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Barca a Bocca: The Future of San Diego Seafood

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Barca a Bocca: **The Future of San Diego Seafood**



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i. Executive Summary

San Diego's once prominent position in the global seafood market is now viewed as an interesting but distant aspect of the city's history. The industry's early glory days and the controversial tuna boom were considered to be environmentally damaging and unsustainable by many. Yet an opportunity exists to redefine the meaning of sustainability as it relates to San Diego's local seafood industry today, to define sustainable fishery solutions as ones that benefit not only the environment but also fishermen's livelihoods and the community that enjoys their products.

One hundred fishermen remain in the city of San Diego today, most running one man, owner-operated businesses and committed to reviving the local industry before it dissolves. Community Supported Agriculture efforts have gained momentum worldwide by understanding the value and importance of establishing sustainable, local food systems. An increasing number of small-scale fisheries are following suit in an effort to assign more value to high quality, local seafood that is sustainably harvested. San Diego has not yet established a sustainable, local seafood system, and this is due in part to significant challenges like the mass commoditization of seafood, traceability issues and a lack of social capital. However, significant opportunity- for the environment, economy and community- lies in the opportunity for small-scale fisheries to offer a diversity of local species directly to local customers.

Upon analyzing the key challenges and opportunities associated with forming a community supported fishery in San Diego, the need and great potential for such a model is clear. A go-to-market strategy is introduced at the close of this document. It aims to bolster local fishermen's efforts to build a successful CSF entity and revitalize the San Diego local seafood industry for years to come.

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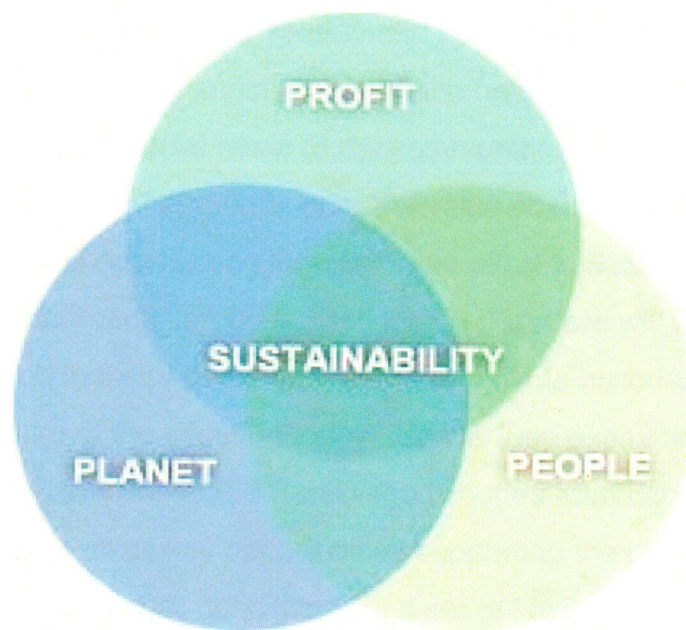
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1. Introduction: The Triple Bottom Line & Community Supported Fisheries

Thomas Jefferson once said, “*Every generation needs a revolution.*” The revolution of our generation may very well be “sustainability.” A myriad of programs, products and services labeled as sustainable have taken over the corporate, social and environmental sectors, and *sustainable* is used to describe an increasingly broad spectrum of things. One could argue that *true* sustainability incorporates social, economic and environmental imperatives. This idea is commonly referred to as the triple bottom line- healthy profits represent one portion of sustainability but a healthy planet and community are equally important when applying this definition of sustainability.¹



The triple bottom line is not just an ideal or theory. Businesses are increasingly aware of the fact that social and environmental impact are not metrics limited to non-profits and NGOs; these metrics are driving the strategies

¹ Elkington, J. (1998), Partnerships from *cannibals with forks: The triple bottom line of 21st-century business*. Environ. Qual. Manage., 8: 37–51. doi: 10.1002/tqem.3310080106

of leading corporations and the returns on social and environmental investments are being realized.² NGOs that were once laser-focused on environmental sustainability are recognizing the key role that business must play in forging effective solutions.³ The triple bottom line concept fueled the Fairtrade movement which assigns a value-adding label to products that have been produced and traded in ways that are socially and environmentally beneficial. An excellent example of the triple bottom line approach as it relates to natural resources is the community supported agriculture (CSA) movement. Farmers are taking advantage of the “locavore” movement by selling their produce to local consumers for a premium. Leveraging the momentum of CSAs, some fishermen have found that they can get better prices for their harvests by selling directly to consumers by forming community supported fisheries (CSF).

No CSF exists in San Diego today, yet local fishermen are starting to mobilize behind such a movement. To maintain long-term viability, San Diego’s Community Supported Fishery must 1) ensure the health of local marine resources, 2) support the social fabric of the community and 3) create viable profits for fishermen and other members of the value chain. This paper will take a close look at the San Diego Fishing Industry in an effort to determine how a “triple bottom line” approach can be applied locally. First, we will take a look at San Diego’s seafood industry past and present to provide historical context as well as a clear picture of the situation today. We will then examine some of the key challenges that have prevented San Diego fisheries from capitalizing on this approach thus far as well as key opportunities supporting the pursuit of this approach in the future. We will conclude with a set of findings and implications for the San Diego seafood industry moving forward as well as an initial go-to-market strategy to support local fishermen’s efforts to establish a successful CSF.

² "The New Strategic Edge: Tapping Your Customers' Personal Passions." *Co.Design*. Web. 05 June 2012. <<http://www.fastcodesign.com/1669346/csr-initiatives-are-nice-but-theyre-no-substitute-for-a-sense-of-purpose>>.

³ Elkington, J. (1998), Partnerships from *cannibals with forks: The triple bottom line of 21st-century business*. *Environ. Qual. Manage.*, 8: 37–51. doi: 10.1002/tqem.3310080106

2. San Diego Fishing Industry Past and Present

2.1 San Diego's Fishing Roots

San Diego's fruitful waters once served as a beacon for a diversity of immigrants groups dating back to the 1880s.⁴ A myriad of different fishing cultures merged in these early days, each adapting their native strategies to strengthen San Diego's foothold as a global fishing capital.

One particularly strong cultural presence came from San Diego's Italian community which formed when many Italians moved to San Diego from San Francisco after the 1906 San Francisco earthquake.⁵ The San Diego fishing industry provided the means for many early Italian families to join the American middle class. The cuisine these families introduced to San Diegois based on a moderate level of fishing spread across a wide range of species, stocks and sizes.⁶ The San Diego Italian fishing culture was also a true family affair. Fishermen and their families controlled all aspects of the business. San Diegans could once purchase their daily catch from local Italian run fish markets. Great emphasis was placed on celebrating the "whole fish" and this was reflected in the way the fish was prepared. Little went to waste in this community- Italian fishermen were known to contribute leftover catch from the week to make a giant pot of cioppino, an in Italian seafood stew, for members of the community to share.⁷ Today few remnants of this vibrant Italian fishing culture can be found in San Diego but it does live on in the form of stories and pictures from family members of the original Italian immigrants.

The era from 1920-60s represents San Diego's great tuna boom. The industry was second only to the Navy in employment.⁸ A shift from fresh fish

⁴ Quinney, Kimber Marie., and Thomas J. Cesarini. *San Diego's Fishing Industry*. Charleston, SC: Arcadia Pub., 2009. Print.

⁵ Quinney, Kimber M.; Cesarini, Thomas J., *Italian Historical Society of San Diego* (2007). *San Diego's Little Italy*. Arcadia Publishing 0738547808. p. 1.

⁶ CineCucina, *Dine on the Dock Overview*, <http://www.dineonthedock.com/>

⁷ Pete Halmay, In person interview, May 2012

⁸ ⁸ "Tuna Was A Way of Life In San Diego." *Tuna Was A Way of Life In San Diego*. Web. 05 June 2012. <<http://www.kpbs.org/news/2012/jun/05/tuna-was-way-life-san-diego/>>.

trade to canning changed the industry drastically. And when major corporations began buying up San Diego's canneries after World War II, many of San Diego's independent fishermen were forced to give up their trade and work for the canneries. Intense competition from the Japanese along with environmental concerns related to dolphin bycatch effectively terminated the once vibrant industry.⁹

When the newly constructed Interstate 5 destroyed 30% of the Little Italy neighborhood in the early 1970's, the San Diego tuna industry had already suffered serious decline. The mural below can be seen today near an underpass of I-5 near Little Italy. It depicts Little Italy's fishing heritage and its home on the cement wall highlights this heritage's placement in San Diego's distant history.



2.2 THE INDUSTRY TODAY

Today San Diego is home to over 1.2 million residents making it the second largest city in California.¹⁰ While much has changed since the beginning of its fishing era in 1880, San Diego's social and economic livelihood is still tied closely to the ocean and valuable maritime activities.¹¹ There is currently no canning

⁹ "Tuna Was A Way of Life In San Diego." *Tuna Was A Way of Life In San Diego*. Web. 05 June 2012. <<http://www.kpbs.org/news/2012/jun/05/tuna-was-way-life-san-diego/>>.

¹⁰ "Commercial Fisheries Revitalization Plan | Port of San Diego." *Commercial Fisheries Revitalization Plan | Port of San Diego*. Web. 11 June 2012. <<http://www.portofsandiego.org/commercial-fisheries.html>>.

¹¹ Wise, *Port of San Diego Commercial Fisheries Revitalization Plan Background and Existing Conditions Report October 2009*.

trade in San Diego and fishermen's efforts have shifted back to fishing for the fresh fish market. Just over one hundred fishermen work in San Diego and the dying trade is evidenced by the fact that 20% of this small group is over age 60.¹²

The annual harvests have dissipated along with the strength of the local industry. This is evidenced in part by the fact that 84% of locally consumed seafood is imported from other countries.¹³ And only a small portion of locally harvested seafood is consumed locally since stronger demand exists in foreign markets across Europe and Asia.

One of the more popular seafood outlets in town, Point Loma Seafood, boasts the motto "The Freshest Thing in Town."¹⁴ This seafood may be fresh thanks to marvels of modern freezing and shipping technologies but the majority of menu options are not locally harvested. Next, we will examine some of the key challenges that may have prevented the establishment of a San Diego CSF thus far.

3. Key Challenges

3.1 International Trade Pressure

Seafood contributes 15% of the animal protein intake of three billion people worldwide.¹⁵ According to the United Nations Food and Agriculture Organization, the global appetite for fish doubled from 45 million metric tons in 1973 to more than 91 million metric tons. The average American eats about 17 pounds of seafood per year, up from 12.5 pounds in 1980.¹⁶ American consumption of seafood has remained constant in recent years, however the amount of imported seafood has risen from 82% to 86% in just one year from 2010 to 2011. The

¹² Active Fishing Permit Records, California Department of Fish and Game, 2011

¹³ Wise, *Port of San Diego Commercial Fisheries Revitalization Plan Background and Existing Conditions Report October 2009*

¹⁴ Point Loma Seafoods, <http://www.plsf.com/>

¹⁵ Food and Agricultural Organization of the United Nations (2010) *The State of World Fisheries and Aquaculture 2010*. Rome: Food and Agricultural Organization of the United Nations.

¹⁶ SD Port, *Background and Existing Conditions Report, FAO*

overall high level of global seafood demand and intense growth of international seafood trade has exposed virtually all seafood to trade competition.¹⁷

Intense trade competition often results in a price war where the lowest priced fish wins and sets the market price. This price pressure impacts domestically harvested and sold seafood as well. The Food and Agriculture Organization describes this consumer-facing phenomenon in the following scenario:

“Consider a consumer in a local seafood market choosing between Species A that is traded internationally and Species B that is not traded internationally. Because the seller of Species A in the local market could alternatively sell the product into the global market, the global market price will affect the price charged in the local market. But because Species B is on sale next to Species A, price of Species B will not be independent of the price of Species A. Thus, trade in Species A will influence the price of Species B even if Species B is never traded internationally.”¹⁸

Furthermore, FAO has calculated the United States’ seafood trade-to-consumption ratio to be .926- this means that we trade nearly as much seafood as we consume.¹⁹ This ratio does not inform the extent to which domestically caught and sold products are exposed to trade competition but it is an indication of our country’s overall level of trade competition.

One might ask “what exactly is so bad about getting our seafood from other parts of the world- it makes it safely to their plate, right?” If our community consistently chooses imported seafood over locally harvested seafood, we are

¹⁷ Food and Agricultural Organization of the United Nations (2010) The State of World Fisheries and Aquaculture 2010. Rome: Food and Agricultural Organization of the United Nations.

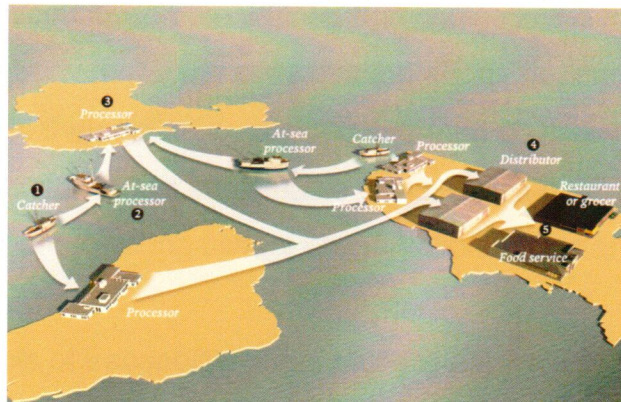
¹⁸ "Fish Is Food - The FAO's Fish Price Index." *PLoS ONE*. Web. 05 June 2012. <<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0036731>>.

¹⁹ "Fish Is Food - The FAO's Fish Price Index." *PLoS ONE*. Web. 05 June 2012. <<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0036731>>.

supporting demand for seafood from nations with little or no harvesting regulations.²⁰ The U.S. imported \$13.5 billion in seafood 2007 from major seafood trading partners including Canada, China, Indonesia, and Thailand. While the Canadian fisheries, like the United States, represent the most highly regulated fisheries in the world, imports from other areas of the world are less regulated and may be harvested in ways that are compromising to fish stocks and associated habitat.²¹

3.2 Poor Traceability

Today's common seafood choices are not only commoditized by intense international price pressure but also by the poor traceability of fish from the ocean to consumer. Given that 85% of seafood consumed in the United States is imported, consumers are left asking themselves "Where does my seafood come from?"²² And unfortunately, answering that question can be challenging for even the savviest seafood purveyors due to the increasingly complex path the average fish takes from boat to plate. The image below illustrates the catcher-processor-distributor-retailer matrix that most harvested seafood must navigate before being offered to consumers.



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²⁰ "Oceana | Protecting the World's Oceans." *Friday Infographic: Seafood Traceability*. Web. 05 June 2012. <<http://oceana.org/en/blog/2011/08/friday-infographic-seafood-traceability>>.

²¹ "Commercial Fisheries Revitalization Plan | Port of San Diego." *Commercial Fisheries Revitalization Plan | Port of San Diego*. Web. 11 June 2012. <<http://www.portofsandiego.org/commercial-fisheries.html>>.

²² "Oceana | Protecting the World's Oceans." *Friday Infographic: Seafood Traceability*. Web. 05 June 2012. <<http://oceana.org/en/blog/2011/08/friday-infographic-seafood-traceability>>.

²³ "Oceana | Protecting the World's Oceans." *Friday Infographic: Seafood Traceability*. Web. 05 June 2012. <<http://oceana.org/en/blog/2011/08/friday-infographic-seafood-traceability>>.

Beyond the quality and handling issues threatening the integrity of the consumer-facing product, traceability issues also may dilute the value consumers attach to truly local seafood. Dave Adler, managing partner of Off the Hook Community Supported Fishery, highlighted traceability issues as a primary threat to the livelihood of Nova Scotia's local seafood market. While explaining the impetus for creating Off the Hook, Dave shared that "*locally harvested cod would be sold to Asian processors and bought back by local retailers in Nova Scotia. Our community would think they were buying 'Nova Scotia cod' but if they read the fine print they'd realize the fish they paid for was hardly local.*"²⁴ This complex path threatens the consumer's ability to get what they pay for, dilutes the true meaning of local and also threatens their willingness to pay more for something labeled "local." In fact, a December 2011 study performed by Oceana found that 55% of 119 Southern California seafood retail samples were indeed mislabeled according to federal guidelines.²⁵ This shocking evidence of seafood fraud in our local markets ultimately limits consumers' ability to select seafood based on its origin. Those who make the extra effort and often pay premiums to eat "local" may not get what they pay for and those who hesitate to "choose local" may be further discouraged from making that choice in the future. An increasing number of market-driven marine conservation efforts depend on consumers' ability to "vote with their dollar" by making informed choices to buy particular species that are classified as sustainable while avoiding others that are not. These consumer-empowering fishery conservation efforts are ineffective in the face of misinformation.

The impacts of traceability affect multiple parties along the seafood supply chain, making the implementation of improved traceability measures extremely difficult. A 2010 study in the British Food Journal investigated potential benefits to seafood industry players associated with the implementation of improved seafood traceability measures. The study found that key benefits of stricter traceability

²⁴ Adler, Dave. Phone Interview, Off the Hook, CSF, April 2012

²⁵ Lee, Mike. "Seafood Fraud: Many Fish Mislabeled in SoCal." *U-T San Diego*. Web. 01 June 2012. <<http://www.utsandiego.com/news/2012/may/26/study-shows-fish-fraud-rampant-socal/>>.

measures extend beyond improved supply chain management to include product quality improvement, product differentiation and customer retention.²⁶ They concluded that while key links in the global seafood supply chain acknowledge these crucial benefits, the financial burden associated with traceability measures is perceived as too high for processors while the benefits would be realized more by the distributors.²⁷ Global efforts continue to focus on rationalizing the cost and benefit scheme of improved traceability but the parties involved are numerous and the challenges are substantial.

Seafood is particularly difficult to implement traceability measures compared to other globally traded foods.²⁸ Its highly perishable nature requires a challenging set of conditions influencing its transport and the implementation of potentially time intensive traceability measures could make these “freshness conditions” more difficult for supply chains to meet. Yet the length and complexity of global seafood supply chains continues to grow. If traceability measures were used by some seafood supply chains, comprehensive monitoring of their effectiveness by competent authorities would be necessary to protect consumers and ensure that the perceived value associated with improved tracing is real and does end up benefitting members of the supply chain.²⁹

There are some solutions that work well on a small scale. For example, a service called ThisFish has proven successful in Canada’s local markets. The

²⁶ [Mai, N.](#), [Bogason, S. G.](#), [Arason, S.](#), [Arnason, S. V.](#), & [Matthiasson, T. G.](#) (2010). Benefits of traceability in fish supply chain: Case studies . *British Food Journal* , 112 , 976 – 1002 . [[CrossRef](#)], [[Web of Science ®](#)]

²⁷ [Mai, N.](#), [Bogason, S. G.](#), [Arason, S.](#), [Arnason, S. V.](#), & [Matthiasson, T. G.](#) (2010). Benefits of traceability in fish supply chain: Case studies . *British Food Journal* , 112 , 976 – 1002 . [[CrossRef](#)], [[Web of Science ®](#)]

²⁸ U. Schröder. "Challenges in the Traceability of Seafood." Federal Research Centre for Nutrition and Food, Department of Fish Quality, Germany, 21 Dec. 2007. Web. 6 June 2012.

²⁹ U. Schröder. "Challenges in the Traceability of Seafood." Federal Research Centre for Nutrition and Food, Department of Fish Quality, Germany, 21 Dec. 2007. Web. 6 June 2012.

figure below illustrates how this service works:



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The attention and effort that must be focused on each fish due to tagging and data uploading makes this service infeasible for the majority of global harvests.

These traceability challenges highlight the need for more efficient and scalable traceability measures. They also suggest the value of one particularly cheap and effective means to improve traceability- shorten the supply chain.

3.3 Missing Social Capital

Strong ties do not currently exist between San Diego consumers and locally harvested seafood. Three key players in the local seafood supply chain weighed in on potential causes of this missing link:

The Fishermen: Several San Diego fishermen have cited the community's lack of information of the sustainability of their products along with a general lack of respect for the fishing trade as key reasons for this missing link.³¹

The Distributor: Dave Rudie, President of Catalina Offshore Products seafood distribution center, attributes this missing link with the community to San Diegans' unwillingness to pay premiums for local. Without selling local product for a significant premium in San Diego, Dave can almost always make more money by shipping popular species like lobster and urchins to Asia where consumers will pay higher prices.³²

³⁰ "Thisfish." *Thisfish*. Web. 11 June 2012. <<http://thisfish.info/>>.

³¹ SDFWG, Summarized findings from in-person interviews with members of the San Diego Fishermens Working Group, April 2012

³² Rudie, Dave. Summarized findings from in-person interview, Catalina Offshore Products, April 2012

The Chef: Andrew Spurgin, renown local seafood chef and advocate for sustainable dishes, attributes the missing link to consumers being timid and unwilling to try local species that they may not be accustomed to buying such as sardines or sand dabs. He emphasizes the need for more trial and seafood trust building throughout the community.³³

While this collection of local perspectives is interesting, it does not point to a single driving force behind San Diego's apparent lack of enthusiasm for local products relative to other cities. An expansive body of social science research offers up another possible explanation- lack of social capital. Robert Putnam's original social capital theory states that "*regional economic growth is associated with tight-knit communities where people and firms form and share strong ties.*"³⁴ The term has since been defined many different ways. Scientists have described it as an intangible community equity that "*promotes trust and cooperation among agents, which in turn increases socially efficient collective action,*"³⁵ "influences economic growth and development," and "helps people translate helps people aspirations into realities."³⁶ Described in these ways, social capital should be a key ingredient in any sustainable local food system. Yet, Putnam's extensive research points to a general decline in social capital across America. From Putman's perspective, declining social capital means that society becomes less trustful and less civic-minded. This view is troubling alongside Putnam's belief that a healthy, civic-minded community is essential to prosperity.³⁷

San Diego is often characterized as a city with low social capital by community members and scientists alike. Dr. Richard Florida of Carnegie Mellon University brought additional context to this phenomenon by characterizing San Diego as follows: "*lauded by some as a model of rapid economic growth but seen by others as plagued with sprawl, pollution, and congestion... lots of high-tech*

³³ Spurgin, Andrew. Summarized findings from in-person interview,, creator of PassionFish and owner of Campine Catering, April 2012

³⁴ Putnam, R. Bowling Alone: America's Declining Social Capital, Journal of Democracy, 1995

³⁵ Putnam, R. Bowling Alone: America's Declining Social Capital, Journal of Democracy, 1995

³⁶ Putnam, R. Bowling Alone: America's Declining Social Capital, Journal of Democracy, 1995

³⁷ Florida, R. (2003), Cities and the Creative Class. City & Community, 2: 3-19. doi: 10.1111/1540-6040.00034

industry, above-average diversity, low social capital, and low political involvement.”³⁸

Luckily, social capital can be strengthened in a given region and is increasingly incorporated into cities’ development strategies.³⁹ The San Diego Foundation, a leading local charity, is committed to building San Diego’s social capital by focusing on Trust, Reciprocity, Information and Cooperation as means for strengthening social ties throughout our community.⁴⁰ Later in this paper we will discuss the opportunity for a community supported fishery to build social capital that benefits the business and the community.

4. Future Opportunities

4.1 Hope in Small Scale and Diversified Demand

The majority of scientific, economic and policy pursuits have targeted large-scale industrial fisheries and the associated consumer awareness that many consider to be the “beast” of the problem.⁴¹ Yet less effort has historically been applied to the pursuit of sustainable solutions for artisanal/ small-scale fisheries that represent nearly the same amount of edible take as large-scale fisheries.⁴² One could argue that these small-scale fisheries are inherently more sustainable than their large-scale counterparts based on the very attributes that define them. These small-scale fisheries’ near-absence of socially and environmentally harmful government subsidies, high employment rates, strikingly low fuel consumption and low by-catch levels make them key contenders in our ongoing

³⁸ Florida, R. (2003), Cities and the Creative Class. *City & Community*, 2: 3–19. doi: 10.1111/1540-6040.00034

³⁹ Gittel, Ross J., and Avis Vidal. *Community Organizing: Building Social Capital as a Development Strategy*. Thousand Oaks, CA: Sage Publications, 1998. Print.

















⁴⁰ <http://www.hks.harvard.edu/saguaro/communitysurvey/ca6.html>

⁴¹ Jacquet, Jennifer, and Daniel Pauly. "Funding Priorities: Big Barriers to Small-Scale Fisheries." *Conservation Biology* 22.4 (2008): 832-35. Print.

⁴² Chuenpagdee, R., L. Liguori, M. Palomares, and D. Pauly, editors. 2006. Bottom-up, global estimates of small-scale marine fisheries catches. Research reports. Volume 14, number 8. Fisheries Centre, University of British Columbia, Vancouver. Available from http://www.fisheries.ubc.ca/publications/reports/report14_8.php

pursuit of sustainable fishery solutions.⁴³ While both industrial and artisanal fisheries have significant impacts on marine ecosystems, the efficient nature of artisanal fisheries makes them our greatest hope for reaching sustainable fishery solutions in the future.⁴⁴ As small-scale fisheries continue to develop rapidly-expanding markets around the world,⁴⁵ a pertinent opportunity exists to design and implement more sustainable, small-scale harvesting practices in San Diego.

The following figure displays the striking duality of large and scale fisheries found in most countries. The data is based on global statistics (Jacquet & Pauly 2008).⁴⁶

FISHERY	LARGE SCALE 	SMALL SCALE 
BENEFITS		
Subsidies	 25-27 billion	 5-7 billion
Number of fishers employed	 about 1/2 million	 over 12 million
Annual catch for human consumption	 about 30 million t	 same: about 30 million t
Annual catch reduced to fishmeal and oils	 35 million t	 Almost none
Annual fuel oil consumption	 about 37 million t	 about 5 million t
Catch per tonne of fuel consumed	 1-2 t	 4-8 t
Fish and other sealife discarded at sea	 8-20 million tonnes	 Very little

⁴³ Jacquet, Jennifer, and Daniel Pauly. "Funding Priorities: Big Barriers to Small-Scale Fisheries." *Conservation Biology* 22.4 (2008): 832-35. Print.

⁴⁴ "ABOUT ARTISANAL FISHERIES." *Artisanal Fisheries Research Network*. Web. 20 Jan. 2012. <<http://artisanalfisheries.ucsd.edu/about-artisanal-fisheries/>>.

⁴⁵ "FAO Fisheries & Aquaculture - Small-scale & Artisanal Fisheries." *FAO: FAO Home*. Web. 22 Jan. 2012. <<http://www.fao.org/fishery/topic/14753/en>>.

⁴⁶ Jacquet, Jennifer, and Daniel Pauly. "Funding Priorities: Big Barriers to Small-Scale Fisheries." *Conservation Biology* 22.4 (2008): 832-35. Print.

Small-scale fishing operations using artisanal capture methods like those used by San Diego fishermen also provide an opportunity for a more diversified species portfolio. Basic food web theory suggests that a food web is more stable and diverse if it is made up of many weaker links rather than few strong ones.⁴⁷ Extending this theory to encompass human consumption, it seems likely that diversifying human demand to be spread among many local species, rather than just a few, would support the conservation of marine biodiversity over the long-term. This dynamic has been witnessed extensively in the agricultural sector which has responded by actively developing the value chains of underutilized plant species in an effort to conserve biodiversity.⁴⁸ Local sales data from San Diego fishermen indicates that about half of the 26 local, commercially viable species are currently underutilized.⁴⁹ By identifying and developing value chains for local, underutilized species, opportunity exists to increase the value of San Diego's small-scale fisheries in a way that supports the conservation of local biodiversity.

4.2 Sustainable local food systems driving social capital

Sustainable local food systems not only present advantages for the environment and food producers but also benefit their surrounding community. Local, sustainable food systems are strengthened by a region's social capital and also contribute to the region's total social capital.⁵⁰ For example, community supported agriculture systems have been proven to create jobs, encourage entrepreneurship and strengthen community identity. Money spent on food at local markets stays in the community longer than money spent on foreign goods, contributing to local income and employment opportunities.

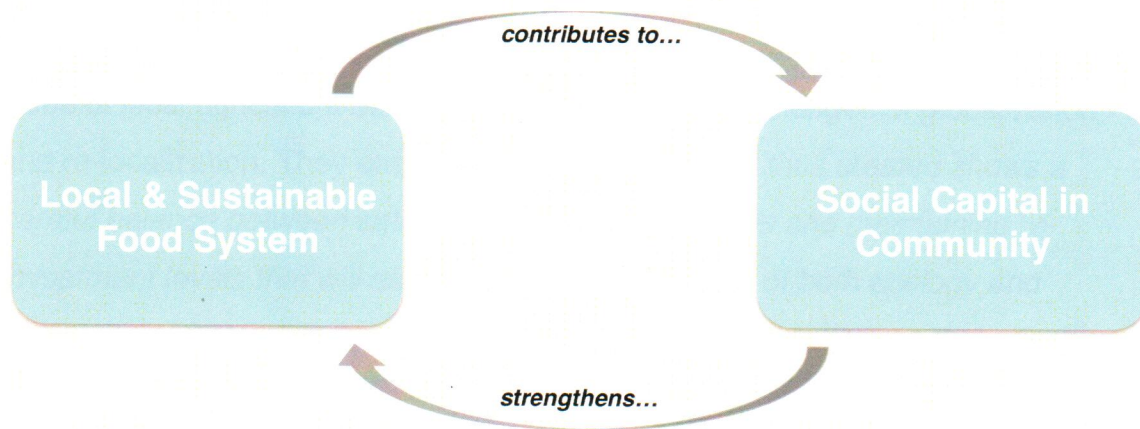
⁴⁷ Hastings, Alan. "Food Web Theory and Stability." *Ecology* Pp. 1665-1668 69.6 (1988). Print.

⁴⁸ Will, Margaret. "Promoting Value Chains of Neglected and Underutilized Species." Global Facilitation Unit for Underutilized Species. Web. 12 Mar. 2012. <http://www.underutilized-species.org/documents/PUBLICATIONS/promoting_vc.pdf>.

⁴⁹ San Diego Fishermen's Working Group, "Developing Sustainable Fisheries by Empowering Sustainable Fishing Communities," 2012

⁵⁰ Halweil, Brian. "Home Grown: The Case for Local Food in a Global market, 2002

Establishing a CSF in San Diego would build social capital by connecting the community to a trade that defines an important part of local history. By supporting and raising respect for the local fishing trade, the fishermen will benefit and a new generation of fishermen may find opportunity in this industry that currently represents a rather undesirable vocation.



The San Diego local fishing industry can have its own brand of comparative advantages created through network building, local human capital and knowledge sharing.⁵¹ By establishing a sense of shared ownership of local seafood resources and the responsibility for their viability and preservation, San Diego's CSF can inspire trust and commitment. This type of relationship would effectively lower transaction costs and ease the production and sales processes.⁵²

4.3 Ecological Entrepreneurship

The opportunity areas discussed thus far suggest there is potential value in establishing a smaller scale, social capital-generating community supported

⁵¹ Ekins, 1997 - Terry Marsden, Everard Smith, Ecological entrepreneurship: sustainable development in local communities through quality food production and local branding, *Geoforum*, Volume 36, Issue 4, July 2005, Pages 440-451

⁵² Ekins, 1997 - Terry Marsden, Everard Smith, Ecological entrepreneurship: sustainable development in local communities through quality food production and local branding, *Geoforum*, Volume 36, Issue 4, July 2005, Pages 440-451

fishery in San Diego. However the crucial piece in sustainably developing this market will be to ensure sustainable value creation for each sphere of the triple bottom line. This value may be difficult to create in the face of trade of challenges discussed earlier in this paper, but research suggests that local markets can combat global market pressures by organizing “counter movements” at the local level. Marsden and Smith of the Centre of Business Relationships at Cardiff University in Wales analyzed EU agricultural markets attempting to bolster the value of local agriculture sectors amidst competing challenges of globalization and re-localization. They emphasized that the “*wealth thus created shows a careful balance between satisfying consumption needs and maintaining re-investment levels that will assure the long-term future of both ecology and enterprises.*” Achieving this will require entrepreneurial initiatives that effectively preserve cultural and environmental integrity of local resources while creating new forms of economic benefits in the local community.⁵³

However, some risk is associated with the renewed identification and capitalization of high value traditional products and practices. To safeguard newly developed niche markets from opportunistic competitors, new regulatory and communicative structures must be established. In the case of the San Diego small-scale fisheries, the clear representation of seafood as “locally caught and sold” must be emphasized. Additionally, the advantages of small-scale, “artisanal” capture processes must be acknowledged and incorporated into guidelines established by sustainable seafood recommending and certifying bodies such as the Marine Stewardship Council and Monterey Bay Aquarium’s Seafood Watch Program. Building out a strong and consistent network of direct sales channels will enable San Diego fishermen to securely command a premium for their locally branded seafood. However, the value associated with that premium must be realized by customers. Economist Michael Porter defines

⁵³Terry Marsden, Everard Smith, Ecological entrepreneurship: sustainable development in local communities through quality food production and local branding, *Geoforum*, Volume 36, Issue 4, July 2005, Pages 440-451

'value' as "*the amount buyers are willing to pay for what a firm provides them.*"⁵⁴

This "value" extends beyond commodity products to include niche products for which the customers are willing to pay a premium price. A producer's ability to extend its value creation beyond the quality of a product is an important aspect in any competitive environment and will be fundamental to San Diego's future seafood success.⁵⁵

5. Conclusions & Implications for SD fishery

Upon analyzing the history, current situation, challenges and opportunities associated with San Diego's seafood industry, the need for an industry solution that supports the triple bottom line is clear. Patterned after the well know CSA model from the agricultural sector, a San Diego CSF has the potential to drive value for fishermen (profits), the community (quality products, relationships and experience) and the local marine environment (habitat preserving harvests and diverse portfolio). This form of ecological entrepreneurship could not only revive the stagnant local fishing industry but also be a source of important social capital.

6. San Diego CSF Market Strategy

In light of these findings and excellent input from various key stakeholders in San Diego's seafood future, a go-to-market strategy has been created to bolster local fishermen's efforts in creating San Diego's first CSF. The high level strategy begins on the next page.

⁵⁴ Porter, Michael, How Information Gives You Competitive Advantage, 1985

⁵⁵ Porter, Michael, How Information Gives You Competitive Advantage, 1985

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San Diego Community Supported Fishery (CSF): Market Strategy

Contents:

- I. Brand Overview**
- II. Market Strategy Framework**
- III. Market Strategy**

I. Brand Overview

Believe it or not, locally harvested and sold seafood was once at the heart of America's Finest City. We may have strayed from our roots but luckily a proud group of local fishermen have not. The San Diego seafood revolution has begun and the mission is simple: harvest and sell sustainable local seafood to San Diegans. It's time to get to know your fishermen and get your share of the catch!

Who we are

San Diego Seafood Harvesters is a cooperative group of San Diego fishermen operating small-scale fisheries that target a variety of well-regulated species using an array of minimally invasive gear types.

Our Purpose

Revitalize the San Diego seafood industry in a way that benefits local fishermen, the local marine environment and the local community.

Our Brand Identity

Although the legal operating name of our business is *San Diego Seafood Harvesters*, we have created a complementary brand identity that clearly shares our purpose with target customers. The logo celebrates the value and pride associated with San Diego as an incredible place. The goal is to extend local consumers' existing love for the city of San Diego to include love for San Diego seafood and the fishermen that catch it. The logo will serve a clear and simple way to communicate the locality of our product and direct customers to a website to learn more about what we stand for.

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II. Market Strategy Framework

The following market strategy framework is a tool we will use to organize a group of strategic elements that play important roles in the CSF's success in the marketplace.



Product: What product will we be delivering to customers? How does this product differ from competitor products? What benefits will our products provide customers?

People: Who are the customers we plan to target with our product?

Place: Where and how will we distribute our products to target customers?

Promotion: How will we promote / advertise our brand and products to potential customers?

Price: How will we price our products so that the price is competitive but also allows fishermen to make targeted profits?

III. Market Strategy – Product

San Diego’s coastal waters are home to a wide range of commercially viable marine species. A combination of pelagic species, ground fish and invertebrates make for a diverse collection of harvestable species.

Species Portfolio:

Pelagic	Ground Fish	Invertebrates
Albacore tuna, <i>Thunnus alalunga</i>	California Hailbut, <i>Paralichthys californicus</i>	Crab, rock (California) <i>Romaleon antennarium</i> Crab, spider (California), Family: <i>Maiidae</i>
California Barracuda, <i>Sphyraena argentea</i>	Rockfish, blackgill, <i>Sebastes melanostomus</i>	California Spiny Lobster, <i>Panulirus interruptus</i>
California Sheephead, <i>Semicossyphus pulcher</i>	Cabezon, <i>Scorpaenichthys marmoratus</i>	Kellet's Wheik, <i>Kelletia kelletii</i>
Swordfish, <i>Xiphias gladius</i>	Sablefish (Black Cod), <i>Anoplopoma fimbria</i>	Purple Sea Urchin, <i>Strongylocentrotus purpuratus</i>
Opah, <i>Lampris guttatus</i>	Thornyhead <i>Sebastolobus altivelis</i> (longspine) <i>Sebastolobus alascanus</i> (shortspine)	Red Sea Urchin, <i>Strongylocentrotus franciscanus</i>
Thresher shark, <i>Alopias vulpinus</i>		Sea Cucumbers, <i>Parastichopus californicus</i>
Yellowtail, <i>Seriola dorsalis</i>		Spot Prawn, <i>Pandalus platyceros</i>
Yellowfin tuna, <i>Thunnus thynnus</i>		
White Seabass, <i>Cynoscion nobilis</i>		

Product Labeling

To combat the disturbing trend of seafood fraud, all of our seafood will be labeled with both its common and Latin scientific name at the point of sale. This will help ensure customers that they are indeed getting what they pay for and distinguish our product from the misleading, ambiguously labeled seafood often sold by competitors.

All of our products will also be labeled with our logo as a symbol of the product’s locality and the local San Diego seafood revitalization that each purchase supports.

Points of Differentiation

Delivering a differentiated product to the market not only drives customer demand but also enables us to command a premium for our seafood. Clearly identifying and communicating these points of differentiation will enable us to effectively communicate the value of our products to customers. Our three key points of differentiation are as follows:

- **Diversity:** Portfolio harvests enable us to deliver local favorites such as halibut and albacore while also piquing customer interest by introducing less-trial fare such as urchins and sand dabs. By deliver interesting “fisherman picks” along with well-tested recipes, our seafood can serve as a true culinary adventure for customers.
- **Quality:** Buying seafood directly from the fishermen that catch it guarantees the highest level of freshness available. Less handling and less time between harvest and consumption improves the quality enjoyed by the customer. Imported and heavily-processed seafood from competing outlets will likely change custody 3-5 times over the course of several days before ending up in the customer’s hands. Our CSF motto- “Barca a bocca” (Italian for ‘from boat to mouth’)- says it all.
- **Story:** The story behind our products is what will truly set them apart from competitors. Product labeling and promotions will connect each species sold with the fisherman who caught it and their personal tie to San Diego waters.

Customer benefits

In addition to receiving high-quality seafood at a reasonable price, consumers will get a broader educational, aesthetic and social experience. This web of benefits will include but is not limited to:

- **Historical ties** back to San Diego’s Italian fishing roots via “pioneer stories” of Italian fishermen that founded the market. Customers can also take this heritage home to their kitchens thanks to the free Italian-inspired recipe cards accompanying their seafood purchase and/or available on our website.

- ***Customer-fishermen relationships*** built during face-to-face sales interactions and invites to customer-exclusive dock-side events put on by San Diego Seafood Harvester partners.
- ***Education*** about the fish they eat and the greater mission of sustainable local harvests.

III. Market Strategy – People

We must develop a strong understanding of our target customer and their seafood related needs. Initial identification of high-opportunity direct-sales targets will guide our sales.

Mechanisms for customer feedback will ensure we continuously learn from our customers and adjust products as needed to better deliver against their needs.

Target Customer Groups

Our direct-to-market sales will focus on two basic types of customers: individual consumers and restaurants. Within each of these large groups, specific high opportunity segments will serve as target markets to which sales and promotions will be focused:

- **Individuals:**
 - **Locavores:** A locavore is a person interested in eating food that is locally produced and not moved long distances to market. Given that “local” is a primary benefit and point of differentiation for our product, targeting sales efforts toward the San Diego locavore community will be a strategic priority. These consumers can be found at farmer’s markets and may also be reached through key partners in the locavore movement such as Slow Food Urban San Diego.
 - **Seafood explorers:** The consumers have adventurous taste buds and aren’t afraid to try new, exciting seafood dishes. The best way to reach them will be through restaurant partnerships. Restaurants such as Gabardine, George’s and the Fishery are known to celebrate a diverse selection of seafood on the menu. By working with these restaurants to extend the value of our brand to menu items, we will also ensure that positive trial of our products is associated with our products. If a consumer has an incredible dish of sardines caught by our fishermen, they will see our logo and fisherman card and continue to demand our product through the restaurant channel or by seeking us out directly.
- **Restaurants:** The restaurants representing strong opportunity for direct sales fall into three categories:

- ***The hyper-locals:*** A number of San Diego restaurants have already embraced the value of “local” in their menu design and marketing. Some, such as Sea Rocket Bistro, have even established themselves as leaders in the local sustainable seafood movement.
- ***High end Italian:*** Italian restaurants focused on high-quality, traditional Italian fare represent an opportunity to connect our harvests with the Italian heritage that many San Diegans value.
- ***High end Japanese:*** These restaurants value quality of seafood over all else and also have built in demand for products popular amongst Asian cultures such as sea urchins. This will not be our primary target in the restaurant category but represents a steady and secure source of revenue to support other direct marketing efforts.

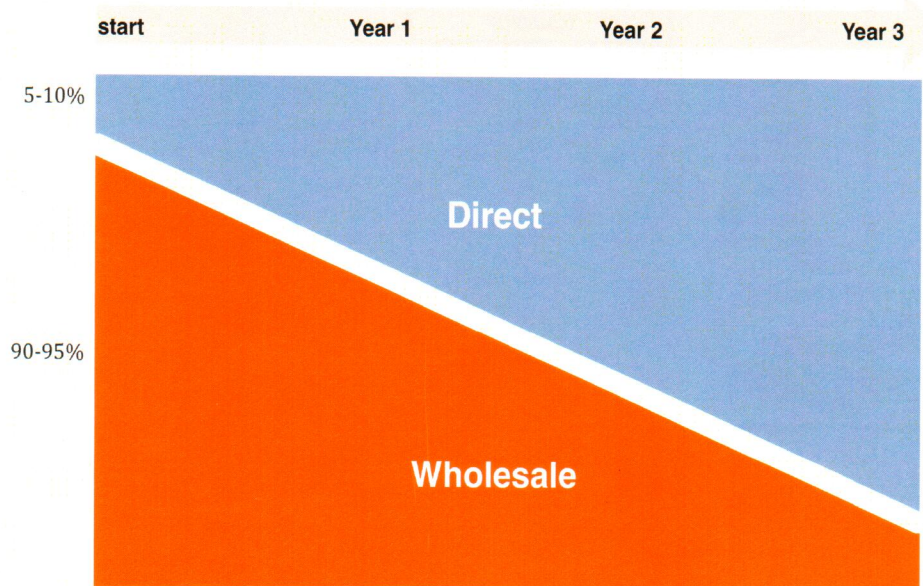
III. Market Strategy – Place

Our distribution strategy will take on a phased approach as we move away from the seafood channel and work to expand our distribution reach throughout the community.

Distribution Mix

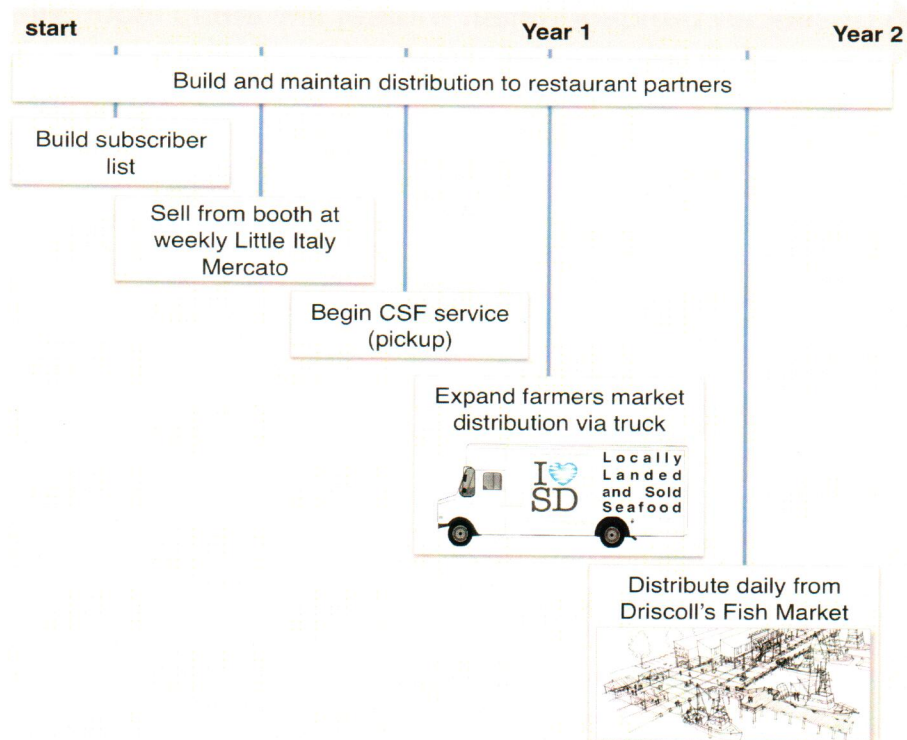
Approximately 90-95% of our harvests are currently sold directly to a wholesale distributor such as Catalina Offshore Products. The Distributor then sells the seafood to a variety of retail outlets locally or more likely, to markets abroad. Upon beginning this cooperative effort, our goal will be to shift our distribution away from wholesale and into direct San Diego markets. Shifting away from wholesale immediately is not feasible and represents an unbearably high risk level for our fishermen. By gradually shifting product away from wholesale we can more effectively build our direct-to-customer base while maintaining a cooperative relationship with wholesalers who will be crucial to our success-especially in the early days- by absorbing excess supply.

The figure below outlines a conservative timeline for shifting sales away from wholesale and into direct markets. If demand in the direct markets is strong enough in the first year of operations, this shift could be expedited.



Direct Distribution Progression

Restaurant sales have already begun and we will continue to grow and strengthen this channel once the cooperative officially begins business. Our first point of direct-to-consumer sales will be the Little Italy Farmer's Market held each Saturday. This market draws approximately 1,000 consumers each week, many of which have an inherent preference for fresh, local products and value the consumer-producer connection that can be made at a farmers market. Once product supply has reached adequate and consistent levels, CSF "seafood boxes" will be available for weekly subscribers. This will help ensure demand and guide appropriate catch efforts. A seafood truck will enable us to expand distribution and promotions to a network of markets and relevant events throughout San Diego. Finally, a permanent dock-side market at Driscoll's Wharf in Point Loma will serve as our flagship point of distribution.



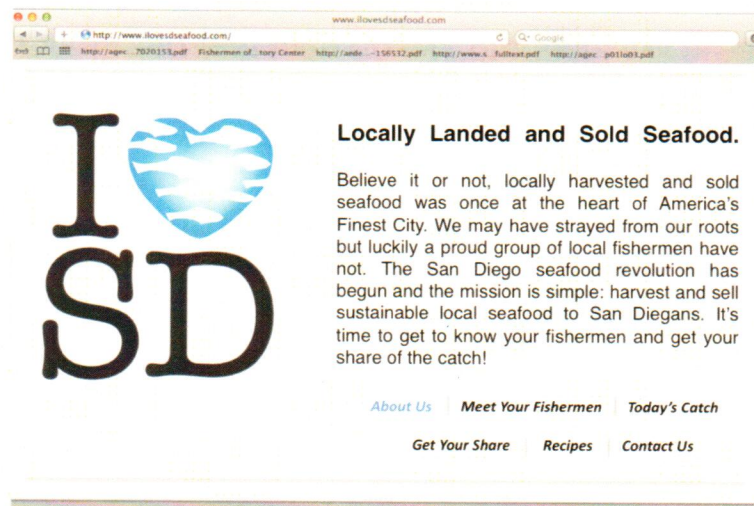
III. Market Strategy – Promo

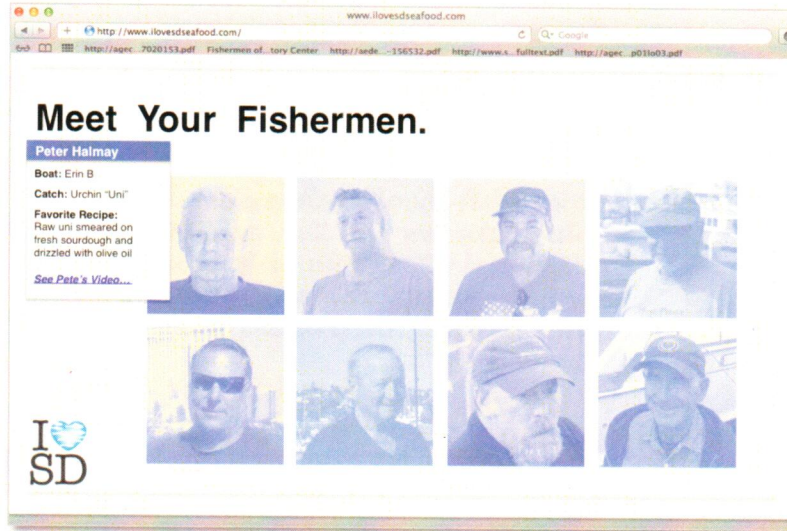
The most important aspect of successfully selling a story is having the right people and platforms in place to share the story. Key stakeholders and partners behind the local seafood movement will ensure the story is shared with passion throughout multiple sectors of the community. Significant web presence will keep the story alive across multiple customer touch points.

Web Presence: www.ilovesdseafood.com

The website will serve as a crucial conduit between the marketplace and the CSF.* The purpose of the website is to provide interested consumers with basic information about the CSF and the story behind our products. The site will eventually have daily updated information on the local catch available for purchase and information on where and how to buy it. Additionally, the site will house rich information on the portfolio of species available and the fishermen who catch them. Additionally, local chefs will feature Italian-inspired recipes to go along with a given week's available catch to inspire and excite local seafood enthusiasts.

** The images below is a rough “mock-up” of the site. We currently own the url but have not yet activated the site.*





Key Promoters / Partners:

- **The Fishermen:** As the true faces of our brand, our group of dedicated fishermen will increasingly embed themselves in the community both physically and virtually. By manning the farmers market booths and speaking to the quality of the fish they catch and sell, each fisherman can bring our brand's purpose to life. The power of a handshake is both undeniable and unforgettable. Fishermen will also have the opportunity to post stories from their week at sea that will be linked to their "Meet Your Fishermen" profile on the website.
- **The Chefs:** Our brand and high quality products will create value for the chefs that work with us. Chefs can promote our business AND add value to their menu items by putting a small stamp of our logo next to menu items that feature our product. Additionally, we will provide each restaurant partner with "fishermen cards" (like the one below) to further connect the consumer with the source and add additional value to the plate and overall restaurant experience.

Locally Caught and Sold



San Diego Seafood Harvesters

Thank you for purchasing this local catch. By doing so you are supporting sustainable artisanal fishing practices and the livelihoods of local fishermen. Please visit our website and dockside market to learn more about the fish you are enjoying and the artisan that caught it.

*Your fisherman,
Pete*

- **The Media:** Several local media outlets- including San Diego magazine and KUSI News- have already taken great interest in the comeback of San Diego's local fishing industry. However most of these stories have not ended with a clear call to action. Once the business has launched, these stories will serve to increase awareness and direct consumers to our products.
- **Other Priority Partners:** San Diego Italian Film Festival, Slow Food Urban San Diego, Passionfish

III. Market Strategy – Price

Our product prices must be comparable with related products or slightly cheaper while ensuring that the margins achieved enable our fishermen to continue to harvest sustainable quantities of fish and earn target profit per unit of effort levels.

There are three primary ways to price a product; customer based (how the customer values the product), competition based (, and cost based. Our pricing strategy will be a blend of all three. Although the details of our product portfolio and pricing strategy are yet to be finalized, below are some CSF pricing principles that will influence this strategy:

- **Identify base price and add premiums.** Our products' base prices will be based on competitor price points (the prices customers would pay if they did not purchase their product from San Diego Seafood Harvesters). As consumers' perceived value of our product relative to other options increase, we will gradually add premiums to high demand products as needed.
- **Design boxes to include mix of low and high margin seafood.** Pre-ordered weekly seafood boxes will include a selection of 2-4 species representing diverse product values. This will allow us to sell the box of diverse seafood for a set weekly price while ensuring a steady profit margin for fishermen and reasonably priced boxes for customers.
- **Reward long-term subscription customers.** Pre-ordered weekly seafood boxes represent a source of steady, guaranteed revenue for the CSF and also enable fishermen to strategically plan their harvest levels. Discounts will be offered for long-term subscription customers to reward them for their commitment to our products and fishermen. 10% discount will be provided for 6 month subscriptions and 15% discount will be provided for 1 year subscriptions.

Locally Landed and Sold Seafood



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