main challenges communities face regarding sustainable tourism?
- If you could have a say in a tourism development plan in your community, what would its fundamentals be, based on this exercise? This last question can lead to a new activity, where the same teams should write a decalogue or set of guidelines for sustainable tourism in their community.

Análisis	FODA (Zona Centro)
<b>Fortalezas</b> <b>IDENTIDAD CULTURAL</b> • Centros de • Gastronomía remoniale • Apicultura. • Gremios. • Ferias. • Vaquerías • Bailes. • Ruta de las iglesias. • Serpientes colgantes.	<b>Oportunidades</b> <b>Juventud</b> <b>Centros educativos</b> <b>Lagunas</b> <b>Cenotes</b> <b>Agronomía y agricultura</b> <b>Lengua Maya</b>
<b>Debilidades</b> <b>Falta de gestión</b> <b>Falta de interés</b> <b>Falta de educación ambiental</b> <b>No hay variedad de servicios</b> <b>Mal servicio</b> <b>Mala calidad</b>	<b>Amenazas</b> <b>Pobreza</b> <b>Falta de conciencia</b> <b>Falta de capacitación</b> <b>Deforestación</b> <b>Falta de valores.</b>

ORTALEZAS	OPORTUNIDADES
Recursos. Cultura - Historia. Gastronomía. Entornos naturales conservados Turismo de bajo impacto. ANP → Marak' • Chinchorro • Xalax' • (Bacalar)	• Marco legal en materia ambiental (Internacional, Nacional, local) • Programas de educación ambiental y capacitación existentes. • Tribus • Acceso a Certificaciones Internacionales • Proyectos de apoyo en materia de desarrollo sostenible • Consultorías • Plan de Ordenamiento Territ. • Marketing Turístico • Desarrollo social
DEBILIDADES	AMENAZAS
• Gobiernos locales corruptos • Impacto de prog. de educ. amb. ↳ Sectores productivos → Falta de conciencia ambiental Empresas Comunidad • Falta de prod. agrop. sostenibles • Actividad camión (2da Act) → Contaminación • Falta de difusión de los programas de capacitación • Falta de calidad de los servidores turísticos • Falta de infraestructura y servicios turísticos. • Falta de operadores turísticos • Marketing turística • No hay impacto local visible → Mejora esp. significativa en calidad de vida	• Menores • I.E ⇒ Fuga de capitales Desastros • No hay impacto local visible • Cambios de gobierno ↳ Continuidad • Contaminación

# Local reality of sustainable tourism

## Objectives:

To get to know the reality of sustainable tourism in Quintana Roo based on expert data sources to help students get an outlook of the tourism industry in the state and its transition towards a sustainability model.

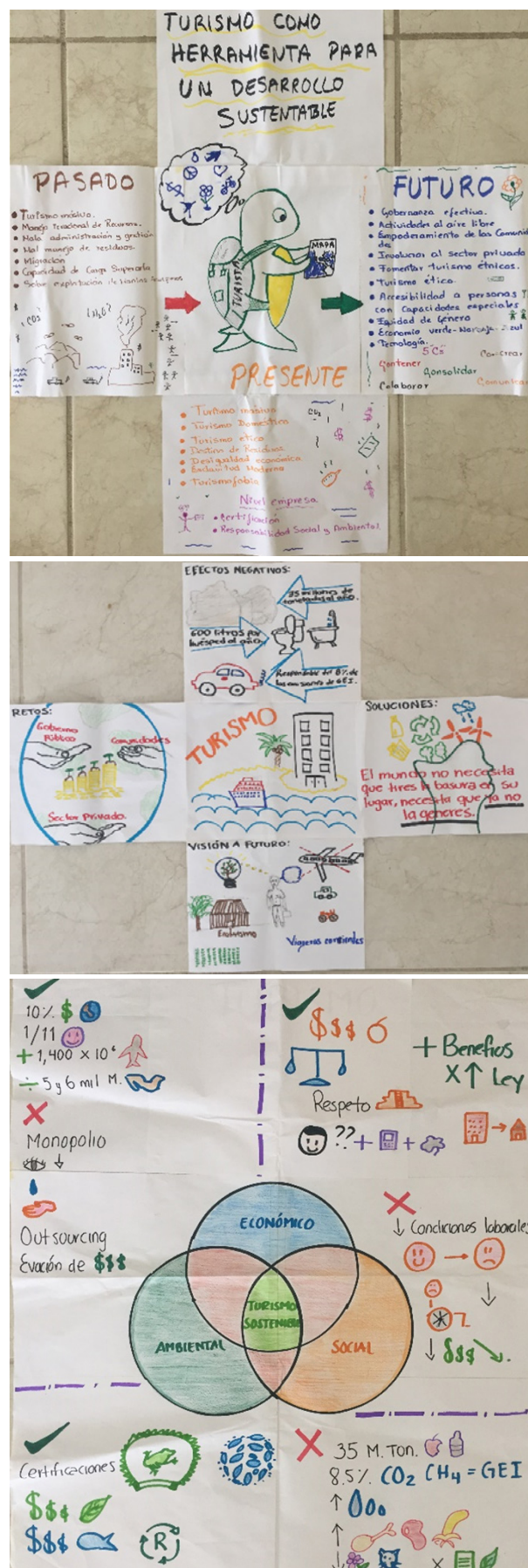
## Materials and instructions:

- Download and display the presentation "Sustainable tourism, trends and perspectives", from sustainable tourism expert, Vicente Ferreyra. (Download here: <https://www.rainforest-alliance.org/curricula/ecotourism>, available in Spanish)
- Ask students to create a diagram on a flipchart to describe what the presentation said about:
  - The state of sustainable tourism in Quintana Roo
  - Tourism and sustainability criteria that should be considered
  - The main challenges it faces
- The ideas expressed by each team in their diagram should offer an as-is radiography of the current situation of sustainable tourism in Quintana Roo.
- At the end, ask each team to share their ideas and diagrams with the rest of the group.

## Recap:

At the end of the session, teachers can do a recap by asking students to share, in pairs and later in plenary, the following prompting questions:

- Why is it important to identify the current status of sustainable tourism in Quintana Roo?
- In the next 10 years, what factors should be considered to implement a sustainable development model in Quintana Roo?





# Harmony between comfort and sustainability

## Karisma Hotels & Resorts, an example of sustainability in tourist hotel complexes<sup>12</sup>.

### The Issue

As Mexico's main tourism driver, every year Quintana Roo receives millions of tourists looking for quality options and entertainment during their stay. The existing offer in Quintana Roo is rich in high-category and high-quality options and there is a specific segment that meets the needs of those looking for luxury accommodation. Unfortunately, in many tourist destinations there still is the misconception that sustainability comes at the expense of "comfort and quality" in tourist services. Traditional businesspeople still think that sustainability is applicable only to certain market segments and not as a business philosophy that any company can implement, regardless of whether they target backpackers or tourists in search for luxury accommodations.

To prove that sustainability is at every sector's reach, Karisma Hotels & Resorts has opted to meet the needs of the luxury market niche without jeopardizing sustainable practices in its brands and properties.

### The Solution

Given the increasing pressure on natural resources that tourism exerts and the changes in social dynamics created by the hotel industry, Karisma Hotels & Resorts decided to reorganize its operations to implement good sustainability practices that favor society, the environment, and the economy.

The company began operations in 2000, opening hotels in Mexico, Jamaica, the Dominican Republic, Colombia, Croatia and Serbia. Its brands offer diverse options to tourists, either adults or families. Karisma Hotels & Resorts' mission is to be recognized internationally as a leading company in the hospitality industry, offering innovative products that optimize resources, promoting customer and collaborators' loyalty, contributing to the conservation of environment, and expanding into new markets.

Karisma Hotels & Resorts is convinced that any company that depends on a natural site to operate must consider its collaborators, neighboring communities, and the surrounding environment as part of its business model. There-

fore, they developed a sustainability policy based on 10 principles that incorporate social, economic and environmental aspects. From a social perspective, this policy foresees the well-being of its employees, their families and the communities neighboring on the resorts' facilities. Economy-wise, the policy considers a local supply chain, waste generation and management strategies, and defines what resources should be used. In environmental terms, the policy considers the protection of natural resources and biodiversity surrounding its facilities. This policy is based on the actions that hotels can implement to comply with the Sustainable Development Objectives.

The Passion for Sustainability program is the tool through which Karisma Hotels & Resorts implements, measures, monitors and evaluates its Sustainability Policy. Its indicators measure the social and environmental impact of the policy. In environmental matters, the performance indicators show the hotel's impact by assessing the guests' perception about the sustainability program, resource consumption (e.g. energy and water), waste generation, and carbon footprint, and voluntary environmentally friendly certifications.

### The Outcome

Karisma Hotels & Resorts published its first [sustainability report](#) in 2017. The document explains the parameters and indicators the resort will use to monitor the impact of its sustainability policy. Some of the report's highlights in terms of environmentally friendly practices are:

- All cleaning products used in its operation have a biodegradability rate higher than 70%.
- All agrochemicals used in their gardens are labeled blue and green. Organic products are generally preferred.
- 33,547 liters of waste cooking oil were recovered to produce biodiesel.
- More than 90% of the resort's cooling equipment uses ecological cooling gas. The hotel seeks to replace equipment that uses R22 coolant with more efficient and low-impact ones.
- Totally chlorine-free ecological paper with 50% of natural fibers is currently in use.
- Through the hotel's recycling program, 704,196 kilograms of recyclable waste were prevented from being sent to landfill.
- Through the sea turtle protection program, in 2017, 34,175 hatchlings were released.
- The hotel's greenhouse produces 12 tons of vegetables per month, all of which are used for their own consumption.



From the socio-economic point of view, Karisma Hotels & Resorts engaged in the following activities for the benefit of local Mayan communities in 2017:

- 4,185 liters of honey and 7,912 kilograms of jams were bought, generating income for the producing communities.
- Through the Karisma Foundation, created by the company to promote programs to support vulnerable communities, wheelchairs, crutches, walkers, hearing aids and other healing aids were donated to 148 families. In addition, funds were raised to assist 200 women who suffered from breast cancer.
- Overall, 5,514 people received medical assistance through the Karisma Foundation's Health Fairs and its Mobile Medical Unit.

Through these actions, Karisma Hotels & Resorts has become a leader in sustainable practices, allowing them to appeal to a market segment that is looking for sustainable accommodation. They have several partnerships at international, national and local levels with entities such as Viacom, TUI, Nickelodeon, Holliday Villages, AlliarSE, Flora, Fauna and Culture of Mexico, and the Quintana Roo State Committee for the Management, Protection and Conservation of the Sea Turtle. They have received awards and certifications from external evaluators, including Great Place to Work, Socially Responsible Company, Travelife, Gourmet Awards, EarthCheck, EcoLider Tripadvisor, Green Globe, and Travvy Award Winner.

## Innovation

Among its environmentally friendly practices, Hotel Dorado Royale has a project that furthers and recognizes sustainability strategies in its facilities and partner hotels: a greenhouse where approximately 12 tons of vegetables are produced per month and then used in their own kitchens.

This greenhouse is the only one certified by the Rainforest Alliance in a coastal area. It supplies about 20% of Karisma Hotels food demand in Mexico, thus allowing hotels to consume all the produce. This effort is communicated to guests to engage them in the hotel's good practices. Guided tours to the greenhouse are available for guests and external groups (except children and adolescents, due to hotel minimum age policies.) During the tours, visitors learn about how the greenhouse works, what inputs they use, and what is produced. Guests then realize that they are part of a production and consumption cycle. For more information, see the text box on the Rainforest Alliance certification of sustainable agriculture at the end of this Guide and this [video](#) about the greenhouse.

## The Takeaways

In an interview conducted in 2018 by [Sustentur](#) with Ms. Sasa Milojevic, president of hotel operations and CEO for Mexico and the Caribbean of Karisma Hotels & Resorts, she summarizes some of the main benefits and lessons learned by the company through its sustainability model. Here is a translated excerpt from this interview.

**How does Karisma Hotels & Resorts define sustainability?** Sustainability is something that defines us because it is an integral part of the company and our vision for the future. We pioneered in the incorporation of a sustainability model into our business vision and put it as a backbone of our daily operation. We have integrated the model not only in our vision, but into our business philosophy, on the one hand, measuring the efficiency and control of operations monitoring and, on the other hand, reducing the impacts we have on our community.

**What are the reasons why you want to go beyond your company's operations and join efforts in places of destination and engage in global actions?** As a company, it is very clear to us that we are not alone in this planet, that we depend on fate, community, neighbors, governments, resources around us and that we have, as a community, the responsibility to live in harmony and generate positive impacts [...] About our signing of the Manifesto on Sustainable Tourism, we wanted to make our position very clear, to show that we work hand in hand and collaborate with the government, with the place of destination, and with civil society, because only by working as a team can we really help our destinations be more successful in the long-term and achieve great results.

**What is the future vision of Grupo Karisma and how will they incorporate sustainability?** Our vision for the future is very clear: we will continue addressing sustainability, because we have already incorporated it into our company's DNA. It is part of our mission as a company and obviously, as part of a global society living the effects of a series of past wrong actions. It is up to all global citizens to take action at the local level to reverse this. Karisma is therefore contributing with its grain of sand to minimize these negative effects, increase positive impact, and work with other companies, in harmony and as a team.

**What would you tell other members of the hotel industry about the importance of incorporating sustainability models into their operation?** I invite all fellow businesspeople to invest in our future, in natural resource conservation, in creating solid and well-integrated societies and communities, because this business, our business, depends on it. There are all sorts of opportunities, economic, social and environmental, and I believe that the only way to overcome current challenges and to come out on top is to work as a team, in harmony. On our part, we are totally willing to do so<sup>13</sup>.

## Sustainable Agriculture Certification: the farm-to-table approach

The Rainforest Alliance Standard for Sustainable Agriculture is used to certify farms and producers that have sustainable agricultural and cattle-raising practices. The certification seal represents:

- more efficient farm management;
- reduced soil erosion;
- reduced water pollution;
- less waste;
- improved profitability and competitiveness;
- habitat protection;
- reduced threats to the environment and human health;
- reduced water consumption;
- improved conditions for agricultural workers, and
- improved collaboration between producers and conservationists.



# Quality or Quantity?

## Objectives:

**To know what the trends in sustainable tourism at an international level are by analyzing what factors translate into a sustainable quality of life for visitors, local workers, and the communities tourism has an impact on.**

## Materials and instructions:

1. Use Case Study #1 as a teaching tool and show students the presentation "Sustainability as a basic attribute to ensure quality and competitiveness in tourist services", created by sustainable tourism expert, Ronald Sanabria, (download <https://www.rainforest-alliance.org/curricula/ecotourism>, available in Spanish).
2. Divide students into groups. Give them a flipchart and split the chart into two columns. Ask students to write the characteristics of quantity-oriented tourism (guests, products, offer of activities, etc.) in one column, and the characteristics quality-oriented tourism in the other.
3. Then, ask each team to answer the following questions:
  - When does quantity-oriented tourism stop being sustainable?
  - How does quality show in sustainable tourism products?
4. Ask students to write their answers on the same flipchart to share with the rest of the group.
5. You can finish the session by asking every team to share what they learned during the presentation, or you can split the group into two teams for a subsequent discussion session in the form of a debate.

6. For the debate, split the group into two. One team will support the development of conventional mass tourism models since they are a strong economic driver. The other section will defend that sustainability should be the guiding thread of tourism development. Give students time to develop their arguments. Be the debate's mediator.

## Recap:

At the end of the session, teachers can do a recap by asking the following prompting questions:

- How is sustainable tourism related to the perception of quality?
- Based on what has been said, is every mass tourism model harmful and is every low-impact model sustainable? Teachers should help students understand that there are absolutes in sustainable tourism (good / bad). Rather, their appropriateness depends on the way activities are carried out (whether for thousands of visitors or just a few). Teachers should also explain that key factors should be considered to provide quality within a sustainability framework.



## Suggested readings

### Changes at the tourist level as a consumer:

John Gerzema and Michael D'Antonio (2011). The Power of the Post-Recession Consumer.  
<https://www.strategy-business.com/article/00054?gko=c-c8b8>

John Gerzema (2010). Spend Shift inc500.  
<https://www.slideshare.net/johngerzema/spend-shift-inc500>

Nielsen (2014). Doing Well by Doing Good.  
<https://www.nielsen.com/content/dam/nielsen/global/apac/docs/reports/2014/Nielsen-Global-Corporate-Social-Responsibility-Report-June-2014.pdf>

CREST (2017). The Case for Responsible Travel.  
[https://www.responsibletravel.org/docs/The%20Case%20for%20Responsible%20Travel%202017\\_Final.pdf](https://www.responsibletravel.org/docs/The%20Case%20for%20Responsible%20Travel%202017_Final.pdf)

CREST (2018). The Case for Responsible Travel.  
[https://www.responsibletravel.org/docs/The\\_Case\\_for\\_Responsible\\_Travel\\_2018\\_FINAL\\_FOR\\_WEB.pdf](https://www.responsibletravel.org/docs/The_Case_for_Responsible_Travel_2018_FINAL_FOR_WEB.pdf)

### New trends at the industry level:

World Travel & Tourism Council, WTTC (2017). Sustainable Tourism: The Past, Present, and Future.  
[https://www.wttc.org/-/media/files/reports/special-and-periodic-reports/sustainable-tourism\\_past-present-future.pdf?la=en](https://www.wttc.org/-/media/files/reports/special-and-periodic-reports/sustainable-tourism_past-present-future.pdf?la=en)

WTTC (2017). Sustainability Reporting in Travel & Tourism.  
<https://www.wttc.org/priorities/sustainable-growth/sustainability-reporting/sustainability-reporting-in-travel-and-tourism/>

TUI Group (2015). Better Holidays, Better World. TUI Sustainability Strategy 2015 -2020.  
[https://www.tuigroup.com/damfiles/default/tuigroup-15/en/sustainability/Reporting/TUI-Group-Better-Holidays-Better-World-strategy\\_EN-6fe1204e90342f-321580a4eb81c7dc72.pdf](https://www.tuigroup.com/damfiles/default/tuigroup-15/en/sustainability/Reporting/TUI-Group-Better-Holidays-Better-World-strategy_EN-6fe1204e90342f-321580a4eb81c7dc72.pdf)

Trip Advisor. Green Leaders Program.  
<https://www.tripadvisor.com/GreenLeaders>

Glenn Hasek (2016). Three Years After Launch, TripAdvisor GreenLeaders Tops 11,000 Participants.  
<https://www.greenlodgingnews.com/three-years-after-launch-tripadvisor-greenleaders/>

### Changes at the governmental level:

UNWTO (2016). El Turismo y los Objetivos de Desarrollo Sostenible  
<https://www.e-unwto.org/doi/pdf/10.18111/9789284417766>

UNWTO (2016). El Sector Turístico y los Objetivos de Desarrollo Sostenible.  
<http://www.turismoyods.org/publicacion/#/1/>

UN One Planet – Sustainable Consumption and Production. One Planet Sustainable Tourism Program.  
<http://www.oneplanetnetwork.org/sustainable-tourism/about>

### Changes at the level of tourist destinations:

Social Progress Imperative. The Social Progress Index.  
<https://www.socialprogress.org/>

Natalia Villalobos (2017). Costa Rica becomes the first country to measure the Social Progress Index in Tourist Centers.  
<https://www.elpais.cr/2017/01/11/costa-rica-becomes-in-the-first-country-in-measure-the-index-of-social-progress-in-tourist-centers/>

Instituto Costarricense de Turismo (2018). Índice de Progreso Social (IPS) en los Centros Turísticos de Costa Rica.  
<https://www.ict.go.cr/es/documentos-institucionales/estadisticas/cifras-turisticas/ips/1005-ips-2017/file.html>

## Unit 3: Sustainable Tourism and Cultural Conservation



Señor, Felipe Carrillo Puerto, Quintana Roo

## Unit 3 – Sustainable Tourism and Cultural Conservation

Tourism is rooted in a series of social factors that, when combined, boost the arrival of tourists and visitors. Social sciences such as Anthropology, Sociology, Geography, and Economy, among others, have examined for decades why people travel.

Discovering new cultures is an important experience among tourists. Travelling gives them the opportunity to approach millenary cultural manifestations. Tourism brings cultures together, creating social, cultural, and economic exchanges.

Yet, as the number of tourists in cities, heritage sites, and tourist areas soars, an often-precarious social equilibrium is put at stake. It is thus imperative to make conservation efforts and implement a proactive and responsible cultural asset management strategy.

Both low-income and high-income countries have a wide range of expectations about how they want to grow or diversify the tourism potential of their natural and cultural heritage. Yet, tourism advocates are not always aware that not all heritage sites are fit for tourism, and that furthering economic activity and infrastructure development may not be as easy as it seems. The success of a unique and highly appealing heritage site depends on the implementation of both site-specific, cross-sectorial policies, and tourism and asset management protocols. Tourism is a multi-dimensional activity that has an impact on both society and the economy.

Mexico is one in many countries that seek to draw on its cultural heritage to boost tourism. Heritage is seen as an asset that can be leveraged to diversify the country's tourist offer. Also, the value of tangible and intangible heritage is restored as a result of the interest public and private institutions, as well as national and international organizations show in rescue and conservation efforts. The right to the enjoyment of heritage is one of the pillars of these institutions, whose heritage management policy is based on international standards.

UNESCO has recognized that natural and cultural heritage can spur sustainable territorial development. Heritage is also a social asset that furthers a sense of belonging and identity among communities and peoples living within the same territory. It is important therefore to communicate its value to the community and use it as a multi-purpose educational tool.

UNESCO World Heritage Status brings along rights, responsibilities, privileges and commitments. World Heritage Status also sparks interest among tourists who seek to see the distinctive features of a site. Feeding their ego may be another reason why tourists visit these places.

Twenty-four Mexican sites are on the list of UNESCO Cultural Heritage Sites, as well as three natural sites: the Sian Ka'an Biosphere Reserve, the El Vizcaíno Whale Sanctuary, and the Islands and Protected Areas of the Gulf of California. Mexico's oral intangible heritage includes the indigenous celebrations of the Day of the Dead and the country's indigenous languages.

During their visit, tourists need food, leisure, miscellaneous services and gift shops to take some evidence of their trip home. Cultural heritage is essential to create tourism products that diversify the local and regional tourist offer.

The downsides of tourism include tangible or intangible cultural deterioration, unwanted effects on the local identity, society and culture; a drop in the locals' quality of life, overdependence on tourism, and a local economy that weakens as the tourism industry goes into crisis.

When a place's carrying capacity is exceeded, the volume of visitors needs to be controlled to prevent the site's degradation. This way, sustainable cultural tourism is ensured, preventing the decline described in the final stage of the tourism life cycle model.

Heritage is always at risk of damage, with or without visitors. Yet, tourism must foster conservation and proper use of cultural assets in both theory (promotion campaigns) and practice (tourism activities as such.)

Conserving the site is nevertheless the responsibility of its guardians, visitors, promoters, and owners, in other words, public and private organizations related to cultural heritage, visitors, cultural managers, the local community, and travel and tourism offices. Tangible and intangible cultural asset management should be collective. Preservation, good communication and collective enjoyment of the asset should be the common denominator to everyone's interests.

The true meaning of heritage materializes when conservation becomes the community's priority. Heritage management should advance social progress through the social distribution of wealth and territorial balance. It is therefore a public responsibility to share proper information about a community's assets and how to leverage them<sup>14</sup>.

Some populations rely on tourism as a major source of income. Yet, they compromise their own community's space, now overflowing with visitors. Guidelines and recommendations about natural and cultural heritage management have been issued by the United Nations (UN), the United Nations Education, Science and Culture Organization (UNESCO); the International Council on Monuments and Sites (ICOMOS), the International Council of Museums (ICOM), the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM), and the UNESCO World Heritage Centre. In Mexico, laws and regulations about tourism have been enacted or amended, and government bodies and specialized travel and tourism offices have been opened, at both the federal and the state levels.



Meanwhile, the UN Earth Charter is a serious reminder and an urgent call for action for the nations of the world to stop the devastation of the world's natural heritage resulting from ill-willed action and the pursuit of profit at the expense of community well-being. Cultural and nature tourism are an enormous responsibility for peoples, authorities, and communities in view of the duty to protect not only their identity, but life itself.

The positive interdependence between tourism and heritage conservation translates into common economic objectives. Conserving heritage and making it fit for tourism revitalize the local culture in the eyes of locals as well as domestic and international travelers. Meanwhile, tourism needs heritage to expand its offer. A diversified offer adds value to the tourist's experience and is therefore appealing to both locals and visitors. Heritage management and conservation are highly compatible with tourism. They are in fact inevitably interdependent.

As a result, the implementation of sustainable development models makes sustainable tourism and heritage conservation possible. Tourism is a source of income and benefits for the local community and its economy. Tourism improves the locals' quality of life and facilitates cultural exchanges. Its revenue also helps preserve the community's cultural, environmental, and urban assets.

### **Community-based tourism**

Mostly found in rural areas, community-based tourism refers to the implementation of a well-planned and sustainable model that depends on the local community's active engagement and is meant to benefit locals.

This approach to tourism represents an alternative source of income for rural, indigenous or low-income communities that rely on agriculture or live in suburban areas. It also allows them to preserve their local cultural and natural heritage.

The five pillars of community-based tourism are<sup>15</sup>:

1. Organization – fostering integration, inclusion, participation and leadership within the community through the evaluation of the community members' abilities and the project's long-term sustainability according to the community's organizational structure.
2. Territorial management – highlighting the value of local resources, empowering communities, and teaching them how to sustainably manage these resources and preserve the environment.
3. Cultural revitalization – preserving the community's customs, way of life, cultural manifestations, traditions, and cuisine.
4. Knowledge transfer – passing on knowledge, wisdom, traditions, and the history of the place and its peoples to newer generations.
5. Solidarity economy – distributing the benefits of tourism among the community and within the local territory. Employment opportunities should be created for locals, preventing their migration to urban areas. It is therefore essential to ensure continuous training and support from experts across the value chain and to keep the community permanently engaged.

# Entrepreneurial communities – Sijil Noh Ha: The Birth of the Great Water

## An environmentally-friendly and community-based benchmark<sup>16</sup>.

### The Issue

More than 16 million visitors arrived in the state of Quintana Roo in 2017, 5.3% more than in 2016, according to a report from the Quintana Roo Department of Tourism (SEDETUR)<sup>17</sup>. According to SEDETUR's report, spillover was estimated at more than 8 billion USD, 207.9 million more than in 2016. Approximately 11.5 million tourists visited Quintana Roo, translating into an average occupancy rate of 79.7% (3.8% higher than in 2016.) Nearly 50 airlines fly into Quintana Roo from 20 Mexican states and almost 100 international airports. More than 24 million visitors arrived at the Cancun International Airport alone in 2018 (10.2% more than in 2016.)

Additionally, tourists are increasingly interested in discovering the archaeological wonders of the state of Quintana Roo. The National Institute of Anthropology and History (INAH) reported that in 2017 more than 3 million visitors visited the state's archaeological sites (26% more than in 2016)<sup>18</sup>.

In this context, are rural communities actively participating and benefitting from the boom of tourist hotspots in the state of Quintana Roo? The government and NGOs have launched multiple initiatives to incorporate rural communities into the state's soaring tourism industry, either by creating employment opportunities or a community-based offer.

Researchers have documented, however, that not every development initiative succeeds. One study concluded that funding has made communities and projects dependent on subsidies, instead building solid self-management and decision-making skills.

Ecotourism has not spurred positive change in communities since the relationship among stakeholders as well as custom-made intervention strategies have not been appropriate, especially in indigenous communities that remain highly marginalized and impoverished. Ecotourism is only successful if stakeholders and their interests seek community well-being and conservation.<sup>19</sup>

There are, however, success stories that show that community-based tourism can be a beneficial alternative source of income for organized communities. Such is the case of the Sijil Noh Há eco-park ("the Birth of the Great Water") located in the *ejido* of Felipe Carrillo Puerto (histo-

ry in the text box<sup>20</sup>), just in the middle of the 1,230-hectare Much Kanan K'aax reserve.

### History of the Felipe Carrillo Puerto *Ejido*<sup>21</sup>

The Felipe Carrillo Puerto *ejido* was annexed to the X-Hazil *ejido* in 1935, but was declared independent in the 1940s. Between 1950 and 1980, the *ejido* authorities leased the land to timber companies. During the 1970s, the *ejido* community produced wood sleepers (crossties) for railways. The railway track construction project was led by the National Fund for Public Business Activities (FONAFE.) Tropical hardwoods were the main raw material used in the tracks.

In 1985, the *ejido* community participated in the Pilot Forestry Plan, promoted by the government of Quintana Roo, and the now extinct Undersecretary of Forestry. The Felipe Carrillo Puerto *ejido* then became a founding partner of the Organization of Wood-Producing Ejidos of the SC Mayan Area (OEPFZM) in 1986. During this period, the *ejido* bought logging machinery and a sawmill. This new economic activity meant that the *ejido* had to learn to manage its forest resources. The *ejido* management office was created as a result and was funded with the revenue obtained by selling wood, renting houses and other buildings, charging fees for natural resource exploitation, and selling land for urbanization.

As time went by, however, overexploitation of the *ejido* raised concern in the community and sparked growing interest in protecting their forest. In 2005, a land management study (EOT) was conducted in the *ejido* to document land use, create a future development plan based on potential challenges, and to regulate natural resource exploitation.

Two voluntary reserves were created at the request of the community of Felipe Carrillo Puerto. The first reserve was created in 2005, while the land management study was under way. A 19,024.04-hectare area, the reserve is located East of the *ejido* and neighbors the Sian Ka'an Biosphere Reserve. Some of the reasons this area was turned into a reserve was that it is highly prone to waterlogging year-round, and it is considerably inaccessible. It was therefore not appropriate for productive activities.

Two years later, in 2007, the second reserve was created. It was named Much' Kanan K'aax, which means "Together we protect the forest" in the Yucatec Maya language. The reserve is located South of the *ejido* and covers 1,230 hectares. This area was turned into a reserve to strengthen the carbon sequestration efforts the *ejido* had engaged in 2006 when they received support from the NGO U'yo' olché and funding from the National Forestry Commission (CONAFOR.) One of the purposes of this reserve is to preserve the tropical forest through massive reforestation. Later, carbon bonds started to be sold in national and international markets.

In 2010 Much' Kanan K'áax was certified by the National Commission of Natural Protected Areas (CONANP) as a voluntary conservation area for 25 years. Funded by the National Commission for the Development of Indigenous Peoples (CDI), the Forestry Conservation and Sustainable Management Project (PROCYMAF), and the United Nations Development Program (UNDP), the Sijil Noh Há eco-park was created in 2008 inside the Much' Kanan K'áax Reserve.

## The Solution

The *ejido* of Felipe Carrillo Puerto was created between 1935 and 1944, and was awarded a total surface area of 47,000 hectares. As described by the Secretary of the *ejido*'s board, María Eugenia Yan Pérez, in the past 25 years, the *ejido*'s economic activities have included the sale of sustainable wood, and voluntary management of three reserves. Additionally, 2,800 hectares provide environmental services. Forests in this area are mostly of the evergreen tropical type, characterized by their high botanical diversity, the dominant species being *Brosimum alicastrum* (locally known as the Ramón tree) and *Manilkara zapota* (sapota)<sup>22</sup>.

In 2006, the Felipe Carrillo Puerto *ejido* decided to create an eco-park offering ecotourism activities. Visitors can explore the lagoon and discover the local fauna, flora, water springs, culture, and traditions without placing pressure on natural resources. The project was launched in 2008 when the main lagoon was opened to the public. Yet, the park was officially inaugurated on June 27th, 2009. Its purpose is to provide an alternative source of income and employment opportunities to the indigenous communities of the Felipe Carrillo Puerto *ejido*, keeping natural conservation at the core of the park's mission<sup>23</sup>. The National Commission for the Development of Indigenous Peoples (CDI) helped launch operations. According to Mrs. Yan Pérez, "we did not know almost anything about the lagoon, but professor Sebastian Proust helped us launch a carbon sequestration pilot, training us in biodiversity, natural resource preservation, and funding strategies. It was a long and complicated process, but we finally obtained reserve status, and we are now another possible destination for visitors coming to the Sian Ka'an reserve. The park is also a very popular destination for locals given its close proximity to the Felipe Carrillo Puerto *ejido*. Forest conservation progressively gave way to other sustainable development projects" [translated quote.]

The park is currently managed by the board of the *ejido*. The park's income is used to cover the cost of the services provided, and profits are saved for three years. After that period, and at the end of the board's three-year term, profits are divided among the founders of the *ejido*.

The park offers kayaking, educational trekking, mountain biking, bird watching, 6 cabins, and a campsite to spend the night at. Environmental education courses are also offered to the young to teach them how the reserve is divided. In the words of Mrs. Yan Pérez, "Sijil Noh Há is a leisure destination offering relaxation, comfort, fun, direct contact with nature, and most importantly, a comprehensive learning experience. Different applications of ecotechnology are available to show how we can lead a sustainable

lifestyle. The park operates in harmony with the natural environment, stands out for its plant and animal biodiversity, and is managed by Mayan people, who are experts in local culture and history."<sup>24</sup> [translated quote.] Visitors arriving at Sijil Noh Há come mainly from Playa del Carmen, Cancun, and Tulum, and are tired of the hustle and bustle of urban areas. We receive both Mexican and foreign tourists from countries such as Spain and England, who often find us on Facebook. The park receives both individual visitors and groups. They also have specialized staff to care for specific needs. According to Mrs. Yan Pérez, if a visitor does not speak Spanish "that is not a problem. We have staff from Felipe Carrillo Puerto who are fluent in other languages. We make visitors feel at home in Sijil Noh Há. We offer them unforgettable experiences, such as watching the sunset from a kayak, watching out for tropical birds, waking up to their chirp, and filling your lungs with fresh air. You leave filled with inner peace and thinking 'Coming to Sijil Noh Há was great!'" [translated quote.]

Other domestic visitors come from states such as Oaxaca and Chiapas to share their experience and learn from the Sijil Noh Há's eco-friendly approach to tourism and its best practices to replicate them in their communities of origin. "We use the land sustainably, we have ecotechnology solutions in place, we monitor birds and mammals, we are planting plants and trees back, and we have a carbon sequestration project operating since 2010.





Our ecotechnology solutions include solar panels, organic waste sorting and upcycling to feed animals and produce organic fertilizer for our gardens”, said Mrs. Yan Pérez (see text box<sup>25</sup>). Additionally, the park is working on a project with the National Institute of Social Economy (INAES) to place GPS camera traps and monitor the local fauna and flora.

## The Outcome

In terms of conservation, the 1,230-hectare reserve of Much Kanan K’aax is home to more than 90 different species<sup>26</sup>: of crocodiles, armadillos, snakes, bats, butterflies, monkeys, jaguars, raccoons, and crabs. Its lagoons are home to manatees, bottlenose dolphins, hawksbill, loggerhead, and river turtles; and a myriad fish species. Ospreys, frigate birds, pelicans, bare-throated tiger herons, and many other birds inhabit the local mangroves.

From a socioeconomic standpoint, after ten years in operation, the Sijil Noh Há eco-park is now a substantial source of employment for [#] number of people and fosters the consumption of local goods. With a carrying capacity of 40-50 people per day, an estimated 700 to 1,200 people visit the reserve every month during high season (such as Spring Break and Summer), according to data from 2015. The yearly average lies between 300 and 350 visitors per month<sup>27</sup>.

## The Takeaways

According to Mrs. Yan Pérez, “without ecotourism, local natural areas and their grandeur would remain unknown and unprotected. One of the main lessons learned is that continuous training is essential. Training has been key to providing good customer service, and staff training cannot be interrupted. One of the major challenges is teaching children from the schools surrounding the lagoon the importance of protecting biodiversity. Mrs. Yan Pérez highlights that “[she] always goes to training sessions and wildlife monitoring activities with [her] daughters when they are out of school. [They] want to invite teachers and students to the park so they learn not only in theory but in practice” [translated quote.]

As described by Mrs. Yan Pérez, present needs include maintenance to docks, boats, the bird watching tower, solar panels, a wind power source, and kayaks to offer a better service at the cabins. In the future, better trash collection services, an anti-poaching system, weather-resistant communication services, and utilities will also be necessary<sup>28</sup>.

“My main takeaway as a human being, as a mother, and as a worker, is that it is essential to take proper care of the environment. In fact, I am replicating at home some of the things I have learned at the park. To me, that’s the real meaning of sustainability. It’s taking care of the environment, it’s conserving and loving what we have to make it last forever”, concludes Yan Pérez [translated quote.]



## Ecotechnology at Sijil Noh Há

Source: <http://lagunasijilnohha.blogspot.com/>

- Solar energy system: A solar cell is powered by silicon cells that transform sunlight into electric power (12 V.) Power is then transferred to a solar charge controller, a device that regulates the power flowing into the batteries and cuts the supply when these are fully charged. An inverter is also used to turn 12 V power into 110 V power.
- Energy-saving stove (Tumben Ko’óben): In this stove, firewood is lit through the cooktop.
- Biodigester: A biodigester is an insulated deposit where anaerobic micro-organisms decompose organic waste. A biodigester is used to convert animal manure into energy, produce biogas, purify wastewater, and produce biofertilizer.
- Soapy water filters and leach fields: gray water is sent to tanks or sediment traps to separate solid waste from liquids. Water flows into a trench filled with different stones. Highly water-resistant plants are planted into the trench. Plants oxygenate water through photosynthesis. Only biodegradable soaps are used. Bleach is never used since it would kill the plants and microorganisms that remove waste from water.
- Dry toilets: Dry toilets are made of cement. Feces are covered in sawdust and then used as compost for trees or garden areas.
- Rainwater catchments: In order to save water and take advantage of the precious liquid rain provides, rainwater is collected, stored, and used for cleaning, doing the laundry, and watering green areas.





# The building blocks of community-based tourism

## Objectives:

To identify the key elements of sustainable, community-based tourism by analyzing the case of Sijil Noh Há to better understand the reserve's development model and to show students how this methodology could be applied to their communities.

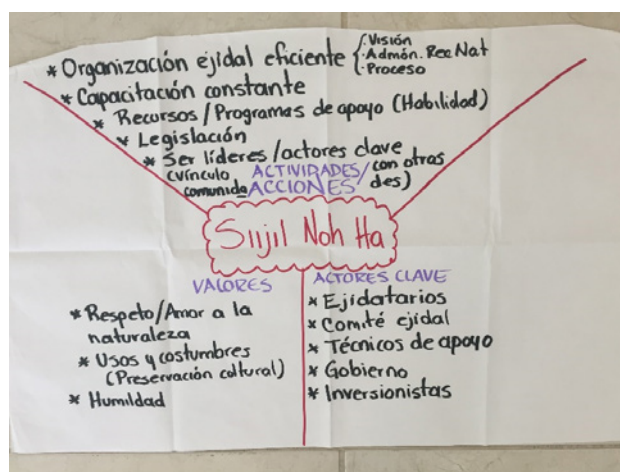
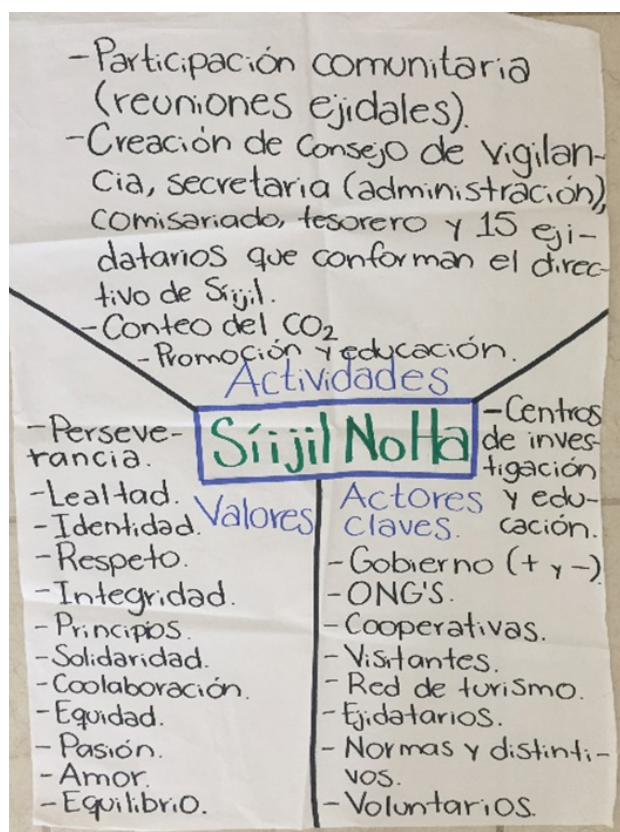
## Materials and instructions:

1. Split students into small groups and give them a copy of the case study "Entrepreneurial communities", included in this guide.
2. After reading the case study, ask students to analyze the key elements that have made Sijil Noh Há's intervention successful (10 minutes.).
3. Give each group a flipchart and markers to write down: 1) the key activities, 2) the stakeholders, and 3) the values that have been at the core of Sijil Noh Há's development.
4. Ask students to paste their work on a visible spot and explain their conclusions to the rest of the group. Teachers should guide a discussion based on the student's comments.

## Recap:

Teachers can do the session's recap by asking students to write a list of values, behaviors and stakeholders that were common to all presentations. Ask the following prompting questions to summarize takeaways:

- How should the [actions + values + stakeholders] relation take place to ensure that community-based tourism is sustainable?
- Which is the most important element in this relationship? Why?
- How could you implement this approach in your community?



# Sharing our legacy and creating job opportunities for the young and the elderly

## The community of Señor: a landmark case of sustainability and community-based tourism<sup>29</sup>.

### The Issue

More than 16 million visitors arrived in the state of Quintana Roo in 2017, a 5.3% increase in contrast to 2016, according to a report from the Quintana Roo Department of Tourism (SEDETUR)<sup>30</sup>. Spillover for that year is estimated at more than 8 billion USD, 207.9 million more than in 2016. Approximately 11.5 million tourists visited Quintana Roo, translating into an average occupancy rate of 79.7% (3.8% higher than in 2016.) Nearly 50 airlines fly into Quintana Roo from 20 Mexican states and almost 100 international airports. More than 23 million visitors arrived at the Cancun International Airport alone in 2018 (10.2% more than in 2016.)

Additionally, tourists are increasingly interested in discovering the natural and cultural wonders of the state of Quintana Roo. In this context, are rural communities actively participating and benefitting from the boom of tourist hotspots in the state of Quintana Roo? This case study describes the efforts made by the community of Señor to leverage the state's booming tourism industry for the benefit of local families.

Señor is a community of nearly 3,000 inhabitants, located in the municipality of Felipe Carrillo Puerto, Quintana Roo. Ninety-nine percent of its inhabitants are of Mayan descent, and 80% speak Maya. At a 73,400-hectare area, Señor is one of the largest ejidos in its municipality and includes the famous Blue Lagoon of Bacalar. Its perfect combination of natural splendor, vast rainforest, and rich cultural legacy of its people are highly appealing to tourists.

For more than 20 years, Marcos Canté has actively defended the land rights of the community of Señor for people to discover its natural wonders and the cultural legacy of "Los Abuelos" [Spanish for "The Grandparents"], a group of elders ages 90+ that use oral tradition to keep the story of the Caste War of Yucatán (1847-1901) alive.

For two decades, Marcos has engaged in negotiations and occasional confrontation with the local community to reach agreements and open the natural and cultural splendor of Señor to tourism in order to create a source

of income for its people. Marcos' effort has not been easy due to what he thinks is a lack of vision on the part of the members of the ejido about how the community's natural and cultural assets should be used in the long term.

### The Solution

A community-based ecotourism model was developed to offer job opportunities to community members, considering their skills and distinctive traits. As a result, the Xyaat tourism cooperative was created in 2003 to offer cultural and nature tours to local and foreign visitors.

The Xyaat cooperative is currently run by community members. It coordinates and promotes the work of local craftspeople, the community's history, and local Maya traditions. They offer small group tours and hire community members of all ages. For example, the young drive motorcycle taxis, take pictures, shoot video, and are in charge of social media, while elders narrate the local history to tourists, and women treat visitors with local cuisine.

Local tours include, among other activities, a visit to a medicine plant garden, a local elder who tells the story of the Caste War of Yucatán, a stingless bee farm, and a textile workshop specialized in spinning and weaving hemp.

### The Outcome

Profits go to the community and are used to promote the local culture and provide economic stability to local families. Profits help fund other initiatives as well, such as covering transportation fees to ceremonial centers for certain Maya authorities during local festivities. Profits also help organize environmental education courses for local children, who learn traditional handcrafting techniques and how to take care of nature.

Local children and youth have become so active in protecting their natural resources that they have created "Guardianes de la Naturaleza" [Spanish for "Nature Watchers"], a group that organizes various environmental education activities. For instance, the "Águilas Elegantes" group [Spanish for "The Graceful Eagles"] organizes bird watching sessions every Saturday. According to local adults, this activity has helped the young discover and appreciate their community's local flora and fauna.

## Innovation

The Xyaat cooperative has progressively grown stronger thanks to a community-based development and management model, despite the difficulties in reaching agreements with neighboring ejido members. Persistence led Xyaat to become a member of the Maya Ka'an community-based tourism network (see text box), the members of which are recognized as travel highlights of Quintana Roo. The network includes cultural, nature, and adventure tours within the municipalities of Tulum, Felipe Carrillo Puerto, and José María Morelos. Other tours allow visitors to experience local lifestyles, interact with locals, and learn from their traditions and history.

By becoming a member of the Maya Ka'an network, the Xyaat cooperative of Señor increased the quality of its tours, as well as its commitment towards becoming a role model for community development projects that benefit locals. In return, the Maya Ka'an network found a new channel to showcase its offer and attract tourists.

## The Takeaways

Opportunities for the young have prevented them from migrating to urban areas in search for a job. Some years ago, only women, children, and elders lived in the community. Today, young people are willingly staying and working to help their community. This has directly benefitted the local economy and instilled a sense of identity and belonging in younger generations. Moreover, in the words of Marcos Cortés, "the traditions of Maya elders are being transferred to younger generations, traditions that would otherwise fall into oblivion" [translated quote.]

**Learn more...**

### The Caste War of Yucatán<sup>31</sup>

The Caste War of Yucatán was a conflict between the Maya, the white (Spanish-born individuals and *criollos*), and the mestizo populations of the Yucatán peninsula. The war was waged between July 26th, 1847 and January 22nd, 1901. The fiercest battles were fought in the early years of the conflict, which then turned into a 50-year guerrilla war.



Maya Ka'an is a new must-see in the Mexican Caribbean, offering unforgettable experiences amid outstanding natural wonders and the historic and cultural legacy of the Maya people.

This eco-friendly destination grows the tourist offer of the state of Quintana Roo thanks to its sustainable approach and conservation efforts in the World Heritage Site of the Biosphere Reserve of Sian Ka'an.

Maya Ka'an also promotes community and regional development through sustainable projects in Maya communities dedicated to handcrafts, traditional medicine, and preserves, among others. Maya Ka'an furthers community engagement in conservation efforts and proper natural resource management for the benefit of the communities themselves.

For more info, visit: [www.mayakaan.travel](http://www.mayakaan.travel)

## Background

Since the Spanish conquest, indigenous peoples were displaced from their land. Moreover, many were enslaved or forced into serfdom. They were forced to work in *haciendas*, plantations owned by Spanish-born individuals, white *criollos*, and *mestizos*. They were scantily remunerated and forced to spend their money in the *tiendas de raya*, a *hacienda's* "company" store. Indigenous workers would often spend a lifetime trying to pay boundless or hereditary debts accrued by buying at those stores. They were also severely repressed. In fact, their situation did not substantially improve after the Mexican Independence. The Mayan population's rights were far behind those of the white population, even though Mexico never had a formal caste system in place.

In this context, José Justo Corro proclaimed in 1836 *Reforma de las Siete Leyes* [Spanish for "The 7-Law Reform"], a proposal that foresaw the creation of a centrist state, unleashing conflict in various states, including Yucatán, which decided to separate from Mexico. During this period, arms were given to most of the state's population, including the Maya, who in turn gained a lot of fighting experience.

The Maya population then planned an uprising. Having been armed during the *Yucatán separation movement*, they planned to use those weapons in their favor, and were categorically unwilling to give them up. However, the government of Yucatán found out that they were gathering at Jacinto Pat's *hacienda*, collecting weapons and food supplies. This rang alarm bells in the government due to an imminent uprising. They then decided to neutralize the enemy. Manuel Ay was apprehended, accused of conspiracy, and executed on July 26th, 1847. The population of Tepich, Quintana Roo, was also heavily attacked.



## The unfolding of the conflict

Hostilities set out after these events. Cecilio Chi, Maya chieftain of Tepich, directed an attack on the town's white population, killing all of them. Rumors said that only one white person was left alive to carry the news. Hostilities were implacable from both sides. The government of Yucatán ruthlessly repressed the indigenous population, with a special focus on eliminating Maya chieftains. Indigenous groups, in turn, systematically exterminated the white population. The situation was so dire that many fled South, to a British colony known as British Honduras.

Santiago Méndez completely lost control of the situation and sought unsuccessfully for foreign support. The Mexican government offered a cease-fire in return for Yucatán's reincorporation to Mexico. Méndez eventually resigned and was replaced by Miguel Barbachano. The new governor started negotiations with Jacinto Pat, but the proposal was rejected by Cecilio Chi. Internal differences among the Maya would later lead to their downfall. Additionally, the Maya interrupted their attacks to sow and harvest their land, as well as to conduct religious ceremonies.

The Maya continued to weaken. First, their two main chieftains, Pat and Chi, were killed by other Maya leaders. Moreover, the government of Yucatán obtained logistic and military support from the Mexican government, in return

for their reincorporation into Mexico. The war broke into a religious guerilla with the creation of the *Cruzoob* movement, who engaged in military activity until 1901, when government troops captured Bacalar.

## The post-conflict scenario

Much as the war is officially over, the quality of life of the Maya population has not improved. A substantial portion of the 20th century passed before the issue was addressed.





**To determine if community-based tourism is a feasible alternative and to discuss its importance for community development by examining the success story of the community of Señor in Felipe Carrillo Puerto, Quintana Roo.**

1. Split students into small groups and give them a copy of case study #3, included in this guide.
2. In pairs, ask students to write down a list of elements and situations that were key to the development of community-based tourism in Señor.
3. Ask each pair to share their list with the rest of the group.
4. Break into teams of four or five people. Give them a flipchart and markers to make a graphic representation (a diagram or a drawing) of what community-based tourism means for the community of Señor.
5. Teachers can guide this exercise by asking the following prompting questions:
  - What objects serve as visual representation of community-based tourism in Señor?
  - What symbols or icons embody the project's values, activities and stakeholders?
6. When finished drawing, each team should share their work with the rest of the group, explaining their drawings and the key elements they picked. Teachers should motivate students to explain what values, activities and stakeholders were incorporated into the drawings.

At the end of the session, teachers can do a recap of the collective discussion by asking the following prompting questions:

- [illegible]



## Folk tales and legends

### Objectives:

**To rescue the cultural legacy of the elders living in the students' communities of origin by recovering folk tales and legends, creating a sense of identity and belonging among younger generations.**

### Materials and instructions:

1. Invite one or two elders (they can be family members or friends of the students) to share a story, a folk tale or a legend from the community. It would be even better if the story is shared in Spanish and in the community's indigenous language.
2. During the storytelling session, students should take note of the cultural values in the story, as well as symbols or icons that are representative of the community (e.g. traditional foods, folk dances, traditions, etc.)
3. Students should then share their notes with the rest of the group.
4. Teachers should guide a discussion based on the students' input asking the following prompting questions: why is it important to appreciate our community's oral traditions? What values do these tales and legends tell us about? How do we feel about our community and our country having such a rich cultural legacy?
5. If possible, students should visit an elementary school and tell the same story or tale using teaching materials such as drawings, visual aid, real-life objects, or puppets.

### Recap:

At the end of the session, teachers can do a recap by asking the following prompting questions:

- Why is it important to appreciate our cultural heritage?
- How can sustainable tourism help conserve our communities' heritage?
- How can youth help conserve our heritage?



## **Unit 4: Sustainable Tourism and Environmental Conservation**



*Reserva Natural Río Secreto, Solidaridad, Quintana Roo*

## Unit 4 – Sustainable tourism and environmental conservation

Tourism is an essential tool towards natural conservation and community development. As environmental awareness increased in recent decades, a more environmentally friendly trend in tourism arose, making tourism crucial for environmental conservation.

Tourism is an activity that entails the movement of thousands of people around the world. It brings substantial economic benefits to the host country (and the global economy). However, tourism has major impacts on the environment, such as accelerating climate change, the loss of biodiversity and wilderness, resource overexploitation or environmentally harmful waste production.

For example, a holidaymaker drinks up to 7% more water than a local. The environmental impacts intensify in the host country, but they are also felt at a global scale. Ecological tourism or ecotourism is, thus, an alternative that protects the environment. Ecotourism offers tourists a more environmentally friendly and healthy option that also improves the local communities' conditions.

Although Mexico has an extremely high potential to offer new ecotourism activities thanks to its diverse geography, weather, and soils; its countless and varied ecosystems, its fascinating natural attractions and formidable cultural richness, the government and national and foreign investors are still promoting conventional tourism development models. This approach seeks the expansion of the so-called Integrally Planned Tourist Centers (e.g. Cancun, Ixtapa, Huatulco Bays), which involve the construction of large-scale hotel zones, recreational and commercial centers. To a lesser extent, this model seeks the consolidation of traditional beaches. Only recently did the Department of Tourism (SEDETUR) and private operators start to show an interest in more responsible tourism development models.

Biodiversity and environmental well-being are paramount to human existence and life on our planet. Our cultures and productive activities depend on animal and plant species. For instance, there would be no fruits and vegetables –and, in general, no food production– without the ecosystem services provided by bees through flower pollination. Birds are also essential to the proliferation of plants and forests because they feed off fruits and spread their seeds.

Tourism has a special relationship with the environment, as it is deeply related to natural assets. The combination of beautiful landscapes, abundant animal and plant species, heritage sites, and indigenous and local cultures are the main reasons why tourists visit countries like Mexico. The conservation of these goods and resources is extremely important. Tourism must therefore ensure that its activities and infrastructure do not damage biological and cultural assets. Rather, it should promote, support and contribute to their care.

Preserving natural heritage is essential, since it is a tourist resource, as well as the reason why Mexico is known and visited by many. Nature is part of Mexico's identity as a tourist destination and as a country. Each inhabitant is responsible of passing on the country's heritage in good conditions to future generations. Without our natural resources we will lose our identity and livelihood. Sustainable tourism depends on environmental protection and pays special attention to the depletion and deterioration of renewable and non-renewable resources<sup>32</sup>.

Numerous environmental issues call for urgent attention: soil deterioration, desertification and erosion, water stress, excessive use of fossil fuels, energy consumption, climate change, loss of biodiversity, all kinds of pollution (soil, air, water, light, noise), landscape deterioration (visual and ecological), waste generation, over-consumption and human overpopulation and massification. Tourism can tackle these issues through concrete actions due to its scope. Nowadays, almost anyone can travel and the costs of travel and recreational activities have fallen sharply. At some point in our lives, we have all taken a trip outside our place of residence. At some point we are and will be tourists and we need to hold ourselves accountable for it.

Climate change and the use of fossil fuels must also be addressed by the tourism sector. Activity-specific aspects should be considered, such as travel trends, distance traveled, and whether to offer non-motorized transportation at the tourist destination (e.g. bicycles, electric cars or kayaks, if appropriate), among others.

A trans-continental passenger travelling by air will undoubtedly use far more fuel and therefore issue more greenhouse gases than a tourist travelling in his or her own state or country. When choosing a tourist destination, miles covered should be considered to reduce our environmental footprint.

In order to avoid greenhouse gas emissions, the tourism sector encourages restaurants and hotels to consume domestic and especially local products. This is a very good initiative. Food transportation to or from other entities or countries is highly energy-intensive. Some hotels have gone one step ahead and created their own fruit and vegetable gardens. Another positive environmental alternative is offering dishes made with sustainable local products, e.g. certified organic wines, GMO-free, native corn tortillas; or non-banned seafood.

Biodiversity (diversity of living beings) is a fundamental natural asset that is highly appealing to tourists. However, biodiversity continues to be decimated, which is why the tourism sector must commit itself to not deteriorate it further. It is important to be familiar with the threatened or endangered animals and plants under Official Mexican Standard NOM-059. Illegal wildlife trade is largely due to the fact that animals and plants are bought and taken home by tourists, who are often unaware that they are committing a crime and causing serious environmental damage.

Among the most emblematic endangered species are sea turtles, cacti, parrots, macaws, reptiles and monkeys. Souvenir shops should not sell their products (purses, orna-

ments, furs, etc.) nor should resorts exhibit or local species without the necessary permits from the Ministry of the Environment and Natural Resources (SEMARNAT.)

Biodiversity could also be conserved by planting native plant gardens in hotels and tourism developments given that they are already adapted to the local conditions, and require less water, chemicals and maintenance. Native gardens attract local fauna. It is important to inform tourists about the existence of these small natural areas, using signs and information on local species. This contributes to the interaction of visitors and local biodiversity, raising environmental awareness. Some tourist attractions have wild lion cubs, tigers and monkeys tourists can take pictures with. Animals must only be there if the site is legally allowed to exhibit wild animals.

Soil, air, and water pollution are fundamental issues that must be addressed by the tourism industry. Management plans and best practice manuals should be created to protect and use resources efficiently, reducing waste, sustainably managing valuable materials, and reincorporating them through a circular economy model.

### **Environmental services**

Environmental services are the benefits nature gives to the global and local community. From an economic standpoint, local populations obtain economic gain. Material services provide provisions, ecosystem regulation and support, while cultural assets create an identity and a sense of belonging and transcendence.

The ecological processes of ecosystems provide humanity with a wide and important range of essential services for free. These include: keeping the atmosphere in gaseous state (a feature that regulates the climate); improving water quality; controlling hydrological cycles, including reducing serious floods and droughts; protecting coastal areas through coral reef and sand dune systems, fertilizing and conserving soils, controlling crop plagues and disease vectors, pollinizing crops, disposing of food from water and land environments; and keeping a vast "genetic library" humankind has thrived on, from crops and domesticated animals to medicine and industrial products<sup>33</sup>.

Environmental services are directly dependent on "healthy" ecosystems and biodiversity. When ecosystems are degraded, so are the services they provide. Yet, while the economic impact of environmental degradation is always measured, the functional impact done to ecosystems is largely ignored, since it is only considered indirect or collateral damage.

The problem lies in traditional academic views about the economy. Any definition of value that does not stem from the main economic agents, or which is not translated into a market transaction, is disregarded. Despite asymmetric information available about the subject, the real costs and benefits of a transaction may be clearer for those that show an interest in the subject. However, indirect costs, i.e. externalities, are more or less systematically ignored.



# Environmental services

## Objectives:

**To understand what environmental services are from an ecosystem-based view by identifying and analyzing the definitions and classifications of environmental services. Students will thus understand the value of natural assets and their link to sustainable tourism.**

## Materials and instructions:

1. Download and present the material on environmental services (<https://www.rainforest-alliance.org/curricula/ecotourism>, available in Spanish)
2. Through a game activity, ask students to split into four teams. Each team will share what they learned in the presentation about:
  - Provision or supply of environmental services
  - Regulatory environmental services
  - Cultural environmental services
  - Environmental support services

3. Ask each team to create its own definition of one of these environmental services. Give them a flip chart to draw a mind map of all the key concepts related to that environmental service.
4. When ready, ask them to present their definition to the group, as well as their mind map.
5. Ask a different team to provide an example of one of the environmental services discussed above, preferably one that provides information about the services provided in their community.

## Recap:

At the end of the session, teachers can do a recap by asking the following prompting questions:

- What environmental services are related to tourist activities in my community?
- How can tourism influence the well-being of environmental services?

# Building an ecosystem profile

## Objectives:

To learn about the main ecosystems in the state of Quintana Roo, their ecosystem value and the environmental services they provide by profiling the ecosystems in the Peninsula. To promote knowledge of the state's natural capital, as well as the importance of appreciating those assets.

## Materials and instructions:

1. Download and present the material on Quintana Roo's ecosystems from <https://www.rainforest-alliance.org/curricula/ecotourism> (available in Spanish)
2. Have a draw and split students into five teams. Each team will be assigned one of the five ecosystems described in the reading material:
  - Rainforests
  - Aquifers
  - Wetlands/Mangroves
  - Coastal dunes
  - Coral reefs
3. Give each group a flip chart, color paper, markers, crayons, scissors, tape, and magazines or newspapers. Each team must make a poster or visual representation of the assigned ecosystem including 1) its general ecological characteristics, 2) the environ-

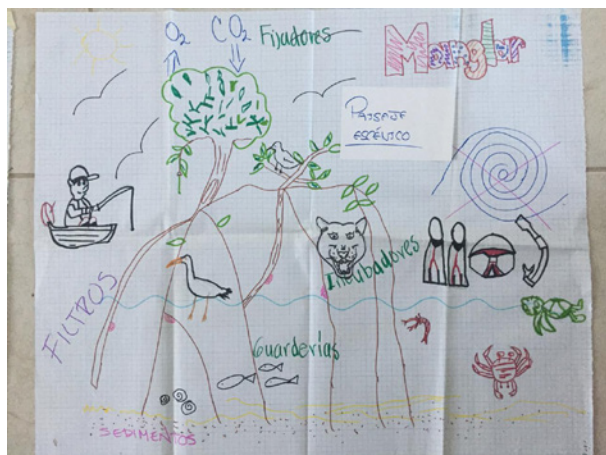
mental services it provides and 3) its link to tourism in Quintana Roo.

4. Once the posters are completed, ask the teams to place themselves around the room according to the location of the ecosystems in Quintana Roo, in the form of an ecosystem profile<sup>34</sup>.
5. Once the ecosystems are organized in sequence, each team will present their work, commenting on the three points requested in paragraph 3.
6. Guides the teams' presentations commenting on the value of the environmental services they provide, the value of natural capital for tourism and the importance of sustainability in economic activities.

## Recap:

At the end of the session, teachers can do a recap by asking the following prompting questions:

- Did you know about environmental services provided by ecosystems?
- What do you think about how vulnerable ecosystems are to high-impact economic activities such as tourism in Quintana Roo?



## Value of Ecosystems

### Objectives:

To recognize the value of ecosystems according to their ecosystem services and to discuss the key role of tourism in their conservation through a case study from an ecosystem in Quintana Roo.

- When students are ready, ask students to share their opinion in pairs. Assign a specific time for this activity.
- Start a group discussion based on the questions about the reading.

### Materials and instructions:

- Download and give students a copy of an article on the value of Cozumel's mangroves (<https://www.rain-forest-alliance.org/curricula/ecotourism> , available in Spanish)
- Ask students to individually write a summary of the reading, answering the following prompting questions:
  - What is the importance of giving ecosystem services an economic value?
  - How does Cozumel benefit from knowing the economic value of its mangroves?
  - How is the economic value of mangroves linked to tourism in Cozumel?

## Interconnectivity

### Objectives:

To identify the interrelation between the ecosystems of Quintana Roo, according to the environmental services they provide, and by elaborating a matrix that shows the interdependence of ecosystems to promote in students a holistic view about ecosystems that gives importance to the conservation of natural capital.

### Recap:

At the end of the session, teachers can do a recap by asking the following prompting questions:

- Why is it important to know how ecosystems are interconnected?
- Is an ecosystem more important than the rest? Why?
- How can sustainable tourism help promote the idea of interconnectivity between ecosystems?

### Materials and instructions:

Based on activities 4.1 and 4.2, ask all students to create a matrix linking the environmental services each ecosystem provides as follows:

	Rain-forests	Aquifers	Wetlands / Mangroves	Coastal dunes	Coral reefs
Rainforest		Single water source for surface ecosystems			



# Raising environmental awareness from the Earth's bowels

## Rio Secreto, an example of planning and operation of a tourist service based on conservation and environmental education<sup>35</sup>.

### The Issue

"Making tourism more sustainable is not just about controlling and managing the negative impacts of the industry. Tourism is in a very special position to benefit local communities, economically and socially, raise awareness in them and increase their engagement in environmental conservation efforts. Economic development and environmental protection should not be considered opposing forces when it comes to tourism: they must be pursued hand in hand, they must be aspirations that can and must reinforce each other"<sup>36</sup>. [translated quote.] However, there are more and more examples of tourist destinations that seek to be like other destinations but are negatively affected by the lack of appropriate territorial planning and environmental and social considerations.

Fortunately, some companies operate with a clear understanding of the environmental conditions and constraints that, if unaddressed, could affect the very essence of their work. Moreover, some companies build on that knowledge to raise environmental awareness in their customers, collaborators and surrounding communities. Such is the case of [Rio Secreto](#), a natural reserve with a semi-flooded cave system located in the municipality of Solidaridad in Quintana Roo, Mexico. In Rio Secreto, visitors can go on tours to see different types of rock formations, such as stalactites and stalagmites, and swim in crystalline groundwater. This is a notably fragile ecosystem, and disorderly arrivals could negatively impact the natural attractions of Rio Secreto.

By and large, the only source of fresh water in the Yucatán Peninsula is in the subsoil, since there are few superficial rivers. The Peninsula's groundwater deposits are also one of the country's most important sources of freshwater. The natural resources above the ground would not survive without them. Due to the karstic, fragile, porous and permeable soil, any above ground activity impacts subsurface water deposits.

A decade ago, in the area where Rio Secreto is today, land use was changed from forest area to residential status. In other words, "the threat of urban sprawl appeared. Groundwater deposits were not included in the local development plans because the plan had only taken the topside into account even though all surface life depends on water that lies underground.", explains Ana Lilia Córdoba, general director of Centinelas del Agua.

### The Solution

In view of the situation, efforts were made to create the Hydrogeological Corridor of the Rio Secreto Natural Reserve, which was already registered in the urban development plan of Playa del Carmen, Solidaridad. This became the first corridor of this kind, but great support had to be sought due to the risk that changes in political leadership could change the urban development plan. As a result, in 2012, civil society organization Centinelas del Agua (Spanish for "The Water Sentinels") was created to serve as Rio Secreto's social responsibility branch. Centinelas del Agua then started raising awareness in the general public and local authorities about the importance of the corridor through environmental education initiatives (see text box).

Tourist activities in Rio Secreto also had to be planned in such a way that their essence would not be disrupted: conservation of its caves and water was imperative. Implementing good operational practices became necessary. "Our job in Rio Secreto is to take care of the resource and have a minimum impact because nature has already done its job creating the beauties we have here," says Kristel Arce, social responsibility and sustainability manager of Rio Secreto.

First, the site's carrying capacity had to be defined. Currently, only groups of maximum 10 people are allowed in at specific times. Mass entry is forbidden. This mitigates the effects crowds could have on wildlife, reduces noise generated by visitors, and improves the site's experience. "Here, people don't have fun because we offer a show. We offer the possibility to learn about geological formations, jaguars, and even bats, which are extremely important for these ecosystems", says Mrs. Arce [translated quote.] She adds: "our mission is to change our visitors' life through a journey to the bowels of the Earth. This vibrating experience connects them with themselves, wakes them up to a different landscape that helps them appreciate their surroundings more. When you leave the cave, colors are more vivid, flavors change, all of this simply because down there, something changes inside you. The experience is not only for visitors but also for local workers and neighboring communities" [translated quote.]

Rigorous operation and receiving groups with limited numbers at specific times enables better waste management. For example, instead of buying products in individual packages, food ingredients and beverages are bought and prepared in bulk for the restaurant. When operation ends, at 4 in the afternoon, trash cans are emptied, and waste is classified for proper disposal. Additionally, the wetsuits and neoprene shoes that visitors wear for their protection, comfort and agility in the cave are constantly reused. A local tailor was hired to repair the suits and thus extend their service life. Material that cannot be fixed is turned into other products such as pencil cases, thermal covers for drinks, backpacks, wallets, and laptop cases, among others. "When we looked at all the trash in the bins, we thought there should be a creative solution to reuse that material" says Mrs. Arce. These products are sold in stores and the proceeds serve to support the Jaguar Wildlife Center that uses trap cameras placed in the rainforest to monitor the jaguar population. Profits also help rehabilitate wild animals found in urban areas so they can safely return to their natural habitat." It's nice to see how a tourist and a jaguar can be in the same place, at different times of day. This has made us aware of the fact that we are only visitors in these animals' home", says Mrs. Arce.

The goal of Rio Secreto is to eliminate all non-recyclable inorganic waste in the next two to three years. Rio Secreto is known for leveraging findings about paleoclimatology and hydrology. Lab research, performed in partnership with multiple universities, is shared with communities and community leaders with the purpose of "helping them keep in mind what lies underneath when they do anything", emphasizes Mrs. Arce. "Our approach has reached the tourism authorities of Playa del Carmen, and we would like to share knowledge as much as possible, so Rio Secreto becomes a replicable business model."

## The Outcome

After 10 years in operation, the company has received 1 million visitors who are now more aware of the importance of underground water resources. "What pleases me the most is to see how a tourist's vision changes after just an hour in the cave," emphasizes Mrs. Arce. In addition, the company employs 238 workers whose families live from activities in Rio Secreto. In 2017, the company recycled 4,717 kilograms of plastic, cardboard, paper, aluminum and glass; composted 61,347 kilograms of organic waste to fertilize gardens and sent only 400 grams of waste per visitor to landfill. They currently have the goal of reducing this amount as much as possible. To know more about Rio Secreto's management strategy and its results, read their latest sustainability report [here](#) (available in Spanish).

Rio Secreto's sustainability policy has been certified by EarthCheck. They were also awarded Grade S of the Ministry of Tourism and received the Ethics and Values Award granted by the Confederation of Industrial Chambers (CONCAMIN).



Centinelas del Agua, A.C. is the social responsibility branch of Rio Secreto's Nature Reserve. It has three lines of action: research and conservation, water governance, and education for sustainability. Its name derives from the key element, the essence of Rio Secreto: water.

In terms of education, we communicate the importance of conserving water to municipal authorities, local civil engineers, and of course, schools at all educational levels. Furthermore, the organization works in three Mayan communities, where local leadership youth committees have been formed.

The organization has focused on providing environmental education through experiential tours, taking students and teachers out of classrooms and into the rainforest. "Today's society is completely disconnected from nature and we have to reconnect with it through heart-touching experiences. Appropriate scientific information and group sessions go great lengths with students and teachers.", says Córdoba. The organization is currently working on incorporating tours into the school curriculum.

Special workshops about ecosystems are given to teachers who visit Rio Secreto. They will follow the river's underground route as if they were a drop of water themselves. They visit the recharge area, the underground rivers and the coast to see for themselves how the aquifer recharges. Centinelas del Agua is currently providing training for future teachers at the Teacher's Training School of Bacalar as part of a project called **La Laguna que Nos Une** (The Lagoon that Unites Us). The organization is also promoting partnerships with the Basin Management Committee, the Director's Office for Travel and Tourism, the Director's Office for Ecology, teachers and *ejidatarios*.

## The Takeaways

"One of the main lessons learned in Rio Secreto has been the realization that the company has to benefit the community and become a means for people to build skills, gain new expertise and feel happy in the place they live in" says Mrs. Arce [translated quote.] For example, 40-50 photographers have trained at Rio Secreto. Many of them did not know how to use a camera when they started, but they have received internal training that helped them grow and have even ventured into independent photography. "Protecting nature is important not only for altruistic reasons, but because the conservation of natural resources through sustainable tourism also helps support 238 local families."

Nevertheless, there are many threats to the protection of natural resources. One of the main ones is the lack of knowledge about how some practices, such as tourism, affect these environments. Rio Secreto's essence is water, and the organization expects visitors to experience the importance of its protection. "To love something and protect it, you must understand it," says Mrs. Arce. In that sense, the main takeaway is that tourist activities have the potential to raise environmental awareness. "These experiences teach local children and adolescents how to make better water management decisions by showing them different ways to do things. By generating knowledge instead of imposing our views, we are able to transform their vision about the subject", comments Mrs. Córdoba [translated quote.]

Regarding the role of educators and sustainability issues in tourism, Mrs. Córdoba adds, "the role of teachers is essential because they are the strongest knowledge-sharers, and their teachings often have a multiplier and long-term effect. If teachers gain hands-on experience in what natural resources are and how some companies are taking care of them, they can share that message with their students" [translated quote.]

Finally, Arce shares her personal story: "the first time I came to Rio Secreto, I came as a tourist who had found a good travel promo. I am from Puebla, I grew up in a city. I had never wondered where garbage goes or where water comes from, and I was used to other types of tourist activities. When I arrived in Rio Secreto, I was shocked by the number of rules we should follow, for ex-

ample, showering before getting into the water and not touching anything. It only took me an hour to be transformed. I understood the fragility of the ecosystem, the importance of caring about water and animals. During that tour, I listened as a guide spoke with love, as if to a child, to something I could not see. To my disbelief, he was talking to a spider! And I was terrified of spiders. The love he talked to the spider with made me appreciate it. It was an overwhelming moment and I understood that something had to change. If more teachers opened their eyes to the issue, and shared their new vision with their students, students would become the guardians of water and other natural resources. That is the lesson you learn in Rio Secreto. Transform yourself to transform the people in your community. Today, many of us are looking for a life-changing experience that shakes our lifestyle. This is it" [translated quote.]





## Unit 5: Social Dynamics behind Tourism



*Teachers from our network, Quintana Roo,*

## Unit 5 – Social Dynamics behind Tourism

As an activity that makes business out of leisure time, tourism is under constant transformation due to high competition, consumer-driven demand, and other factors. Travel companies have gone from offering products that appeal to the general public to a specialized offer for every market segment. The leisure travel industry has changed in order to meet these specific needs.

It goes without saying that tourism is contributing substantially to the world economy. Yet, are its profits improving the quality of life of Mexican communities, especially those that host thousands of visitors every year? Economic growth alone does not improve people's quality of life unless equality and community well-being are explicitly sought. Much as tourism is essential in driving the world economy forward, it is not always clear if wealth has a positive impact on Mexican host communities.

Recently, the relation between tourism and well-being has become more evident. On the one hand, the United Nations Millennium Development Goals stated that poverty reduction would be one of the major challenges of the 21st century. On the other hand, the importance of tourism has significantly increased at the international level.

Since its appearance on the global stage in the 1960s, tourism has been an important economic driver. World governments generally agree to grow their domestic travel industry since it is profitable, creates new employment sources and benefits the economy of communities that do not have alternative sources of income.

Tourism is a booming industry worldwide and has the potential to boost economic and social development, as well as to reduce poverty. Growing and operating the travel industry requires a large amount of labor, creating employment opportunities, especially for those who cannot easily enter conventional labor markets, such as women, youth, migrant workers and rural communities.

Tourism has also transformed local landscapes drastically. Hotspots have become communities of destination for domestic and international migrants. Quintana Roo has become one of the most attractive destinations for migrants since Cancun became a top global tourist destination in the 1970s, and the Mayan Riviera followed in its steps in the 1990s.

As migrants arrived to fill the vacant positions in the tourism industry, impoverished urban settlements sprawled. People would occupy empty land plots and build their own houses in areas that lacked formal urbanization plans and utilities. Today, as 3,000 immigrants arrive in urban areas of Quintana Roo every month, suburbs continue to sprawl. Demographic and economic growth have not translated into social development initiatives, leaving communities without schools, healthcare services, and recreational spaces. Rapid urbanization and labor surplus in the tourism industry have contributed to a sharp increase in drug addiction, alcoholism, prostitution, drug dealing, gang violence, family disintegration, and suicide, especially among young people living in impoverished suburbs.

The main social scourges Quintana Roo faces at present which are related to tourism include undocumented migration, child exploitation, trafficking in persons, land grabbing, and the lack of inclusion, gender equality and a sense of identity, among others.

This Activity Guide discusses tourism extensively in view of how important it is to Quintana Roo and its population. Teachers should raise awareness among their students to ensure that they are well informed and know what to do in case they face a situation that jeopardizes their life, well-being or development.

## Visitors and hosts

### Objectives:

**To teach students what their role is when hosting visitors or tourists in their community. To instill in them a sense of identity and belonging with regards to their culture and natural resources. To help them control the job opportunities resulting from tourism to ensure that they benefit the community at large.**

### Materials and instructions:

1. Divide the group into two. One team will play hosts and the other one, visitors.
2. Ask each team to define the main characteristics of tourists and hosts.
3. Ask both teams to share their views to the rest of the group. Discuss any potential characteristics they might have missed.
4. If you want, use the following premises to start a conversation:
  - Tourism brings together two communities that share a common goal.
  - Visitors have the right to look for leisure and good-quality products as long as in doing so, they do not infringe upon the host communities' rights, or disrupt their quality of life or the local environment.

- Hosts have the right to make profit from travel and leisure activities, but they must care and protect their host community as if it were their own.

### Recap:

At the end of the session, teachers can do a recap by asking the following prompting questions:

- Had you ever thought of yourself as a host that welcomes a tourist into his/her home?
- Why do we need a sense of belonging towards our community and its natural and cultural wealth when we open it to tourism?
- What could we do with tour operators for them to promote a sense of identity and belonging in their products and services?

## The mark tourism leaves on society

### Objectives:

**To identify the social dynamics tourism creates in the students' communities by examining the current context. To teach students how to detect situations that could jeopardize their quality of life or development.**

### Materials and instructions:

1. Split students into teams of five.
2. Ask each team to use a flipchart and markers to draw a mind map about social issues their communities face as a result of tourism.
3. An expert in human rights can be invited to talk to students about the context and issues affecting their community from a human rights approach. It can be someone from a public or a private institution, such as End Child Prostitution, Child Pornography and Trafficking of Children for Sexual Purposes (ECPAT), the National System for Integral Family Development (DIF), the Ministry of Social Welfare, the Quintana Roo State

Institute for Women (IQM), Centro Integral de Atención a las Mujeres, A.C. (CIAM), among others.

4. Ask each team to share their mind map with the rest of the group and start a group conversation about their communities' social issues.
5. Ask the listeners to give feedback to the presenters to include everyone's input in all the mind maps.

### Recap:

At the end of the session, teachers can do a recap by asking the following prompting questions:

- How familiar are you with the social dynamics and issues discussed in class?
- What creates these issues?
- What can you do as a young community member to tackle these issues?



## Roots, gender, sexuality and tourism

### Objectives:

**To inform the young about the social dynamics and issues surrounding tourism by analyzing case studies from the Yucatán peninsula. To further analytical thinking and argumentation skills among students.**

### Materials and instructions:

1. Download the reading materials of unit 5 from <https://www.rainforest-alliance.org/curricula/ecotourism> (available in Spanish). Each of them covers one of the following topics and their relationship with tourism:
  - Child trafficking for the purpose of sexual exploitation
  - Trafficking in women
  - Gender equality
  - Migration
  - Identity and sense of belonging
2. Split the group into small teams to read and analyze one of the reading materials.
3. Ask each team to create an infographic with their articles' most relevant information and concepts. Give each team poster boards or a flipchart and markers.
4. When ready, ask students to hang their work on the wall or any other place where it is easy to see for the rest of the group. Ask each team to present their work.
5. Teachers may highlight the similarities and differences between each topic. Remember to stress the relationship between the issues and tourism.

### Recap:

Ask school authorities to give you permission to display the infographics in an area where they will be visible to the student community. Students will then be informed about the issues their communities and their country face as a result of tourism.

At the end of the session, teachers can do a recap by asking the following prompting questions:

- How can we inform other young people about these issues?
- What can we do to prevent these issues from harming us, our family, and our community?

# The tug-of-war between tourism and sustainability

## Objectives:

**To promote a holistic approach to sustainable tourism based on the connection between all the elements presented in this guide. To give the young a detailed panorama about the impact of tourism in their community and the importance of implementing a model that pursues environmental, economic and social well-being.**

## Materials and instructions:

1. Take six small, different-colored balls. Take a marker or a tag and mark each ball with one of the following words: 1) Environment 2) Society 3) Economy 4) Culture 5) Tourism 6) Sustainability.
2. Ask students to make a circle.
3. Give out the balls at random to six students. On the count of three, those with a ball should throw the ball at random inside the circle. Students should try to catch a ball in mid-air.
4. Those who catch a ball should then step inside the circle and give an example of a sustainable project, model or activity that addresses the six dimensions written on the balls. Examples can be hypothetical or real-life cases from the students' communities.
5. Balls should be tossed again to let other students catch them and repeat the exercise.
6. Teachers should guide the exercise by ensuring that every example covers the six dimensions of sustainable tourism.

## Recap:

At the end of the session, teachers can do a recap by asking the following prompting questions:

- How can a community develop a holistic model for sustainable tourism?
- What do our communities need to make tourism sustainable?
- How can younger generations make a difference when they enter the workforce?

## Waste for a Cause

### The Moon Palace Hotel's holistic waste management strategy to reduce its environmental footprint and fund social well-being strategies<sup>37</sup>.

#### The Issue

The boom in tourism is not free from collateral damage. According to the UN Environment Programme tourism produces an amount of waste, greenhouse gases, and wastewater equal to the resources it consumes. A conservative estimate indicates that at a global scale, domestic and international tourism produce 35 million tons of waste per year<sup>38</sup>. If the tourism industry continues to operate like this, its water consumption by 2050 will increase by 152%, and its solid waste production, by 251%<sup>39</sup>. Waste management is therefore a growing challenge, and the industry knows it.

According to the German Corporation for International Cooperation (GIZ), tourism accounts for nearly one-third of all waste produced in the Mexican Caribbean, with a waste production rate of 400 tons per day. Waste is often disposed of incorrectly, causing significant environmental damage. "The special composition of the region's soil means that pollutants leach directly into the groundwater, jeopardizing not only drinking water supply, but also the extremely vulnerable ecosystem of underground water courses and the nearby coral reef."<sup>40</sup>

In view of this situation, twelve years ago, Palace Resort's Moon Palace Hotel, located in the municipality of Benito Juárez [?], Quintana Roo, decided to implement its own sustainable waste management protocol before legislation in this regard was passed.

#### The Solution

The [Moon Palace Hotel](#) hosts domestic and international events, such as high-level events and global climate change summits. The hotel has a capacity of 3,396 rooms and employs 10,000 [?] people. Aware of the environmental impact of its operations, Palace Resorts decided to take a step ahead of imminent sustainable waste management legislation, stop sending its waste straight to landfill, and reuse or sell it instead to get funds for the [Palace Foundation](#), which has six lines of work: health, well-being, environmental protection, education, and child development (see text box).



The Palace Foundation is funded in part by the income from selling the Moon Palace Hotel's waste, as well as that of other Palace Hotels. The Foundation's lines of work are:

**Health:** The Foundation provides medical assistance and information about serious or even life-threatening conditions or disorders to beneficiaries, who do not have the means to get timely treatment. More than **2,500** health interventions are performed every year.

**Well-being:** The Foundation fosters psychosocial and emotional care among its collaborators, their families, and society at large. More than **250** people participate every month in face-to-face workshops, and more than **80** therapy sessions are provided.

**Environmental protection:** The Foundation seeks to preserve and conserve the flora and fauna in the hotel's grounds and surrounding areas through an environmental protection protocol applicable to collaborators, guests, and the general public. **1,511,015** turtle eggs and **13,744** turtle nests have been protected, while **1,276,680** newborn turtles have been released into the sea.

**Education:** The Foundation supports university students who could not otherwise afford to pursue an undergraduate degree. The Foundation has helped **40** students finish their undergraduate studies and **2** more have participated in an international exchange program with its support. Currently, **84** students from 20 different universities hold a scholarship from the Palace Foundation.

**Child development:** The Foundation seeks to give children unique, appealing, recreational, and meaningful activities that have a positive impact on their life. By 2016, **589** children had benefitted from this program. Additionally, the Foundation has helped **96** children from a children's home find a foster home to improve their quality of life through education, health-care, emotional care, psychological assistance, and recreational and skill-building activities.

Source: [fundacionpalace.org](#), 2018.



The hotel's waste management program then set itself the objective to reduce the amount of waste sent to landfill, minimize the waste management fees payable to the municipal authorities, and invest the savings in waste-management technology. The hotel documented how much waste it produced and implemented a waste separation protocol, accompanied by extensive training across all departments. The goal is to leverage at least 90% of the total waste produced.

According to Antonio Ortiz, environmental affairs manager at Palace Resorts, “[they] looked for the technology that helped [them] adapt best to the challenges of climate change. In the past, when we remodeled the facilities, debris would go straight to landfill. Now waste is separated and leveraged” [translated quote.] The hotel has already installed a worm composting plant, a glass crusher, and a processor to convert waste cooking oil into biodiesel.

Additionally, the hotel is located in an area that lacks public sewers. Water is pumped from the ground through reverse osmosis, and wastewater management is critical for the hotel. Ten wastewater treatment plants have been installed within the hotel's facilities, and two more plants operate in its distribution center. In the future, the hotel wants to generate gas from non-compostable or recyclable waste.

## The Outcome

The Moon Palace Hotel has made great strides. For instance, the maintenance staff built a home-made glass crusher. Twelve years ago, an agreement was signed with a glass factory based in the State of Mexico to sell them crushed, color-sorted glass. Every month, **30** tons of amber, green and transparent crushed glass are processed. Yet, the income per kilogram of glass does not compensate for the large amount of recovered glass and the logistical effort of separating it. Still, in the words of Mr. Ortiz, “[they] are strongly committed with environmental protection. If [they] weren't [they] would have already saturated the local landfill with the hotel's waste” [translated quote.]

At present, **95%** of waste is leveraged thanks to a specialized waste separation system. Every year, the hotel recovers **1,400** tons of cardboard, plastic, glass, paper, waste cooking oil, and Tetra Pak material, among others. More than **2,000** tons of organic waste are turned into vegetable or worm compost and used to fertilize gardens and orchards. Also, 100% of wastewater is used to water the hotel's vast green areas.

## Innovation

Much as other hotels have implemented environmentally-friendly practices, the Moon Palace Hotel stands out for its decision to convert waste cooking oil instead of throwing it away or giving it to an oil-recycling center. Mr. Ortiz explains that “sending organic waste to landfill is not good for the environment at all. Up to 80% of waste can turn into greenhouse gases. After extensive assessment from research institutes and universities, as well as a strenuous learning curve, [they] found the right plant to convert waste cooking oil into biodiesel.” [translated quote.]

On the other hand, the hotel's worm compost incorporates streamline technological solutions given that it needs to be odorless and aesthetic due to its location.

Worm compost and biodiesel generation help the hotel reduce its greenhouse gas emissions, especially methane. Biodiesel also reduces the need for fossil fuels, decreasing the hotel's environmental footprint.

## The Takeaways

Waste management initiatives require extensive staff training to be successful. In Mr. Ortiz's words, “you can have the best composting or recycling system, but if you do not train and raise awareness among your staff, results will not be good, no matter how much the company tries to implement these practices” [translated quote.] Continuous training and internal audits have helped change the staff's mindset.

Ortiz also highlights the need to customize efforts according to each company's characteristics. The Moon Palace Hotel's practices will not necessarily fit the needs and features of other hotels. Their operating conditions might prevent them from implementing Moon Palace's model. Every hotel should analyze its situation, including its geographical location, and adopt environmentally-friendly practices accordingly. However, “anyone can do something, one way or another, to ensure that waste is properly managed”, concludes Mr. Ortiz.

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Translator's note: definitions of *ejido*<sup>41</sup>, *criollo*<sup>42</sup>, and *mestizo*<sup>43</sup> according to Merriam-Webster.







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41\_\_\_\_\_Ejido: a tract of land held in common by the inhabitants of a Mexican village and farmed cooperatively or individually.

42\_\_\_\_\_Criollo: a person of pure Spanish descent born in Spanish America.

43\_\_\_\_\_Mestizo: a person of mixed blood. specifically : a person of mixed European and American Indian ancestry.

# EDUCATOR GUIDE

## **“SUSTAINABLE TOURISM EDUCATION AS STRATEGY FOR CONSERVATION OF NATURAL RESOURCES” PROJECT**

**RAINFOREST ALLIANCE  
TUI CARE FOUNDATION**

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Hotel Moon Palace  
Karisma Hotels and Resorts  
Parque La Ceiba  
Río Secreto  
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### **PHOTOS**

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Teachers from our network

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