BACKGROUND

Covering more than 70 percent of Earth’s surface, our oceans are home to more than 230,000 species and provide food and a way of life for people worldwide. One billion people depend on fish for protein, and more than 200 million people are employed in fishing and related industries.

Of the many activities threatening the long-term survival of marine ecosystems, overfishing and destructive fishing practices are among the most devastating. While some fisheries are on a path to recovery, a large percentage of fish populations remain in decline. However, when economic and conservation incentives align—and strong protection policies are in place—these fisheries can recover.

Allowing fish populations to rebound is a critical component of restoring the health of our oceans, and seafood markets can help drive this change. The David and Lucile Packard Foundation has been a longtime supporter of work to shape a sustainable seafood movement that engages the market and industry to develop and manage fisheries and farms in a sustainable manner. Over the last several years, the sustainable seafood movement has gained significant momentum. Through the work of conservation advocates and business leaders, for example, the majority of the top 20 supermarkets in North America now have commitments to sell seafood from sustainable sources. This increased demand, in turn, creates strong incentives for fisheries and fish farms around the world to address environmental challenges so that they can sell their products in markets demanding sustainable seafood, such as North America, Northern Europe, and Australia.

The David and Lucile Packard Foundation supports efforts to strengthen businesses’ sustainable seafood commitments in North American seafood markets and ensure improvements in the management of fisheries and fish farms worldwide. We are also exploring how to promote sustainable seafood in Asia.
STRATEGY

Advocating for healthy oceans and an end to overfishing has been a longstanding goal of the Packard Foundation. The overarching goal of the Foundation’s work on ocean conservation is to restore the health and productivity of the world’s oceans, on which all life depends. Since its inception in 1998, the Marine Fisheries Subprogram has actively supported work to achieve this goal. One of the biggest threats to the ocean is excessive and destructive fishing. The Marine Fisheries Subprogram seeks to transform global seafood markets by building and using demand for sustainable seafood to reform fisheries policies and change the way fish are caught. In this work, we work closely with the Walton Family Foundation and with an ever-expanding number of NGOs (currently numbering some 35 organizations in 10 countries).

Over the past 12 years, the Marine Fisheries Subprogram has made nearly 250 grants, totaling $150 million. Roughly 25 percent of the subprogram budget has focused on fisheries policy reform (in the United States and a few international grants), and 75 percent has focused on transforming fisheries markets. This document presents a refreshed strategy for the next stage—2012 through 2016—of the subprogram’s work to transform seafood markets as a catalyst for reforming fisheries.

Over the next five years, the Foundation is in a unique position to accelerate improvements in global fisheries management. By leveraging the leadership of nongovernmental organizations (NGOs) and their business partners, we can support the next stage of a global shift toward sustainable seafood to deliver concrete improvements in how fisheries and farms are managed. These efforts are designed to lead to improvements in ocean ecosystem health.

Vision

We believe fisheries can be rebuilt through the collective efforts of critical players who depend on them. By bringing together leaders in seafood markets and fishing communities, we can find solutions that meet conservation and business needs.

More specifically, we envision that selling and buying of sustainable seafood becomes the norm for leading seafood companies. This private-sector leadership, in concert with strong government policies and the efforts of conservation advocates, will create healthy and sustainable global fisheries that provide a long-term supply of sustainable seafood. As a result, we will all benefit from a more resilient, productive ocean.

Goal

The long-term goal of the Marine Fisheries strategy is to catalyze the conservation and recovery of fisheries worldwide. We will contribute to this goal by maintaining and increasing the demand for sustainable seafood that drives improvements in fisheries management and aquaculture production.

Our intermediate goal is that, through the Foundation’s contributions and support, one-third of the volume of wild-caught seafood comes from well-managed, sustainable fisheries or from fisheries in the process of rebuilding by 2022.

Improving the management of fisheries globally will require steadfast efforts across multiple sectors, from policy advocacy by NGOs and industry to long-term, capacity-building efforts by multilateral institutions. While the Marine Fisheries Subprogram recognizes the need for this full suite of approaches, our strategy focuses on using market demand for seafood to help drive change.

Theory of Change

At its core, the markets transformation strategy rests on the theory of change that consumers and businesses that demand sustainable seafood can motivate fisheries to improve their management practices to be able to sell their
products into these markets. With time, businesses and fisheries can also become advocates for fishery policy changes to help level the playing field so that poorly managed fisheries do not undercut the market. Having market players—such as retailers, foodservice, and supply chain companies—embrace elements of a sustainable seafood agenda is critical for motivating and supporting improvements in fisheries.

In practice, the markets transformation strategy is complex and involves three phases:

In *Phase I (1998 to 2011)*, most of the Foundation’s grantmaking focused on building the field of marine conservation; developing the sustainable seafood movement; attempting to build awareness and demand among consumers and retail companies; and establishing a sustainability certification “infrastructure” including programs like the Marine Stewardship Council (MSC). The natural starting place for the markets strategy to focus was the major retailers and foodservice companies in North America and Northern Europe.¹ These businesses represent large markets for high-value seafood products in the global trade and have a growing emphasis on corporate social responsibility practices.

During *Phase I*, our grantees made significant progress in expanding the demand for sustainable seafood, and a growing number of fisheries have been certified as sustainable, with 10 percent of global seafood now certified or under assessment by the MSC. Many of these fisheries were relatively well managed at the start, so the actual conservation impact “on the water” may be less than this percentage would suggest; however, certification remains an important tool for allowing the market to recognize environmentally responsible fisheries. The Marine Stewardship Council also attracts fisheries with more opportunity for improvements that, through their involvement with the MSC, pursue a plan for addressing environmental challenges and eventually reaching management and performance levels that would enable these fisheries to be eligible for certification.

During *Phase II (2012-2016, the focus of this refreshed strategy)*, the goal is to use the leverage that has been created by the growth in demand for sustainable seafood to drive changes in fisheries with environmental challenges. Existing demand for sustainable seafood now exceeds the availability of well-managed, readily certified stocks.

In this second phase, we are working to motivate and support fisheries that are currently overharvested to undergo significant management changes so that they may eventually be certified as sustainable and, as a result, gain access to the sustainable seafood market. We will achieve this change through a variety of activities, including integrating incentives for improvements into certification programs, creating new financing mechanisms for innovations in this sector, and continuing to support NGO partnerships with the fishing and business communities.

During this phase, we will also seek to expand interest and demand for sustainable seafood by working in Asia. With the rise of Asian markets, and the leadership of China among industrializing nations with growing economies, it is critical that we begin to engage with this region of increasing importance and influence. We will explore working with Asian consumers, particularly those in Japan who purchase eight percent of the world’s fish, to increase demand for sustainable seafood. In China, we will explore opportunities to work with scientific, political, and private-sector leaders to increase understanding and interest in sustainable seafood markets.

This phase is the true test of the strength of the markets transformation strategy. If the demand for sustainable seafood is too weak, then sustainable seafood could become a niche market that involves only fisheries that were relatively well managed to begin with. However, if the demand is sufficient and the

¹ The Foundation has also supported work in Australia and New Zealand, which represent small markets and have among the best-managed fisheries. In part, this region offered early opportunities for the MSC to certify some of its first fisheries. The Foundation continues to support work in this region.
infrastructure (e.g., certification, traceability, industry engagement, etc.) is robust, then we would expect to see a growing number of poorly managed fisheries change their practices in order to gain access to sustainable seafood markets.

In Phase III (beyond 2017), we expect to see the tangible results of these changes in fisheries management in the form of restored or rebuilding fisheries. We expect to see the maintenance of strong management where there are already sustainable fisheries and more environmentally responsible practices for key farmed species—particularly around feeds using wild-caught fish. By this third phase, we expect that several tools, processes, or approaches being tested today will be institutionalized and adopted by retail companies, the seafood industry, and/or governments across geographies. These may include voluntary certifications; regular use of fisheries improvement projects to increase sustainable supplies in a given region; and strengthened national and international management of fisheries and aquaculture through policy and regulatory progress.

The markets transformation strategy cannot reach all global fisheries because a considerable amount of seafood is consumed in countries where there is limited or no demand for sustainable seafood and where it would be difficult to build demand in the foreseeable future. However, one of the strengths of the strategy is that, because of the global nature of seafood trade, it can influence fisheries throughout the world. Even if demand has not yet been developed locally, many fisheries provide seafood to consumers in areas that do have significant demand for sustainable seafood. More specifically, approximately 28 percent of wild-caught seafood worldwide is caught in the waters of North America, Europe, and Japan. An additional 12 percent of global harvest is imported by these and other Organization for Economic Cooperative Development (OECD) countries. Thus, sustainable seafood demand from OECD countries—the 34 countries with the highest per capita economic activity—could influence a total of 40 percent of global harvests.

With the Foundation’s current focus on North America and our potential expansion into Asia, we expect to see 20 to 25 percent of global seafood volume certified in the next 10 years. We also expect to reach an additional 10 to 15 percent of seafood volume through fishery improvement projects (FIPs)—multi-stakeholder efforts to help fisheries transition to better practices and stronger management. Combined, these efforts will achieve our goal of having one-third of the volume of global fisheries either rebuilding or sustainable by 2022.

Beyond the fisheries directly supplying OECD markets, the growth of the sustainable seafood movement can also help establish a norm for fisheries management that could eventually influence the behavior of fisheries managers, producers, and retailers in other regions as well.

Our strategy includes both wild-capture fisheries and aquaculture; however, our reach into aquaculture will be limited due to current budget constraints. While aquaculture will not be our primary focus, wild-caught and aquaculture seafood markets are tightly intertwined, and much of our work will necessarily involve both wild and farmed fish. We will focus our aquaculture support in areas where these two sectors intersect. For example, we will look for ways to encourage responsible management of wild forage fisheries that are harvested to create fishmeal and fish oil for aquaculture feeds.

**KEY OBJECTIVES**

Over the next five years, we will support efforts to advance business leadership on sustainable seafood and improve fisheries and fish farms.

*Advance Business Leadership on Sustainable Seafood*

The markets strategy has successfully engaged the large majority of the North American retail sector over the last five years. Our focus in the next phase will be to deepen and consolidate those gains, with a core objective of
moving retailers along the spectrum of engagement to deliver on and advance sustainability commitments. By establishing a spectrum of categories for the level of commitment, NGOs and retailers will be able to frame commitments in a stepping-stone fashion and develop a performance index of corporate responsibility for sustainable seafood sourcing.

Our target is that by 2017, **40 percent of North American retail sector seafood sales**\(^2\) will have made **advanced commitments to sustainable seafood** and demonstrated the impact of those commitments.

Currently, only three companies of the 20 major supermarkets in North America who are engaged and partnered with an NGO have a 100 percent commitment to full sustainability for their seafood. However, the 20 retailers pursuing a sustainability goal represent roughly 50 to 70 percent of all seafood retail sales (by value) for this market, which allows for considerable additional progress. There is an ample base of engagement by major companies and the next opportunity is advancing the level and scope of these commitments. This will increase the companies’ ability to encourage stronger conservation improvements in fisheries and fish farms.

To achieve this objective, we will continue to support NGOs to engage businesses and the seafood industry. In addition to building NGOs’ capacity, this effort will include active exploration of whether and how NGO functions or services can be transitioned to business while maintaining a strong level of conservation integrity and transparency. New approaches may involve launching or partnering with for-profit entities that can effectively interact within the seafood business community and work within structures, such as trade associations, that are already established in this sector.

**Improve Fisheries and Fish Farms**

Over the past several years, the markets transformation strategy has contributed to building the infrastructure to help fisheries improve their environmental performance. Our focus in the next phase will be to support the advancement of these tools—including certification, improvement policies, and efforts to strengthen policies—to engage additional fisheries, especially those with more significant management challenges.

**Certification**

The Marine Fisheries Subprogram aims to promote rigorous, transparent certification systems that provide incentives for continuous improvement.

Our target is that by 2017, **15 percent of the global volume of wild-caught seafood is certified or under assessment by the Marine Stewardship Council**.

We continue to support the growth of the MSC to strengthen its model so that more fisheries can improve their environmental performance and achieve certification. Within the next 5 to 10 years, the MSC will have reached the large majority of fisheries that are currently certifiable.

The MSC model allows fisheries to be certified with specific conditions that must be met in order for them to maintain full certification. This approach provides an opportunity to bring fisheries that are less well managed into the certification process. These fisheries receive certification with conditions and must improve their management practices to maintain the market benefits of certification. These efforts incentivize improvements in the fishery through market forces, helping strengthen fisheries that advocacy efforts may not reach.

Including this staged approach to certification is critical to increasing the supply of sustainable seafood. The model allows the MSC to expand its reach and continue to activate improvements in sustainable seafood. We see the MSC

\(^2\) We use retail sector seafood sales as a proxy for purchasing power.
program as a viable and complementary system to traditional policy advocacy approaches and expect its market-based approach to grow in importance. We also recognize the importance of aquaculture in the marketplace and its growing importance as a source of protein. Farmed shrimp, salmon, tilapia, and pangasius are among the highest in demand across multiple markets. The Foundation was the main supporter of the standards developed through the Aquaculture Dialogues, led by WWF with participation by more than 2,000 stakeholders worldwide. Going forward, the Foundation will continue to assess strategic opportunities to selectively support sustainable aquaculture. We are particularly interested in supporting efforts to promote strong certification and standards systems that embrace robust environmental principles, transparency, accountability, and continuous improvement toward higher standards.

**Fishery and Aquaculture Improvement Projects**

The Marine Fisheries Subprogram aims to promote environmentally responsible and globally recognized fishery and aquaculture improvement projects.

Our target is that by 2017, **10 percent of the global volume of wild-caught seafood is engaged in a credible fishery improvement project.**

While the MSC provides a useful vehicle for recognizing and rewarding well-managed fisheries, to achieve our targets we also need to encourage less well-managed fisheries that are not yet suitable for certification to make progress toward sustainability. While these fisheries may incrementally improve over time, the fishery improvement project approach offers an important mechanism to facilitate this process.

A FIP is a multi-stakeholder effort to improve a fishery. Participants may vary depending on the nature of the fishery and the improvement project, and may include stakeholders such as producers, NGOs, fishery managers, government, and members of the fishery’s supply chain. In each case, the project outlines a work plan with specific milestones that move the fishery toward sustainability, and these efforts are rewarded by greater access to sustainable seafood markets.

As market demand has grown, it has become apparent that a certified supply of many important types of seafood is lacking. In response, many large buyers are beginning to coordinate with NGOs to drive change in specific fisheries from which they source through participation in FIPs. The incentive of market access (and the threat of losing markets) has driven considerable fishery participation thus far. This is an important development in the overall markets approach to motivating environmental improvements in fisheries management. Without the additive approach of FIPs, the market would focus solely on certified fisheries, which are limited and among the better-managed fisheries. FIPs require certain levels of improvements in management and fishery performance as a condition to maintain access to markets demanding sustainability. Examples of improvements can include:

- **Management system improvements**, such as developing harvest control rules for a fishery or a fishery management plan;

- **Fishery practice improvements**, such as switching gear to minimize environmental impacts of fishing; and

- **Formal regulatory or policy improvements**, such as strengthening laws around the catch of undersized fish.

A similar model for driving improvement is being applied to aquaculture in the form of aquaculture improvement projects (AIPs). We believe AIPs should address farm-level improvements as well as manage the cumulative environmental impacts of all farms in a particular area.

In this next phase of our strategy, the Foundation will support work to formalize and integrate the FIP and AIP model into other efforts. This may include further integrating improvement projects into NGO-business
partnerships; ensuring alignment with the MSC system; leveraging industry platforms; and exploring development agency intersections. Rather than pursuing each fishery one-by-one in all cases, we see an opportunity to apply the FIP approach more broadly across entire commodities. The market for seafood is organized by specific commodities (e.g., whitefish, canned tuna, fishmeal, and shrimp). In partnership with these existing organized industry categories, it is possible to promote FIPs in multiple fisheries simultaneously. Some NGOs are already deploying this approach. For aquaculture specifically, we will selectively support improvements in farmed shrimp, pangasius, and tilapia as well as efforts to increase traceability and reduce the amount of wild-caught fish used in feed.

**Strengthening Policies and Governance through Business Engagement**

As market transformation takes hold, opportunities may arise to harness industry interest to advocate for stronger fisheries policies or regulations. Such actions are often built into fishery improvement projects, where existing management or regulatory bodies may not offer sufficient management standards or enforcement of rules. As more industry actors voluntarily participate in certification and improvement projects, interest grows in having government apply a strong rule of law to establish a level playing field among market competitors. In the near-term, as businesses take interest in prohibiting illegal products from entering their supply chains, this may offer opportunities to work toward addressing the impacts of illegal fishing on the health of fisheries. Bolstering traceability systems opens up opportunities to more effectively work along the supply chain to ensure the integrity of sustainable products that enter these chains from the point of harvest or production.

**NEW EXPLORATIONS**

To support and expand our core strategy work, we are exploring the best ways to promote sustainable seafood in Asia, attract new investments, and overcome barriers in the supply chain.

**Promote Sustainable Seafood in Asia**

The Marine Fisheries Subprogram is focusing its explorations initially on Japan and China.

**Japan**

The largest markets for sustainable seafood are the European Union, the United States, and Japan. Collectively, these three markets make up nearly one-third of global seafood consumption by volume and represent more than 60 percent of the market purchasing power by value. Asia continues to grow in importance as a global force for the trajectory of fisheries health. Within Asia, Japan remains the most important country-level market for high volumes of high-value seafood—a segment of the market for which existing tools and systems are likely to be effective at increasing the demand for sustainable seafood. Japan is also an important political player in several intergovernmental policy arenas, such as regional fishery management organizations (RFMOs) and the World Trade Organization. Tuna RFMOs, in particular, manage highly migratory species across multiple national boundaries and are heavily dependent upon financial contributions by Japan.³

To solidify the sustainable seafood effort as a global movement, it is important to engage Japanese companies alongside their North American and European counterparts. Given the importance of this market, the existing NGO capacity in-region, early-stage supplier relations, and the country’s political influence on regional and international fisheries decisions, we will focus our near-term work on exploring how the Foundation can help increase demand for sustainable seafood in Japan.

We anticipate the main goals of this emerging strategy will be to **increase retailer commitments to sustainable seafood, engage suppliers to sell sustainable seafood to retailers, and strengthen government and local-level fisheries management.**

³ RFMOs depend entirely on member contributions for research and regulatory activities. Japan provides roughly 23 percent of the total funding to the Western and Central Pacific Fishery Commission.
China

In 2010, the subprogram supported a scoping study to assess potential opportunities for engagement on sustainable seafood issues in mainland China. China is a large consumer and producer of seafood, with growing influence in global markets. China is also the largest producing nation for aquaculture. The subprogram has funded a few select projects in China over the past few years to start understanding the strength of the sustainable seafood community in this region and support specific work on high-volume species farmed in Asia. These include aquaculture improvement for tilapia; a small sustainable seafood forum with government officials, NGOs, and companies engaged in seafood sustainability; and research on the use of feeds for carp and tilapia production.

Before we develop a specific strategic plan around work in China, we will use the next year to research and explore how the Foundation can best contribute to cultivating responsible seafood practices in China.

In particular, we will investigate how we can work with the Chinese government, Chinese seafood companies and international businesses with interests in China to adopt more environmentally friendly practices (e.g., providing information on seafood products, stopping illegal fishing, etc.). This research will inform development of a detailed strategy. In the near term, we will continue to support select projects that will help us structure future work.

Attract New Investments

The increase in retail and foodservice demand for sustainable seafood has put pressure on seafood companies to change their practices. But these businesses that catch, farm, and supply seafood often struggle to meet this demand primarily because they lack the resources to invest in long-term business improvements that would increase the sustainability of their operations and products. As a result, seafood companies are missing opportunities to sell to new markets.

Foundation grants can provide temporary assistance, but investors can play a critical role in enabling long-term growth of fisheries and aquaculture businesses. Unfortunately, despite the opportunity for new business growth in sustainable seafood markets, few investors include seafood businesses in their portfolios. Even investors who prioritize environmental impact along with financial gains find it difficult to secure a steady flow of sound investment options in this field. Without these options, investments are isolated, and it is difficult for investors to reduce risk to a level that ensures needed financial returns.

To address these challenges, the subprogram is investigating opportunities to strengthen connections between investors and seafood businesses through education and events.

We anticipate the goals of this work will include building a network of donors and investors to fund fishery and aquaculture business efforts that expand the supply of sustainable seafood and encourage industry innovations that result in environmental, social, and financial benefits.

Overcome Barriers in the Supply Chain

As NGOs successfully partner with retailers and foodservice operators, the onus for implementation quickly falls to companies within the supply chain to identify ways to meet the new sustainability requirements established by their customers.

Given the reliance on these seafood companies to deliver on sustainability commitments, we funded research over the past two years to study supply chain behavior and identify critical barriers to success. Findings revealed that the problem in the industry was not a shortage of good ideas, but rather that these solutions weren’t attaining scale or having systemic impact. The need to think beyond a single company or business idea became clear. What is needed is a network or support system that would make all ideas in the field stronger, bigger, and more effective.
Based on these findings, we anticipate experimenting with support to programs such as **business incubators or accelerators to provide an array of resources and services to entrepreneurs** working with innovative businesses in the seafood supply chain.

These programs would be designed to connect these business leaders and help them implement or scale up their business ideas. We expect these businesses to address barriers to sustainability by increasing efficiency, promoting sustainable practices, and bolstering traceability in the supply chain. Ultimately, the widespread adoption of sustainable practices will change the competitive standards of the industry, and the rest of the seafood marketplace will be compelled to follow suit.

**FUNDING PLAN**

The annual budget for this strategy is $10 million. We anticipate allocating the majority of our funding toward advancing business leadership on sustainable seafood and improving fisheries and fish farms. We expect to increase funding over time toward grantmaking in the Asia and Pacific regions. We hope to use more targeted resources to catalyze new investments in sustainable seafood and overcome supply chain barriers. We will allocate a limited amount toward capacity building, leadership development, and monitoring and evaluation.

We will routinely revisit the strategy through our monitoring, evaluation, and learning efforts, which will inform our levels of investment for each objective. We also plan to use other funding sources available to us, including Program-Related Investments and Organizational Effectiveness grants.