

Seafood Sourcing Sustainability Assessment

AN INVESTIGATION INTO PLAYA VIVA'S SEAFOOD SOURCING



Prepared by:
Romain Langeard
Melissa Luna

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Playa Viva Seafood Sourcing Sustainability Assessment

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PREPARATION OF THIS DOCUMENT

The concept for the Seafood Sourcing Sustainability Assessment (SSSA) originated in 2016 with the hiring of Playa Viva's first Social and Environmental Impact (SEI) Officer, Melissa Luna. After receiving questions from hotel guests about the origin and freshness of the seafood being served and as part of her responsibility to ensure Playa Viva is on track to achieving its regenerative goals, the SEI Officer sought to investigate the origin and supply chain of the hotel's seafood. Within Playa Viva's Farm-to-Table program, the hotel has specifically set goals for achieving a high transparency in its menus, direct relationships between the kitchen and local food producers, and educating all members of the ecosystem from producers, distributors, kitchen staff and consumers about their role in creating a more sustainable and resilient local food ecosystem. Therefore it came with no surprise that the idea for developing the SSSA was approved immediately by David Leventhal, Playa Viva property owner.

While recruiting for a La Tortuga Viva volunteer the SEI officer came across Mr. Romain Langeard, a prospective candidate who held experience in marine conservation and development, most notably working with the FAO conducting vulnerability assessments in Burmese fishing communities. Instead of working with the turtle camp, she proposed and offered the position to help conduct the SSSA. Mr. Langeard accepted and began work for the project in April 2017.

Initial conversations began with Katherina Audley and Terra Hanks of Whales in Guerrero Research Project who had substantial contacts and experience working with the fishing sector in the Zihuatanejo area. Mr. Langeard, the principal investigator (PI), led the investigation with support from the SEI Officer and the staff of Playa Viva. While Playa Viva management agreed to the assessment, the ultimate decisions as to what questions would be asked, what methods would be used, and who would be interviewed were left to the PI and SEI Officer. The findings of the SSSA are those of the PI and SEI Officer and do not necessarily reflect the opinions of Playa Viva or its collaborative partner, Whales of Guerrero Research Project.

A NOTE FROM PLAYA VIVA PROPERTY OWNER AND FOUNDER

A few years back we challenged ourselves by asking a difficult question: "What does Playa Viva mean by 'Farm-to-Table'?" We knew it meant more than growing all our own food; rather, it meant developing relationships with the farmers, ranchers and fishermen who supply us with the food that fill our plates, our stomachs and our souls. It meant delving deeper into the entire food ecosystem and actively being part of creating the change we want to see in our community.

The Playa Viva Farm-to-Table team all agreed that tackling this challenge meant that we needed to develop personal relationships with the numerous suppliers who provided each item on the plate. We had to get out of the kitchen, out of the *mercado* and out into the fields, on the tractors, on the horses and in the fishing boats with those who brought our food out of the earth, the ocean and those who tended the animals that brought us milk and cheese, and on and on.

We soon realized, like so many of the other regenerative ideals we have, that achieving these aspirational Farm-to-Table goals will take years and years to get right. We already started this process with farmers. This report is our first step toward understanding the sustainability of the fish, shrimp and other seafood that goes onto the plates that our guests enjoy so much.

What we didn't realize is how daunting this task would be. After reading the early drafts of the report it struck me that our baseline was very low and that Playa Viva has incredible obstacles to overcome for its Farm-to-Table program to reflect sustainable seafood practices. I was disappointed—yet, at the same time, when you start at the bottom, there is hopefully only one direct way forward: upward toward improvement and betterment.

We could say, "Why bother?" or "Why serve any seafood? Fisheries are collapsing globally." However, the reality is that communities will continue to fish as fisheries provide a vital source of food, livelihood, recreation and economic well being for millions of people around the world. Moreover, even in our home in Mexico, well-managed fisheries have seen both ecological and socioeconomic success. Furthermore, as a model for regenerative tourism, Playa Viva is committed to serving as an example of how tourism and social businesses can serve as a catalyst for positive ecological and economic change.

Serving as an example will require a big investment from changing the habits and behaviors of our own kitchen staff and management team to attempt to make similar changes in the entire ecosystem. The challenge is not just about putting sustainable seafood on the plate of the guest at Playa Viva, but also about making that same sustainable seafood the standard for the entire ecosystem we serve to be part of bringing back healthy fisheries.

Thank you to Melissa and Romain for their report and for the echo effect this will hopefully have in creating positive change at the deepest level. Thank you to our team for doing what will be the "hard work" of changing their habits going forward. Thank you for reading this report and being part of creating change for yourself and our community, our ecosystem.

Thank you,

David Leventhal
Playa Viva, a Regenerative Resort
"Where Your Vacation Meets Your Values"

ACKNOWLEDGEMENTS

The Seafood Sourcing Sustainability Assessment (SSSA) was reliant on the good will and willingness of numerous informants. The intent of the SSSA was to ensure that Playa Viva's seafood sourcing actively supports its regenerative goals, to shed light on the status of seafood sustainability at the hotel and fishing practices locally, and to hopefully play a small part in improving awareness of seafood sustainability in the Zihuatanejo area.

Without the invaluable comments and contributions from Katherina Audley, Terra Hanks, and their various contacts within the fishing and conservation community, namely Arturo Mellín (Whales of Guerrero boat captain and former fisherman), Carlos Candelería (professor at UNAM), Juan Manuel Benitez (Barra de Potosí shrimp farmer), staff at the Department of Fisheries, seafood suppliers and the leaders of local fishing cooperatives, this study would not have been possible. Sincere gratitude goes to the fishing cooperatives of La Barrita, El Cayacal, and Barra de Potosí, and in particular to the various fishermen who were eagerly willing to share knowledge and assist in connecting us to valuable resources.

The entire logistical execution process was supported by the members of Playa Viva staff, in particular Oscar Radilla (PV chauffeur and buyer), Julia García (General Manager), and Abraham Pineda (Playa Viva Head Chef).

While Playa Viva financially supported the logistical execution of the project and provided room and board for the PI, Mr. Langeard, willingly accepted the TOR and received no financial compensation for his efforts.

EXECUTIVE SUMMARY

The goal of Playa Viva, as a small boutique hotel, is to do its part to promote regenerative development in the ecosystem of which it is a part. Regeneration is a model that seeks to restore the imbalance between humans and their environment. This model recognizes that humans have the potential for establishing symbiotic relationships with their environment and the ability to create a future of ecosystem health, economic well-being, and human prosperity.

Following this model of development, the goal of Playa Viva's Farm to Table program is to create a resilient food ecosystem so that buyer, supplier, preparer and consumer alike can thrive. Playa Viva seeks to achieve this goal through providing highly transparent menus and building deep relationships with local producers that result in menus and recipes that are healthy and delicious not only for hotel guests, but also for the community at large. In its pursuit of achieving these regenerative goals, Playa Viva hotel undertook its first Seafood Sourcing Sustainability Assessment (SSSA) to educate itself, the Playa Viva team and guests as well as the larger ecosystem.

The SSSA assessed the sustainability of Playa Viva's seafood with an investigation of the hotel's purchasing practices, supply chain-mapping, research on the stock statuses of species of interest and a review of local, national and international fishing regulations. This assessment aimed to determine the sustainability of seafood products served to its guests, and to educate and suggest improvements for Playa Viva's purchasing practices accordingly.

To evaluate sustainability, we, the principal investigator (PI) and Playa Viva Social and Environmental Impact (SEI) Officer, employed the Marine Stewardship Council's definition of a sustainable fishery, i.e., a fishery that can be harvested indefinitely, while maintaining present and future economic and social benefits, maintaining and maximizing ecological health and abundance, diversity, structure and function of the ecosystem on which it depends. By using methodologies derived from the United Nations Food and Agriculture Organization (FAO), the Marine Stewardship Council (MSC) and Seafish, four aspects of seafood sourcing sustainability were evaluated.

Evaluation Criteria

The hotel's current purchasing strategy and management	Is there a strategy in place for sourcing seafood sustainably? Strategy should include M&E and plan for improvements.
Hotel and suppliers' consideration of the stock status of species purchased and sold	Does the hotel demonstrate concern over stock status through staying informed about how species are managed and their stock status? In case of lack of information, is generic evidence used based on similar stocks?
Consideration of suppliers' capture methods	Has the hotel identified and assessed sustainability of supplier capture methods and sustainability? Is there cooperation between fishing actors and management?
Hotel and suppliers' consideration of the ecosystem	Does supplier fishing activity compromise the health of the marine ecosystem?

Playa Viva Purchasing Patterns

Discussions with management revealed that there is currently no formal sustainability strategy for sourcing seafood. The head chef orders and cooks with species he knows to be native to the region; however extremely poor traceability at the seafood market cannot confirm whether these species actually originate locally. Playa Viva purchases its seafood mainly from a middleman supplier in Petatlán (“Pescadería Margarita”) the largest town near Playa Viva with approximately 18,000 inhabitants located about 13km from the hotel. This middleman supplier stocks products that only seldom originate from the nearest fishing cooperatives of La Barrita, El Cayacal, and Barra de Potosí. Most products originate from another supplier located in Zihuatanejo (approximately 200,000 inhabitants and located 45 km from hotel), whose products may sometimes originate locally, but a large portion comes from various states across Mexico and potentially foreign fleets.

The other consideration management takes into account during purchasing is the mercury content of fish. However, perhaps due to a lack of education on mercury content, this practice is contradictory as they most frequently and most abundantly purchase the higher mercury-content species (tuna, mahi-mahi and sailfish). The hotel kitchen staff had no prior knowledge of seasonal closures, harvest restrictions, and local fishing regulations, and consequently has purchased seafood throughout the year and of any size and quantity, unaware of its legal and ecosystemic impacts.

Management: Consideration of Stock Status, Capture Methods and Ecosystem

We conclude that without a strategy in place, Playa Viva has been unable to consider the impacts its purchasing practices may have had on the ecosystem. While purchasing from one middleman supplier in Petatlán has saved time and makes purchasing simpler, this undoubtedly has reduced transparency in Playa Viva menus and diminishes the hotel’s ability to ensure to guests that the products they serve are caught fresh and in a sustainable manner. Additionally, this also has reduced Playa Viva’s ability to form and build the necessary relationships with the abundant local fishing actors that could ensure a more sustainable product.

By depending on a middleman supplier, the positive impact on local fishing communities is reduced and the buying price is higher than if purchased directly from local fishers. If the hotel purchased directly from local fishers, there is more leverage to negotiate price, quality, and ensure the fish is caught in a sustainable manner. Furthermore, the economic benefits generated for local fishers would be maximized.

Challenges to Local Purchasing

One of Playa Viva’s main market challenges for purchasing directly from local fishers is the business/financial need for an official invoice, known as a *factura*, as proof that the hotel incurs costs and expenditures which is required for tax deductibility by the Hacienda (Mexican Tax Authority). Most small-scale producers are not legally registered entities and thus have no means of providing a *factura* to prove sale and purchase. Additionally, since Playa Viva’s consumption of seafood is relatively low compared with larger establishments, there may be no incentive for small-scale local fishers to provide a *factura*. Small-scale fishers are normally less interested in *facturation* when the quantity demanded is low, as *facturation* requires additional cost and work. In other words, given the informal cash economy in which most small fishers normally operate, current market conditions offer little benefit for the producer when compared to the costs incurred.

Nevertheless, we were able to identify local fishers who could provide facturas. However, these fishers were often boat or restaurant owners, suggesting a higher degree of affluence. Smaller, individual fishers pay boat owners either a fee or a portion of their catch in order to cover the cost of gas and other supplies. Some fishers never pay these fees nor the fee to belong to the cooperative, most likely due to their low socioeconomic status.

Therefore, financial constraints in the economic value chain exist, which causes obstacles for businesses such as Playa Viva to support the community of small-scale producers. This barrier actively exacerbates existing inequalities in the value chain, thus making it all the more difficult to improve the quality of life for the poorest and the most vulnerable. To ensure equitable purchasing, Playa Viva will need to be very transparent in their exchange with individual fishers and brainstorm and allocate resources for the execution of solutions for creating an equitable purchasing system according to the challenges at hand.

Limitations of the Assessment

Information on the stock status and local regulation of the species of interest were difficult to find and required hours of research and interviews with government officials and conservation partners, as well as leaders of local fishing cooperatives. Regulation on most species was obtained. However, there is still no data on the stock status for the majority of the species of interest to date. Therefore, we suggest interviewing local fishers to glean more information about these species.

Summary of Findings

The SSSA demonstrates the seafood served at the hotel is unfortunately not sustainable. Nevertheless, Playa Viva has expressed commitment to serve as a model for change and to help create that change in their ecosystem. With the lack of a sustainable purchasing strategy to date, Playa Viva has remained unable to effectively trace its seafood products, has retained a low control of its suppliers' practices, and consequently has unintentionally made purchases in violation of minimum size restrictions and in disregard of seasonal closures. Although more research is needed and Playa Viva has demonstrated concern over sustainability and Playa Viva has demonstrated concern over sustainability, Playa Viva's current practices do not comply with the definition of a sustainable fishery. A change in its purchasing practices would signal the next step toward ensuring that the hotel is supporting sustainable fisheries and facilitating positive socioeconomic impact in the community (please see Table 6 in section 3.2 for detailed findings.)

With Playa Viva's expressed commitment to support its local community and local small-scale producers, Playa Viva will need to undertake certain measures to build and establish close relationships with its suppliers, including middlemen, local fishers and members of local fishing cooperatives. Having a poor connection to suppliers and the local fishing community will only hinder their ability to guarantee the quality and sustainability of the product promised to their guests.

Recommendations

Playa Viva, as a socially and environmentally conscious business, is concerned over its impact in Zihuatanejo's, Guerrero's, and more broadly Mexico's, fisheries. Given the findings from this assessment, we recommend that Playa Viva engage in two phases for improving its seafood sourcing. The Seafood Sourcing Sustainability Assessment represents Phase One of the project: an

evaluation of the current state of Playa Viva's seafood sourcing and also with the objective to shed light on the state of sustainable fisheries in the region.

Phase Two: Hotel Sourcing Strategy Adaptation & Implementation

The sourcing strategy should focus on three main stages:

- 1) Finalization of research on local regulations and best practices of local seafood sourcing
- 2) Internal presentation of report findings, staff education and technical needs assessment to adapt sourcing practices
- 3) Identification of new suppliers and external partnership building

Firstly, a completion and verification of the best practices and regulations in place for the species of interest will have to be conducted. Based on this, the hotel management team will have the information necessary to develop the sourcing adaptation strategy and the degree of sustainability it wants to reach.

Gaining further internal support will involve working with hotel management and relevant staff at a deeper level to outline new objectives based on findings and conduct a technical needs assessment to achieve these new objectives. Ensuring the staff, particularly those affected by changes, understand the issues at hand is crucial; they will need to be consulted and engaged throughout the design and implementation of the new strategy in order to build consensus and successfully execute the project.

The strategy we recommend for Playa Viva in the short term (1 year) is to transition from purchasing from middlemen suppliers and establish new business relationships with local fishing cooperatives and purchase directly from them. Collectively, these local cooperatives could supply all of Playa Viva's seafood needs (see section 4). Purchasing directly from fishers will improve transparency and allow for greater control over sustainability and ensure compliance with regulation.

To identify, build, and maintain the close relationships necessary to work with the numerous and diverse suppliers and ensure equitable purchasing requires a great deal of commitment. Therefore, we recommend Playa Viva consider hiring a full-time sourcing officer to build those relationships and support the implementation of the suggested actions. The work involved in establishing these relationships, addressing issues such as equitable purchasing, and staying informed on marine sustainability issues is a full-time responsibility and cannot fall solely on other members of staff who are carrying out various priorities.

The work would be conducted by the (potential) Sustainable Sourcing Officer and supported by Playa Viva's Social & Environmental Impact Officer (SEI). It would involve traveling to local seafood markets, talking with vendors, government officials, fishers, other resource users and conservation actors in the area to ensure PV is supporting sustainable fisheries. This phase would entail writing reports of the project's findings and supporting the SEI officer to implement changes in PV's sourcing as well as strengthen relationships with small-scale fishers.

Phase Three: Lead the creation of a responsible seafood purchasing guide

Making responsible seafood purchases is not easy, but possible. We observed in this assessment that the actors within the local fishing supply chain (fishers and suppliers) often do not respect fishing regulations. This attitude is partially due to the lack of demand for a sustainable product. Additionally, another major barrier is poor enforcement by fisheries authorities, resulting in a “why should I follow the rules if nobody else is” mentality.¹

Once a sustainable purchasing strategy is in place, Playa Viva can be in a keen position to promote the demand for a more sustainable product. Playa Viva could play a key role in the promotion of sustainable fishing and responsible purchasing practices through leading the creation of a “responsible seafood purchasing guide.” In partnership with our local conservation partner, *Whales of Guerrero Research Project*, this guide would be aimed at other tourism actors, businesses, and individual consumers in the area. Playa Viva would have the opportunity to share its findings with various actors through this purchasing guide, which would include up-to-date regulations on the main commercial species and include a user-friendly choice scale.

Making these changes would ensure that the hotel is on its way to supporting a more—not just sustainable—but *regenerative* approach to seafood purchasing and simultaneously fulfill its Farm to Table program goals. It would allow Playa Viva to become a leader in biodiversity conservation and regenerative development.

¹ Personal communication May 2017. El Cayacal & Barra de Potosí Cooperatives, GRO, México.

I. INTRODUCTION

A. BACKGROUND AND JUSTIFICATION

History and Context

Playa Viva hotel is located within the Costa Grande region of Guerrero, a sociopolitical region spanning 325 km of coastline from the border of Michoacán to Acapulco (Figure 1).² Today the region's economy is heavily dependent on agriculture and fishing, with the exception of Zihuatanejo and Ixtapa, whose economies are mainly dependent on tourism.



Figure 1. Map of the Costa Grande region

Before becoming a popular tourist destination in the 1970s, Zihuatanejo existed for hundreds of years as a remote, sleepy fishing village. In 1970, Zihuatanejo had a population of less than 5,000 people and consisted mainly of fishers, subsistence farmers, and a few merchants.³ The town was impoverished, lacked paved roads, sewerage or a telecommunications system, and had a heavily polluted swamp in the center of town.³

To combat these issues, during the 1970s the Mexican government decided to invest in a large tourism infrastructure project for the Zihuatanejo-Ixtapa area³. The “Zihuatanejo Tourism Project”, financed by the World Bank, established Ixtapa as a resort destination, rehabilitated and expanded the existing fishing village of Zihuatanejo, and built an international airport.³

Consequently, Zihuatanejo looks very different today. More than 100,000 people currently reside in the area, a more than 95 percent increase in population from its humble beginnings, and receives

²Moreno-Casasola, P. et al. (2013) Guerrero y la Costa. CONANP.

³World Bank (1983). Project Performance Audit Report: Zihuatanejo Tourism Project and Tourism Development Project.

thousands of tourists per year.⁴ Immediately following the “Zihuatanejo Tourism Project”, the town experienced an increase in local prices, income, employment, and population growth, which have all continued today.

However, despite the boom in income and employment, the poorest segment of the population—the illiterate fishers and farmers—received almost no benefits from the project and found difficulty obtaining jobs in the hotel sector for which they did not have the necessary skills³. Furthermore, the project caused the control of local businesses and services to gradually move to non-local and increasingly foreign ownership.³

Moreover, with this population and tourism boom, it is without surprise that the area has experienced tremendous impacts on the environment. A 2005 study indicated that the infrastructure necessary to satisfy both domestic and international tourist needs in Zihuatanejo-Ixtapa have had “extreme” impacts on the environment.⁵ Poorly planned coastal development causing habitat destruction, wastewater discharges negatively affecting water quality, and increased pressure on marine resources have all taken its toll. Guerrero’s fisheries have been steadily in decline and coastal lagoons and estuaries remain threatened.⁶ All of these issues are inextricably linked to the socio-economic well-being of the people who rely on the area’s natural resources.

Many factors have caused the decline in Guerrero’s ecological integrity; the lessons learned from Zihuatanejo’s development demonstrate the complexity of developing an economy inclusively and equitably, while balancing ecological sustainability and ensuring the needs of the most vulnerable members of society are met. The correlation between tourism development and increased pressure on marine resources is largely researched^{6,7} and consequently, residents, business owners, local fishers, and conservation actors are all concerned over the health and productivity of Costa Grande’s ecosystems.^{8,9}

⁴ Censo de Población y Vivienda 2010, Instituto Nacional de Estadística y Geografía (INEGI). Available at <http://www.inegi.org.mx/>

⁵ Ortiz-Lozano, L., Granados-Barba, A., Solís-Weiss, V., & García-Salgado, M. A. 2005. Environmental evaluation and development problems of the Mexican Coastal Zone. *Ocean & Coastal Management* 48(2): 161-176.

⁶ Kennett, D.J. et al. (2007). Human Impacts on Marine Ecosystems in Guerrero, Mexico. In: *Ancient Human Impacts on Marine Environments*, edited by T. C. Rick and J. M. Erlandson, University of California Press, Berkeley.

⁷ INTERNATIONAL JOURNAL OF ENVIRONMENTAL SCIENCES Volume 6, No 1, 2015

⁸ Personal communication May 2017. Katherina Audley, Whales of Guerrero. GRO, México.

⁹ Personal communication May 2017. El Cayacal & Barra de Potosí Cooperatives, GRO, México.

B. PLAYA VIVA VISION & OBJECTIVES

Playa Viva vision

Recognizing the challenges associated with *sustainable* development, Playa Viva's founders sought to design the hotel and execute the operations under a relatively new and unique model. Playa Viva follows the model of regenerative development, a model that seeks to restore the imbalance between humans and their environment *through* human development. This model recognizes that humans have always developed their environment but also have the potential for establishing symbiotic relationships with it and the ability to create a future of ecosystem health, economic well-being, and human prosperity.¹⁰

The vision of Playa Viva's founders is to create a consortium of like-minded environmentally and socially conscious hotels and resorts which adhere to the principles of regenerative development. Due to Playa Viva's commitment to the regenerative model, in early 2016, management held a *charrette* to develop the core values of its Farm to Table program. The goal of Playa Viva's Farm to Table program is to create a resilient food ecosystem so that buyer, supplier, and consumer alike can thrive.

To achieve this goal, just as the hotel conducted a "History of Place" to understand its role as stewards of the land, the Farm to Table *charrette* called for a "History of Place" for each food item served on Playa Viva menus and a "History of Person" with each of its suppliers. These histories were agreed to as essential for understanding the hotel's role "as partners in creating a farm-to-table ecosystem that is resilient and can thrive for all involved."¹¹

With an expressed commitment to have the highest transparency in its menus as possible, all members of the Farm to Table team conceded that, "understanding the history of each supplier and creating a deep relationship with them was critical"¹⁵. Part of establishing and building that relationship is creating a two-way street in which Playa Viva is not just a sole buyer but also works directly with farmers and other suppliers in "creating, managing and benefiting an entire ecosystem of buyers (commercial and residential; local and export) for their 'organic and 'sustainably' grown products."¹⁵

Due to the fact that ingredients cannot possibly be sourced exclusively from Playa Viva's property, a significant portion needs to come from local suppliers. As such, the team placed high importance on the chef being able to identify every item on the plate, describe exactly where it came from, and answer specific questions about who responsible for the fish on the plate, how the fish was caught, and to ensure that the fisher and their family shared the hotel's core values.¹⁵

Therefore Playa Viva, as a regenerative hotel and consumer of local natural resources and with a promise to create a resilient ecosystem so that people and nature thrive, is especially concerned with purchasing and consuming responsibly.

¹⁰ Regenesis Group (2014). What is Regenerative Development? *The Regenerative Practitioner*.

¹¹ Leventhal, D. (2016). Farm to Table Strategy. *Playa Viva, Juluchuca, GRO, México*.

Purpose of this assessment

Playa Viva management agreed that purchasing directly from local suppliers, creating deep relationships with them, and reducing middlemen were critical for creating a resilient food ecosystem and a menu that was healthy and delicious not only for both hotel guests, but also for the community.

While Playa Viva has been more involved with local organic farming initiatives that support this vision, to date, seafood sourcing had not been investigated or monitored until this report. Consequently, the purpose of this assessment is to ensure that Playa Viva is in fact on its way to supporting this vision through an investigation of its seafood supply chain and an evaluation of its purchasing practices.

Objectives of the seafood sourcing sustainability assessment

The objective of this assessment is to determine the level of sustainability of Playa Viva's seafood sourcing. This includes identification of the products and suppliers, assessing the level of understanding and preparation practices of the hotel kitchen staff, documentation of local, national, and international legislation, and the sustainability assessment of the suppliers' fishing methods. Based on the hotel's regenerative and Farm-to-Table goals, Table 1 outlines objectives and corresponding actions that should be implemented to guarantee sustainability.

Table 1: Objectives for establishing a sustainable seafood sourcing strategy

Goal: Sustainable Seafood sourcing	Actions	Indicators
Objective 1: Participate in ecosystem regeneration by following the principles of sustainable sourcing	Action 1: Select seafood suppliers according to their sustainability considering management system, stock consideration, capture method, ecosystem consideration	MS1 MS2
	Action 2: Select seafood taking under consideration the different species' stock status (stock under consideration)	SUC1 SUC2
	Action 3: Select seafood suppliers which have appropriate capture methods for the different species purchased by the hotel	CM1
	Action 4: Ensure that the ecosystem and environmental impact is taken under consideration by the hotel's seafood suppliers (ecosystem consideration)	EC1
Objective 2: Promote the well-being of local communities and hotel guests	Action 1: Select local products as much as possible, to maximize local economic benefits	MS2 SUC1 CM1 EC1
	Action 2: Make every possible effort to purchase and use products that respect the guiding principles for sustainable fishing, and those which are in accordance with Playa Viva's vision	MS2 SUC1 CM1 EC1

II. METHODOLOGY

A. OVERALL METHODOLOGICAL APPROACH

We employed a rapid local sourcing assessment, provided documentation on local fishing industry legislation and regulations, and analyzed suppliers' sustainability according to the principles discussed in this section. Additionally, to improve Playa Viva's knowledge about the local fishing industry and potential opportunities, we conducted a rapid survey of various ultra-local (less than 30 km around Playa Viva) suppliers.

B. SUSTAINABILITY PRINCIPLES AND DEFINITIONS

Definitions

To evaluate sustainability, the assessment employed the Marine Stewardship Council (MSC) definition of a sustainable fishery and the Food and Agriculture Organization (FAO) Code of Conduct for Responsible Fisheries.

A. SUSTAINABLE FISHERY

Definition according to the Fishery standard of the Marine Stewardship Council:

*"A sustainable fishery is a fishery that can be continued indefinitely at a reasonable level; that maintains and seeks to maximise, ecological health and abundance; that maintains the diversity, structure and function of the ecosystem on which it depends as well as the quality of its habitat, minimising the adverse effects that it; that is managed and operated in a responsible manner, in conformity with local; that maintains present and future economic and social options and benefits; that is conducted in a socially and economically fair and responsible manner."*¹²

B. SUSTAINABLE SEAFOOD SOURCING

Definition according to the Seafish guide to responsible and sustainable sourcing:

*"An important principle of the FAO Code of Conduct for Responsible Fisheries (1995); 'The FAO Code', General Principles Article 6.1;
"States and users of living aquatic resources should conserve aquatic ecosystems. The right to fish carries with it the obligation to do so in a responsible manner so as to ensure effective conservation and management of the living aquatic resources."*¹³

¹² MSC. (2010). *Principles and Criteria for Sustainable Fishing*. Marine Stewardship Council.

¹³ Seafish (2016). *The Seafish Guide to Responsible and Sustainable Sourcing*.

Method selection

There is a wide variety of different methods and certification methodology acknowledged in the literature. This assessment combines a selection of those methodologies and outlines guiding principles for evaluating sustainability.

The methodologies included the Marine Stewardship Council (MSC) “Fishery standard, principles and criteria for sustainable fishing”, which outlines the four main principles for a sustainable approach to fishing and purchasing; the Food and Agriculture Organization (FAO) “Minimum substantive requirements and criteria for eco-labels” which are used in the case of insufficient data; and *Seafish* “Guide for Responsible and Sustainable Sourcing”, which was used for terminology definitions and its very complete documentation.

The adapted methodology is based on the mentioned international reports and a document review and follows a framework that allows for flexibility in instances when information is not readily available.^{14 15 16 17}

Selection of guiding principles

The Playa Viva supplier’s sustainability is evaluated according to the following guiding principles:

- 1- Management system
- 2- Stock under consideration
- 3- Capture method
- 4- Ecosystem consideration

To evaluate compliance with these principles, the following indicators have been selected and are detailed in Table 2.

Table 2: Indicators for the evaluation of the sustainability of Playa Viva seafood sourcing

Principle	Indicator	Sub-Indicator	Goals	Method of assessment
Management system	MS1: Effective management system is in place at supplier and hotel level	MS1.1: Playa Viva is informed of local best practices regarding the product purchase and make sure that the suppliers are following those practices as well	O1.A1	Documentation
		MS1.2: There is a clear hotel management strategy regarding sustainability of the seafood sourcing (including monitoring and improvement strategy)	O1.A1 O2.A1 O2.A2	Documentation Interview
		MS1.3: Playa Viva is informed of the legal and administrative framework and make sure that the suppliers are following theme (regulation, traceability, breeding season, size	O1.A1	Documentation

¹⁴ (FAO, 2009, *Guidelines for the ecolabelling of fish and fishery products from marine capture fisheries, revision*)

¹⁵ MSC. (2010). *Principles and Criteria for Sustainable Fishing*. Marine Stewardship Council.

¹⁶ MCS. (2013) *Seafood Sourcing Policy Guidance – Small & Medium Size Enterprises*. V0913.

¹⁷ WWF. (2015). *Ecological sustainability evaluation of seafood: Guidelines for Wild Catch Fisheries*

		regulation, species under protection status...)		
	MS2: Effective legal and administrative framework is followed	MS2.1: There is information (scientific and local knowledge) available and shared to the actors for the stock evaluation and management	O1.A2	Documentation Interview
		MS2.2: There are clear long-term objectives, clear timeline, appropriate to cultural/scale/intensity of the fisheries		Documentation
Stock under consideration	SUC1: Information available on the targeted species	SUC1.1: Information on the fish stock status, species biology and rate of fishing are available	O1.A2	Documentation Interview
	SUC2: Consideration of the targeted species	SUC2.1: Playa Viva is informed about the seafood product situation and management (stock, sensitivity) that are served in the restaurant, and adapt the sourcing according to it	O1.A2	Documentation
		SUC2.2: Playa Viva monitor the products information and have correctives measures in case of non respect of the quality of sourcing from the suppliers	O1.A2 O2.A1 O2.A2	Documentation
		SUC2.3: In case of lack of information, generic evidence based on similar stocks is used.	O1.A2	Documentation
		SUC2.4: Fishing activities are managed in order to not alter age or genetic of the stock under consideration	O1.A4	Documentation Interview
Capture method	CM1: Implementation of appropriate fishing methods	CM1.1: The capture methods of the suppliers are identified and are appropriate to the sustainability of the activity for every targeted species	O1.A3 O2.A1 O2.A2	Interview
		CM1.2: There is cooperation between the fishing actors and the local management authorities	O1.A3	Interview
Ecosystem consideration	EC1: The most probable adverse impacts should be considered	EC1.1: There is a special consideration of the bycatch species and the ecosystem of the stock under consideration	O1.A4 O2.A1 O2.A2	Interview
	EC2: The fishing activity does not compromise the	EC2.1: There is a combination of a responsible sourcing strategy on the side of Playa Viva, and a sustainable approach on the side of Playa Viva's suppliers. This include best practices	O1.A1	Documentation

	productivity, structure and biodiversity of the ecosystem	regarding the management method, the stock under consideration, the capture method, and the ecosystem consideration, which support maintaining the fishery's ecological structure (trophic, population, and stock structure), productivity and biodiversity of the ecosystem.	O1.A4	Interview
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C. DATA COLLECTION

Data were collected using a qualitative survey composed of primary and secondary information sources.

Secondary data were gathered through local institutions (governmental, international and national organizations) and are focused on legislation. Information included official regulations, seasonal harvest restrictions (i.e. closure periods) and minimal size restrictions for each species.

Primary data were gathered through interviews with the main actors in the local seafood supply chain (shops, middlemen, fishers, cooperatives, etc.) and hotel management (chefs, shopper, and general manager). Interviews with the supply chain mainly focused on technical aspects, including awareness of regulations, capture methods, area of origin, and local ecological knowledge. Interviews with Playa Viva staff focused on purchasing strategy as well as quantity and type of seafood purchased. (see annexes).

The majority of data were collected through informational interviews with the different actors from the supply chain, including the aforementioned parties relevant to seafood sourcing. All interviews are summarized in the annex section at the end of the report.

D. DATA ANALYSIS

Data gathered from this study were analyzed in accordance with the minimum requirements outlined in the guiding principles of sustainable sourcing, which estimates the level of Playa Viva seafood sourcing supplier's sustainability and thus the sustainability of the seafood served at the hotel.

Based on this assessment, the main challenges of its current sourcing and opportunities for improvement are identified to provide recommendations as to how Playa Viva can achieve its sustainability goals and contribute to the regeneration of the local ecosystem (see part 3.3 *Recommendations*).

E. LIMITATIONS OF THE STUDY

The main limitation in this study was the availability of official data, namely the lack of access to official stock assessments and local regulations, fishers' identifications, complete value chain identification and the limited scientific information available on Guerrero fish species in general.

These limitations make it challenging to determine whether local fishing practices comply with local and national regulation as well as whether local fish stocks are indeed healthy or in decline.

The assessment also encountered temporal and logistical challenges. Due to the remote nature of many fishing actors in the surrounding communities, in depth interviews were limited, thus making it difficult to cross-reference the information gathered in these interviews. With more time and easier access to fishing actors within these communities, more local ecological knowledge about fish stocks could be collected. (*Note:* due to remote access, sites need to be accessed by car, a limited resource at Playa Viva during the on-season; transportation via public transit proved difficult.)

Additionally, one recurrent limitation was the ability to identify the appropriate resource person in the different sites visited. The various cooperatives do not have a dedicated or official meeting place (e.g. they often meet at restaurants or informally at other locations). Additionally, official information about registered cooperatives and its members is not made publicly available. Consequently, it frequently took several attempts to successfully get in touch with the appropriate resource person (e.g. president of the cooperative).

Furthermore, it proved even more difficult to get in touch with independent fishers (those not registered with cooperatives), other potential suppliers who also have rich local ecological knowledge.

Finally, this study is the first seafood sourcing sustainability assessment conducted for Playa Viva; therefore there is no past record or monitoring system that would allow for comparison or to track seafood purchasing over time. The results of this assessment provide a baseline for conducting a more complete assessment and potentially receive official certification in the coming years.

III. RESULTS








A. OFFICIAL INFORMATION

This section focuses on official legislation for the fishing sector and regulation for the targeted species that were available in May 2017. Regular updating and monitoring of this section will be needed as the government is becoming increasingly involved in biodiversity conservation every year.

Species considered by Playa Viva

Table 3 lists and identifies the “species of interest” for this study, i.e. the main species purchased by Playa Viva.

Table 3: Seafood species served at Playa Viva restaurant

Spanish name	English name	Scientific name	
Pez Vela	Sailfish	Istiophorus platypterus	
Dorado	Mahi-mahi	Coryphaena hippurus	
Atún	Tuna	Thunnus albacares y Thunnus obesus	
Robalo/Rayada	Striped Bass/Snook	Centropomus nigrescens	
Ronco	White Grunt	Pomadasys leuciscus	
Huachinango	Red Snapper	Lutjanus colorado y Lutjanus peru	
Cocinero	Green Jack	Caranx caballus	

Camarones	Shrimp	Caridea	
Pulpo	Octopus	Octopodes	
Cayo de hacha	Scallop	Pectinidae	
Ostion	Oyster	Crassostrea virginica	

Political context & regulations

The main governmental agency in charge of the fishery sector in Mexico is the Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA, *Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación*).¹⁸ The National Aquaculture and Fishing Commission (CONAPESCA, *Comisión Nacional de Acuacultura y Pesca*) is the decentralized arm of SAGARPA responsible for designing and carrying out public policies related to the fishery and aquaculture sector.¹⁹ CONAPESCA is also in charge of issuing fishing permits. The main fishing permits are for sport (*permiso de pesca deportiva*) and commercial (*permiso de pesca comercial*) uses. These permits are issued for both small-scale and industrial-scale vessels and specify the type of gear permitted. Depending on the species of fish, some require permits by species. For example, most shellfish require a permit per species (a separate one for shrimp, for oysters, for lobster, etc.). For species such as red snapper and snook, a “marine fin-fish” permit (*permiso de pesca comercial para la pesquería de escama marina*) will include several species (annex 10).

A. MANAGEMENT STRATEGY AND INSTITUTIONAL SUPPORT

In collaboration with the agricultural, forestry, fishery and tourism sectors, the Mexican government has developed the “Biodiversity Mainstreaming Strategy” aimed at promoting sustainable development, biodiversity preservation and conservation of natural capital within the fisheries and aquaculture sectors at the national level.²⁰

The strategy—created within the framework of the United Nations Biodiversity Conference, Cancun, 2016 (COP13) of the Convention on Biological Diversity (CBD), CONABIO, German Cooperation Agency (GIZ) and Biodiversity Finance Initiative (BIOFIN-Mexico)—highlights the importance of interagency collaboration. The strategy is to be implemented through various coordination

¹⁸ SAGARPA. Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación

¹⁹ CONAPESCA. Comisión Nacional de Acuacultura y Pesca

²⁰ SAGARPA (2016) Strategy for Biodiversity Mainstreaming: Fisheries and Aquaculture (2016-2022). Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food.

mechanisms that support biodiversity preservation, such as fisheries certifications, product diversification, use of value-added products and development of value-chains.

The vision is that by 2022, Mexico's fisheries sector will have efficiently incorporated "sustainable use and biodiversity conservation within its plans, programs and actions to guarantee sectoral contribution to food security and development of the country; helping the well-being of society."²¹

To achieve this vision, the main actions include promotion of responsible consumption, studies on the industry's impacts on biodiversity, strengthening of fisheries enforcement and governance, and developing a monitoring and evaluation system for tracking progress of the strategy's objectives.²⁵

Although not fully implemented, is clear that government is currently underway in its effort to provide an effective legal framework for sustainable marine resource management.

B. THE FISHERIES ACTORS AND ORGANIZATIONS (IN PLAYA VIVA REGION)

The fishing actors in the state of Guerrero are very diverse; nevertheless we identified the main groups located within Playa Viva's immediate surrounding environment (defined as being located between Zihuatanejo and San Luis de la Loma).

The majority of the small-scale local fishers in this study are organized in fishing cooperatives, while others are either in unofficial fishing groups (not officially recognized by state institutions nor registered) or are working as independents fishers.

It is important to note that the cooperatives' members encountered in this study (Barra de Potosí²¹, La Barrita²², El Cayacal²³) are all selling their catch individually; there are no joint sales. Instead, the function of the cooperatives is to provide legal status for fishing activity by buying fishing permits, informing the members about regulations and legislation, and patrolling local resources (mainly against outsider fishers).

In addition to government requirements, some of these cooperatives (such as the cooperative in La Barrita) are also implementing local no-take-zones in their respective fishing areas, restrictions on certain species or providing common funding for supplies.

²¹ Annex 7

²² Annex 4

²³ Annex 6

B. PLAYA VIVA SOURCING

A. REGULATION OF TARGETED SPECIES

Table 4 displays the results from targeted research on the regulations of fishing restrictions, by species, in the state of Guerrero. The minimum information needed to ensure sustainability of each species is the allowed period of fishing/fishery closures, size restriction, and capture method.

Table 4: Species regulation in 2017 for the state of Guerrero

Spanish name	Scientific name	Closure periods	Min Size
Atún	Thunnus albacares y Thunnus obesus	Permanent, only sport fishing and special permit	NA (high seas regulation)
Dorado	Coryphaena hippurus	Permanent, only sport fishing and special permit	NA (high seas regulation)
Pez Vela	Istiophorus platypterus	Permanent, only sport fishing and special permit	NA (high seas regulation)
Robalo/Rayada	Centropomus nigrescens	No closure period known. Good period with cold water (July-Sep) ²⁴	330 g/units
Ronco	Pomadasys leuciscus	No closure period known. Good period a with hot water (Jan-may) ²⁴	330 g/units
Huachinango	Lutjanus colorado y Lutjanus peru	No closure period known. Good period with cold water (July-Sep) ²⁴	330 g/units
Cocinero	Caranx caballus	No closure period known. Good period with hot water (Jan-may) ²⁴	330 g/units
Camarones	Caridea	No closure period known in Guerrero. March to mid-September for Pacific shrimp fisheries in Gulf of California. ²⁵	15 cm
Pulpo	Octopodes	No closure period known. Good period with cold water (July-Sep)	-
Cayo de hacha	Pectinidae	No closure period known.	-
Ostiones	Crassostrea virginica	1 June - 31 August ²⁶	-

B. GENERAL PLAYA VIVA SOURCING MAP

The origin of Playa Viva's seafood varies slightly depending on the availability of products throughout the year. Playa Viva mainly sources its seafood from the municipal market in Petatlán, Pescadería Margarita, roughly 13 km away. Pescadería Margarita sources its products mostly from Zihuatanejo (whole fish, filet and shellfish), which can have a variety of origins, including locally, nationally (Baja California, Colima, Nayarit and Jalisco) and internationally.

Depending on the season, i.e. when local catch is low, Playa Viva purchases directly from the "Las Salinas" market in Zihuatanejo (Annex 9). This market also sells products both of local and national origin, but has a more consistent supply throughout the year than the market in Petatlán. It is also the main market for purchasing pelagic species (i.e. tuna, mahi-mahi and sailfish), which Playa Viva

²⁴ Annex 7

²⁵ OCEAN TRUST (2011). Shrimp: Mexico wild harvest.

²⁶ Annex 10

purchases most frequently and more than any other type of seafood product.

The market in Zihuatanejo tends to have more species from outside of the local area (defined earlier as between San Luis de la Loma and Zihuatanejo) especially for pelagic species; even if those species were landed in Zihuatanejo they may have originated in the high seas (200 nautical miles off Mexico’s coast). The Pétatlan seafood stand, while it obtains most of its products from Zihuatanejo, tends to sell some local products coming from “occasional sourcing ways” (Figure 2).

Figure 2: Seafood sourcing ways of Playa Viva

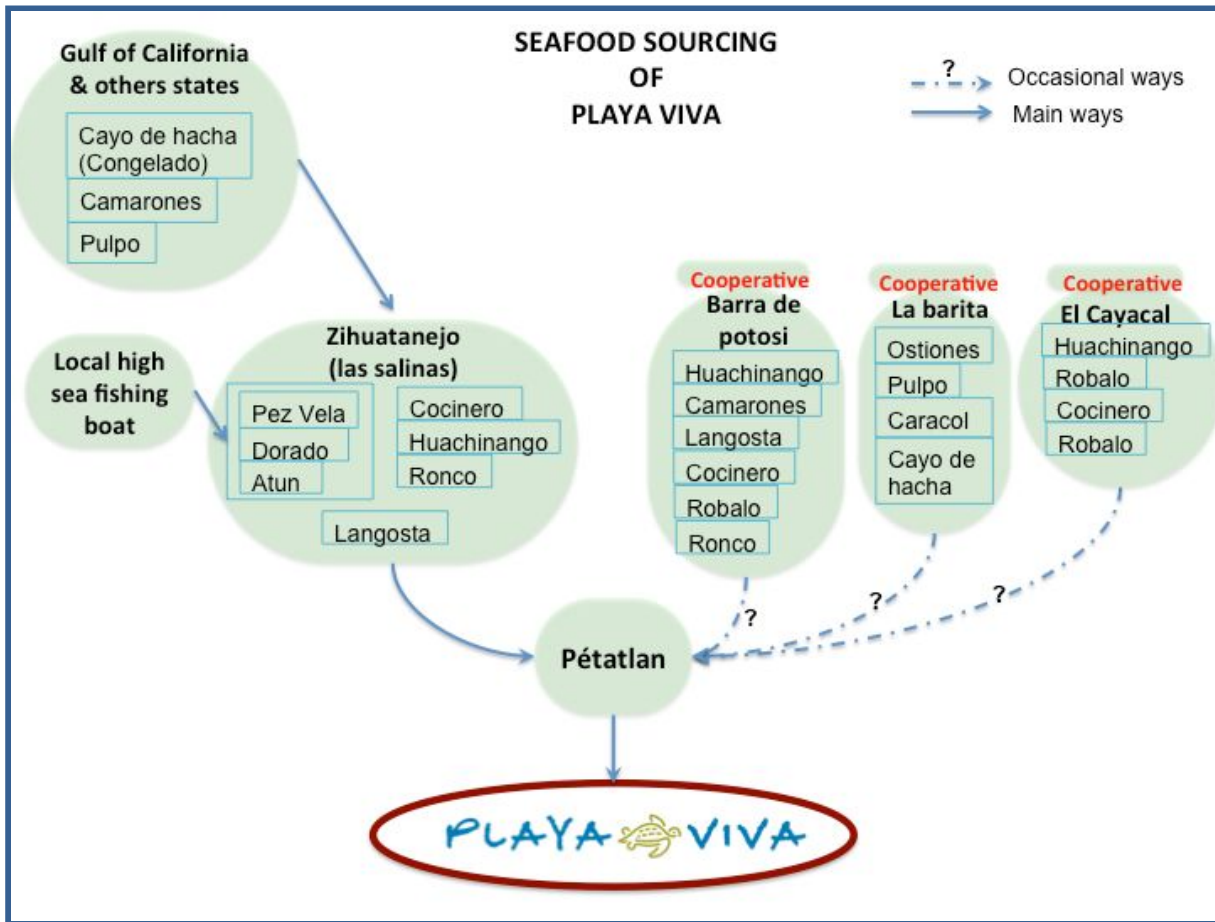


Figure 2 illustrates the points of origin and pathways of Playa Viva’s seafood sourcing. It demonstrates Petatlán as the last intermediary before products arrive at the hotel. It also shows the “occasional ways” of sourcing, which represent the fishers who potentially sell their product directly to the Petatlán middlemen.

C. QUANTITY OF SEAFOOD REQUIRED BY PLAYA VIVA

The quantity purchased by Playa Viva fluctuates depending on the season, namely between the *High season* and the *Low season*.

Seafood is purchased once per week by Playa Viva staff always at the places previously mentioned, Petatlán municipal market or Las Salinas in Zihuatanejo if not available closer. Seafood has been purchased in San Vicente (42 km from the hotel), but this occurred only a few times during the past 5 years due to an abnormally low supply in Petatlán and Zihuatanejo. Table 5 describes the hotel’s

weekly purchasing patterns in its respective seasons.

Table 5: Playa Viva's restaurant's weekly consumption

SPECIES	LOW SEASON	HIGH SEASON	TYPE
Coastal fish			TOT= 4 kg
Huachinango / Flamingo	- 10 to 15 pieces	- 25 pieces	- Pieces of 150g for individuals portions - Huachinango in priority but can be a mix
Ronco	Or - 2 kg	Or - 4 kg	
Robalo			
Cocinero			
Pelagic fish			TOT= 14 kg
Atún	- 2 kg	- 4 kg	- Filets
Dorado	- 3 kg	- 5 kg	- Filets
Pez Vela	- 3 kg	- 5 kg	- Filets
Seafood (mariscos)			TOT= 6 kg
Camarón	- 2 kg	- 4 kg	- Medium size (15 cm)
Pulpo	- 1 kg	- 2 kg	-

3.3 ASSESSMENT OF THE SUSTAINABILITY OF CURRENT SEAFOOD PRODUCTS

A. MANAGEMENT SYSTEM

Indicator MS1: Effective management system is in place at supplier and hotel level

The hotel has outlined the core values and objectives for its Farm to Table program as well as committed to investigating its practices, which both signal the beginning of a sustainable approach. However, to date there is no effective management system in place at the supplier or at the hotel level that would ensure a sustainable product. The Playa Viva purchasing strategy consists of buying species that are native to the region. However, traceability of seafood products is limited to the last middleman in Petatlán and therefore their actual origin or their method of capture cannot be confirmed.

We discovered that Playa Viva is currently not informed about where their seafood actually originates and is not aware of all the regulations in place regarding the products served. Therefore the hotel is unable to determine whether their suppliers follow regulations or best practices.

Due to the lack of awareness about regulations, the hotel purchases products out of season and in sizes against fishing regulation, unbeknownst to them. For species such as huachinango, robalo, ronco, and cocinero, preference is given to smaller whole fish (150g per fish) due to their convenient individual portion size. The hotel was not aware that this is against the local legislation that imposes closure periods and minimum size restrictions of 330g per whole fish for these species.

Indicator MS2: Effective legal and administrative framework is followed

To date, while legal and administrative frameworks exist at the national and international level, poor enforcement, monitoring, and thus compliance within Mexico (particularly at the local level in Guerrero) renders these frameworks ineffective. Mexico, party to the United Nations Convention on the Law of the Sea and member of the FAO, has committed to ensuring responsible use and development of marine resources. Through this commitment, Mexico has developed a clear long-term strategy for sustaining fisheries in Mexico at the national level. However, implementation of this strategy is still in its infancy and therefore we cannot conclude significantly about its efficacy. Furthermore, while regulations and best practices exist on paper in Guerrero, fishers seem to rarely comply with them.

B. STOCK UNDER CONSIDERATION

Indicator SUC1: Information available on the targeted species

The stock under consideration, which includes many commercial fish species, is monitored by the government and summarized in official reports. However, this information is not widespread and access to specific regulation or reproduction period is very limited. Consequently, Playa Viva is not aware of the stock status or the regulations (closure periods, size restrictions) of the species served in the restaurant. Additionally, it cannot be confirmed whether Playa Viva's suppliers are aware of stock status and fishing regulations.

Indicator SUC2: Consideration of the targeted species

Since the buyer must know the origin of the product to be able to monitor the ecological status of the resources, Playa Viva is not able to consider the ecological status of its targeted species. Currently, Playa Viva cannot effectively trace its products, therefore obtaining information about the

stock status and corresponding regulations remains difficult.

In the case of lack of information, the buyer should use generic information on global stock status trends about the species purchased. Playa Viva is currently not yet engaged in this effort.

Therefore, due to the the lack of relationship among Playa Viva, fishers, and fisheries authorities, the hotel cannot currently verify the sustainability of their practices or the impact on the health/sustainability of the stock under consideration (indicator SUC2).

C. CAPTURE METHOD

Indicator CM1: Implementation of appropriate fishing methods

Since the traceability of the product is limited, it is not possible to affirm that the capture methods are appropriate and sustainable (indicator CM1). Although cooperation exists between local fishing cooperatives and fisheries authorities on issuing permits and providing cooperatives with a copy of regulations, most fishers seemed to be unaware of them. Consequently, whether it be ignorance of regulations, poverty, or simply poor enforcement, local fishers seem to seldom comply with closure periods and even less with the size restriction regulations.

For the supplies originating from other states or from the high seas (shrimp, mahi mahi, tuna, sailfish) the sustainability of the capture method for each species cannot be confirmed since there is no information available on how they were caught.

Despite these challenges, discussions with local fishers revealed there is a real willingness to harvest marine resources more responsibly. Even if regulations are not always followed, some local fishing cooperatives, namely La Barrita, have voluntarily implemented conservation actions on their own accord. All fishers interviewed demonstrated a real concern over the stock status. Therefore, purchasing more locally could enable Playa Viva to monitor suppliers' capture method and allow for greater traceability.

This local sense of responsibility coupled with the government's new biodiversity mainstreaming strategy suggest that best practices for capture methods could be increasingly implemented in the coming years for the local fishing communities.²⁷

D. ECOSYSTEM CONSIDERATION

Indicator EC1: The most probable adverse impacts should be considered

To date, the relation between Playa Viva and its seafood suppliers are not direct enough to allow a deep involvement of the hotel in issues such as bycatch and targeted species environment consideration (indicator EC1).

Nevertheless, some general conclusions can be inferred regarding the purchase of the pelagic species (tuna, mahi-mahi, sailfish) based on general global information about these fisheries.

The tuna species most likely purchased are bigeye and yellowfin tuna. According to the Environmental Defense Fund in collaboration with the Monterey Bay Aquarium's Seafood Watch

²⁷ SAGARPA. (2016). *resumen ejecutivo estrategia de integración para la conservación y el uso sustentable de la biodiversidad*

Program, bigeye and yellowfin tuna are only recommended if caught by trolling or pole-and-line gear.²⁸ They recommend to avoid tuna caught by longline, due to its high bycatch which threatens sea turtles, sharks and seabirds. Unfortunately, most tuna worldwide are caught with long-lines.

Mahi-mahi is also not a recommended seafood choice, as it is largely unregulated across the world, especially in areas with poor enforcement (such as Guerrero). It is also normally caught *via* longline in most places, resulting in a high bycatch fishery.

Sailfish is also not recommended due to the lack of studies on its stock status.²⁹ Sailfish is also a highly migratory species listed in Annex 1 of the 1982 Convention on the Law of Sea, under which regulations require release of all billfish (sailfish is included in this species) from longline vessels, adoption of circle hooks, and catch and release strategies in sport fisheries. The Mexican government only allows sailfish to be captured with sport fishing gear.³²

The ecosystemic impacts of the other species of interests (e.g. red snapper, shrimp, etc.) also greatly depend on the method of capture. For example, shrimp, depending on its method of capture (or if farmed) has the potential to be a sustainable product; however if not using appropriate gear, shrimp fishing can result in a shrimp to bycatch ratio of 1:10.³⁰ This bycatch has caused high mortality of many other important commercial species like red snapper and the highly endangered sea turtle.

To better understand how its purchasing practices are affecting the ecosystem as a whole, Playa Viva needs a much more thorough understanding about the capture methods and origins of these species.

Indicator EC2: The fishing activity does not compromise the productivity, structure and biodiversity of the ecosystem

As previously stated, the capture methods and fishing activity of Playa Viva's suppliers is unknown. Therefore, while some general conclusions can be inferred, it cannot be confirmed that Playa Viva's purchasing practices do not comprise the productivity, structure, and biodiversity of the ecosystem. Nevertheless, local ecological knowledge gathered from local fishers during this assessment suggests that marine resources are declining.

Due to Playa Viva's lack of partnership and low communication with its suppliers, the hotel has limited control over and knowledge of its suppliers' fishing practices (and therefore whether they are detrimental to the environment).

Summary of Results

Playa Viva is constantly in the process of fulfilling its regenerative goals of working directly with local producers and providing transparency in their supply chain. The first step in this process (in relation to seafood) was to determine next actions based on the findings of this assessment. Our results demonstrate that Playa Viva does not have a very strong relationship with its suppliers and has no engagement with local fishing communities. Nevertheless, Playa Viva is in a great position to do so. Several fishing cooperatives exist within a one-hour radius of the hotel; two of which are less

²⁸ EDF Seafood Selector. *Fish choices that are good for you and the ocean*. <<http://seafood.edf.org/>>

²⁹ The IUCN Red List of Threatened Species. Sailfish. <<http://www.iucnredlist.org/details/170338/0>>

³⁰ FAO (2006) Shrimp fishing in Mexico. In: *Global study of shrimp fisheries*. Food and Agriculture Organization of the United Nations.

than 15 minutes by car.

The engagement Playa Viva has with its seafood supply chain is through a middleman supplier in Petatlán, who has limited knowledge on exactly where each product originated or how each product was harvested. This low traceability does not allow Playa Viva to ascertain how, when, where, and from what fishery their product was caught and therefore cannot guarantee their sustainability to its customers. Additionally, due to the hotel's lack of knowledge about local fishing regulations, such as closure periods and size restrictions, Playa Viva has unintentionally made purchases that violate local fishing regulations. These two main factors have hindered their ability to make responsible purchases and support sustainable fishing practices.

Thus, although more research is needed, current evidence demonstrates that Playa Viva's practices do not comply with the definition of a sustainable fishery. Without a shift in its purchasing practices, the hotel may contribute to the depletion of marine resources and facilitate negative impacts on the environment. We therefore conclude that Playa Viva's seafood is currently not sustainable. A summary of findings about the sustainability of each product is detailed in Table 6.

Table 6: Summary of seafood sustainability findings at the product level

Pelagic species (tuna, mahi-mahi, and sailfish)	Sustainability is uncertain due to a critical lack of traceability (some tuna may even originate from Chinese fishing fleets), unknown method of capture and uncertainty about their stock status. Locally, these species are not permitted to be fished commercially (catch and release only). Therefore, if purchased in Guerrero, these species are either illegally harvested or originating from elsewhere in Mexico or the high seas. Moreover, although local stock status and local method of capture are unknown, global trends suggest that some of these species, especially bigeye tuna, are in decline and overfished worldwide, especially in areas that are largely unregulated (such as in the state of Guerrero).
Nearshore species (e.g. red snapper, white grunt, snook, etc.)	Sustainability is concluded to be unsustainable as these fish are purchased under the minimum size restriction of 330 g per whole fish (Playa Viva purchases these fish at 150 g per whole fish). Purchasing under the minimum size restriction jeopardizes the success of a species to reproduce as the smaller-sized fish have often not yet reached sexual maturity and thus eliminate the possibility to repopulate successfully. However, these species could be sustainably purchased if above size restriction.
Shellfish and other seafood products (shrimp, octopus, scallop)	Sustainability is not confirmed due to the low traceability of these products and unknown methods of capture. Shrimp, depending on its origin has the potential to be a sustainable product, however, even if using bycatch sensitive gear, most shrimping methods result in high bycatch (species caught unintentionally), which carries significant impact on the environment ³¹ . ³² Furthermore, local ecological knowledge suggest shrimp populations are drastically in decline and many shrimpers have converted to shrimp farming ³³ . Farmed shrimp could be a sustainable alternative, but an environmental impact assessment on local aquaculture operations would be needed. Octopus and scallop rarely originate locally, making the traceability and knowledge of their stock status and regulation in other parts of the country difficult to determine.

³¹ FAO (2006) Shrimp fishing in Mexico. In: *Global study of shrimp fisheries*. Food and Agriculture Organization of the United Nations.

³² Ocean Trust (2011). Shrimp: Mexico wild harvest.

³³ Personal Communication May 2017. Juan Manuel Benitez, shrimp farming cooperative, Barra de Potosí, GRO, México.

IV. RECOMMENDATIONS

This assessment demonstrates that Playa Viva is concerned about the sustainability of its seafood but does not yet have a strategy that would allow the hotel to achieve its desired objectives. The first step toward serving sustainable seafood at Playa Viva must be a discussion with management to identify the ways in which they are willing to make changes to accommodate the sustainability findings presented in this report. In order to serve sustainable seafood products at Playa Viva, it is indispensable to have a clear sourcing strategy that is supported by hotel management, and to ensure that this new stance is explained and understood by all relevant Playa Viva staff, especially the kitchen staff who will need to adapt their menus and communicate those choices to guests.

In the following section, we provide several recommendations for the short and long term that would allow for more responsible purchasing and thus a more sustainable product.

Short term: Implement a sustainable sourcing strategy and leverage new resources

The lack of understanding about sustainable fisheries hindered Playa Viva's ability to develop a sustainable purchasing strategy, which inevitably and undoubtedly led to unsustainable purchases. The new strategy should include: 1) finalizing research on all available legislation and stock status information, 2) identifying and building new and existing relationships with local producers, and 3) supporting management and kitchen staff in adapting purchasing practices and menus through educating them about sustainable fisheries (and support communicating these practices to guests).

The implementation of said strategy requires a great deal of capacity building and commitment. The technical expertise and education required to implement the above actions, and in particular to build and maintain the close relationships needed to secure a more sustainable product, are significant. Due to the fact that Playa Viva is just at the beginning of understanding its role in the local seafood ecosystem and just beginning to identify relationships with local producers, having an extra staff member to leverage these connections and fully understand its ecosystem impact will be crucial moving forward. Furthermore, due to the variability of the species availability throughout the year, as well as financial considerations, it will also require the kitchen staff to be highly adaptable and flexible in creating their menus. Therefore, we recommend Playa Viva consider hiring a Sustainable Sourcing Officer (SSO).

The SSO would support the discussion process between hotel management and relevant staff by first organizing workshop and gathering staff feedback on this report. The SSO would support management and kitchen staff making changes slowly over time while identifying and building relationships with local suppliers that share the hotel's core values. The sourcing officer will also ensure that the needs and ideas of the kitchen and buyer are taken into account and considered.

A. FINALIZE RESEARCH ON ALL AVAILABLE LEGISLATION AND STOCK STATUS INFORMATION

As a socially and environmentally responsible business, Playa Viva holds an important responsibility to stay up-to-date on the best available science, local regulations, and maintain partnerships with government agencies and conservation partners about the sustainability of marine resources purchased. The first step for implementing a sourcing strategy is to ensure the hotel has access to and is aware of all available information on best practices for sustainable fisheries, regulations for

the species of interest, and any information available on stock status. The work would involve traveling to local seafood markets, talking with vendors, government officials, fishers, other resource users and conservation actors in the area to ensure Playa Viva is supporting sustainable fisheries.

Once this information is obtained, the hotel management team will have the information necessary to develop the sourcing adaptation strategy complete with objectives, actions and a timeline for how it will reach its goals.

B. WORK WITH KITCHEN STAFF AND MANAGEMENT TO TRANSITION TO MORE LOCAL PURCHASING

To ensure a more sustainable product and provide the degree of transparency outlined in Playa Viva's Farm-to-Table objectives (see Introduction section, pg. 14), we recommend that Playa Viva purchase directly from local fishing cooperatives. Guaranteeing the quality and sustainability of products served requires thorough communication and transparency with the supplier. Establishing a close relationship with them is crucial as the suppliers must be aware of the hotel's expectations regarding best practices, quality and quantity. This information should be shared with suppliers and should be made publicly available to guests so as long as the information is reliable, accurate, and up-to-date. Playa Viva should then ensure each supplier supports and shares the hotel's core values.

Sourcing seafood more locally and directly through the fishing cooperatives may cause fluctuations in quantity and species type ordered throughout the year. The kitchen manager and shopper will likely need logistical support as they will need to purchase from several different producers and purchase products more than once a week in the high season.

If the hotel and the staff agree to source its seafood directly from these cooperatives, the hotel needs to end its practice of purchasing the same products year-round, and under the size/weight restrictions, as this does not support the health and productivity of local fisheries nor guarantee a high quality product. We recommend that Playa Viva work with the local fishing cooperatives to implement a rotation schedule of when to purchase seafood products that would comply with local closure periods and support species' reproduction periods.

1. POTENTIAL PARTNERSHIPS

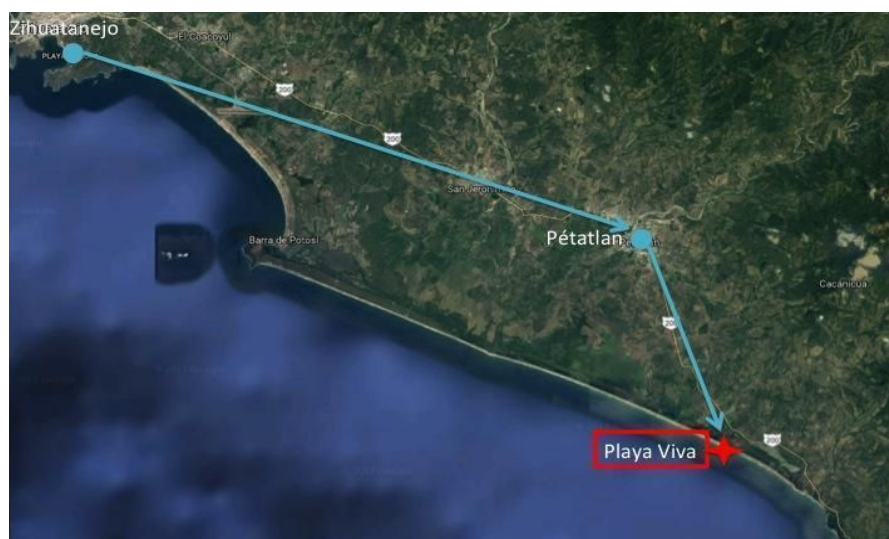
In the Costa Grande region and more specifically in the immediate surrounding area of Playa Viva (max 50 km), there is a large amount of different local suppliers of seafood with more than 14 cooperatives registered (the nearest cooperatives are listed in Table 7).³⁴ Most cooperatives are made up of 20 to 40 people, and offer a high diversity of products.

³⁴ Atlas de localidad pesqueras de México (2009), CONAPESCA.

Table 7: Species availability in the local area

Barra de Potosí	La Barrita	El Cayacal
Red Snapper White Grunt Snook Green Jack Oysters Octopus Lobster Shrimp (Aquaculture)	Oysters Scallops Octopus Lobster Stingray	Red Snapper White Grunt Snook Green Jack

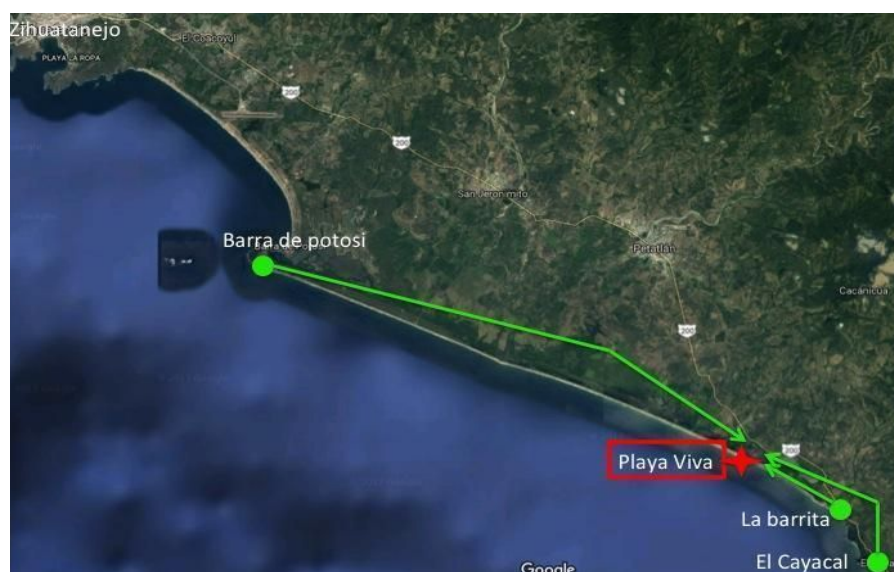
Figure 3: Actual sourcing way of Playa Viva (Map data © Google 2017)



Within a small radius of the hotel, there are multiple places where Playa Viva could purchase all the seafood products needed (Table 7) and in the process engage more seriously in supporting local fishing communities (see Annex 1 for the contacts).

Even if the pelagic fish species (i.e. tuna, mahi mahi, sailfish) were still purchased in Petatlán or Zihuatanejo, other nearshore species as well as shellfish are available in Barra de Potosí (Annex 7), La Barrita (Annex 4) and El Cayacal (Annex 6).

Figure 4: Potential local sourcing ways (Map data © Google 2017)



2. NATURE OF COOPERATIVE SALES AND FINANCIAL CONSIDERATIONS

The cooperatives do not conduct joint sales; the fishers act as individual sellers. Given that each fisher sells his catch individually, Playa Viva will need to carefully decide from which fisher to buy. To ensure equitable purchasing, Playa Viva will need to be very transparent in their exchange with fishers and attempt to purchase from as many fishers as possible, or alternate between different fishers.

Purchasing directly from local fishers also poses another challenge: one of the main constraints to purchasing directly from fishers is the need for an official invoice (known locally as a *factura*) in Playa Viva's name. Nevertheless we identified some potential partnerships that could provide *facturas* during informal discussions in the cooperatives visited. However, this information is only preliminary; more discussion is needed to negotiate the additional cost incurred with the *factura*. Nevertheless, this kind of close partnership represents an effective way to ensure and promote sustainable purchasing by buying only the more sustainable products at a very fair price.

In order to prove for tax purposes that Playa Viva incurs costs and expenditures, the government requires proof through official invoices, known locally as *facturas*. Most small-scale producers are not legally registered entities and thus have no means of providing a *factura* to prove sale and purchase. Additionally, since Playa Viva's consumption of seafood is relatively low compared with larger establishments, there may be no incentive for small-scale local fishers to provide a *factura*. Small-scale fishers are normally less interested in *facturation* when the quantity demanded is low, as *facturation* requires additional cost and work. In other words, it offers little benefit for the producer when compared to the costs incurred.

However, two possibilities to obtain *facturas* with small-scale producers:

1. Producers may raise their selling price (or PV offers a higher price) to convince and/or enable the suppliers to provide a *factura*, or
2. Playa Viva may accept a *factura* from the producer's other expenditures, e.g. petrol for their boat or car. In other words, Playa Viva would need to agree to actively engage in using a loophole within the system and instead of reporting that it purchased fish, it would report that it purchased petrol (and that amount will hopefully add up to amount spent in fish).

While purchasing directly from fishers would result in a lower price than when purchased from a middleman supplier (Table 8), the need for a *factura* would incur a rise in price. However, the rise in price due to *facturas* may be negligible as purchasing from middlemen suppliers also incurs added costs and fees (an estimated 40% increase in the base price of a local fisher, according to the few interviews conducted during this study).

Table 8: Price comparison

Species	Shop price (pesos)(high period)/Kg	Cooperative price (pesos)(high period)/Kg	Price difference (Pesos) (shop – Coop)/Kg	Price difference (%)
Dorado	240	Not available in cooperative	-	-
Atún	180	Not available in cooperative	-	-
Pez vela	180	Not available in cooperative	-	-
Robalo	140	85	40	47 %
Ronco	100	70	30	43 %
Huachinango	120	110	20	18 %
Cocinero	80	60	10	17 %
Camarón	220	120	100	83 %
Pulpo	170	150	20	13 %
Cayo de hacha	170	100	70	70 %
Ostiones	-	100	-	-
Langosta	-	250	-	-
				Average: 42%

Price of seafood could serve as a sustainability indicator. Price fluctuates depending on supply and demand of the product. A rise in price may signal low supply or that the product is out of season and therefore signal the hotel to not purchase at this time. This fluctuation in price would be even stronger if purchased directly from fishers and therefore be a stronger indicator for the product's abundance.

To use price effectively as a sustainability indicator and to confirm the rise in price that would ensue with the addition of a factura, a detailed costing study is recommended.

C. SUPPORT THE ONGOING IMPLEMENTATION OF A SUSTAINABLE SOURCING STRATEGY (SHORT AND MID-TERM)

Long term implementation as well as monitoring and evaluation will be required to ensure that Playa Viva is in fact purchasing products that support sustainable fisheries and the local economy. If hired, the SSO would work with kitchen staff to improve tracking of seafood purchasing and ensure we are using the freshest and most sustainable product available. The SSO would work with existing staff to implement a monitoring system of seafood consumption. Additionally, the SSO would monitor legislation of each species of interest and ensure the hotel is aware of the latest regulations.

Long term

A. AWARENESS RAISING: RESPONSIBLE GUIDE TO SEAFOOD PURCHASING

During interviews with the fishing communities, fishers stated that one of the main barriers to responsible fishing is the lack of demand for a sustainable product. The fishers are numerous and demand is often inconsistent and fluctuates greatly depending on seasonal tourism. Moreover, as previously stated, even local fishers are not always aware of the latest directives and/or do not respect the minimum size restrictions and closure periods. Therefore, due to inconsistent demand, economic pressures felt by the fishers, ignorance of local regulation, and poor enforcement, the tendency to overfish is high. In turn, this has resulted in a large amount of waste in the low season and thus increased pressure on the resources (Annex 3).

With a more local and responsible approach in its sourcing strategy, Playa Viva could play a key role in the area in the promotion of better fishing and buying practices for fishers and other tourism partners. The diversification of the partnerships and sharing best practices can have a significant impact on the local fishing sector and support marine conservation efforts in Costa Grande.

To do so, as suggested by Ms Melissa Luna (Playa Viva Social and Environmental Impact Officer) we believe Playa Viva could lead the creation of a “responsible seafood purchasing guide ” aimed at other tourism actors and businesses in the area. This would entail researching government regulations more extensively, as well as interviewing local fishers and conservation actors to determine the most responsible choices for seafood consumption in the area that support sustainable fisheries. This guide will be user-friendly with easily digestible information so that consumers, restaurants, hotels, and businesses alike can make responsible, well-informed choices based on regulation and the best available science on each products’ sustainability.

Execution of this project would require collaboration with various governmental and civil society

partners and allow for Playa Viva to become a leader in sustainable sourcing and promotion of regenerative development practices.

B. MONITORING OF REGULATION AND LEGISLATION

One of the most important barriers to sustainable seafood sourcing is the lack of information on the species and regulations in application. For this reason, monitoring legislation of every species of interest is crucial for the long term success of Playa Viva's sourcing.

The contact with the Fisheries office of Zihuatanejo must be maintained in order to have the regulations updated at least once a year and the local supplier licences must be controlled and monitored.

C. ONGOING INTERNAL SUPPORT

In order to achieve its goals and objectives of working with local producers, providing transparency in its menus and contributing to the regeneration of ecosystems, we strongly feel Playa Viva will need a full-time dedicated staff member (with a background in sustainability) for the hotel's food sourcing and implementation of a sustainable sourcing strategy (hence the short term recommendation of hiring a sourcing officer).

Having full support from the hotel staff in this process is crucial and will require that the findings be clearly communicated and that staff are educated on sustainable fishery issues. Reconciling between the report's recommendations and the staff's expectations will need a strong support from the SSO in order to ensure the hotel implements the best available actions.

Making these changes would ensure that the hotel is on its way to supporting a more sustainable approach to seafood purchasing and simultaneously fulfilling its Farm to Table program goals. One of PV's goals is to empower its own staff through technical support and capacity building. Therefore, in addition to supporting the reoriented seafood sourcing strategy, hiring a sourcing officer would also contribute to the hotel's goals of empowerment; the sourcing officer would work with local staff to build their capacity to manage these relationships and understand, monitor, and evaluate seafood sustainability. Eventually local staff would be capable of designing and implementing new sourcing strategies in the future. This will not only support the hotel's vision but also provide the best service to its customers.

V. CONCLUSION

The SSSA demonstrates the seafood currently served at the hotel is unfortunately not sustainable. Ensuring that the seafood the hotel purchases is sustainable is not an easy endeavor, but entirely possible. With an expressed commitment to have the highest transparency in its menus as possible and to create a resilient food ecosystem so that buyer, supplier, and consumer alike can thrive, Playa Viva will need to make changes in its seafood sourcing practices. All members of the Farm-to-Table team conceded that understanding the history of each supplier, creating a deep relationship to ensure their methods of harvest adhered to Playa Viva core values was critical for achieving the hotel's regenerative goals.

Achieving Playa Viva's regenerative goals will require the hotel to educate and build the capacity of its staff to reorient its purchasing strategy. Implementing the SSSA's recommendations will require support and collaboration across Playa Viva management and staff, as well as a more direct investment in its local community and the abundant suppliers. This will require more research and investigation into local regulation and species stock status, more direct partnerships with local fishers, fishing cooperatives, and the department of fisheries, and support from all levels of hotel management.

Playa Viva has expressed commitment to serve as a model for change and to help create that change in their ecosystem. Playa Viva is in an ideal position to work with local fishing cooperatives to begin to solve the "lack of demand of a sustainable product" problem identified by local fishers. Not only does Playa Viva have relatively easy access to working with these cooperatives, the hotel has numerous collaborative partners in the region, all concerned and working toward the same goal of having a healthy and functional ecosystem that thrives for all stakeholders. While the future of Costa Grande's fisheries may look bleak, the results from this assessment demonstrate there exists an incredible opportunity to impact the way fisheries are managed locally. To implement this assessment's recommendations, more resources will be required. If funds can be garnered to support the next phase of this project, Playa Viva has great potential to become a leader in sustainable sourcing, help promote the regeneration of Guerrero's fisheries, and become a true promoter of regenerative development practices. Time is of the essence: this region can once again become the thriving fishing village it once was with both small-scale farmers and fishers providing organic and sustainable products for the tourism sector, and simultaneously support the regeneration of a resilient ecosystem.

ANNEXES

ANNEX 1: COOPERATIVE CONTACTS

Location	Name	Position	Contact
Barra de Potosí	Sr Arturo	Guide for Whale of guerrero, ex-cooperative member	7551047168
	Sr Adelaido martinez veio	Fishing Cooperative secretary	7551203976
	Sr Manuel Benitez	Shrimp farm owner	+52175510248
La Barrita	Sr Cuate Juan Basrito	Fishing cooperative head Owner of the “cuates juan restaurant”	7581039624
El Cayacal	Sr Raul Olivar	Fishing Cooperative treasurer	Ask in the tienda
	Sr Pedro Meras Hernandez	Fishing Cooperative head	Ask in the tienda
		Boat owner	

ANNEX 2: MEETING WITH THE PETATLÁN SUPPLIER

Meeting Name : Introduction to Playa Viva suppliers of in Petatlán	
Date : 10 April 2017	Location: Petatlán
Participant(s): Pescadería Margarita, Oscar (Playa Viva chauffeur and shopper)	
Interviewer(s): Mr Romain Langeard	
Objective(s): Identify the fish supplied, and acquire information on the species PV purchases	
CONTENDS: <u>Species:</u> confirmation of the kitchen purchasing list, explanations of the sourcing.	
ADVICES / CONCLUSION / QUESTIONS RAISED: Most of the fish and seafood are coming from Zihuatanejo (and Zihuatanejo itself buying in the area and in others states), some from El Cayacal and Local.	
NEXT STEP: Price analysis	


ANNEX 3: MEETING WITH LA BARRA DE POTOSI CONTACT ARTURO

Meeting Name : Introduction meeting with ARTURO in “La Barra”	
Date : 20 April 2017	Location: Barra de Potosí
Participant(s): Sr Arturo (Ex-cooperative member, associated with <i>Whales of Guerrero Research Project</i>)	
Interviewer(s): Mr Romain Langeard, Ms Terra Hanks	
Objective(s): Get introduced to Arturo, get knowledge on the local regulation/species/organizations/sector study and local fish sector, get contacts in the area.	
CONTENDS: <u>Cooperative:</u> YES, 30 people, mainly with boats <u>Sale methods:</u> there are no communal sales, either selling directly to particular or big enterprises coming to “la barra” to buy directly. <u>Species:</u> Mostly fish, no mariscos, there are some people who are harvesting or farming shrimp.	
ADVICE / CONCLUSION / QUESTIONS RAISED: To help local fishing, the buyers should develop close partnerships with the local fishermen and tell them the species/size/among they need.	
NEXT STEP: Given a contact at “La Barrita” for the mariscos: Sr.Costa 7581051982 Have to come back to meet with the cooperatives guys + shrimp guys in order to get more info and see potential opportunities for working with them.	

ANNEX 4: MEETING WITH LA BARRITA COOPERATIVE

Meeting Name : Introduction meeting in “La Barrita”	
Date : 27 April 2017	Location: La Barrita
Participant(s): Sr Juan Cuate Basrito (cooperative leader)	
Interviewer(s): Mr Romain Langeard, Ms Melissa Luna	
Objective(s): Get in touch with the cooperative of divers, get more information about the local species / regulations / function of the cooperative and the fishing sector.	
<p>CONTENDS:</p> <p><u>Cooperative:</u> YES, Divers, all men, 20 - 30 people.</p> <p>They have a “rivereño” permit, waiting for the Ostion/langosta/Pulpo.</p> <p><u>Species:</u> Fishing mariscos (Ostion/Cayo de hacha/Pulpo/Caracoles/Almejas), Raya pinta and tiburón punta blanca.</p> <p><u>Method of sales:</u> As individuals, no joint sales.</p> <p><u>Regulations:</u> They are fishing the above species even though they have yet to secure all the permits they need; however, they have implemented a rotating no-take-zone (not required by regulation) to help protect stocks.</p> <p>They said Ostion veda: Mayo→ Junio; Langosta veda: Junio→ Agosto. (This is not what the regulation or literature says). Raya 1 Mayo → 31 julio.</p>	
<p>ADVICES / CONCLUSION / QUESTIONS RAISED:</p> <p>The cooperative role is to buy permits and patrol the area their fishing zone from outsider fishermen.</p>	
<p>NEXT STEP:</p> <p>Return to discuss if a partnership could be possible (issue of facturas).</p>	

ANNEX 5: MEETING WITH THE FISHERIES OFFICE OF ZIHUATANEJO

Meeting Name : Fishing office meetings in Zihuatanejo	
Date : 10 April 2017	Location: Zihuatanejo, social center
Participant(s): Sr.Humberto Maciel (Head office)	
Interviewer(s): Mr Romain Langeard	
Objective(s): Obtain information on the local regulation (minimum size, closure periods, ...)	
CONTENDS: He gave me the address of website: Contact official: http://www.conapesca.gob.mx/wb/cona/cona_guerrero Documents official: http://www.gob.mx/conapesca/archivo/documentos Ley de transparencia: http://www.gob.mx/conapesca/documentos/ley-de-transparencia	
ADVICES / CONCLUSION / QUESTIONS RAISED: Address: 	
NEXT STEP: Wait for the document he is supposed to send to us about the minimum size and periods regulation.	

ANNEX 6: MEETING WITH THE CAYACAL COOPERATIVE

Meeting Name : <u>Meeting n°4-5</u> : Introduction to the cooperative in Cayacal	
Date : 1 June 2017	Location: El Cayacal
Participant(s): Sr Raul Olivar (treasurer), Sr Pedro Maras Hernandez (cooperative president), Sr Lorenzo Mardero Calvio (member), Sr Bielma Sierra Perez (boat captain & boat owner) - all members of the cooperative	
Interviewer(s): Mr Romain Langeard, Ms Melissa Luna	
Objective(s): Get introduced to the cooperative, get more information about the cooperative;s function, the species fished and the potential partnerships.	
CONTENDS: <u>Cooperative:</u> YES, 70 members but just 50 fishermen. 24 boats, the owner taking a part of the benefits from the inboard fishermen, he has to provide for everything during the fishing session. Monthly coop fees of 30 pesos. <u>Species:</u> (Huachinango, Flamenco, Cocinero, Ronco) <u>Regulation:</u> 3 fish/1kg → 330g/pescado. They say that there is no periodo de veda for huachinango, flamenco, cocinero, ronco. There are only small fish now, it is hard to get big fish. <u>Permit:</u> permiso de escama → fin fish permit	
ADVICE / CONCLUSION / QUESTIONS RAISED: The coop fees is not paid by everybody. <u>Problems:</u> no support from the government, no security of the resources against others fishermen, bad supervision and disregard of the permit of fishing and regulations. For FACTURA: need a lot of kilos (100kg) or find a way with them. Huachinango price: 100-150 Pesos/Kg, Ronco Robalo 60-70, cocinero 40-50, Pulpo 150, Ostione 100, Cayo de hacha 100, Langosta 250. It could be possible to have factura if we get partnership with one fishermen and have regular order (Sr Bielma Siera Perez).	
NEXT STEP: Confirm if there is a shrimp cooperative too or not (information among fishers is not consistent). Come back to them when we know how much fish we would need, they are going to see if it would be possible to do factura and negotiate price → Sr Bilema Siera Perez is doing some research on this.	

ANNEX 7: MEETING WITH THE BARRA DE POTOSÍ COOPERATIVE

Meeting Name : <u>Meeting n°6</u> : Introduction to Barra de Potosí Cooperative	
Date : 2 june 2017	Location: Barra de Potosí
Participant(s): Sr Arturo, Sr Adelaido Martinez Veo (cooperative secretary)	
Interviewer(s): Mr Romain Langeard, Ms Melissa Luna	
Objective(s): Second meeting to get introduced to the cooperative	
<p>CONTENDS:</p> <p><u>Cooperative:</u> YES, 44 socios, 20 pescadores. Members share of the cost when there is spending needed. No-take-zone locally decided in front of the village. Periodo de veda when they see pregnant fish.</p> <p><u>Especies (Precio):</u> Huachinango (or flamingo)(100/kg), Cocinero (40-70/kg), Ronco(40-70/kg), Salema(40-70/kg), Ciera (150/kg), Robalo (100/kg).</p> <p>Ostiones de roca, langosta, pulpo</p> <p><u>Permit:</u> Escama, Ostion de roca</p>	
<p>ADVICES / CONCLUSION / QUESTIONS RAISED:</p> <ul style="list-style-type: none"> - Need more information on the breeding period → hard to decide the closure periods. - It seems like the middlemen raises the price to 20/30 % for certain species - Playa Viva would need a specific staff on the sourcing... 	
<p>NEXT STEP:</p> <ul style="list-style-type: none"> - Factura possibility? → We have to give him the amount of fish we would need. 	

ANNEX 8: MEETING WITH THE BARRA DE POTOSÍ SHRIMP FARM

Meeting Name : <u>Meeting n°7</u> : Introduction to the Barra de potosi shrimp cooperative	
Date : 2 june 2017	Location: La barra de potosi
Participant(s): Sr Manuel Benitez	
Interviewer(s): Mr Romain Langeard, Ms Melissa Luna	
Objective(s): Introduction to the shrimp farm	
CONTENDS: <u>Cooperative:</u> 40 shrimp farms locally that are part of the cooperative <u>Especies:</u> Camarones blanco (<i>Panaeus vannamei</i>), 15g/camaron, en agua salada, 3 meses de cría. <u>Market:</u> Whatsapp group, mercado de Zihuatanejo y Acapulco <u>Closing period:</u> rainy season Julio→ Octubre	
ADVICES / CONCLUSION / QUESTIONS RAISED: <ul style="list-style-type: none"> - There are others producer closer to Playa Viva, there are producer with open (lagoon) in Playa Larga and closed systems (tanks) in various locations. 	
NEXT STEP: <ul style="list-style-type: none"> - See if the collaboration could be ok - Ask for possible factura 	

ANNEX 9: MEETING WITH THE PLAYA VIVA RESTAURANT

Meeting Name : <u>Meeting n°8</u> : Internal meeting with the Playa Viva kitchen	
Date : 7 June 2017	Location: Juluchuca, Playa Viva
Participant(s): Sr Abraham, Sra Julia	
Interviewer(s): Mr Romain Langeard, Ms Melissa Luna	
Objective(s): Get more information about the quantity of seafood the restaurant is serving in high and low season. Get more information about the “Facturas” issue.	
CONTENDS: <u>Volume of Seafood/week:</u> HIGH SEASON: - Huachi or Robalo or Ronco or Cocinero-->25pices = 8kg/w = 30kg/month - Dorado → 5kg, Atun-->4kg, Pez Vela-->5kg - Camarones → 4kg, Pulpo-->2kg - Cayo de hacha→ we are not buying it currently but it would be 3kg. LOW SEASON: Everythings divided by 2. The Size of the fish are less than a plate, 150 g. <u>Facturas:</u> Facturation is done every month or 2month. We could deduct some others costs even if it is more difficult. There are system of facturation for the small producers, not as a “persona moral” but as “persona física” that is less expensive for them (1year no imposition, 2nd year 20%, 3rd year 30% ...) ADVICES / CONCLUSION / QUESTIONS RAISED: Problem of regulations respect from Playa Viva → menu have to adapt, 330g min Too much high sea fish...not healthy nor sustainable. More discussion needed with the coop and Playa Viva management on the facturations issue. NEXT STEP: Meet the cooperatives to discuss partnerships with the now known volume of supplies needed.	

ANNEX 10: FISHING PERMITS & NOTICE OF FISHERY CLOSURE

SAGARPA SECRETARÍA DE AGRICULTURA, GANADERÍA, DESARROLLO RURAL, PESCA Y ALIMENTACIÓN

CONAPESCA COMISIÓN NACIONAL DE ACUACULTURA Y PESCA

ESTADOS UNIDOS MEXICANOS
Dirección General de Ordenamiento Pesquero y Acuícola
Permiso de Pesca Comercial para Embarcaciones Menores
DGOPA PC-02 FOLIO No. **1**

TITULAR DEL PERMISO: COOP. DE PROD. PESQ. Y DE SERV. EL CAYACAL, S.C. DE R.L. **CLAVE R.N.P.A.** 1

DOMICILIO: **LOCALIDAD:** **MUNICIPIO:** **ENTIDAD:** GUERRERO

PERMISO DE PESCA No. **PARA PESQUERÍA DE:** ESCAMA MARINA

EXPEDIDO EN: ACAPULCO, GUERRERO **EL DÍA:** 21 DE JULIO DE 2015

VIGENCIA: 1 AÑO, 11 MESES, 11 DÍAS DEL 2015 AL 2017

ZONA DE PESCA: AGUAS DE JURISDICCION FEDERAL DEL OCEANO PACIFICO ADYACENTES AL LITORAL DEL ESTADO DE GUERRERO

SITIO DE DESEMBARQUE: PUERTO XAPUTICA

ARTES O EQUIPOS DE PESCA AUTORIZADOS:

CANTIDAD	TIPO	CARACTERÍSTICAS
16	LINEAS DE MANO	LONGITUD 1000 METROS CON ANZUELOS RECTOS DEL 7 AL 9 TAMAÑO VARIABLE

OBSERVACIONES: SE EXPIDE EL PRESENTE PERMISO INDEPENDIEMENTE DEL CUMPLIMIENTO DE LAS DISPOSICIONES LEGALES, QUE AL EFECTO REQUIERAN OTRAS DEPENDENCIAS CONFORME A SU COMPETENCIA.

NÚMERO TOTAL DE EMBARCACIONES: 2

NOMBRE DE LA (S) EMBARCACIONES (ES)	CLAVE R.N.P.A.	MATRÍCULA	TONELAJE NETO	MARCA MOTOR	POTENCIA H.P.
PALACIOS			0.840	YAMAHA	48
REY GASPARIN			0.840	YAMAHA	48

ESTE PERMISO AMPARA SOLAMENTE A LAS EMBARCACIONES MENCIONADAS ANTES DE ESTA LINEA.

Este permiso se expide con fundamento en los artículos 17, 26 y 35 fracción XXI de la Ley Orgánica de la Administración Pública Federal 1°, 2°, segundo párrafo letra D fracción III, 44, 46, Octavo Transitorio y Décimo Primero Transitorio del Reglamento Interior de la Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación (SAGARPA), vigente; en correlación con los artículos 37 y 39 fracciones I, XIII y XV del Reglamento Interior de la SAGARPA, publicado en el Diario Oficial de la Federación el 10 de julio de 2001; 1°, 2°, fracción II, 3°, 7°, fracción XIX y 8°, del Decreto por el que se crea la Comisión Nacional de Acuacultura y Pesca (CONAPESCA); 1°, 2°, fracción IX, 3°, 4°, fracción XVII, XXVI, XXVII y XXVIII, 7°, 8°, fracción XI, 17, fracción IX, 36 fracción III, 41 fracción IV, 42, 43, 44, 45, 46, 51, 52, 53, 54, 55, 56, 57, 58, 60, 66, 125 segundo párrafo, 132, 133 y demás aplicables de la Ley General de Pesca y Acuacultura Sustentables y del Reglamento aplicable a la misma.

Queda prohibido el uso de redes de arrastre en bahía y esteros, excepto en aquellos casos que expresamente lo autorice la SAGARPA, por conducto de la CONAPESCA, atendiendo la opinión del Instituto Nacional de Pesca.

Queda prohibido realizar actos que contravengan las disposiciones de la Ley General de Pesca y Acuacultura Sustentables, el Reglamento aplicable a la misma, las Normas Oficiales Mexicanas y los demás preceptos jurídicos aplicables.

Los gobiernos extranjeros no podrán ser socios, ni constituir a su favor ningún derecho sobre concesiones o permisos. Los actos realizados en contravención a este precepto, son nulos por ley, y los bienes y los derechos que hubieren adquirido por virtud de tales actos quedarán en beneficio de la Nación sin ulterior recurso.

AUTORIDAD EXPEDIDORA
DELEGADO ESTATAL DE LA SAGARPA
CARGO FIRMA

1) Embarcaciones pesqueras de menos de 10 toneladas de registro bruto
Nota: Este documento no es válido si lleva tachaduras o enmendaduras

Hoja 1/2

INTERESADO

Acapulco, Gro., a 29 de Mayo de 2017

**A TODAS LAS ORGANIZACIONES DE PESCADORES,
PERSONAS FISICAS Y MORALES QUE SE DEDICAN
A LA EXTRACCION Y COMERCIALIZACION DE OSTION
DE ROCA EN EL ESTADO DE GUERRERO (EXCEPTO MUNICIPIO DE ACAPULCO DE JUAREZ).
P R E S E N T E.**

Por este conducto, se comunica que se establece veda temporal para la captura de **OSTION DE ROCA** (*Crassostrea iridiscens*), a partir de las cero horas del día 1º de Junio al 31 de agosto del año en curso, en las Aguas de Jurisdicción Federal Océano Pacífico, en la zona comprendida del Estado de Sinaloa hasta el Estado de Chiapas. Lo anterior, de acuerdo a la publicación en el Diario Oficial de la Federación de fecha 16 de marzo del año 1994 y de acuerdo con el artículo 420, Fracción II del Código Penal, se impondrá pena de prisión a quien capture, acopie, transporte o dañe ejemplares de especies acuáticas declaradas en veda.

Asimismo, de acuerdo al Art. 26 del Reglamento de la Ley de Pesca, quienes en las zonas litorales o embalses en donde entre en vigor una veda, mantengan en existencia productos pesqueros provenientes de captura en estado fresco, enhielado o congelado, para su comercialización al mayoreo e industrialización, formularán inventario de sus existencias de la especie o especies a que se refiere la veda, y darán aviso a la autoridad pesquera, en un plazo de tres días hábiles contados a partir de la fecha de inicio de la veda.

La omisión de dar aviso en los términos a que se refiere el párrafo anterior, dará lugar a que se considere que los productos fueron capturados contraviniendo la veda.

Además para transportar por las vías generales de comunicación, desde las zonas litorales o embalses en donde se establezca veda, productos pesqueros frescos, enhielados o congelados, inventariados en los términos del artículo anterior, los interesados solicitarán de la oficina correspondiente de la Secretaría, previamente a su transportación, el certificado de la legal procedencia, con fundamento en el artículo 27 del Reglamento y la Ley de Pesca.

ATENTAMENTE
EL SUBDELEGADO DE PESCA EN GUERRERO

ING. JAIME LUIS COLON GARCIA

C.C.P. M en C. VICTOR MANUEL ARRIAGA HARO.- DTOR. GRAL. DE ORDENAMIENTO PESQUERO Y ACUÍCOLA.- MAZATLAN, SIN.
C.C.P. ALMTE. C.G. DEM. ENRIQUE SARMIENTO BELTRAN.- COMANDANTE DE LA OCTAVA REGION NAVAL MILITAR.- PRESENTE.
C.C.P. CONTRAALMIRANTE C.G.D.E.M.-MARIO ALBERTO CASTANEDO PEÑUNURI.-DIRECTOR GENERAL DE INSPECCION Y VIGILANCIA.-PRESENTE
C.C.P. CAP. ALT. GUSTAVO GOMEZ RANGEL, CAPITAN DE PUERTO EN ACAPULCO, GRO.-PRESENTE.
C.C.P. NOL. JOURDES M. MENÉNDEZ BECERRA.- JEFA DEL DEPARTAMENTO DE ORDENAMIENTO PESQUERO Y ACUÍCOLA
JLCG/MB*mdb.

Av. Costera Miguel Alemán Núm. 315 Col. Centro, Acapulco de Juárez, Gro. C.P. 39300

Telefono: (744) 483-06-44 y 483-06-43 Ext: 59254 y 59255

www.conapesca.gob.mx

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