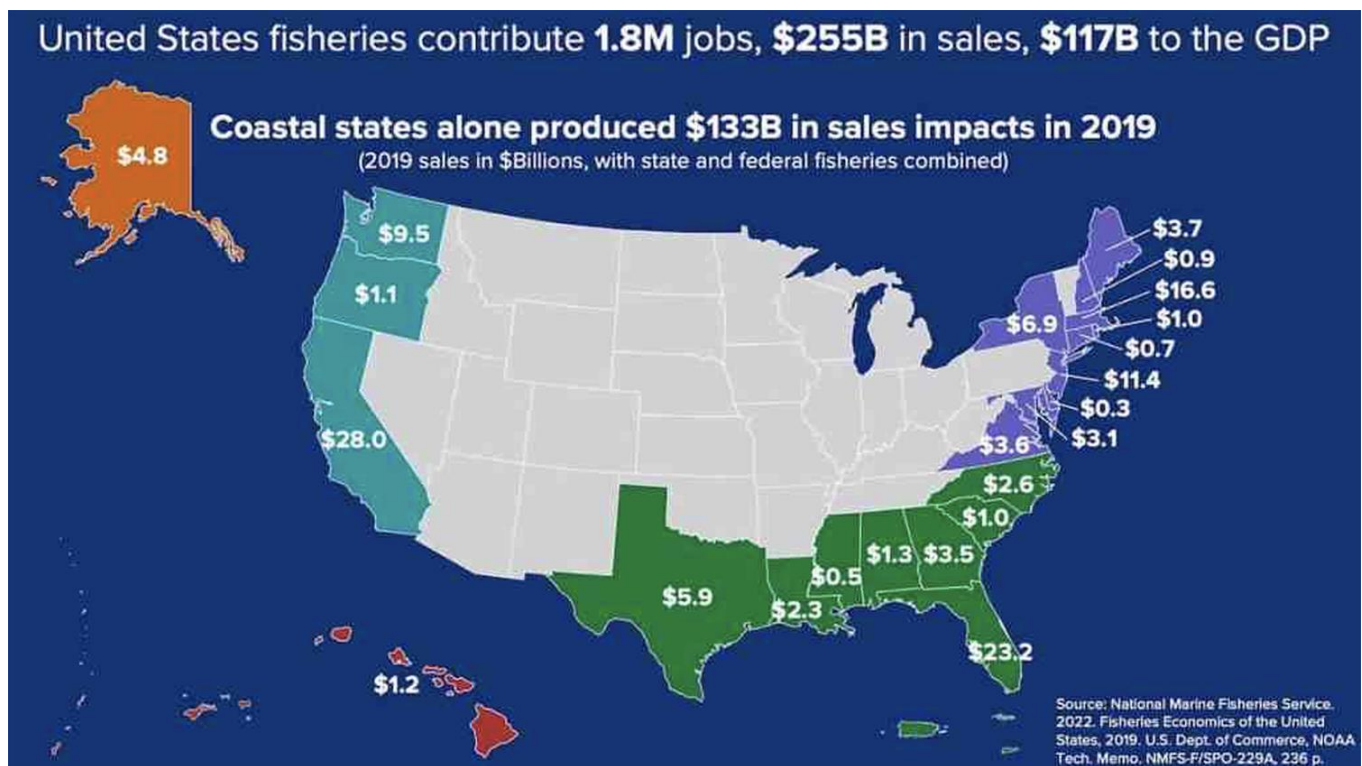


## Introduction

Commercial fishing is a cornerstone of the U.S. economy, contributing billions of dollars annually and supporting millions of jobs at both national and local levels. In 2022, U.S. commercial fisheries harvested over 8.3 billion pounds of seafood valued at \$5.9 billion. The industry generated an additional \$183.4 billion in sales, \$47.2 billion in income, and \$74 billion in value-added impacts, supporting 1.6 million jobs across the broader economy. Sustaining this critical industry requires balancing economic growth with environmental sustainability.

This paper builds upon the findings of the previous report, which examined the economic and operational state of U.S. fisheries, by summarizing key data and focusing on actionable strategies. It highlights the need to measure the long-term benefits of supporting small-scale domestic fisheries to reduce reliance on unsustainable sources and prevent complacency. Furthermore, it addresses the major challenges facing U.S. fisheries, including navigating regulations, securing access to capital, and adapting to market dynamics. The report also explores potential solutions such as risk pooling, accounting reforms, public-private partnerships, and the establishment of community development corporations to support sustainable practices and economic resilience.



*U.S. fisheries provide important economic benefits in every coastal state. Credit: Global seafood Alliance.*

### Opportunity 1: Create a Risk Pool

Access to capital is a binding constraint on individual fishers and on their communities because vessels, permits, and quotas cannot be easily pledged as collateral. Banks are unfamiliar with these assets and lack mechanisms to value or sell them during credit events. Thus, bankers must be educated about

fisheries across the U.S. and bankers need a mechanism to both issue loans by valuing collateral, ways to de-risk loans and de-risk loan portfolios.

*Note: Individual fishing quotas are a federal permit under a limited access system to harvest a quantity of fish, expressed by a unit or units representing a percentage of the total allowable catch of a fishery that may be received or held for exclusive use by a person*

Within this opportunity is the recommendation to support public / private partnerships to support small-scale fisheries. Public/private partnerships between local banks and state governments can help small fisheries grow by offering loan guarantees, training for banks, and showing how fisheries support local economies.

### **Opportunity 2: Clarify Financial Accounting Rules for Fisheries**

Fisheries lack standardized financial accounting systems, making it difficult to value fisheries or establish credit histories. This creates challenges for fishers seeking to use forward or futures contracts.

IAS 41 addresses accounting in agriculture but specifically exclude fisheries. It is not necessary to wait ten years or more for formal guidance from the accounting regulators; what is needed is a simple guidance document or term sheet to increase transparency and standardize financial information. For additional information see [Thoumi and Roper \(2020\)](#).

### **Opportunity 3: Establish National Community Development Corporations**

A non-profit organization, such as a Community Development Corporation (CDC), created to support communities, which is not a government agency but may receive government funding and include government representation in its governing body. This CDC could employ accounting practices to align social and ecological performance, effectively driving an integrated approach. Besides CDCs, bioregional financial institutions can help support local fisheries.

### **Opportunity 4: Markets and Pricing**

The absence of price transparency also distorts markets by creating a power asymmetry between buyers and sellers, resulting in a lack of agency for fishers in the marketplace. Consequently, fishers are price takers, not price makers.

- Further study of the constraints to market forecasting for wild caught fisheries may reveal remedies to price in-transparency.
- A comprehensive trade analysis with the goal of providing a better understanding of who bears risk in fisheries based on transactions, would reveal implicit and explicit trading costs
- Options could be explored to produce an algorithm to predict prices based upon past prices and a range of variables that could affect production.
- The Chicago Mercantile Exchange could potentially offer mini contracts as they do with some agricultural products.

## Survey Questions and Replies

The next session lists the survey questions poised to fishers across the four fisheries surveyed, and their responses.

### What drivers of economic choice are at play in target communities?

The principal drivers of economic choice at play in target fisheries are regulation, access to capital, and access to markets.

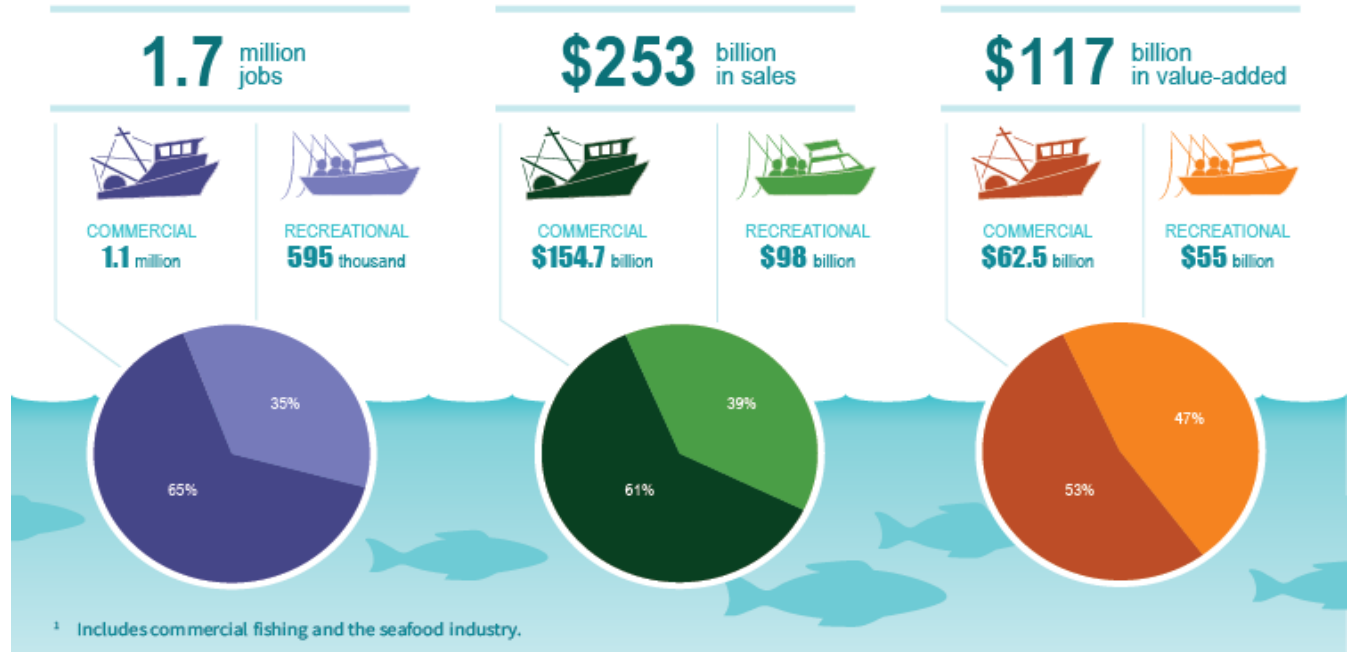
A big challenge for small-scale fisheries is the lack of clear data on long-term benefits, which makes it difficult for them to compete with larger companies and imports

### What factors affect financial choice?

- **Government regulation:** Where sector-based management is practiced, fishers can choose to join a sector or participate in the common pool fishery. Regulation limits choice about which fishery to participate in.
- **financial literacy.** Fishers require a robust business plan, as well as detailed knowledge and access to professional advice on finance, including tax planning. Some fishers are, for example, unaware of the capital gains tax that they face if and when they sell their quota.
- **Adaptability:** Financially successful fishers are on the whole more willing to take risks, and to make changes (e.g., in choice of target species and gear), than are unsuccessful fishermen.
- **Seniority:** Those on the “ground floor” of an IFQ received a quota at no cost, which has appreciated significantly, putting newer entrants at a significant disadvantage with fewer financial options.
- **Social capital:** Trust is problematic for fishers because fishing is a highly competitive and somewhat solitary career. Trust affects decisions about how to participate in a fishery, including deciding whether or not to join a sector, relationships with buyers and processors, and the decisions about collective action.
- **Bridging institutions:** Mitigate constraints imposed by regulation through technical assistance or through alternatives when quota is unavailable (i.e., permit banks). Programs like the Young Fishermen’s Development Act aims to improve the capacity of fishermen to navigate complex regulatory environments, including tax laws.

U.S. COMMERCIAL<sup>1</sup> AND RECREATIONAL FISHERIES

## Economic Impacts, 2020



U.S. Commercial and Recreational Fisheries Economic Impacts, 2020 Credit: NOAA Fisheries

### How receptive are the target beneficiaries to the sustainability goals of the Foundation?

- Participants in the permit bank programs agree, in terms of participation, to abide by sustainability goals consistent with those of the Foundation. Fishers frequently expressed the wish for better science and more agile application of science to fisheries management.

### What is the relationship between sustainability and access to finance?

- There is no sustainability premium, so there is not the financial incentive for taking fewer fish or taking fish more carefully. Access to finance can improve sustainability in the right circumstances, by for example allowing fishers to purchase more selective gear or more efficient boats, but this can only be the case when the market signals support the additional costs.

### What financial options are available to the target beneficiaries?

- Financial options are limited. The inability to collateralize assets is the main reason for this. Banks, it was broadly argued in our interviews, do not understand fisheries. They would not know what to do with assets that they could end up holding. This was not always a problem; earlier generations of bankers worked closely with fishermen, but as the relative economic importance

of fishing has declined, bankers have not prioritized understanding fisheries. Older bankers more familiar with the industry are retiring, and new ones lack exposure to it.

### **Are the tools designed sub-optimally for uptake?**

- The constraint of the permit banks is capital to buy permits and quota as they come available. As fishers retire or cash out of the industry, they put their assets on the market. Since permits are limited, they do not stay on the market long. Liquidity determines who can buy the permit. Unless permit banks have a line of credit or cash on hand, they may miss opportunities to capture catch-share quota for the community.

### **Do the financial opportunities promoted by the Foundation fit inside existing Small Business Administration (SBA) and similar national and state/regional lending authorities' business lending models?**

- The financial opportunities promoted by the Foundation do not fit into any identified governmental model.

### **Can single paperwork be used for multiple loan granting programs (e.g., SBA, the Foundation, etc.)?**

- The dearth of loan programs means that there is not a critical mass of financial instruments that could benefit from a single paperwork approach.

### **Do loan criteria match certification criteria for sustainable fishing certifications (e.g., Marine Stewardship Council, corporate buyer criteria, corporate buyer ESG policies, etc.)?**

- No existing loan programs with sustainability certification criteria were identified in the USA.

### **What are the unmet financial needs of vessel owners/operators?**

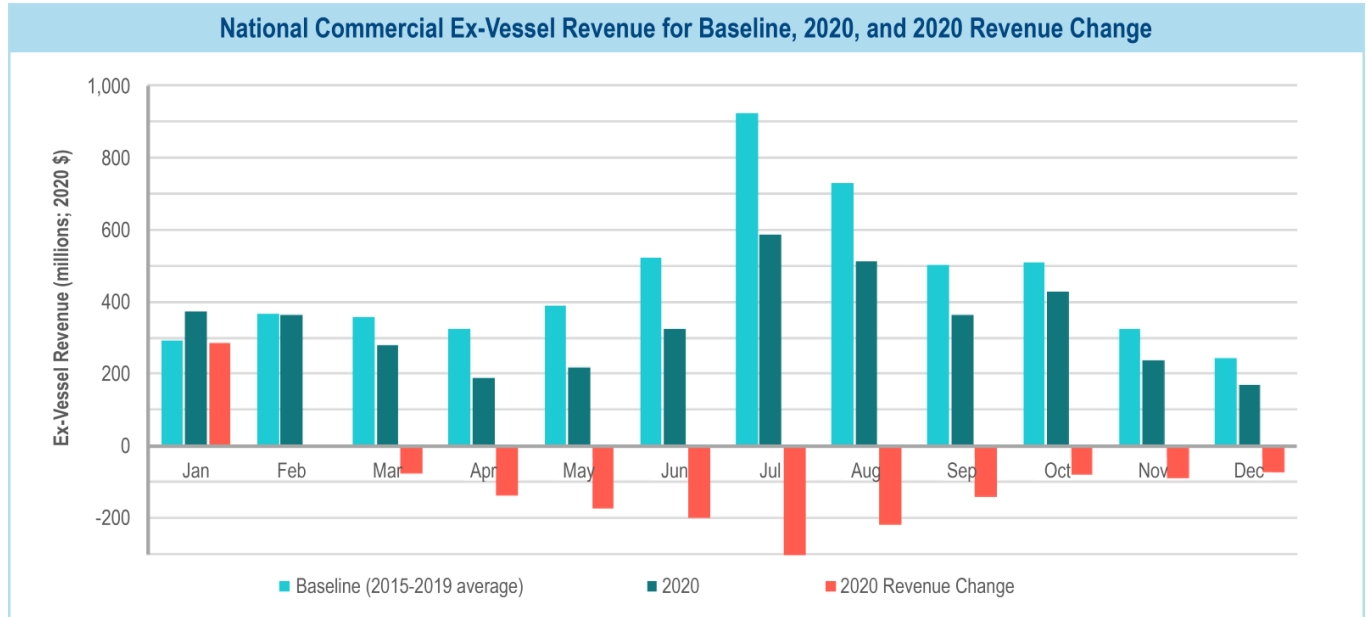
- Access to loans.
- Access to affordable insurance.
- Access to predictable markets.
- Assistance with the costs of changing gear for new regulations or to enter into new fisheries.
- Premium for biological and cultural sustainability.

### **Are proposed interventions accretive to revenue while increasing risk mitigation?**

- Proposed interventions discussed can increase risk mitigation, except as far as improved access to capital heats the permit market, producing risks to fishers due to the high costs of quota. The burden for fisheries is the inability to fish due to lack of quota, on the one hand, and the pricing of the quota on the other.

### How do the target beneficiaries approach financial risk and opportunity?

- Most successful fishers have a business plan or seek help to develop one. They manage their businesses effectively, and to the extent possible, quantify financial risk and opportunity.



2020 National Commercial Ex-Vessel Revenue Change. Credit: NOAA Fisheries.

### What criteria do they use in making financial decisions (e.g., terms of a loan, size of a loan, duration of a loan, guarantees or collateral required, form in which funding is received)?

- Most indicated that the risking price of quota has stretched the payback period from 6 to 7 years to 10 to 12 years. Rising interest rates are a compounding factor.

### What financial options are commonly available to the target beneficiaries?

- The only identified options are loans (when they get them) and leases of quota.

### How does the length of loan fisheries forecast and trends?

- There are no forecasts of prices for a variety of factors. The first is the decentralization of the market for buying fish, and lack of uniform infrastructure, meaning that there is no easy method of comparing or monitoring prices. Long term projections of value from a fishery are non-existent, and the payback period is increasing. These factors contribute to the unbankability of fishing.

### What collateral might be required for participation in a financial solution?

This could take different forms:

- Government loan guarantees.
- A blended finance approach
- A bond program.

Examples of collateral could include:

- Business assets: Vessel, permit, and / or quota valuation after addressing depreciation.
- Business assets: On-shore capital such as docks, sheds, and storage facilities.
- Personal assets: In a last resort, and not recommended, personal mortgage.

### **What are the major obstacles to access to finance?**

- All of these are obstacles, but the binding constraint is the fact that the major asset of a fisher is “tied” capital that cannot be used for collateral. That is the permit and quota.

### **At which breakeven point or price point does a sustainability-linked loan become profitable for the fisher?**

- A breakeven point is impossible to predict without better market intelligence.

### **Are there “soft prepayment” terms in the loan in case equipment is sold and the borrower does not then face a penalty for prepaying?**

- We found no evidence of such terms, but we did not do an exhaustive survey.

### **Does a secondary market exist for “sustainable equipment” so if the equipment is underutilized due to declining fishery, fishers can sell equipment to pay off the loan?**

- There is a secondary market for equipment, but sustainable equipment does not exist as an asset class.

### **Does a sustainability loan improve corporate buyer interest of harvested fish, long-term contracts, or fisher’s margins?**

- This is untestable without concrete sustainability loans. We did hear that a consistent, high level of catch will build a market though – potentially increasing demand and price.

### **How do the target beneficiaries approach financial risk and opportunity?**

- Interviews revealed that most fishers are sophisticated in their financial decision making. They are not risk averse, but they are careful in evaluating the risks and benefits of financial choices.

### **Which transition risks could affect the creditworthiness of the target beneficiaries?**



- Policy and legal risks, including quota fluctuations
- Technology risks include the growth of lab-grown fish replacement products
- Market risks include the inability to obtain transparent near-term prices (e.g., one week, two weeks, etc.).
- Reputational risks include consumer preference changes, impact of NGOs on labeling of fisheries “sustainable or unsustainable.”
- Acute and chronic climate risks, with substantial risks of stranded assets due to displacement of fish stocks (resulting in the wrong combination of vessels and permits to respond to the changes in the fisheries).

### **How do preferences compare demographically?**

- Fishers approaching retirement typically received an initial quota when IFQs were introduced, at no cost. Fishers entering the fishery face much more risk due to high debt loads or capital outlays, which require greater financial acumen.

### **Does the target beneficiary have a preferred lending institution?**

- Preferences vary by region. National financial institutions for the Gulf Coast and New England fisheries, and state-level First Nations or regional financial institutions in the Alaska fisheries. In either case, fishers preferred efficient and effective financial institutions.

### **How do psychographic factors influence choice? What is the role of peer pressure?**

- In some cases, especially in the Cape and Islands, there is a close-knit fishing community. This reflects in preference for small-scale fisheries where the benefits of the fishery are not purely financial, but are also important to community self-identity and heritage

### **Are borrowing decisions made individually, by the family, by the fishing co-op, etc.?**

- Borrowing decisions are made individually, and most frequently within the family.

### **Do the target beneficiaries demonstrate loss aversion in their capital budgeting processes?**

- Most fishers interviewed were mindful of unexpected expenses due to equipment failure or loss and budgeted for replacement.

### **Do the target beneficiaries demonstrate herding behavior?**

- This happens in the choice of gear and target fishery. When conventional wisdom changed, they would exit a fishery because it had become overcrowded with belated entrants attracted by their success. This is exacerbated by a lag in regulation, which manifests as a management measure to solve a problem after it occurs, rather than prevent it in the first place.



**Do the target beneficiaries have a resistance to the proposed sustainable fishing technology?**

- There is strong resistance to “ropeless” fishing in the lobster industry in Maine. Great care will need to be taken in introducing such mandates, including the consideration of options such as compensation for losses and financial support for transition.