The New England groundfish fishery has experienced decades of decline, and the communities that rely on it for economic sustenance have faced continual crisis. In 2010, the New England Fishery Management Council implemented a system of sector management with the intention of reversing those trends. However, achieving overall improvements in stock health and fishers' livelihoods has proved challenging. The goal of this research was to assess the fishery's constraints and uncover opportunities for fundable initiatives that might ensure both its economic viability, as well as support the conservation management successes secured through sector management. Through in-person and telephone interviews with 100 fishers, seaport businesses, and financial services institutions, we conclude that there are a number of opportunities for foundations and financial institutions to engage with the fishery now as it continues to adjust to conditions under sector management, as well as to invest in philanthropic and business initiatives that show promise for bringing the fishery back to prosperity.

Value chain constraints

The inability to catch ample volumes of fish—whether because of natural causes or falling quotas—was universally listed as a primary challenge by fishers, vessel servicers, auctions, processors, distributors, and financial institutions alike. Other common concerns of fishers included: high cost of leasing quota; high operating costs; unpredictable and insufficient dock prices; competition from imports; vessels in disrepair; poor portside infrastructure and market access; and psychological stress. The challenges of port-based businesses often mirrored those of fishers, especially because their profitability depends on the viability of the fleet they serve. Significantly, a number of value chain participants have been able to divorce themselves from these challenges by turning to imports.

Available financing

Debt financing is widely available in the region. While the majority of financial institutions we spoke with accept a variety of collateral, few are able to accept permits, or do so at steeply discounted values. Equity investment options remain limited, compared with debt financing, particularly as equity is continuing to leave the fishery in the form of fleet reductions. Grants and other financial instruments, such as tax credits, also exist in this market; however, those are typically targeted at enhancing collaboration and innovation at a community level, as opposed to at a company or corporate level.

The negative feedback loop

Biomass decline, stock health uncertainty, and stock assessment variability all affect the ability of fishers to land sufficient volumes. Those conditions not only reduce fishers' desire for additional debt, they are also significant barriers to offers and acceptance of financing. In fact, they are leading drivers to a self-reinforcing negative feedback loop (see figure on page 2, adapted from M. Odlin, 2013) constraining this value chain, which disproportionately impacts fishers, regardless of vessel size, and port-based enterprises supporting the fleet.

Opportunities for intervention

Based on our assessments of the New England groundfish value chain; the needs expressed by fishers, port-based businesses and financial institutions; and the types of financing available, we identified eight opportunities for intervention that represent potential solutions to the systemic issues in the value chain, and that target specific factors in the negative feedback loop.

Among these eight opportunities, three thematic intervention areas were identified:

- Facilitate the transition to effective quota management at the fisher level.
- Streamline and enhance policies to build more efficient market structures and regulation.
- Support the development of new, innovative, early-stage development opportunities and the establishment of potentially scalable business models.

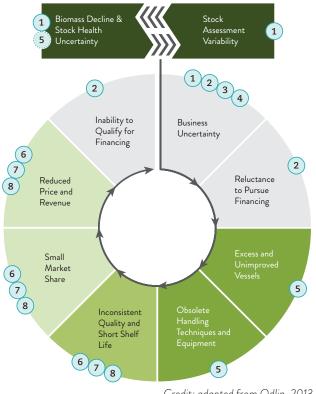
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Opportunity 1: Improve stock assessment methodology, with improved monitoring, through a collaboration with relevant stakeholders, from fishers to NOAA's National Marine Fisheries Service and the New England Fishery Management Council.

Opportunity 2: Promote transparent permit transfer and quota leasing mechanisms to enable fishers to more efficiently manage their business practices, and to facilitate financing institutions' efforts to collateralize permits or invest in the fishery.

- Opportunity 3: Recapitalize permit banks to improve access to affordable quota, increase landings, and raise revenues throughout the local value chain. An analysis of the various permit banks' capital structure, as well as the permit and quota leasing markets would be required in order to determine the optimum capital size and the expected cash flow from leasing operations.
- **Opportunity 4: Help fishers diversify** to generate smoother, more stable incomes over the short and the long term. Diversifying could take the form of continuing to fish, but targeting other, more abundant species; continuing to captain a vessel, but for purposes other than fishing; or pursuing a new career activity altogether.
- Opportunity 5: Improve gear and fish handling, and reinvest in vessels to increase fuel efficiency, species selectivity, and fish quality while reducing environmental impacts. Appropriately structured risk mitigation mechanisms—such as irrevocable letters of credit, guarantees, loan loss reserve provisions, and insurance optionscould put these changes within reach.
- **Opportunity 6: Support market development and differentiation** to help fishers garner better, more stable prices. If accompanied by increased quality, then branded, storied fish could gain competitive advantage and help shift demand back to local fisheries.
- **Opportunity 7: Facilitate forward contracting marketplaces** to enable fishers to plan their catches based on market demand from seafood buyers, targeting certain species at prearranged prices. The price stability offered means fishers know their margins and can decide when to fish, how long to fish, what to catch, and when and how much quota to lease-in before leaving the dock.



Credit: adapted from Odlin, 2013

Opportunity 8: Build business ecosystems of value-chain players involved in the fishery and convene them around embracing forward contracts, securing a differentiated market for local fish, creating a market for underutilized species, and so on.

Next steps

Given the diversity of the challenges and capabilities of particular fishers, sectors, and ports, we do not expect that every opportunity area will be feasible for every entity involved in the fishery. Rather, they are starting points for dialog and for the development of solutions that can be customized to meet specific needs and circumstances. Already there are examples of successful initiatives in the region, and those are in need of support and scaling. However, to create system-wide change, it is necessary to intervene at multiple levels in the value chain simultaneously. As they stand, the opportunity areas require further refinement – potentially through stakeholder convenings and pilot programs – before full pursuit. Once tested, if the opportunities are to move from proof-of-concept to established business models capable of scaling (and thereby attracting private capital, as has occurred in other markets), they will require grant support. While the outcomes of the opportunity areas presented will be affected by the future status of groundfish stocks, they offer systemic resolutions that will only be magnified in a recovery. Thus, efforts should be made to engage relevant parties proactively in the interim.