

Seafood Sourcing Sustainability Assessment

AN INVESTIGATION INTO PLAYA VIVA'S SEAFOOD SOURCING



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INTRODUCTION

The goal of Playa Viva is to promote regenerative development, a model that seeks to restore the imbalance between humans and their environment. 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, and consumer alike can thrive. Playa Viva seeks to achieve this goal by working directly with farmers and fishers to create, manage and benefit an entire ecosystem of buyers (commercial and residential; local and export) for their organically grown and/or sustainably harvested products. The hotel's intention is to create menus and recipes that are healthy and delicious not only for hotel guests, but also for the community at large. In pursuit of achieving these regenerative goals, Playa Viva hotel undertook its first Seafood Sourcing Sustainability Assessment (SSSA).

The SSSA assesses the sustainability of Playa Viva's seafood products served to its guests and suggests improvements for Playa Viva's purchasing practices accordingly.

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. Playa Viva is located just 40 km south of the city of Zihuatanejo, whose economy today is mainly dependent on tourism (1).

Before becoming a popular tourist destination in the 1970s, Zihuatanejo existed for hundreds of years as a remote, sleepy fishing village. In 1971 the Mexican government invested in a large infrastructure project to expand and rehabilitate Zihuatanejo, as well as develop the area to its north, Ixtapa, as a resort destination (2).



Playa Viva Hotel

Following development, while the area experienced a boom in income and employment, its benefits were not evenly distributed and exacerbated existing inequalities. 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 skills (2).

Moreover, over the last 40 years since the completion of the project, the infrastructure needed to satisfy a growing population, as well as both domestic and international tourist needs, has caused severe impacts on the environment (3). Poorly planned coastal development has greatly disturbed wildlife habitat and resulted in a loss of biodiversity, as well as drastically decreased water quality (3). These factors, coupled with an increased demand for seafood, have all caused a steady decline in Guerrero's fisheries (3,4). Consequently, residents, business owners, local fishermen, and conservation actors are all rightly concerned over the health and productivity of Costa Grande's ecosystems.

"The biggest problem in all the cooperatives is that there is not enough fish. The fish are almost gone."
- Local fisherman

"El problema más grande que hay en todas las cooperativas es que no hay pescado suficiente. El pescado ya se casi acaba."
- Pescador local



FISHERIES MANAGEMENT IN MEXICO

The main governmental agency in charge of the fishery sector in Mexico is the Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA). The National Aquaculture and Fishing Commission (CONAPESCA) is the decentralized arm of SAGARPA responsible for designing and carrying out public policies related to the fishery and aquaculture sector. CONAPESCA is also in charge of issuing fishing permits.

Mexico became party to the United Nations Convention on the Law of the Sea (UNCLOS) in 1983 and a member of the United Nations Food and Agriculture Organization (FAO) in 1945, demonstrating their long-term commitment to ensuring responsible use and development of marine resources. Through these commitments, Mexico recently developed a long-term strategy for sustaining fisheries in Mexico at the national level.

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" (5). However, implementation of this strategy is still in its infancy and therefore its efficacy to date remains unknown.

Furthermore, based on our initial findings, while fishing legislation exists on paper at the local, national and international level, poor enforcement, monitoring, and thus compliance within Mexico, particularly in Guerrero, renders them almost ineffective.

WHAT IS A SUSTAINABLE FISHERY?

The Marine Stewardship Council (MSC), a renowned non-governmental organization with the largest global certification program for wild-capture fisheries, defines a sustainable fishery as:

A sustainable fishery is a fishery that can be continued indefinitely ... that maintains and seeks to maximise, ecological health and abundance; that maintains the diversity, structure and function of the ecosystem on which it depends ... that is managed and operated in a responsible manner ... that maintains present and future economic and social options and benefits; that is conducted in a socially and economically fair and responsible manner.

To ensure fisheries provide for future generations, the FAO developed the Code of Conduct for Responsible Fisheries. 170 countries, including Mexico, adopted the code of conduct in 1995 in which it states:

"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."

METHODOLOGY

The assessment investigated the hotel's purchasing practices, mapped its supply chain, researched stock statuses of species of interest, reviewed local, national and international fishing regulations, and identified potential ways the hotel can be a leader in creating change for local sustainable fisheries. Utilizing the aforementioned definitions and a selection of methodologies from the FAO, the MSC, World Wildlife Fund (WWF), and Seafish, the assessment evaluated the hotel in four key areas: hotel purchasing strategy, hotel/supplier consideration of stock status, capture method, and ecosystem impact (7-11).

Purchasing Strategy:

Is there a strategy in place for sourcing seafood sustainably? Strategy should include M&E and plan for improvements and how such a plan serve as a catalyst for local ecosystem change.

Consideration of stock status:

Is hotel staff aware of and demonstrate concern over stock status through staying informed about how species are managed and their stock status? If information is lacking, is general information on stock status used based on similar stocks?

Consideration of capture method:

Has the hotel identified and assessed sustainability of supplier capture methods and sustainability? Is there cooperation between fishing actors and management?

Consideration of ecosystem impact:

Does supplier fishing activity compromise the health of the marine ecosystem? How can the hotel be a leader or example in creating positive impact on local ecosystem?

Data were collected from a mixture of primary and secondary information sources. 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 relative knowledge of sustainable seafood choices, purchasing strategy as well as quantity and type of seafood purchased. Secondary data were gathered through local institutions (governmental, non-governmental and academic) and were focused on legislation and biological stock studies for species purchased.

FISHERIES IN COSTA GRANDE

The main fishing permits are for sport and commercial uses (permiso de pesca deportiva & permiso de pesca comercial, respectively). 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 a permit per 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 will include several species (permiso de pesca comercial para la pesquería de escama marina).

The fishers encountered in this study (and most fishers in this region) are organized in fishing cooperatives. While not interviewed in this study, there are some fishers who are organized either in unofficial fishing groups (not officially recognized by state institutions nor registered) or are working as independents fishers.

The function of the cooperatives is to provide funding and administrative support for securing fishing permits and licenses, to inform the members about regulations and legislation, and to patrol local resources (mainly against outsider fishers as each cooperative has a designated fishing zone). Unlike other cooperatives, the cooperatives contacted in this study (Barra de Potosí, La Barrita, El Cayacal) do not conduct joint sales; each fisher sells his/her catch individually.

During interviews with the fishing communities, fishers stated that some of the main barriers to responsible fishing is the lack of demand for a sustainable product and poor enforcement by fisheries authorities. The fishers are numerous and demand is often inconsistent and fluctuates greatly depending on seasonal tourism. Therefore, due to inconsistent demand, economic pressures felt by the fishers, and poor enforcement, the tendency to overfish is high. In turn, this has resulted in an attitude of "why should I follow the rules if nobody else is."

Nevertheless, while enforcement of (and thus compliance with) regulations is poor, all cooperatives expressed grave concern over the health and prosperity of fisheries. One fisher commented: "The biggest problem in all the cooperatives is that there is not enough fish. The fish are almost gone," (6). In response to this issue, one cooperative has even implemented its own conservation action. The cooperative of La Barrita has established a rotation of no-take-zones in their respective fishing area and restrictions on certain species depending on the time of year.

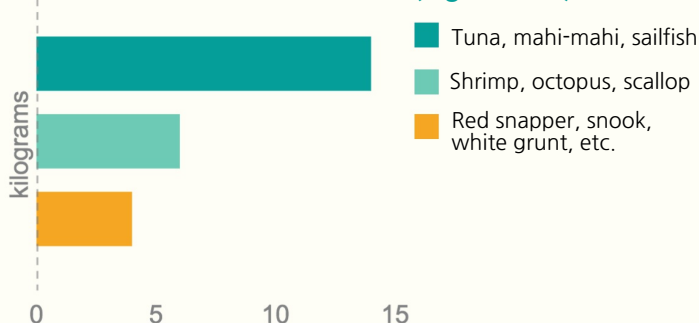
HOTEL PURCHASING PATTERNS

Playa Viva's seafood is mainly purchased from a middleman supplier in Petatlán. The species most frequently and abundantly purchased are the pelagic species (tuna, mahi-mahi, and sailfish), followed by shellfish (e.g. shrimp, scallop) and lastly the smaller marine fin-fish such as red snapper (huachinango) or snook (robalo). Most of the products purchased from the supplier in Petatlán originate from another supplier in Zihuatanejo, whose product originate from various parts of the country or from foreign and domestic fishing fleets on the high seas. Only some species, such as the more coastal species, like red snapper, originate more locally.

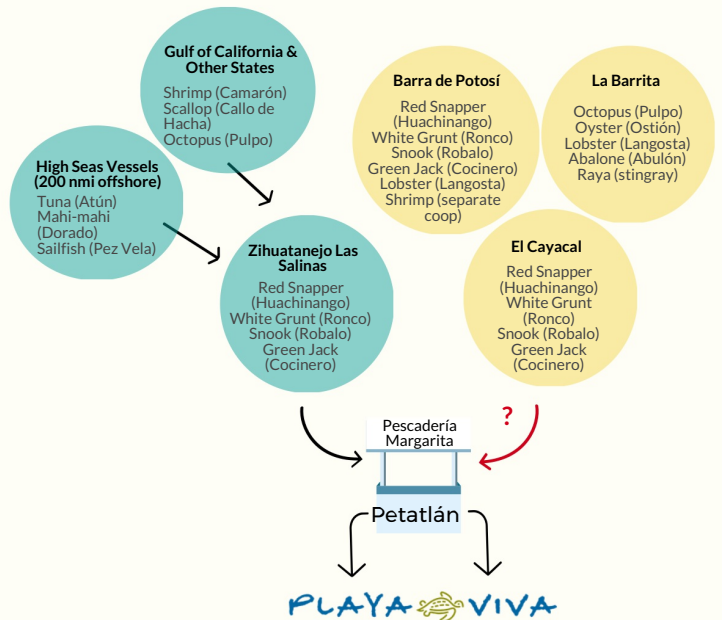
The low traceability of seafood products at the market hinders Playa Viva's ability to discern when, where and how seafood products were harvested. Additionally, Playa Viva staff have not been sufficiently educated about the local and international fishing regulations, is uninformed on sustainable fisheries topics and therefore regrettably unable to understand the impact of their purchasing patterns. Consequently, the hotel has unintentionally purchased species whose ecological status is either unknown or depleted, as well as purchased species whose capture methods do not comply with local regulations.

Discussions with management revealed that Playa Viva is concerned with the sustainability of the seafood products served to its guests and is taking the initial steps via this study to develop a strategy for sourcing seafood and serve as a catalyst for positive impact in the local ecosystem accordingly.

WEEKLY SEAFOOD PURCHASES (high season)



SUPPLY CHAIN



SUSTAINABILITY OF SEAFOOD PURCHASED

The sustainability of tuna, mahi-mahi, and sailfish is uncertain due to a critical lack of traceability from its suppliers and unknown method of capture. 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. Worldwide trends suggest that these species are in decline and overfished in a majority of the globe, especially in areas that are largely unregulated (like the high seas). There are very strict guidelines for the capture methods of these species and thus should only be purchased under fully informed circumstances. Additionally, these species have a high mercury content and should only be seldom served (recommended portions are 3-4 servings per month for an average adult).

The sustainability of nearshore species such as red snapper (huachinango) and white grunt (ronco) is concluded to be unsustainable as Playa Viva kitchen staff have been purchasing these fish without the knowledge that these fish are under the minimum size restriction of 330 g per whole fish (the hotel purchases them at 150 g per whole fish due to the convenience of individual portion sizes). Purchasing under the minimum size restriction jeopardizes the success of a species to reproduce and thus reduces their ability to repopulate successfully. Additionally, local ecological knowledge suggests that these species are in decline and larger catch sizes are becoming more rare.

The sustainability of shellfish such as shrimp and scallops, as well as species like squid and octopus, greatly depends on the method of capture and from where in Mexico they are harvested. For example, farmed shrimp has the potential to be sustainable, but an assessment on aquaculture practices in this area would be needed. Shrimp originating from Gulf of California may be sustainable, depending on the type of gear used. However, statistics demonstrate there is an increasing trend of declining catch and overcapacity in many of Mexico's shrimp fleets and only certain fleets employ bycatch sensitive fishing gear (12, 13). Even with bycatch sensitive gear, bycatch can still be high: 3:1 (by-catch sensitive gear) versus 10:1 (non bycatch-sensitive gear) bycatch to product. Bycatch causes high mortality of many other important commercial species like juvenile red snapper and endangered sea turtles, sharks, and rays.

RECOMMENDATIONS

Playa Viva is concerned over its impact in Guerrero's, and more broadly Mexico's, fisheries. All members of the Playa Viva Farm-to-Table team have already conceded that understanding the history of each supplier and 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. Making the changes necessary for ensuring a more sustainable product will first require educating hotel staff, reorienting the hotel's purchasing practices, followed by support and collaboration across Playa Viva management and staff to implement change. Lastly, a more direct investment in its local community and the large number of suppliers is needed so the hotel can serve as a catalyst for positive impact.

To improve seafood sourcing, recommendations should occur in two phases. The SSSA represents Phase One of the project: an evaluation of the current state of Playa Viva's seafood sourcing and the state of sustainable fisheries in the region.

SHORT TERM 1 YEAR: PHASE TWO

Present the report to the hotel staff:

The findings of this report will need to be presented to hotel staff. Issues surrounding sustainability will need to be clearly and positively communicated and thoroughly understood and diligently executed to ensure purchasing practices are amended accordingly. Such practices will need to be communicated to guests as well to inform guests about the fish stock choices that are reflected "on their plate."

Implement a sustainable sourcing strategy:

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) supporting management and kitchen staff in adapting purchasing practices and menus through educating them about sustainable fisheries (and support communicating these practices to guests), and 3) identifying and building new and existing relationships with local producers.

RESOURCES NEEDED

Sustainable Sourcing Officer (SSO):

The SSO would lead and support the implementation of a sourcing strategy, as well as support the education and capacity building of relevant hotel staff (potentially not just for Playa Viva but provide her/his services to other similar hotels, restaurants, B&B's and private homes) to reorient its purchasing practices. Reorienting these practices will most likely require establishing a more direct relationship with local fishers. Purchasing directly from fishers has the advantage of knowing when, where, and how products were harvested, thus ensuring a greater degree of transparency and compliance with regulations.

However, one of Playa Viva's (as well as other hotels, restaurants and other businesses operating in Mexico) main constraints in purchasing directly from local fishers is the need for an official invoice, known as a factura. Most small-scale producers are not legally registered entities and thus do not always have the means of providing a factura. Additionally, when the quantity demanded is relatively low, "facturization" offers little benefit for the producer when compared to the costs incurred. While some fishers can provide facturas, there still exists a financial constraint that actively exacerbates existing inequalities in the economic value chain. This constraint makes it all the more challenging for businesses like Playa Viva to support the community of small-scale producers.

The close relationship needed with the numerous suppliers and the diversity of them requires a great deal of involvement to build and maintain those relationships, as well as address financial considerations such as price negotiation and obtaining a factura. These financial challenges along with establishing and maintaining close relationships with the abundant suppliers requires a great deal of involvement. It is our belief that fulfilling these goals would require a full-time staff member working exclusively on sourcing would assure these needs are met.

MIDTERM 1.5-3 YEARS: PHASE TWO

Support the ongoing implementation of a sustainable sourcing strategy:

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. The SSO could support management and kitchen staff making these changes slowly over time and spend time identifying and building relationships with local suppliers that share the hotel's core values. The SSO can work with kitchen staff to improve tracking of seafood purchasing and ensure we are using the freshest and most sustainable product available. Additionally, the SSO will need to monitor legislation of every species of interest.

LONG TERM 3-5 YEARS: PHASE THREE

Lead the creation of a responsible seafood purchasing guide:

Once a sustainable purchasing strategy is in place, Playa Viva will be in a keen position to promote the demand for a more sustainable product. Playa Viva could play a key role as a catalyst for positive change in the local ecosystem in the promotion of sustainable fishing and responsible purchasing practices through leading the creation of a "responsible seafood purchasing guide" as well as sharing of the services of the SSO across the local ecosystem. Whales of Guerrero Research Project, a local marine biology conservation group, has already expressed interest in a partnership with Playa Viva in developing and distributing this guide to other tourism actors, businesses, and individual consumers in the area.

CONCLUSION

The SSSA demonstrates the seafood served at the hotel is unfortunately currently not sustainable. Nevertheless, 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.



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 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.

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