

# WOMEN OF THE MAR

(MESOAMERICAN REEF)

POSITIVE IMPACT  
ON A RELEVANT SCALE



KFW



*The Women of the MAR: Positive impact on a relevant scale*

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# CONTENTS

## INTRODUCTION 7

### MEXICO

An alliance for the whale shark 9

Victorious women of the sea 14

Mermaids in jaguar country 19

### GUATEMALA

A mouth filled with flavor 23

### BELIZE

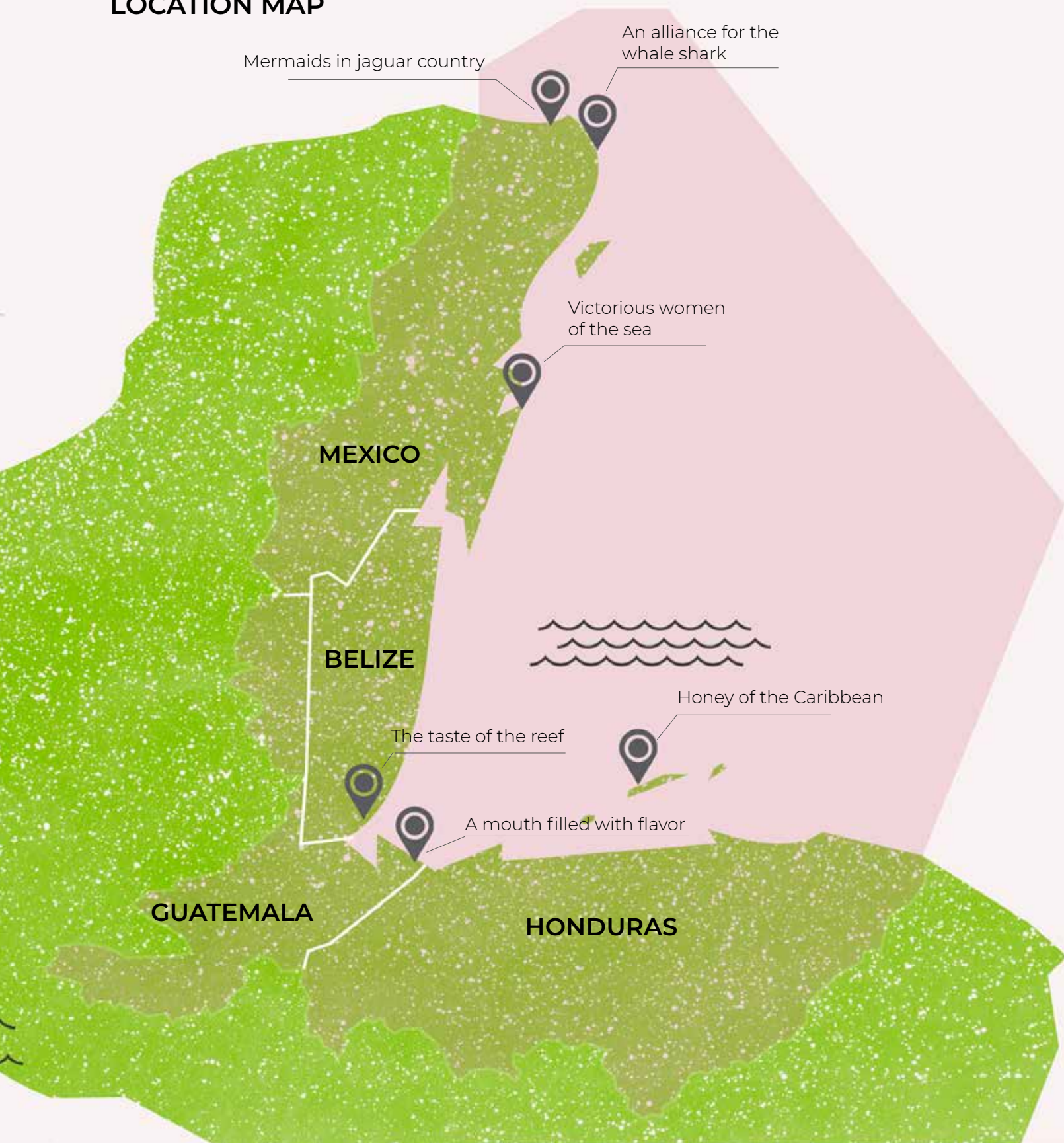
The taste of the reef 29

### HONDURAS

Honey of the Caribbean 35



## STORIES LOCATION MAP









6

**A**driana Navarro Ramírez, is a Mexican journalist with special taste for literature and traveling. Has worked in different local and national media, investigating human rights, economy, culture and art.

In recent years, she collaborated with MAR Fund and traveled to the coasts of Mexico, Guatemala, Belize and Honduras to write chronicles that narrate about local communities that have been an example in the protection and conservation of their territories and their seas where the Mesoamerican Reef System is protected.

The chronicles were published – with support from the KfW German Development Bank – in the books: Written with Blue Ink 1 and 2. She also wrote biographies of young leaders in conservation published under the name of Leadership in the Mesoamerican Reef, with support from the MAR Leadership Program of the Mexican Fund for the Conservation of Nature, A. C. (FMCN, for its initials in Spanish).

She bets on peace journalism that offers hope, conscience and tools for people to make better decisions. Her intention is to create respectful ties between society and the natural ecosystems so that today's and future generations may have the possibility of living with dignity in a just and sustainable world.

Even though she is a woman, she would have also liked to be something else: the sea, a fish or the wind.

**R**oxana Chávez Elorriaga, is a communicator, journalist, independent consultant, environmental activist and content creator. She was born in Mexico City and at just 19 years of age, she began visiting her family in the *Riviera Maya*, taking advantage of summer and winter school vacations. On one of her trips, she witness a sea turtle release event in Tulum, Quintana Roo, which would mark her life ever since. Flora and fauna were always of her utmost interest but her love for conservation began with that event that led her to be part of a sea turtle conservation program in the *Riviera Maya*.

Roxy, as her acquaintances call her, graduated from the Valle de Mexico University in Communication Sciences in the field of environmental journalism. Her working life began while she was part of EarthX, the largest environmental event in the world based in Dallas but in its debut in Mexico City and later in its place of origin, where she had the fortune of meeting an interacting with influential figures such as Jean-Michel Cousteau, son of the famous French explorer Jacques Cousteau.

She has participated in countless environmental projects, spreading their messages and offering her readers useful and practical information, with the greatest possible clarity and honesty. As an animal and ocean fan, she has dedicated her short experience to communicating her love and concern for our planet, which she will continue to do for the rest of her life.



# INTRODUCTION

**A**fter several decades traveling through the wonderful geography of Mexico and Mesoamerica, seas, coasts, and continental and island territories, I come to a very personal conclusion that celebrates this beautiful collection comprised of six stories. The convergence of biological and landscape diversity, the result of the continental embrace between the Nearctic and the Neotropic has forged cultures, talent, and human values as fascinating as the natural spaces that are born from this north-south encounter. The talent and dedication of the Women of the MAR (Mesoamerican Reef) stand out within this community's wealth. They are tireless people who have engaged in the task of redefining the concept of leadership, intelligence, and creativity for the social good.

Documenting field initiatives, some of them funded by the Mesoamerican Reef Fund (MAR Fund), is a way to spread the accomplishments and share the lessons learned from failures. They are also a source of inspiration to encourage other communities and institutions to build non-traditional models of cooperation that allow a positive impact on a relevant scale, without losing sight of the integrity of natural resources, the basis of our livelihood both physical and spiritual.

Sharing from the narrative approach, through the eyes and hearts of those who live immersed in coastal and island ecosystems, is a way to creatively communicate a new concept of the possibilities. With the support of the German Cooperation through KfW, the German Development Bank, MAR Fund hired the services of two young women who

are experts in social and environmental narrative: Adriana Navarro Ramírez, who traveled to three different destinations in the State of Quintana Roo, Mexico, and interviewed the Women of the MAR during the second half of 2019, and Roxana Chávez Elorriaga, who visited Belize, Guatemala, and Honduras at the end of 2019, documenting three initiatives, one for each country. Based on these interviews and their experiences at these sites, both writers compiled the testimonies in the form of stories, as well as the outcomes and effects that the tireless efforts of these women have made on their communities.

The collected stories are a beautiful and useful evidence of their journey into the marine geographies that encompass the continental Caribbean, and which, for the readers, represents a fascinating message of hope and a proof to the enormous value of them, the women of the MAR, as positive agent of change.

As humans, our nature is to share what we accomplish, what we love, what makes us proud, and what bonds Mexico with Guatemala, Belize, and Honduras.

This work leaves no doubt about all we can learn from these women who, with intelligence, discipline, and sensitivity, deeply connected with the Mesoamerican Reef ecoregion, go beyond paradigms, time, and borders.

Lorenzo J. de Rosenzweig P.  
June, 2020.







# AN ALLIANCE FOR THE WHALE SHARK

Adriana Navarro Ramírez

**T**he guardians of the whale shark —Kin and Luz María— accompanied by captain Marcelo, have transformed their community. They are the voice that invites others to love and respect the sea and its species.

We go into the sea. The choppy waves pound against the boat, the strong wind rubs against the skin and makes the eyes squint, and the guide looks at the horizon. The expectant crew inquisitively searches for the whale shark. We watch over the clear sea to look for its inhabitants. Suddenly, we observe several boats floating over the same spot. We stop. “There it is!” the guide warns. The waves sway-rock-bend-roll us. The sunlight shines on the giant 12-meter fish. It’s not just one! There are five... seven... nine sharks eating plankton! We are ecstatic, although some are trying very hard to avoid getting sick from dizziness, while others take pictures. We jump into the sea in pairs. We put our heads into the water and see that the elegant and colossal speckled body passes next to us.

Off the coast of Quintana Roo in Mexico, the biologist Luz María Guzmán Fernández reflects, “Sometimes I wonder what the whale shark would say when we are swimming next to him. Maybe he thinks, ‘What are these flies doing in my soup?’ Because, just imagine you are eating, and everybody is watching you.” She is a diving expert with a master’s degree in Biology. For a decade, she has been showing the marine way of swimming with the largest fish on the planet. “It is critical to raise awareness about the ecosystem. That is why I make tours to teach visitors about the importance of respecting the species they observe”.

Guzmán knows the rules by heart that visitors must follow to swim with the huge animal: use a life jacket, do not touch the whale shark, do not throw garbage, do not use sun lotion (to avoid polluting the ocean), and jump in pairs into the water accompanied by a guide. She runs an aquatic tourism business named *Buceo Xtabay*, and takes high-averaged students who live in Puerto Morelos in her tour for free to swim with the fish and enjoy the manta rays, the dolphins, the turtles, and other marine residents that can be seen on the trips. “I do it to provide the opportunity for boys and girls who cannot afford going out to the sea”.



Adriana Navarro Ramírez

Luz María is one of the 180 tour guides who have a permit to take tourists swimming with the whale shark, an elasmobranch that can reach 18 meters and weigh 34 tons. Permit holders or permittees who sail from different places off the coast of Quintana Roo –Isla Mujeres, Holbox, and Chiquilá– are part of a very diverse community in terms of education, commitments, and approaches. Despite their differences, they have come together for some years now to work with government authorities. Yet this alliance would not have been possible without the drive of an extraordinary, generous, and visionary woman named Kin Inés Lima Fernández.



Adriana Navarro Ramírez

## FEMALE LEADERSHIP

In the Maya language, Kin means sun, and Inés symbolizes care. And the name Kin Inés suits her perfectly. She was born and raised in Isla Mujeres, and this is her story. “I used to live in Playa Norte, and the ocean was my yard. My mother and my grandparents are natives and founders of the island. My grandfather settled here to develop tour destinations beyond Acapulco. My dad always treated us equally. He never put a limit on what I could do as a girl. My grandmother was one of the first women to drive a car in Mexico and learned how to read and write. They encouraged me to go to university and to do what I like. I am a technician in tourism, and I run a hotel and manage several boats.”

Ever since Kin can recall, the whale shark swims close to the coast of Quintana Roo. Fishermen and residents who are used to its docility have been coexisting with it. However, nobody thought that coming up to see it would be a good business. In 2002, they realized that taking tourists up to see the whale shark was profitable. In 2003, the National Commission of Natural Protected Areas (Conanp, for its initials in Spanish), through the Wildlife General Office, issued the first 39 permits to conduct observation and swimming activities with this protected species. Today, there are 250 permits, issued to 180 people, since there are permittees that have more than one authorization to sail in search of the whale shark between May 15th through September 17th.

Every year, during the four months of whale-shark watching, over sixty thousand people come over to the shores of Mexico to swim with the enormous fish. Visitors generate a significant economic revenue not only to permittees, but also to travel agencies, hotels, taxis, businesses, restaurants, and governmental authorities, who charge a fee for the entrance to the protected natural areas. Although it is perceived as a great business, there was a time when it represented a risk. The government started changing the operation rules overnight, without socializing their decisions, which caused instability

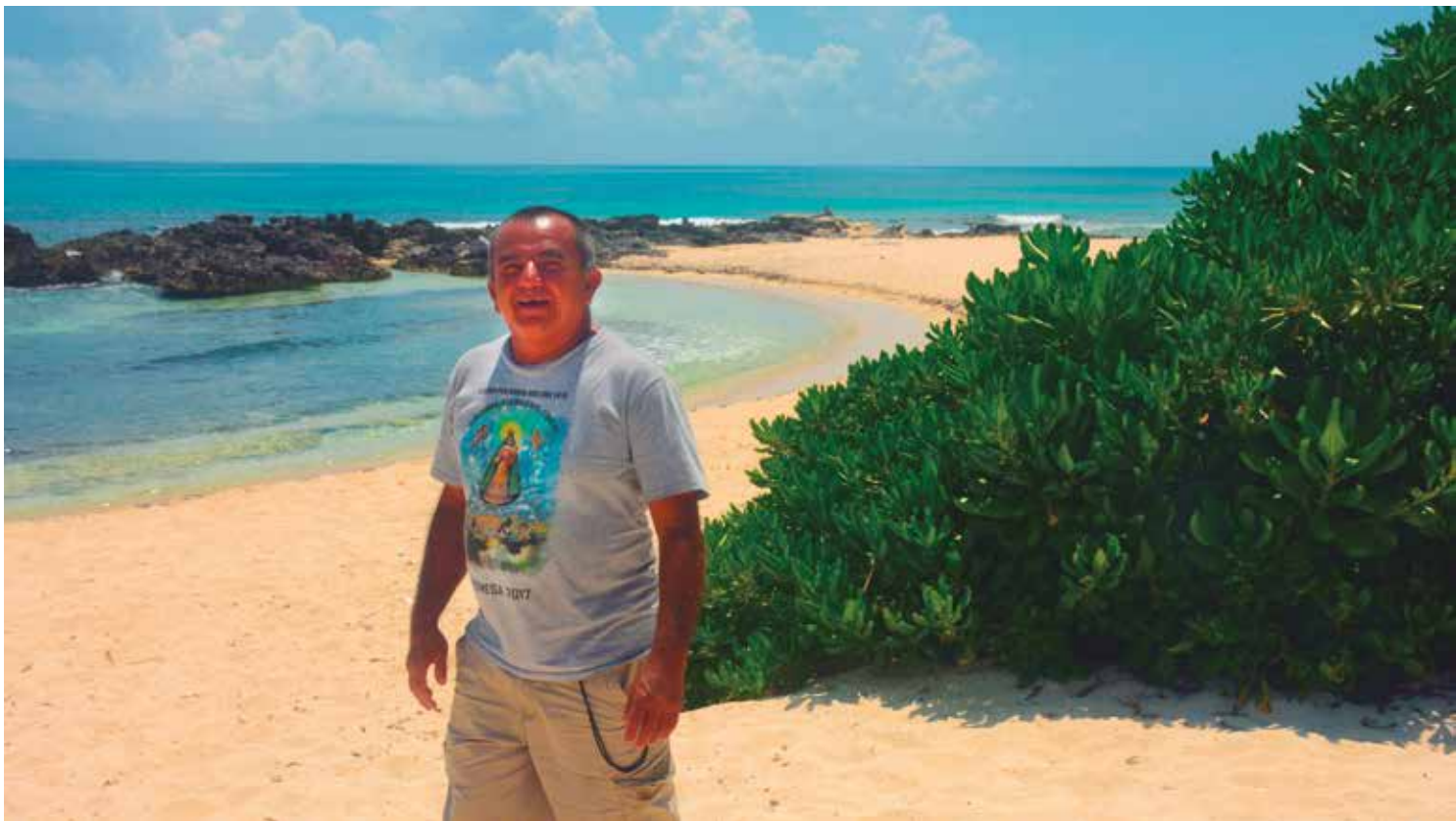
to service providers. Guides felt vulnerable because they were not sure if they would be able to comply with the changing regulations. In addition, they thought they could lose their permits at any moment, as officials had considered issuing them on a first-come, first-served basis, and not based on their marine expertise.

The new arrangements caused a strong division between Conanp and the permittees. The situation became even more complicated for former fishermen who no longer fished and depended only on tourism that consisted of swimming with the whale shark. Desperate about the changes, in 2014, permittees from Isla Mujeres, Holbox, and Chiquilá came up with a proactive scheme. They approached the government and universities to draft the management programs of the Yum Balam Flora and Fauna Protection Area and the Mexican Caribbean Biosphere Reserve. These documents describe, among other things, the regulations of swimming in these two natural protected areas of Quintana Roo, where the whale shark is found.

They were self-critical and admitted that many of them lacked sea logs, travel insurance, and permits issued by the port captaincy. They admitted

allowing tourists to touch the shark, letting over ten passengers on the boat, and sending more than two tourists swimming in the sea; that is, conducts against what was recommended. Poor practices were compromising the integrity of passengers and the species. Permittees knew that the authorities did not have the equipment, the staff, nor the funds for a proper surveillance. That is why Kin persuaded her colleagues and the authorities to work together in taking care of the sea and their business.

With Kin's leadership, the 80 permittees working in Isla Mujeres and who own 140 boats took over the already formed Isla Mujeres, Civil Association, and requested funds from the Conservation for the Sustainable Development Program (Procodes, for its initials in Spanish), a governmental initiative that grants economic incentives for the conservation of ecosystems and their diversity in natural protected areas. They received capacity-building through this program: learned about the ecosystems, became aware of the care of the species, prepared their own learning material on the biological features of the whale shark, and printed brochures in several languages summarizing the regulations that should be followed to swim with the great fish. Moreover, they agreed that Conanp's biologists





would accompany them on the boats to monitor and oversee the activities. This way, permittees and authorities complied with the rules and gathered new biological data of this precious species.

Kin solved whatever was needed, because sometimes the resources from Procodes didn't arrive on time, so she had to cover the costs of fuel, brochures, cameras, GPS, for her colleagues to continue working with the authorities, despite the delay in fund disbursements. Meetings were held at Hotel Media Luna, owned by Kin, who drafted the requests and suggestions, and explained the legal aspects to her colleagues. Most of the permittees do not have formal education and depend on Kin's generous heart.

### THE GREATNESS OF THEIR PARTNERSHIP

Permittees figured out that some of the regulations the authorities were trying to enforce were set to benefit people close to them. For example, it was established that no guide could be at sea without wearing a life vest, unless he was certified for apnea diving, a sport based on underwater voluntary breath-holding. So, the permittees were opposed to the new regulation because a guide wearing a vest cannot move freely, thus becoming more difficult to help tourists in danger. However, the authorities endorsed the regulation and recommended a person to certify them in this sport.

Under these circumstances, Kin asked Luz María to train guides from Isla Mujeres for free. They would only pay for the validation to the National Association of Underwater Instructors (NAUI). First, some men on the island did not agree, "Why should we bring a foreigner?" (referring to Luz María, who was born in Mexico City). "Why does it have to be a woman?" But they welcomed the proposal when they realized they had saved 80% of apnea certification costs and learned new things. They also noticed that many of the women were more agile in aquatic exercises.

Luz María said, "Although it is a competitive environment traditionally managed by men, there are increasingly more female guides largely because they are very responsible in their jobs. Sailors sometimes miss their jobs after being out late." As for captain Marcelo Cupul, he said that for him has always been very satisfying to work with women because they are more committed to the environment and are respectful of regulations. He attributes the success of Isla Mujeres, Civil Association, to them for bringing everyone together to care for a common heritage.

Cupul, a former fisherman, carpenter, captain, diver, and owner of a dozen boats that visit the whale shark, had to tell off his colleagues when they wouldn't want to follow the rules. "Once I said to a person, 'Look, you are my friend and I know you are very experienced, but if you don't have a license, then you are out of line. You should attend the courses'".

Kin, Luz María, and Marcelo agree that there is room for improvement in certain aspects about visiting the big fish. For example, travel agencies should not "guarantee" swimming with the whale shark, because they encourage captains to be more aggressive and invasive in the search for the animal, just to prevent customers from complaining to the agencies. They would like the authorities to continue investing financial and human resources on monitoring the species and to change public policies that prioritize hotel development which causes loss of mangroves, pollution, and serious damage to the reef. They would also like them to improve public services using the revenue from the entrance fee to the natural protected areas, to remove nepotism and cronyism, to learn about conservation and management, and to have the Secretariat of Tourism publish a roster of certified guides and vessels so that visitors can have the opportunity of choosing a quality service and in favor of nature.

Although there is still a lot to do, Kin, Luz María, and Marcelo agree that the Isla Mujeres, Civil Association, has put willpower, unity, and partnership into

protecting the species and their business. Together they prepared and implemented a plan of good practices, which led to a greater commitment to caring for the environment, since many have already chosen not to use plastic in their vessels. They are successful because they have been honest and transparent with the financial resources, because they have remained united thanks to Kin's leadership, and because they created partnerships between permittees, the community that economically depends on the whale shark, and the authorities.

Through the civil association, they put together a participatory surveillance group and were able to be heard and taken into consideration.

The work done by Kin, Luz María, and Marcelo has led them to gain personal and community growth. Their greatness lies in contributing to the well-being of their peers and sheltering the colossal creature.



# VICTORIOUS WOMEN OF THE SEA

Adriana Navarro Ramírez

**T***his is the story of eight women who joined wills to create, live, and work in a sustainable community by the sea.*

“We made a revolution, and amazed our community”, these eight women who live southeast of Mexico stated happily.

“They, who doubted us, were the motivation to overcome obstacles. We transformed our insecurity into courage, to get things done,” Mariela Alejandra Gómez Dzib said. She is a 29-year old woman born in Chetumal, the capital of Quintana Roo. “We never give up. It has rained on us. We have gotten lost in the jungle and stranded in the low, along with our children. They have called us names. Doors were shut on us. In a good sense, they have seen us as burden beasts, in the best sense of the word” the woman said with a loud laugh, who has professional studies in natural resource management.

“Mariela is the force and essence of the group. She encouraged Rosa, Carmen, Susana, Blanca, Gabriela, Marisela, and Lilia to form the group Mujeres del Mar or Women of the Sea and start the tourism agency Experiencias Punta Herrero, to attend visitors interested in learning about the fishermen community settled in the Mayan coast. Their short-term idea is to become a successful company led by women who belong to the fishing community. “We want to be independent of large tourism

developments. We will not wait for them to get ahead of us because surely businessmen will come to buy or privatize our lands. And we are not willing to stand by and watch how our area gets destroyed and ruined.”

Mariela is a young, diving expert on monitoring species, with an overwhelming personality and a warm sense of humor. She claims that her primary motivation is to contribute to the common good and put forward economic options for the most exposed. “What moves me is to make improvements for the most vulnerable groups, stay in my community, and work with the people, because many leave to pursue education and never return. I prefer to do my part,” Mariela said.

With this humanistic vision and a gender approach, Mariela insisted for three years at the board of directors of Punta Herrero to consider tourism as a viable economic alternative for their community. But the town, consisting of 60 people, where men are practically those making decisions, did not heed her requests.

In February 2019, Mariela, who was tired of waiting, spoke to her mother, aunts, cousins, friends, and neighbors –many of them going through hardships– and asked them if they wanted to become businesswomen. They all agreed. She convinced them to put their houses by the sea up for rent, obtaining extra income. She suggested that they



Adriana Navarro Ramírez



could work as waiters, cooks, or attend the guests interested in visiting Punta Herrero, the region where they come from. “Although most of them do not hold academic degrees, they have the most important thing: they cook very tasty, fish, and are helpful and good in accounting. We all complement each other.”

First, they created a Facebook page and published the location, basic information, and photographs of Punta Herrero, a town known by its nature, settled in the Sian Ka’an Biosphere Reserve, which in the Mayan language means *charm from heaven*. “We offer you a beautiful landscape, a lovely starry night,” they advertised to the people, and explained that hiring *Experiencias Punta Herrero* meant living out the ecological tourism: harvest rainwater to bathe, fish to eat, cook with firewood, and forget about electric light, as only solar panels were available. They got many “likes” and the photographs were shared many times. In March, all of their seven cabins were booked and paid for in advance to reserve the place.

### THE CHARM FROM HEAVEN

The Women of the Sea, who live and work in Chetumal most of the time, organized to go every weekend to Punta Herrero and prepare the accommodations for the guests. They traveled 32 kilometers of sandy and wild road to get to their town, a trip that can take them up to seven hours, depending on the weather and road complications. They began renovating and restoring their community. Along with their children, they formed cleaning crews, picked up the garbage from the beaches, and rebuilt the dock. They set up a space for camping. A long table was built on the shore, and every woman donated tableware and the necessary kitchen tools.

“Men were amazed at us for picking up the trash they had thrown. They asked us, ‘Are people really coming?’ We paid no attention to them and worked on the construction of the pier. Our sons



Adriana Navarro Ramírez

and nephews helped us find sticks and filling sacks with sand to repair the dock's missing parts. Some men laughed at us, saying, 'Do you want to discover America? Well, somebody already has.' When we were done, it looked really nice.

Before tourists arrived, Mariela recorded all the work done by the Women of the Sea in a video that the two leadership programs in which she is involved requested her, coordinated by the Mexican Fund for the Conservation of Nature, A. C. (FMCN, for its initials in Spanish) and the Community and Biodiversity, A. C. (COBI, for its initials in Spanish). The video got viral in Mexico and beyond, proving that the Women of the Sea were able to change the community's image and show that ecological tourism is a financial alternative, compatible with a healthy environment.

Mariela presented the video to the National Commission of Natural Protected Areas (Conanp) and included a document in which the cleaning hours were logged in, as well as the kilos of trash removed from the shore, and the travel costs of the Women of the Sea. Her intention was to request funds

from that governmental institution for *Experiencias Punta Herrero*. "We asked for two hundred and fifty thousand pesos to refurbish the houses, buy hammocks and beds, restore the cabins, and expand and equip the kitchen. But they only authorized one hundred thousand pesos," Mariela said.

A few days later, Conanp disbursed the first payment for fifty thousand pesos. The kitchen and laundry sinks were repaired. They hired people for carpentry, plumbing, and electricity. They acquired kitchen appliances, towels, bedding, solar panels, power converters, batteries, a drill, and a chainsaw. "Like Jesus, we multiplied everything," the leader celebrated. They got a credit card from a convenience store and used the advanced payment from bookings to buy supplies. They were ready by Holy Week and Easter for 107 guests were arriving from Spain, the United States, China, and different parts of Mexico.

When the visitors arrived at Punta Herrero, they found a gorgeous place: a charm from heaven. They hiked, bathed on the beach, watched the fish with a mask, and went kayaking. They asked for special tours. So, the women hired fishermen (since they are the owners of boats) to take tourists on sport fishing, bird and manatee watching, and to visit long beaches. "We employed them for the tours. One of them earned nearly five thousand pesos in just one day." The women also set up a store with food supplies, beverages, and beer, competing with the only store in the town that sold at very high prices.

"During those twenty days, we fed all the visitors, and there was even enough for our children and us. We offered lobsters; fried, grilled, and steamed fish, with a tasty sesame seed sauce; *ceviche*, shrimp, fried plantains, and tortillas made by hand. We also had pot coffee made over firewood, eggs, fruit, and a pretty hot sauce," Carmen described. She is an expert in combining dishes from Yucatan and Veracruz.

"We managed to settle our debts, covered our salaries, repaid the rent of the cabins, created a savings fund for unforeseen expenses, and hired people from the community. We made it!" all said gleefully. Punta Herrero also gained because the community's awareness shifted. Now, all the

neighbors participate and clean their space. They feel embarrassed if there is garbage outside their houses now that have learned about recycling and conservation.

Many of the people who didn't believe in them now wish to be part of Experiencias Punta Herrero. "There are already 30 community members who want to come on board; they would ask us about the salaries", the Women of the Sea share smiling and satisfied.

### CONSERVE THE RESERVE

Punta Herrero is located at the end of the Sian Ka'an Biosphere Reserve, which is considered one of Mexico's key carbon reservoirs and which harbors a network of freshwater underground rivers connected to cenotes or sinkholes. Punta Herrero, Punta Allen, and María Elena are three towns within Sian Ka'an. The natural protected area stretches 528,147 hectares, of which 99% are public, the rest are private.

In the natural protected area, it is not allowed to change the use of soil, remove vegetation, or use concrete. However, on the way to Punta Herrero, you can see constructions, concrete fillings, excavations, logging, mangrove exploitation, and sand removal. Not only that. Sian Ka'an suffered nine fires in the first six months of 2019, which devastated five thousand hectares, a surface that could take up to two hundred years to recover. Community members think that the fire was intentional, to clear more space for construction.

The Women of the Sea, approached FMCN and other donors to request support in designing and expanding their wood cabins by adding a new floor, in order to accommodate visitors that appreciate this natural spaces. Their plan is to promote the care of the site through waste recollection and recycling. Their small, zero-plastic inn, which complies with the policy of not using this material. They use burlap sacks, wooden utensils, and biodegradable products for transportation, cooking, and serving dishes. "It is a costlier investment, but it seems necessary in order

to give back the resources that the earth has given us. It is part of our environmental responsibility," Mariela added.

### LIVE IN THE CHARM

The success of The Women of the Sea lies in their interest in the common good, directed by Mariela's strong leadership. They respect and support each other. They are also conciliators and know how to reach an agreement if something worries or bothers them. Honesty and transparency in finances are decisive factors.

Lilia Juana Dzib Hoil, Mariela's mother and member of the team, said that together they are strong. "We are proving that we were not born just to stay at home. That idea belongs to the past. Now, we support gender equality and are an example for other women".

Each one of them complements the group with their knowledge. Mrs. Rosa Isela Dzib Hoil knows how to fish, care for the nets, and untangle the fish. She also makes a delicious baked bread in an oven fueled with coconut shell. Carmen León Lucas is in charge of preparing the recipes, as she used to run her small kitchen in Veracruz for years. Susana Uh Hernández likes to be in the kitchen and provide the best service to the guests. She and her husband cut the fish and use their truck to transport food supplies. Blanca Esther Hoil Dzib lends her father's truck. She was raised in Punta Herrero and she knows the area like the back of her hand. Marisela Hoil Dzib is a fisherwoman and she is responsible for bringing food from the sea.

Gabriela Alejandra Hoil Dzib prepares the fish and cleans the shrimp. She remembers the day when they traveled all huddled in her truck, "It was challenging for the person in charge of holding the seven egg cartons. I was driving with the tortillas on my lap, others were holding the bread and tomatoes. We had a lot of fun on that trip." Christopher Adrián Alvarado Tejedo, Gabriela's partner, has served as mechanic, plumber, carpenter, mason, and fisherman. "What I like the most is that they do what they set out to do."



Mariela said that the advantage of the Women of the Sea is that their roots and ties are in Punta Herrero. “We are fishermen’s daughters, we know the region quite well, where we were born and raised. We love the place. If we had to choose between the town or the city, we would stay in Punta Herrero, but we don’t do it because there are no schools. Over there, children are happy: there is no television, no internet, they play all day, they are free, they think and have fun.”

So, it was on a September day, under the dusk light, when the Women of the Sea told me their story. They showed that their body and soul are in harmony with their surroundings, and that they have risen up to their dreams. They erased the boundaries, and were freed from the straightjacket imposed by the social structure, and they added resources and capacities to live in a sustainable community by the sea.



Elisa Areano

# MERMAIDS IN JAGUAR COUNTRY

Adriana Navarro Ramírez

**P**erseverance, persistence, and caring for the natural resources characterize the Ávila family. They have driven their community forward and have been particularly interested in supporting women.

In the summer of 2019, Leongina, José Gerardo, and Zulei, members of the Ávila family, were organizing the Annual Manatee Festival at the main square of Holbox island. They were offering brushes and paint to a dozen girls and boys, who were excited to color the oval figures of marine animals placed in small easels. The participants shared the paints and hummed to the music that was spreading freely across the busy and sandy streets of the island, located on the coast of the Mexican Caribbean, 165 kilometers from Cancun, in Quintana Roo.

Holbox means *black hole* in the Mayan language. It is a splendid territory that stretches 41 kilometers long and two kilometers wide. It is a place where the best of the imagination and dreams are merged. At night, when the red moon is down, and the powerful sun disappears in the horizon, it is possible to see the bioluminescence: an intense blue light that sways along with the waves and the fish. For science, it is a brightness produced by live organisms as a result of a biochemical reaction. For the ordinary spectator, it is as if the fireflies were partying in bodies of water. On the same island, if you sail out to the deep sea, you are able to reach to where the whale shark swims, a species that can grow up to 18 meters long. Holbox is a symbol of natural beauty.

The night that the Annual Manatee Festival was being celebrated, the Ávilas were distributing *rosa*

*de Jamaica* juice to hydrate the audience. Also, they answered the questions that tourists asked about the price of earrings, keyholders, coasters, stuffed animals, and lamps that the family makes with recycled material.

## THE ÁVILA FAMILY

The Ávilas –Leongina, José Gerardo and their children, Zulei, África, and Ángel– are characterized by tirelessly promoting environmental conservation projects and by engaging the community in their initiatives. They began working on conservation in 2010, when they formed a civil organization called Manaholchi, led by José Gerardo, with the purpose of protecting the manatees that live in Conil Lagoon, also known as Yalahau. Both Holbox and Conil are located within the Yum Balam Flora and Fauna Protection Area. Yum Balam means *lord jaguar* in the Mayan language.

Manaholchi's objectives are aimed at protecting the coastal and marine ecosystems and raising awareness of the sustainable use of natural resources and the importance of the manatee, endangered and protected species. In order to achieve their goals, they have organized several editions of the Annual Manatee Festival and provided environmental education so the species can reproduce and enjoy freedom in a safe and healthy environment. They also celebrate the World Wetlands Day and the World Sea Turtle Day with talks in schools, kite contests, performance of the nesting of the hawksbill sea turtle, and beach and wetland cleanups.

In 2013, while searching for opportunities for Manaholchi, the Ávilas approached government entities and heard that the National Commission for Indigenous Peoples (CDI in Spanish) was interested in boosting social projects, especially those including women. So, Leongina invited her friends and neighbors, a total of nine women from Holbox, to form the group *Sirenas del Mar* or Mermaids of the Sea and requested the CDI for training on making handcrafts.

On the afternoons, the women met in Leongina's house to learn weaving, sewing, and embroidery. They began producing stuffed animals in the shape of manatees, fabrics, table cloths, napkins, earrings, necklaces, mirrors, lamps, candles, ornaments, and napkin holders. They traveled to other communities to present their creations and met other female artisans. There were good times for all of them because they gained self-confidence and raised their purchasing power.

During that time, the popularity of Holbox grew and attracted thousands of visitors, because it was considered one of the most beautiful islands with the largest biological wealth in the Caribbean. For this reason, CDI considered Holbox as a tourist destination, and dismissed its indigenous nature and pulled out the social support, a detrimental measure for the Mermaids of the Sea.

Despite the CDI's decision, Leongina did not give up and found support in the National Commission of Natural Protected Areas (Conanp, in Spanish) and the Conservation Program for the Sustainable Development (Procodes, in Spanish) through training on handling coconut wood. However, some women decided to leave the group because they lost the immediate income and chose to focus on embroidery and weaving.

Even then, Leongina kept going. With the help of her husband, José Gerardo, who leads Manaholchi, she designed the project *Ama Holbox* or Love Holbox. The project consisted of placing 22 garbage bins on the island to collect recyclable materials and later turn them into handcrafts. With her initiative, she promoted the cleaning of the community, to sort

the waste, and raised residents' awareness of the urgent need to reduce the consumption of non-biodegradable plastic.

Thanks to Love Holbox, each week, the Ávilas, with the assistance of young volunteers, collect garbage, take it back home, and sort glass, aluminum, bottle caps, fabric, woods, and plastics. The rest of the waste is sent outside the island, to the landfill of Kantunilkín, a nearby community. With the recycled material, they make cups, plates, earrings, pendants, key holders, coasters, and lamps. The Mermaids of the Sea who decided to stay, help in this process. But Leongina's wishes didn't stop there and decided to strengthen her commitment to women.

In 2016, Conanp, as part of phase I of the project Conservation of Marine Resources in Central America, implemented by the Mesoamerican Reef Fund (MAR Fund) with the support of the German Cooperation through KfW, facilitated the incorporation of the cooperative society. During the process, Leongina realized that the name Mermaids of the Sea was already taken and registered in the Secretariat of Economy. As a consequence, she changed it to Mermaids of Holbox.



Ian Drysdale





Adriana Navarro Ramírez

Today, Leongina represents nine women and her husband: Gregoria Lara Santana, Ana Irene Lara Santana, Leonor Argüelles, Faine Gasca, María Esperanza Pulido, Teresa Jiménez Sánchez, Ineritza de Jesús Jiménez, América Zulei Ávila, Marta Adolfina Duarte, and José Gerardo Ávila Canto.

As a cooperative, the Mermaids of Holbox multiplied their tasks: they make handcrafts with recycled material and have been involved in tourism along with Manaholchi. They offer kayak trips to visit the mangrove canals that run across the island and expose the unique birds that inhabit the zone. Also, they rent canoes and paddleboards.

Gregoria Lara Santana, born in 1972, explains that being part of the group has brought her many benefits because she has acquired new knowledge. “Many of us learned to embroider, handle glass and wood, and manage our own business. As Mermaids of Holbox, we are involved in the Annual Manatee Festival, so we have been able to travel to Chetumal and Puerto Aventuras”.

For Ana Irene Lara Santana, selling her products has given her extra income to cover her basic needs.

### SEEKING TO SWIM WITH THE GIANT

During the celebration of the Annual Manatee Festival, Gregoria, Ana, Leongina, José Gerardo, and Zulei, members of Mermaids of Holbox, surrounded by a whirlwind of children, say they are planning several projects to continue creating crafts and caring for the environment.

“Look at these key chains that we make,” José Gerardo said. He points at those with the shape of the whale shark made with bottle caps. “We want Conanp to give them to tourists, instead of the paper bracelets that are attached at the entrance of the natural protected areas and end up in the trash bin. If we produce more key chains or coasters, visitors will take them as souvenirs. We need ninety thousand pesos to buy the machine, the plates, and the cold and hot presses to increase our production”.

“We could embroider traditional Mexican costumes with marine images,” Leongina added, as she has already designed a dress with symbols of the sea and fish. “We want to continue with our activities of conservation and environmental education,” both agreed. To consolidate their ideas, they plan to buy a boat to monitor and provide environmental education in Conil Lagoon, where manatees are found, and take tourists to see the whale sharks, one of the most profitable activities for Holbox. The surplus from tourism would be invested in buying the machines to increase the production of handcrafts.

The Ávila family underlines that their perseverance, their persistence, and their contribution to caring for the natural resources have been the foundations of the Mermaids of Holbox and Manaholchi, as well as driving the community forward, especially the women. “We have overcome many difficulties and will continue to do so. In the very government entities, they have told us that women cannot have their own organization,” Leongina revealed.

As for José Gerardo, he added, “People say to me, ‘What are you doing with women? You will never accomplish anything.’ And I know that they are my strength and motivation.” “We are an example that drives women to change their reality,” Zulei concludes. She is Leongina and José Gerardo’s daughter.



Adriana Navarro Ramírez



Adriana Navarro Ramírez



# A MOUTH FILLED WITH FLAVOR

Roxana Chávez Elorriaga

*The secret of women is very simple: they never quit.*

**Anonymous**

**E**l Quetzalito, located in the Punta de Manabique Wildlife Refuge, a protected area northeast of Guatemala, was one of the most affected communities when Mitch hit. It was one of the deadliest hurricanes in the Caribbean history that touched ground 21 years ago and hit with violence. There was so much destruction that the authorities of the department of Izabal and the Spanish Cooperation collaborated together to move El Quetzalito community to the edge of the Motagua river. This is the longest and one of the most plentiful rivers of Guatemala, it is 486 kilometers long and runs through nearly eighty municipalities. El Quetzalito is the last community located at the mouth of the river adjoining Honduras.

“Today, 95% of the 400 community residents are engaged in the fishing trade; the remaining 5% has leased or bought the land where they carry out

farming activities, especially corn crops,” Enrique Escalante said. He is a freelance consultant. We are driving from Puerto Barrios, the municipality and departmental capital of Izabal, to El Quetzalito, to meet four talented business women. The trip takes one hour and twenty minutes.

“In the natural coastal ecosystem of the Caribbean Sea, which is located in Izabal, there are several protected areas managed by the National Council of Protected Areas (Conap, in Spanish). In the same place, ports run with great economic activity,” Jorge Grijalva, a ranger of the area, reports.

## THE VALUE OF LEARNING

The two sisters, Mayra and Cheila Dubón, and their cousins, Cinthia Ortega and Estefani Dubón, are very much alike.







Fundación Albatros

The four young ladies are currently between 19 and 22 years old. Five years ago, they explored the gastronomic world and had no idea what was in store for them. The *Fundación Mundo Azul*, which conducts research on sharks and rays, launched a campaign to help control the lionfish, an invasive species, through its capture and gastronomic use. The girls were attracted to the idea of participating in the event through the kitchen with a professional style, that is, working beyond their current knowledge acquired from watching and cooking at home.

After the lionfish contest, where they discovered their talent, the girls received an invitation from the Izabal Gastronómica Association to participate in a festival in Puerto Barrios. They didn't believe they were capable due to their lack of training, experience, and knowledge. They were worried that they couldn't measure up with the professional chefs also attending the event. So, the association provided support by training them on the preparation of gourmet food. "We agreed but were afraid because we were competing against the 30 best restaurants of Izabal. But *Fundación Mundo Azul* and Conap,

which have been supporting us since the beginning, introduced us to Titi Bruderer—a renowned Guatemalan chef—so that she would teach us how to prepare sweet and savory dishes. We learned everything we could during the couple of days that we shared with her. She got so fond of us that she came to the contest. She repeatedly said that we had potential and that she would teach us everything she knew," Cinthia said. She is the leader of the Women of El Quezalito, which is how they named the group they formed.

"I don't know what Titi sees in you," people said skeptically. The answer was clear: a sweet character and a natural talent, which even the girls were unaware until they set to the task and created their very first dish in public. They have Titi's support and from many other people, as well as from different public and private organizations. They liked them so much that Izabal Gastronómica Association gave them their first traditional chef's jacket, to which later they had them embroider a logo with a lionfish and the name of *Mujeres de El Quetzalito* or Women of El Quetzalito, which they still use. "We love these



Roxana Chávez Elorriaga

jacket although at the beginning they were too large for us. We keep them because they were the first we had, five years ago, during this contest that we never thought we would win the second and third place,” they proudly said.

### BEYOND THE DREAMS

Eventually, they decided to form a group. Now, they are in the process of formalizing it and searching for better opportunities. They became so popular that people started coming to visit El Quetzalito, to specifically taste their food. They now get invited to cook in other places. In the beginning, it was difficult because they couldn't afford it and not all of them were allowed to go by themselves. Cinthia had to ask permission to her family and would even bring Titi over to persuade her parents.

They all are fishermen's daughters and have had to deal with the traditional beliefs of their own parents and the community, due to the false idea that they should be fishing or farming instead of learning.

“They said we didn't have much of a chance. Only Conap and other people supported us with kitchen supplies.”

Yet that would not discourage them from what they had built so far. They persevered until the president of Izabal Gastronómica offered them to partner with the association without putting a single quetzal. The young ladies couldn't believe it since they were still underaged, but they had earned that opportunity through hard work and dedication. They accepted without hesitation. Despite the obstacles, they committed to work with the association because they knew it meant a milestone for their future.



Roxana Chávez Elorriaga

### DELICIOUS MENU WITH ENVIRONMENTAL BENEFITS

Using the lionfish as the main ingredient, they were awarded second place again on one of the contests organized by *Izabal Gastronómica*. The girls overcame the jitters, the lack of utensils, and the presence of tough international judges attending that day. The girls couldn't afford the costs of catching the fish, so the Mesoamerican Reef Fund (MAR Fund) supported Conap by providing for the purchase of diving gear that is used to catch the lionfish, the species that is donated to the Women of El Quetzalito for them to cook it.

The lionfish has a great impact on their lives. They obtain it from the sea and transform it into a delicious recipe. The fish is served in dinners dedicated to environmental education. The profit from these dinners is used to cover for their studies. Several restaurants support them by providing spaces to cook and carry out their events.

Enjoying the delicacy prepared by the Women of El Quetzalito goes beyond the combination of sensations. Their customers appreciate the tasty dish and the environmental benefit of eating it because the lionfish alters the balance of the reef food chains in the Gulf of Mexico and the Caribbean. With the support from MAR Fund to Conap, the population of this harmful species has been controlled to reduced its presence in the Guatemalan Caribbean, as well as promoting its consumption and the appeal of cooking it.

“The number of actions supported by MAR Fund and the responsibility that lies in their word is significant. If they commit, they will surely meet their obligation. This has created the basis of trust among partners and the organization,” Enrique Escalante added.

### UNITED FOR ONE CAUSE

Cinthia, Estefani, Mayra, and Cheila thought that it was impossible to go to the capital to study. However, with the help of their friends, they found the funds to cover for their studies. “I am delighted with them. The institution will provide the necessary support. The girls have been like our daughters. They are very responsible and creative,” Hendryc Obed Acevedo underlined. He is the director of Conap’s Technical Unit.

Eugenia Díaz, the representative of the Technical Institute for Training and Productivity (Intecap, in Spanish), approached the group and offered them two scholarships. “If there are no scholarships for the four of us, then we don’t want them. We wish to stay together,” Cinthia replied. At the end of 2018, the president of the Izabal Gastronómica Association called to notify them that they had approved the four full scholarships to be certified as professional chefs.



### A PLACE TO CREATE

Watching and listening to the four young girls, I recognize Cinthia as the captain of the boat ready to sail off. She is a brave captain. If it is required for someone else to be responsible for any kind of challenge, she is supportive. Facing the challenges gives them the confidence to know they will be capable of accomplishing whatever they set their minds to.





Roxana Chávez Florriaga

The lack of a place or commercial establishment has never been an obstacle for the cousins Ortega-Dubón. “The Ministry of Environment and Natural Resources (MARN, in Spanish) has acknowledged our work and invited us to cook for groups. We recently served 150 people from 23 countries, who attended a meeting about the Biobarda project (a barrier made

with recycled material to contain the waste that flows in the Motagua river), in which we are involved,” Cheila proudly said.

If someone asks them to cook for an event, they perform professionally. They have mastered plate decoration and presentation, and work with the essential kitchen tools thanks to MAR Fund, which has sponsored them with training, furniture, glassware, tableware, and uniforms.

Currently, they coordinate gastronomic routes along with Izabal Gastronómica Association, of which they are part, to put together the different activities that tourists enjoy while visiting the community: learning how to cook gourmet dishes, travel by boat, and watch birds. Of course, the lionfish has the leading role in their creations. The Guatemalan Tourism Institute sponsors them through the promotion of photographs. “We have to offer something different and appealing so that people are willing to come all the way. We want them to have a unique experience”.

The young ladies imagine beyond their dreams and visualize the restaurant that will represent the story they have experienced throughout these five years, with the essence of each of them and their community. The gourmet food will be key, but experimenting out of the box to invent mixtures with local food will amaze the customers with an extraordinary experience. Their restaurant will be located in a centric space donated by the community, next to the public school and basketball court, so the initial issue of finding a plot has been solved. “It is evident that people coming here to El Quetzalito is the result of our effort. Those who didn’t support us early on, now have a new perspective. We have worked very hard so that people would believe in us. The idea is to stay here and create jobs for the residents of the area,” Cinthia added.

The collaboration with MARN has provided them with the opportunity to work and study at the same time, and have been able to focus on getting certified to consolidate their knowledge. “It has been an invaluable support for us,” they agreed. Winning





Roxana Chávez Florriaga

it has been a very nice experience which has made me stronger,” Cheila remembered, and exchanged a complicit wink with Mayra, her sister.

The community has always been the girls’ priority. One of their objectives is to create income opportunities for the residents and encourage others to study as an alternative to the fishing trade. “We are not sure if we had something to do with it, but there is a change and now youths are studying more than before”.

They are driven by sharing what they have learned. Their goal is to prevent youths from migrating out of necessity and encourage them to stay in their community El Quetzalito to find a decent way of life.

awards in festivals encourages them and confirms that it is worth keeping up. Their eyes tell they are proud. “When they granted us the scholarships, I wanted to leave the group because it was a lot of pressure. Now I am glad to have persisted because



Elisa Areano

# THE TASTE OF THE REEF

Roxana Chávez Elorriaga

*A recipe has no soul. You, as the cook, must bring soul to the recipe*

Thomas Keller

**T**hirty-five habitants, nine families, seven students, a school, a teacher, thousands of dreams, tastes, and colors. That's Punta Negra, a small community south of Belize where the shores are kissed by the magnificent blue sky.

A Friday morning, I set off from Punta Gorda to Punta Negra, from the offices of the Toledo Institute for Development and Environment (TIDE), with two of its members, Caroline "Caz" Oliver, expedition manager, and Nigel Gómez, research assistant. I remember commenting earlier with some people of Punta Gorda about my next visit to Punta Negra community. It seemed that not many of them knew about its location... or its existence, which left me speechless.

We arrived at Punta Negra after 45 minutes by boat, then we walked a few meters from the seashore to the restaurant: a cabin with an excellent view, a witness of beautiful sunsets. The establishment's story dates back to five years ago, when Paula and Suzette "Sue" Jacobs, along with Consuelo Lira and three other young women, started a business with traditional flavor. They named it Punta Negra Grill & Tavern.

These women's work harmonizes with TIDE's vision: keep the ecosystems of Toledo district healthy and favor biodiversity and the community's sustainable development. They contribute specifically to the reduction of fisheries and the responsible use by creating varied dishes that can be tasted in their

restaurant. More allies have joined the cause: the marinas of Punta Gorda, Sabal Beach (an isolated touristic beach, 19 kilometers from the Toledo district), Mesoamerican Reef Fund (MAR Fund), and the German Cooperation through KfW. "We are here to welcome all visitors, domestic or international, and the goal is to generate income for us, under an environmental and social sustainability approach," Paula said.



Roxana Chávez Elorriaga



## TEAM WORK

Paula, the leader of the group, speaks Belizean creole language (from British-African origin, known as *kriol* among the residents). She wears dark sunglasses even when she's cooking, but the way she expresses herself reveals an honest and hopeful look. Consuelo is a shy girl, with Latino roots; although she speaks English and Spanish, she is a girl of few words. Sue seems reserved in front of the recorder, although she is the focus of attention and the life of the party, just like her t-shirt advertises: *par-tay all day*.

They all live at home with their families and help at the restaurant. If there is a surplus in the kitchen, they share it with the community. "We learn from each other, and we are like a family. If I don't know how to do something, someone teaches me and the other way around," Paula commented, looking directly into her friends' eyes. They have learned from working as a team and their ability to organize. They ask the agencies that bring tour groups to notify them one or two days in advance so they can be ready with the food when they arrive. They are grateful when people book a week before or cancel on time because it is sad to see the prepared food getting wasted and losing the day's profit.

All three know how to cook most of the recipes, but rice and beans, the traditional Belizean dish, is prepared especially by Paula, who adds the traditional touch of one hundred percent natural coconut milk, after grating and squeezing the coconut to bring out the Caribbean flavor. Paula also likes to make a coconut dessert that includes brown sugar, coconut milk, and grated coconut. Consuelo is in charge of the *tortillas* and other meals that include corn. Sue adds an extraordinary seasoning to the grilled fish fresh from the sea and to the vegetables, with an impeccable simplicity.

Fishing is one of the daily activities in Punta Negra. Usually, it starts out at five in the morning, depending on the weather. Sometimes, Paula, Sue, and Consuelo go out in the afternoon. "We practice sustainable fishing. We only catch what we will need on that day and guarantee quality food for our clients to enjoy," Sue underlined. They are aware that their fresh ingredients are the reason customers return, because the food is natural and unprocessed, without additives.

## A COMMON DREAM

When I see the girls in action, I know that they are not cooking just for being household women, nor just to feed their family, or as a hobby. It is a passion! A passion that surges every time they talk about it and their daily work in this united and wonderful



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community, where the movement of palm trees and the children's laughter fills the air with positive energy.

"Having a restaurant in our community was the dream that a group of women, Seabreeze Women's Group, and the entire community of Punta Negra had 25 years ago. It was our dream a long time ago," Paula remembers dearly.

While she leads the conversation the same way she moves in the kitchen, the students come out from the neighboring school, St. Cuthbert's Government School. Students run and kick a deflated football. Their uniforms, a yellow shirt and shorts, slacks, or brown skirts, end up filthy after the match. Of course, they couldn't care less. The culinary pioneers offer them a nice cool beverage under the blue sky decorated with clouds.

### PRACTICE MAKES... THE TEACHER!

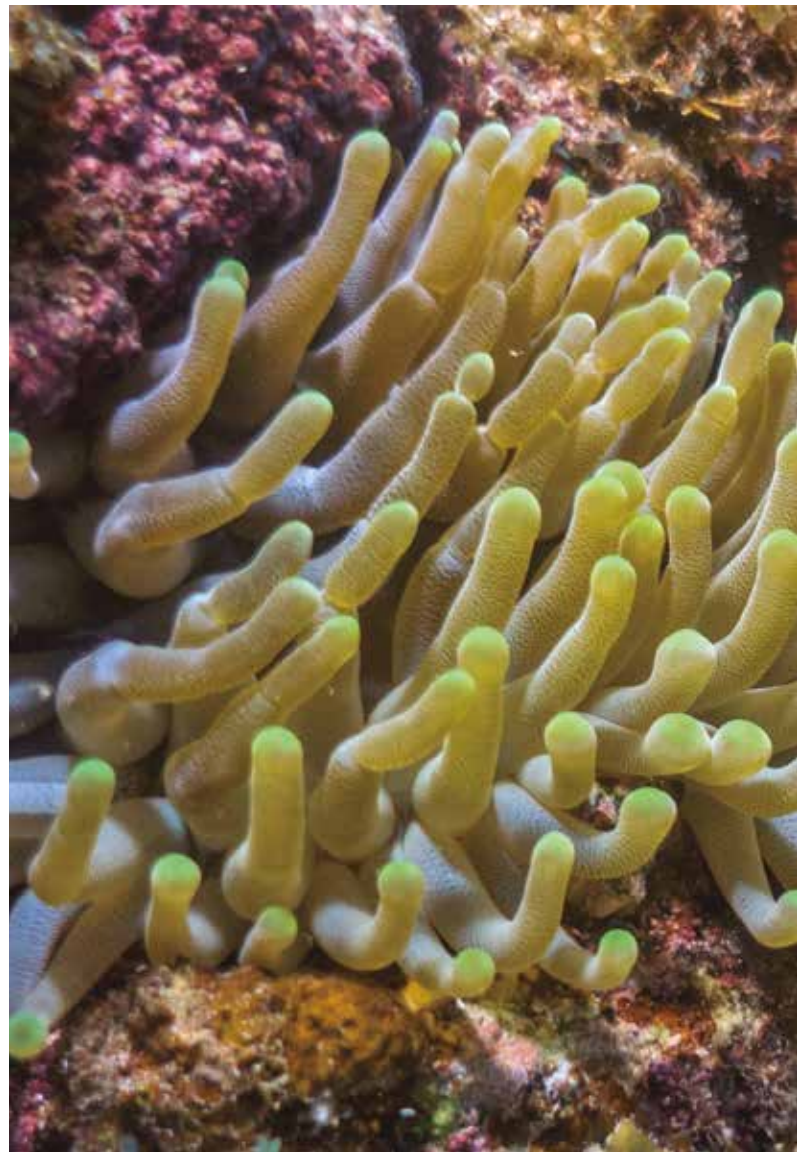
Paula, Sue, and Consuelo proudly admit that they have been learning for years with courses on hospitality, cooking, birdwatching, accounting, business management, and human interaction. They also recognize that there is still room for expanding their knowledge.

The private sector and the local church have given them donations. They are grateful, but they still want to grow more to transform their community business into a model for other women from the region of the Mesoamerican Reef System. They are strong and have sown the seeds in their community. With more learning or training, their project could benefit more people.

Innovating their image and offering a better service will create more opportunities. They look after each detail. "We sell a little bit of rum and prepare different drinks. We would like to learn more about cocktail making and refine drink recipes and their presentation... We wish to expand our menu! We want our clients to be happy, to leave satisfied and to return with a smile," Paula said. She added that they

received valuable feedback from the organizations that support them. "People love the beach, the food, and the coconut dessert. They especially return for that," Sue pondered smiling.

It is the only restaurant in Punta Negra. They offer seafood of creole origin. They prefer using local ingredients like coconut, which is abundant. They make the oil, the milk, and the dessert, which is also sold on restaurants in Punta Gorda, where they buy rice, beans, flour, and wheat. When they fish, they try to use everything, so nothing is wasted. They use lobster only on open season, as well as seasonal fruits used for juices or some recipes.



Fundación Albatros



Their project has consolidated them. Since their community relies on fisheries, if the bad weather is preventing them from fishing, the restaurant provides them with an alternative and real income. “Knowing that this is our job gives us a better life and allows us to cherish it... With the restaurant, everything is better,” Sue commented.

Despite the setbacks and challenges, the partners keep up with the same motivation. They will probably find more obstacles in their way, but there is strength, eagerness, and the will to persist in their actions and goals.

“I will be honest. Early on, I thought it wasn’t going to work. I was quite discouraged because people weren’t coming since the only way to get to the

coastal community is by boat. Now that there is a constant flow of tourists and clients, I hold my head high because the effort has been worth it. With the support of TIDE and Sabal Beach, we have guests almost every day. Serving them makes us happy,” Sue said.

My vibrant hosts cut, season, mix, shred, dress, squeeze, and talk at the same time, thus the feast is ready: fried green plantain, grilled fish, rice and beans, fish turnover, cabbage salad, and lemonade. It is time to taste the splendid meal, and enjoy the nice conversation and the exceptional company in this corner of the Caribbean paradise.



Roxana Chávez Elorriaga



## PUNTA NEGRA, HOME FOR ALL

"If we are not able to go fishing because we are out on tours, we ask the fishermen of the community to sell us lobster and fish. That way, we contribute to the local economy at a reasonable price. We are not the only ones who benefit, but also the entire community. Sometimes children help us with the cleaning and we tip them. They make handcrafts with the coconut shell and sell them. They use the money to buy school supplies and personal items. Consuelo makes bracelets for tourists and sells natural coconut oil, used as an ingredient to make bread, *tortillas*, or other foods," Paula explained.



Roxana Chávez Elorriaga



Roxana Chávez Elorriaga

"We have programs to feed the school children so that they don't have to go home for lunch. It is a kind of donation from our part," Sue proudly said. Students are of different ages and they only have one teacher. They start school at nine in the morning. At twelve, they take a brief break of 30 minutes, and play football, lie down under the palm shades, or go to the restaurant. Then, they go back to classes and finish school at three in the afternoon.

The project of Paula, Sue, and Consuelo has allowed them to reap individual and community benefits. Besides empowering them, it is an alternative for the fishermen to increase their income when the girls buy fish for their clients. They have promoted the social good and support those who need it. Their commitment will go on with a generous amount of hope and faith they have always shown.





# HONEY OF THE CARIBBEAN

Roxana Chávez Elorriaga

*To defend our bees is to defend our biodiversity and the future of our children.*

**Eva Miquel, Secretary and Communication  
Officer of the Friends of Bees Foundation**

**R**oatán island is part of the eighteen departments of Honduras, and is the largest of the Bay Islands. The main livelihoods of the residents are fisheries, tourism, and farming. However, overfishing has caused a depletion of the resource, leading to regulatory measures for their conservation since it is a protection zone in the Mesoamerican Reef System.

Don Isidro is a family man and fisherman who lives with his wife, doña Doris, in a wooden hut in the community of Corozal, one of the nine towns in the island supported by the Roatan Marine Park (RMP), an organization dedicated to the conservation of reefs and other ecosystems in Roatan.

The relationship between don Isidro, the community, and RMP began six years ago when don Isidro was asked to work in the beekeeping project designed as a financial alternative for Corozal fishermen, because they reside in a reef zone where commercial fishing is not permitted. Several fishermen also signed up, and when they didn't earn immediate profit like in fishing, they left the project and don Isidro alone.

Doña Doris had an aversion to bees until she saw that her husband couldn't do it without her. "There's no option," she concluded. She described how they took the hives to the back of her house, which now operates as a honey production business.

## A LONG WAIT

In an effort to awake greater interest in fishermen, RMP made an open call to the community to participate in the project. Many people signed up, but when they realized that working with bees required training and protection gear, they also dropped it. "I hate bees and I would like to kill them," the failed beekeepers complained," doña Doris said. "How is it possible that they like honey, yet want to kill the bees at the same time. I am benefitting from their product and I don't want to harm them."

It is hard to adapt to the beekeeping demands. Don Isidro never lost hope. He put together a group of women along with his wife to learn beekeeping from a teacher of Costa Rica, sponsored by RMP. Together with the teacher, they made sure there was enough



Roxana Chávez Elorriaga





Roxana Chávez Elorriaga

vegetation, water, and other necessary components to set up the apiary. Since then, they started with five pilot hives. Once they were convinced of their interest for the project, the group was consolidated with don Isidro, doña Doris, Juanita Flores, Roselia, Doris Jr., Marcela, Graciela, and Michelle. Six years later, the family group still contains the same members.

When the project was launched, they thought it would be easy to earn extra income. “I had no clue what was entailed,” Juanita commented. Early on, they did experiments and went home at eleven each night, which raised problems with their families because they were absent from home and their families wouldn’t believe them, until they proved that the long working hours were real. Now that they have learned the trade, they work less and enjoy it more.

Don Isidro begged the women not to get discouraged and to keep going, after seeing the look in the women’s faces because they were not earning any income, were away from home, and still had the

same shortage. “There were days that I cried because I knew that the next day would be the same,” Juanita remembered with a broken voice.

After several years, profits would cover for fuel and food. Later, they would get an income from removing hives. That is how they grew professionally and personally.

## GUARDIANS OF COROZAL

The honey processing plant is currently operating in a plot where don Isidro and doña Doris’s house is located. It was built thanks to the effort and contributions from the Mesoamerican Reef Fund (MAR Fund) and the German Cooperation through KfW.

Their experiences sound like a chorus. “We learned a lot the hard way, but now we are more cautious.” “Practically, we are professionals.” “We don’t get stung as much as we used to.” “The bees recognize our smell and know we are taking care of them.” For don Isidro, the bees are like his daughters. He

cares so much about them that he even removed the outside bulbs from his house because he says that the lights burn their wings and might die. They also have to be very careful not to let the bees go into the house and sting the children.

The beekeeper describes that during the cold season, bees don't sting because they barely have honey and live from the reserves. In the warm season, bees are more aggressive because they are defending the honey as it is their food. During the hot months, the Roatan Health Department sprays a chemical to control mosquitoes. Authorities know that the pesticide can be lethal to bees and avoid spraying near the hives. The problem arises when someone new, who has not been informed, fumigates.

The devoted beekeepers, grouped in the Corozal Beekeepers' Association (Apicor, in Spanish), are considering expanding and buying a new adjacent plot to relocate the hives on the upper part of the hill to avoid chemical risks. "That plot would be very convenient because it's right beside. Choosing another place far from here would be more complicated," Juanita, one of the group leaders, analyzed. "People like to take what is not theirs, so we would have to hire someone permanently for surveillance".



Roxana Chávez Elorriaga

## FROM MOUTH TO MOUTH

With over eighty operating hives, both locals and foreigners acknowledge them, and recognize their products under the name of Island Honey. At the bazaars organized every weekend in local fairs, anyone can see the women of Apicor selling their products, or the craftsmen who support them while the women are at the plant processing, bottling, and preparing other honey derivatives. The taste and quality of the honey are excellent, so the loyal and frequent customers become consolidated. The products are so popular that the women are invited to participate in events held in other communities or sell their products in commercial establishments.

It is appealing and convenient for potential buyers to learn about the story on how the project began. Ever since RMP brought the products to their store and the tourism zone, foreigners who reside on the island have become regular customers and spread the word about the quality and the health benefits of the honey. They are the buyers with the highest purchasing power.



Roxana Chávez Elorriaga



There are plans to expand the community business operation team, although they are facing many challenges. Don Isidro spoke again with the fishermen, yet they are not showing any interest. An essential requirement to join the project is to be part of the community. Some people want to work and even have the resources to invest, but they are not part of the community and cannot be admitted because the project was designed specifically for the Corozal community.

### ON THE ROAD TO SUCCESS

The benefit received by the partners and their families is significant. The project creates jobs, as Apicor hires other people to clean the hive frames during the two harvests in the summer.

These extraordinary women love to share their knowledge with other people. They wish to strengthen the environmental awareness in schools,

showing the kids how the project works and documenting and communicating the importance of caring for the bees and the ecosystems they depend on. "I have heard some children advising other kids not to kill the bees," Junita said excitedly and proud of knowing that children are now protecting and understanding the bees.

"This project has been a blessing. It was difficult early on because, commonly, it is not a job for women, but we have learned a lot with hard work. I feel happy and self-confident, and it makes me want to grow," Roselia added with a smile.

### THE ORIGIN OF THE HONEY

RMP made the news viral that the project's women were removing the hives of homes that no longer wanted to keep them, so they relocated them in their plot to keep the bees alive, after delivering the collected product to the residents.



Roxana Chávez Elorriaga



Elisa Areano



In Roatan, honey is more abundant every year and there has been a noticeable change since the production of fruit has increased due to the pollination of bees. Fruit trees and wild plants are blooming more, and it is good for the bees during the cold season because then they don't have to be fully fed with artificial formula. Now, the group is more aware and responsible with the surroundings, and are planning on reforesting the community to conserve the vegetation. They will start by planting some trees with the women who want to help and students from the Policarpo Bonilla School, who have visited the apiary.

Bees from Apicor pollinate a diversity of plants, producing a multifloral honey, that is, it doesn't have one single flavor. The amber color depends on its botanical origin, as well as its organic content. The darker the honey, the higher levels of potassium and antioxidants it has.

There are several beekeeping projects in Roatan. They are focused on extracting pollen and honey from the hive. The difference is that Apicor does not feed the bees with sugar, but with honey reserves; producing low honey volumes, but with higher quality. All the products are entirely organic. Connoisseur customers lift the jar and can simply tell that it's pure, since it has a darker granulated layer at the bottom because they fed the bees with honey.

Yuri Rivera, RMP Community Development Coordinator, gives some clues for a foolproof test: put a drop of pure honey in a clear glass of water and the drop will not dissolve; whereas, adulterated honey will not even sink to the bottom. It is a way to prove how pure it is.

## CREATING SUCCESS

In the beginning, the producers of Island Honey only offered honey with honeycomb, balsamic honey, and honey without the honeycomb. Little by little, they diversified their products with soap, shampoo, and body lotion. Don Isidro and doña Doris's granddaughter, Alessandra, is involved in labeling and bottling, and she feels motivated by having a job and continuing with the business that her grandfather established.

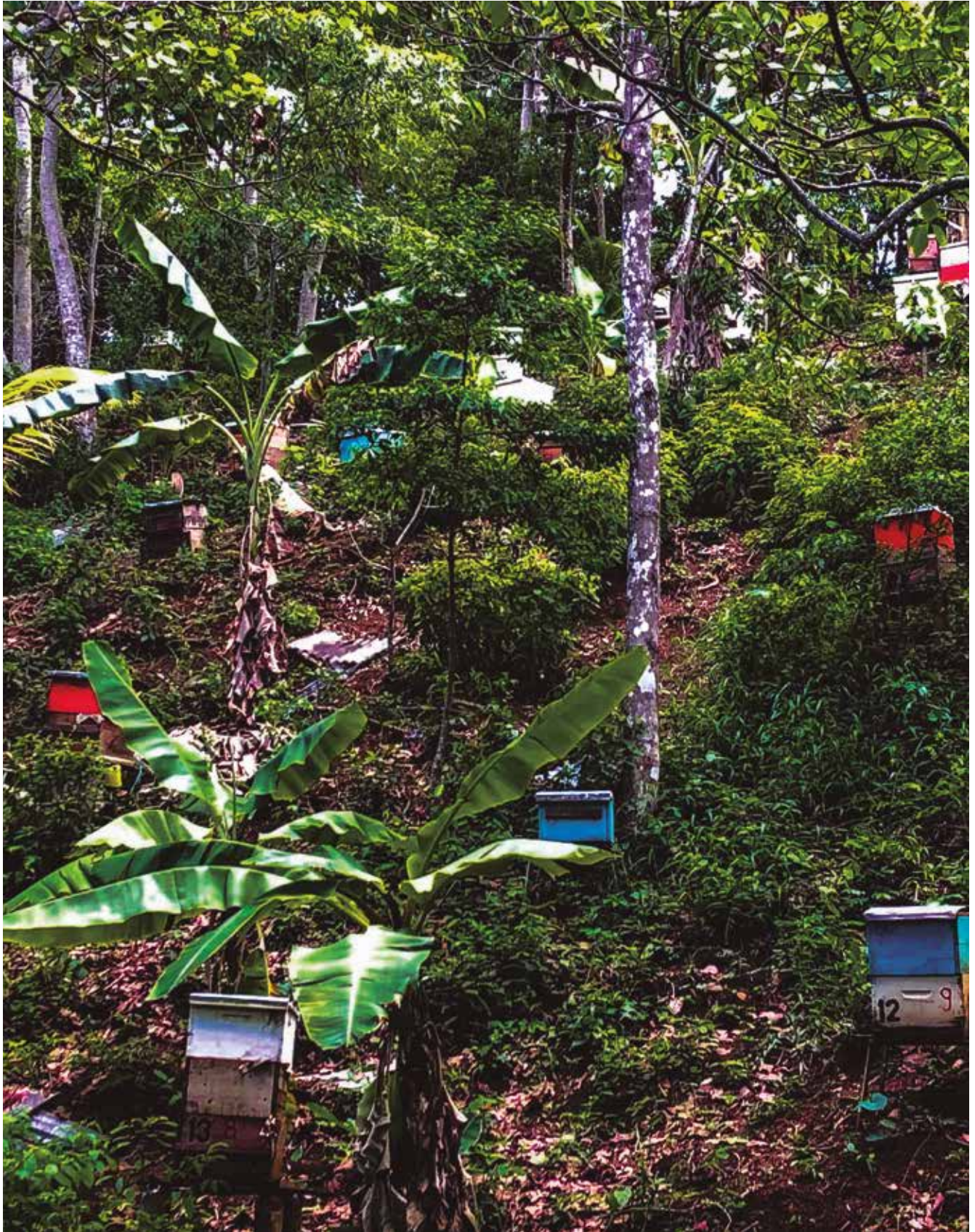
Balsamic honey consists of honey, propolis, peppermint, and eucalyptus. It can relieve coughs, colds, or light allergies. Soap production is limited and under demand, due to its freshness as one of its qualities. The soap is made with honey, works as an antioxidant and skin moisturizer, prevents wrinkles, eliminates acne, dark spots, and dryness, and protects against external contaminating agents. That is why it is the most sought-after product. "The body

lotion is also excellent. It moisturizes the skin and contains a sunscreen that protects from UV light and sunburns," Doris Jr. and Juanita said.

Apicor is part of a marked direct and indirect change. "I believe that the company exists because we believe in ourselves," Juanita happily concludes. "Now we are able to laugh after all we have been through and learned." The company has survived thanks to the mutual support and that from those who believe in the group. Through the initiative of RMP and the support from KfW, MAR Fund, and the Biosphere Foundation, the doors have remained open to become self-sufficient as an enterprise, holding a bank account, operation permit, health registration, national tax registration, and all documentation in order. "We want more hives. It's more work, but we have to strive harder. We are thriving with what we have now," doña Doris added.







Roxana Chávez Elorriaga











# WOMEN OF THE MAR

(MESOAMERICAN REEF)

POSITIVE IMPACT  
ON A RELEVANT SCALE



KFW

