

Get to Know the Gastronomy of Quintana Roo from the Smoke Kitchen Model

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Summary

The smoke house works as a tourism model that will directly impact women living across Quintana Roo communities and small towns, with the idea that this project will empower them, and provide them with a more dignified income, with the end goal to reduce the poverty rates in the state Likewise, to introduce an adequate formula of cuisine that promotes the regional gastronomic identity, since this typology of cultural heritage is linked to the experience of enjoying the state's native food. It should be noted that the main representatives and transmitters of gastronomy are women, usually housewives. Therefore, a methodology based on the qualitative approach was designed, taking as a basis the ethnographic method, which allows understanding the behavioral patterns of a society [1]. In the first instance, a gastronomic laboratory is proposed for the university, which will later be used as a business model within the tourism industry, directed at people who seek to enjoy cultural and experiential tourism. And at the same time, it will benefit communities across the state by generating more income for them.

In addition, the project of model smoke kitchen is oriented to go in accordance with the 2030 agenda. Which includes 17 objectives and 169 goals; six of those objectives are directly aligned with this project, and the rest can be observed to relate it in a more indirectly manner. In the same way, a summary of the results obtained by the five-year groundwork is presented, as well as the division of the gastronomy in the state according to the characteristics that conform the gastronomic region.

Keywords: Rural areas, smoke cooking, native gastronomy, and sustainability.

Introduction

From the visits made to the communities throughout the state, mainly to the traditional cooks, they tell us that the Mayan women are independent, that if their husbands were to be unfaithful, they would leave them, because they can provide for themselves and their children, it is part of their nature as strong women. In the same way they tell us that they are not afraid of stepping in when necessary, that they can do farm work in support to their husbands or taking care of their lots. As well, they tend to have side hustles like embroidered, weaving, looking after their farm animals, fishing, harvesting of fruits, and merchants among other activities. In the same way, they explained the Mayan women and their cuisine, which they have learned from their mothers and these in turn from their own, which is why they feel the social responsibility to seek the best way to safeguard their culinary identity. Through the state's documentation made by the Line of Research of Culinary Heritage, where the model of smoke kitchen was developed as a strategy that allows the work of these traditional cooks to be represented, as well as the distribution of the tourist wealth, and with the end goal to diminish poverty rates in the state. But also, to empower the women inside and outside their home by facilitating their income without abandoning nor neglecting the family environment.

Therefore, this work aims to market the model of smoke kitchen to promote the preservation of the gastronomic identity of Quintana Roo, in a way that aligns better with current social guidelines, such as the Objectives of Sustainable Development. Hence, manifesting the importance of documentation to preserve gastronomic knowledge of the region considering that it is a viable alternative for the creation of new tourist destinations that are focused on sustainability, all of this allowed the participation of small communities and more importantly that part of the wealth generated remains there, to activate its economy. Likewise, the results obtained throughout five years of documentation are presented in a broad way, to interest the reader in knowing more about the field work carried out in the Mayan communities.

Current Issues

According to data from the poverty rates registered between 2016 and 2018 in the state show a decline, but this does not mean that the situation is great, but on the contrary it should make us think of strategies that allow the distribution of wealth, gender equality, that promotes values and identity of their culture among others, to impulse their economy [2]. According to

the data presented by Mr. Roberto Borges Angulo in the document prepared by the where the more vulnerable are expressed in four categories, these are Very High, High, Medium and Low.

See table 1, Level of vulnerability, which indicates the state's population settlements, arranged according to the degree of need they present [3].

Table 1: Level of vulnerability

Very high	High	Medium	Low
Isla Mujeres Urban Zone	Felipe Carrillo Puerto	Cozumel	Chetumal
Señor	Chunhuhub	Isla Mujeres	Cancún
Tepich	Nicolás Bravo	Javier Rojo Gómez	Puerto Morelos
Tihosuco	Álvaro Obregón	Calderitas	Playa del Carmen
Leona Vicario	X-pujil	Alfredo V. Bonfil	Puerto Aventuras
	José María Morelos	Tulum	
	Dziuche	Bacalar	
	Kantunilkin		
	Límones		

Elaborated with data from (Universidad para la Cooperación, 2014)

As part of the development of a viable model, it is necessary to test internal and external scenarios, both positive and negative, that will allow for its replication; for which it is considered imperative to indicate the viability and impact areas in which the smoke kitchens can become a primary objective to develop in those communities with higher economic vulnerability. It should be noted that the more vulnerable zones are those where there is a presence of Mayan settlements, and these still preserve customs, traditions and even the native language, which is why the social roles are well defined.

The smoke-kitchen model attempts to provide empowerment to the state's rural communities through training and thus encourage the creation of cooperatives, associations, foundations, etc., that promote the preservation of their gastronomic and cultural identity, keeping in mind the Objectives for Sustainable Development (ODS) guidelines. This model also considers the creation of spaces for alternative tourism.

Thesis

This project aims to maintain safeguard and promote the cultural and intangible heritage of the state of Quintana Roo. Studies based on the Profile of the Tourist who visits Puerto Morelos, show us that it is currently one of the main tourist destinations in the Yucatan Peninsula, being a recipient of adult tourism ranging from 39 to 59 years of age with a very stable income, belonging to the category of traditional travelers which are characterized by seeking tourist attractions that have historical and cultural meaning, such as gastronomy. We can also observe three major groups of tourists; nationals, Americans and Canadians, which visit Puerto Morelos, for its sun and beach combination, the natural and cultural wealth that make up this municipality and more importantly the peace of mind that it offers them by being a district with a moderate presence of foreign hotel chains, but the most relevant fact is the amount of gastronomic establishments managed by the population, where they can encounter local cuisine, allowing the development of jobs that benefit the district, money that represents a better income for the same community

This type of tourist demands a more sustainable society, which means products that are more viable in terms of tourism and gastronomic goods obtain through green practices, since today's society is more aware of what is happening in the environment [4].

Therefore, indicating the need to create tourist destinations that allow for the distribution of wealth among the citizens of these regions, which is why the creation of a replicable model of smoke kitchen is considered a viable option for rural areas, with women as the main chef. It also improves the ways women make a living by taking stress out of leaving home day to day with the purpose to provide for their families [5].

Objective

To transmit the gastronomic culture of Quintana Roo, through the recollection and description of traditional dishes of the Mayan communities based on the activities of daily, festive and rituals of life, as well as the use of the endemic products, techniques and methods of cooking to contribute to the preservation of the culinary culture and its identity from a sustainable point of view.

Theoretical Framework

Quintana Roo, part of the Yucatan Peninsula, located on the Southeast of Mexico. Its geographic coordinates are exactly, North 21° 35', South 17° 49' North latitude: East 86° 42', West 89° 25' West longitude. It borders on the North with Yucatan and the Gulf of Mexico; to the East with the Caribbean Sea; to the South with Chetumal Bay, Belize, and Guatemala; to the West with Campeche and Yucatan [6]. According to (Vazquez 2017) Quintana Roo is a young state in full development has been consolidated as one of the states that contributes the most to the (GDP) of the country, due to the tourist offer it provides to nationals and foreigners. Quintana Roo has as one of its main touristic aspects, the gastronomy, and affirm that it out-stands the native cuisine, with ingredients that have not changed for thousands of years like corn, beans and chilies [7, 8]. The state of Quintana Roo preserves traditional Mayan gastronomy, in which seafood dishes are prepared due to its proximity to the Caribbean Sea. Authors, such as, describe Mexican cuisine with

origins from the colonial era, when the simple cuisine of the natives merged with the complex cuisine of the Spanish, taking advantage the benefits of new products and spices found in our lands [4].

Creating the grounds on which the Creole cuisine was established, as result of the fusion of both cultures. The culture has multiple manifestations, among them Gastronomy, which is a daily activity for host communities due to the fact that food tasks are carried out daily, representing the original food of the region. The Gastronomy, together with the music and some drinks representative of the region generate an atmosphere of hospitality in the restaurants that are part of the gastronomical patrimony which attracts the tourist, becoming a perfect example of what Quintana Roo has to offer, to such a level, that when being presented in international venues it generates a sensation of well-being.

On the other hand, there are the Sustainable Development Goals, also known as Global Goals, adopted by all Member States in 2015 as a universal call to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030 (UNDP 2020). The 2030 agenda for Sustainable Development sets out 17 Sustainable Development Objectives, and 169 goals integrated and indivisible targets covering economic, social, and environmental fields.

The Objectives of Sustainable Development (OSD) are:

1. To eradicate poverty in all its forms worldwide.
2. To end hunger, achieve food safety and better nutrition, and promote sustainable agriculture.
3. To ensure a healthy life and promote well-being for all people at all ages.
4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
5. Achieve gender equality and empower all women and girls.
6. Ensure the availability and sustainable management of water and sanitation for all.
7. Ensure access to affordable, reliable, sustainable, and modern energy for all.
8. Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.
9. Develop resilient infrastructure, promote inclusive and sustainable industrialization, and encourage innovation.
10. Reduce inequalities between and within countries.
11. Making cities and human settlements inclusive, safe, resilient, and sustainable
12. Ensure sustainable consumption and production patterns
13. Take urgent action to combat climate change and its effects.
14. Conserve and sustainably use oceans, seas, and marine resources to achieve sustainable development.
15. To protect, restore, and promote the sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation, and halt the loss of biodiversity.
16. Promote peaceful and inclusive societies for sustainable de-

- velopment, facilitate access to justice for all, and build effective, accountable, and inclusive institutions at all levels.
17. Strengthen the means of implementation and revive the global partnership for sustainable development (Government of Spain 2020).

Gastronomic tourism is understood as part of cultural tourism, considering that it can be observed in the interaction with the natural space, in which the production of goods and the provision of services interact, allowing the economic development, the social interaction in the transmission of knowledge, the sense of identity form the natives and the preservation of the heritage are promoted. In which the movement of visitors occurs for reasons linked to the culinary practices of a given locality and can be treated through lie tourism, workshops, tastings and demonstrations; gastronomic events, offer of food and beverage establishments, as well as on the gastronomic tours. Smoke cooking does not use smoke as one more ingredient of the kitchen, is a ritual and a culinary tradition, where the respect for the ingredients and method are essential elements, where you ask permission from the kitchen to prepare food (SMOKE KITCHEN 2017)

Smoke cooking refers to a way of cooking food, the embers, the grill, the "smoky" taste of the dishes, that aroma of burnt wood, using the smoke as a dressing, which brings an unique flavor to the food, but as we mentioned at the beginning, smoke cooking is not just that, it is a whole ritual, where women become a sort of kitchen priestess.

"Here we are born, we grow, we form our families, even here we die," says Martha Soledad Gómez Zalce, leader of the Women of Smoke, where knowledge is transmitted from mother to daughter, and where the knowledge of the grandmother is sacred, as well as the kitchen itself. (THE SMOKE KITCHEN 2017).

The study is based on a quantitative methodology that allows us to focus more on people, which is why we use the ethnographic method that, according to Anthony Giddens, a sociologist, is defined as the direct study of individuals or groups during a certain period, using observation or interviews to learn about their social behavior. Ethnography is one of the most relevant methods used in qualitative research. Despite the diverse achievements that the technique can have, according to the intentions of the researcher, these are reasons why this method was chosen: The object of study is approached with a goal to understanding and interpreting a reality that interacts with a broader context, with the aim of obtaining knowledge and theoretical approaches, rather than solving practical problems as action research might do [9].

The information found in the field must be analyzed and interpreted, both verbal and non- verbal information, to understand what they do, say and think, as well as how they interpret their world and what happens in it. An ethnographic study gathers a global vision of the social environment studied from different points of view: an internal point of view of the members of the group and an external perspective, that is, the interpretation of the researcher themselves, which in addition can show us the appropriation of brands in life as a tool in the construction of

identity.

- In-depth exploration on-site (e.g., at home)
- Observation (Interactive)
- Photo/video documentation
- Diaries, vlogs and collages
- Use of mobile recording techniques (e.g., Smartphones) to track user behavior.

Methodology

For the development of this research, the following qualitative methodology was designed with an ethnographic approach consisting of six phases:

Source Review

It consists on the bibliographic research of information related to the topic.

Diagnosis

This consisted in identifying the level of knowledge about the gastronomy of Quintana Roo among the young people born in Cancun and who are part of the students at Cancun's Technological University. The results obtained showed a total ignorance of the gastronomic identity of the state. What later would trigger the study of the gastronomy of the coasts and islands that are part of Quintana Roo, the specific case of Isla Mujeres, this led us to phase two.

Comparison of Data

This consists of comparing the bibliographic information with that obtained in the field.

Documenting the state's gastronomy

Since a primary diagnosis was made both in the sample of students from the Cancun's Technological University and in Isla Mujeres, it was decided to replicate it in other areas of the state, which resulted in the classification of the gastronomy in the following way:

- a. Coasts and Island's gastronomy.
- b. Frontier
- c. Mayan Zone
 - i. North
 - ii. Center
 - iii. South

Smoke kitchen model

In the third phase a kitchen model was designed to promote the gastronomy of the state, this was presented in two parts, each part has a set of phases. The first part is the development of a gastronomic laboratory in the Cancun's Technological Univer-

sity to later carry out replicas in the communities of the Mayan zone. In a way in which it is intended to demonstrate the positive impact that the development of smoke stoves would have in the rural areas of the state of Quintana Roo, allowing more income brought by tourism to stay in the rural

communities and with it, it comes to alignment some SDG guidelines, such as empowerment of women.

Develop smoke stoves in rural areas

This phase consists of a series of steps that allow not only to generate the gastronomic laboratories, but also to go further with the training.

- a. Oral and written expression.
- b. Training in customer service.
- c. Safe food handling.
- d. ICT management
- e. Marketing.
- f. Management of personnel and administration within the tourism sector.

Results

From the multiple visits made to the communities of Quintana Roo the gastronomy of the state was classified in three, these are the coast and islands, border and the Mayan that at the same time is subdivided in north, central and south of the state. In the same way, traditional recipes, utensils and knowledge of each zone were obtained, an example of which is:

From the area of the Coasts and Islands:

- Festival of San Telmo (Patron Saint of fishermen) (April)
-
- The Fair of El Cedral in Cozumel also known as the Feast of the Holy Cross.
-
- Virgen de la Concepción in Isla Mujeres, they perform pilgrimages, popular dances. It is celebrated on the beach with the popular Tikin xic and ceviches.
- From the Mayan zone
- The "Ch'a'chaak" or rain petition.
-
- The "Janli kool" or thanks to the first harvest.
-
- The "Loj kaaj" or blessing of the people.
-
- The "Janal pixan" or food for the souls, festivity of day of dead.

It is worth mentioning that the border area has not yet been documented due to its remoteness from the Cancun's Technological University campus, since the transfer and time required exceeds the monetary capacity that students can afford at the time of their

research visits. Below are tables of some endemic products and ingredients, as well as the techniques used in the coastal zone

and Islands and the Mayan zone.

Products generated on the island	
Fish: Grouper, Snapper, Corvina, Lisa, Sole, Pámpano, Boquinete, Huachinango, Raya, Medregal, Mojarra, Corvina, Sierra, Pardo, turbine, Atún, Jurel, Paire, Cardina, Lizeta, Coda.	Fruits: Pitahaya, tomato, coconut, tangerine, Chaya, jicama, sweet potato, yucca, macal, sapote, habanero bell pepper, Chile xcatic.
Pink and white stripe	Sea grapes, icacoés
Crustaceans. (Lobster, Crab, Shrimp)	Natural fruit ice cream
Mollusks. (Octopus, Snail)	oil and coconut candy
	Snail and starfish crafts

Illustration 1: Endemic products from Quintana Roo. Source: Elaborated by Laura de Gpe.

Cooking methods	Preparation techniques
Piib	Tatemado
Boiled	Martajado
Frying	Sancocho
Potajes	Acitronado
Roast	Rebozado
	Escabache
	Dehydrated by use of the salt and solar exposure.
	Comal

Illustration 2: Methods and techniques Developed by: Cindy Najera

In the following table are determined dishes and their description that have stopped being elaborated in the region, because

most of them are products, turtle and its derivatives that are currently in permanent ban.

Dishes	Description
Turtle and its variety of preparations	it was prepared as filet, crumbled, in marinade, ceviche, legs of turtle in gelatin, in soup with noodles, in tomato base, with onions, in garlic confit, with onion, tomatoes and chillies, to the vizcancia, roasted, in pib, broth, as well as its oil was extracted from it like natural remedy
Kanchim/ tender turtle egg	it was prepared with the turtle's eggs before being taken out, when it was inside the turtle, it was prepared by frying it with chillies, salt and pepper, a little bit of flour, roasted onion, oregano, garlic, olive oil and white rice, boiled, fried, sun-dried, in ground meat, turtle bread and turtle marinade
Tomburro snail	were prepared in ceviche, in soups with vegetables, with black beans and paella.
Typical Paella	the usual paella was prepared but with loggerhead sea turtle, conch shell and green oil
Products that due to their overexploitation are only available by season	Lisa roe, ray roe, octopus, lobster, roe de cason, ray, sawfish, pampa fish, snail

Illustration 3: Endemic products that have been discontinued in Isla Mujeres Source: Elaborated by Laura de Gpe. Vázquez Paz

The dishes represented here are part of the traditions and ancestral food of the Mayan communities of the region, having specific times and days for certain dishes that in turn provide the necessary nutrients that allow to keep up with the activities of daily life of the habitants of these communities being agriculture, hunting, fishing among others the most common inheritance of a legacy in force.

We present the recipes classified by dishes, correspond to: 146 typical savory dishes, 19 desserts and 12 drinks, as well as the cultural application by daily, ritual or festive recipes. The tables represent a small part of the results of the communities of the coastal zone and Islands and the Mayan zone.

PLATILLOS TÍPICOS	POSTRES	BEBIDAS
RECETAS FESTIVAS		
1. Adobo de zigua	1. Ch'ujkil abal (Dulce de ciruela verde)	1. Atole con calabaza
2. Alcaparrado de tortuga	2. Dulce de calabaza	2. Atole de camote
3. Bu'uil waj	3. Palanqueta de coco	3. Atole de maíz sancochado
4. Buut de caracó	4. palanqueta de pepita	
5. Calamar al ajillo	5. Puré de makal	
RECETAS RITUALES		
1. Dza kool de cangrejo	1. Arepa de coco	1. Atole con calabaza
2. Dza kool de langosta	2. Arroz con leche y coco	2. Atole de camote
3. Hígado de venado homeado	3. Ch'ujkil chi' (Dulce de nance)	
4. Kan chim con adobada de tortuga	4. Ch'ujkil puut (Dulce de papaya)	
5. Langosta al mojo de ajo	5. Dulce de camote	
RECETAS COTIDIANAS		
1. Alcaparrado de mariscos	1. Ch'ujkil puut (Dulce de papaya)	1. Atole con calabaza
2. Ajaco de pescado	2. Dulce de camote	2. Atole de camote
3. Ajaco de res	3. Dulce de yuca	3. Atole de maíz picado
4. Ajaco de tortuga	4. Raiz de papaya dulce	4. Atole de maíz remojado
5. Albóndigas de pescado	5. Mermelada de naranja agria	5. Atole de maíz sancochado

Illustration 4: of recorded recipes by Cindy Isabel Nájera Mazaba

Conclusion

In conclusion, the gastronomy of the state of Quintana Roo shows particular characteristics that make it unique, it is worth mentioning that due to factors such as globalization it presents a great loss, for this reason we took on the task of documenting and promoting the preservation of gastronomy. It must also be said that current tourism is so demanding that it requires the creation of sustainable spaces, hence the alignment with SDG guidelines with the Smoke Kitchen project. The smoke-cooking model is analyzed from the perspective of profitability and was determined as a safe bet since it is known that there is a global tendency to return to the origins, that is, the flavors related to

smoke, metate, mortar and on the other hand there is sustainability and all the policies marked within the 17 global objectives and its 169 goals as indicated in the Agenda for 2030. Of which we consider that we impact directly on those marked below with a purple oval, as shown in Figure 5 Objectives of Agenda 2030, likewise we consider that even when the others are not impacted directly, are achieved through the mainstreaming of the project, because when a responsible business model impacts the community in a positive way, it promotes development actions that allow the improvement of living conditions of the habitants of a population, such as: health and welfare, education, among others.

SUSTAINABLE DEVELOPMENT GOALS



Illustration 5: Objectives of Agenda 2030 Image obtained from (UNDP, 2020) with own adaptations

All these reasons allow us to ensure the viability of the smoke kitchen project in rural communities for the empowerment and

dignity of women who carry out the work of conservation and promotion of the state's gastronomic identity.

Image : 1



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