

### THE CHALLENGE: Local fishermen locked out of sustainable markets

Fishery resources serve as an essential source of direct employment (for 41 million people), sustenance (with over 1 billion people dependent on fish as their primary source of protein), and environmental capital for populations across the globe.<sup>i</sup> However for decades, fully and overexploited fish stocks have resulted in an estimated \$50 billion in lost annual economic output,<sup>ii</sup> and significantly disrupted the carbon capture capabilities of aquatic ecosystems, thereby exacerbating climate change impacts.<sup>iii</sup> As a burgeoning global middle class – which will double in size from 2 billion today to nearly 5 billion in 2030<sup>iv</sup> – puts additional upward pressure on per capita protein demand and as climate-change-driven ocean acidification threatens already fragile global fishery resources,<sup>v</sup> it is more important than ever for human harvesting of fishery resources to become more productive and sustainable.

In response, some governments have instituted catch share allotments – which dedicate a secure share of fish to individual fishermen, cooperatives, or fishing communities for their exclusive use – to help eliminate overfishing, produce more fish at lower costs, improve fishermen safety and profits, and reduce negative environmental externalities. However in the process, too many small, local fishermen have lost out in the catch share awarding process due to two primary obstacles:

- **Size and Methods:** Because they often do not use environmentally destructive trawlers (unlike their industrial competitors), they pull in too little annual catch to be eligible for initial allocations.
- **Access to Capital:** Given their relatively low incomes, they lack access to capital to scale their operations, purchase allotments on the secondary market, and invest in fishery improvement projects (to increase both the yield and price point of catch).

As a result, many small fishermen have lost their livelihoods:

- Currently in the United States, the average hourly wage for fishermen ranges from \$9/hour to \$20/hour with annual average salary of \$30,200.<sup>vi</sup>
- In the two years after the inception of New England’s catch shares, the total number of active vessels decreased by 25%, with over **85% of ground fish revenues accumulating in the hands of just 20 percent of vessel owners.**<sup>vii</sup>
- Going forward, the Bureau of Labor Statistics projects the demand for fishermen will decline 6 percent over the course of this decade (2010-2020) in the United States.

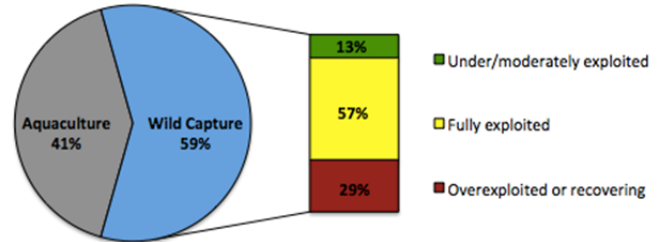
### PROMISING MARKET OPPORTUNITY

- **Current Size:** The existing US market for wild catch seafood is estimated at over \$6b annually.<sup>viii</sup>
- **Going Forward:** Demand for protein projected to increase over 74% over the next 30 years, but wild caught supply – absent a sustainable fishery revolution – is projected to grow by just 25%.<sup>ix</sup>
- **Demand for Sustainability:** In 2011, 72% of seafood processors reported increased requests for sustainably sourced products.<sup>x</sup>
- **Catalyze Investment in Sustainable Food Processing and Distribution:** Processing represents an additional \$74b of value in Wild Catch Seafood market, of which \$13.5b is US based. **One major issue facing potential investors is high costs of Fishery Improvement Projects.**<sup>xi</sup>
- **Scalability:** Given the size of the existing global wild catch seafood market (\$94b) and increasing demand and constrained supply of sustainable seafood, the **opportunity to scale an initial US-based solution is vast and the global opportunity is even larger.**

#### Wild Catch Seafood Market Revenue



### Sustainability Status Global Wild Fisheries



### THE SOLUTION: Local fishermen, sustainable practices, market power

There is a significant value creation opportunity within the underserved population of small-scale US-based fisheries by investing in catch share allotments (CSA) and Fishery Improvement Projects (FIP) to attain Marine Stewardship Council (“MSC”) sustainable designation. These investments will:

- Allow small-scale local fishermen to access the catch-share market.
- Support local fishermen access to increasingly large and valuable sustainable seafood markets by making access to capital contingent on their adoption of more sustainable fishery practices.
- Greatly improve pricing power of smaller fishery communities by providing ancillary support for investment opportunities in local sustainable processing and distribution plants.
- Increase both the top-line revenue (through increasing access to premium-priced sustainable seafood markets) and margins (through increased market size and pricing power) of local fishermen.
- As small-scale fishermen (who rely less on destructive trawl nets than their industrial competitors) reestablish their position in the market, by-catch waste – seafood that is discarded because it is already unwanted or already dead when caught – will be significantly reduced.

### FINANCIAL INSTRUMENT DESCRIPTOR

Our solution creates loan opportunities to benefit small-scale fishermen within a specific fishery community. Given that catch share allotments are the only initial collateral for these loans, group lending is essential to de-risk the portfolio.

### LOAN PORTFOLIO

- **Loan amounts will range from \$1.5mm to \$15mm** based on the size of the fishery and the scope of the Fishery Improvement Projects required to meet Marine Stewardship Council (MSC) guidelines.
- We will strive to diversify our loan portfolio by lending to Pacific, Atlantic and Gulf Coast community fisheries of varying sizes. **We are aiming for 10-25 loans in our first portfolio, accounting for \$100mm in total invested assets at closing.**
- Our investment vehicle will purchase this pool of loans; **the initial term of these loans will be 4-6 years with a reinvestment period of 4 years.**
- Once the reinvestment period is over, all principal proceeds received will be used to pay down debt investors. The residual cash flows are discussed on the following page.
- We will provide additional security to debt investors by creating interest coverage (“IC”) test and overcollateralization (“OC”) tests that be conducted before each payment period. These tests will restrict residual cash flows beyond the note holders in the event that interest cash flows or loan performance deteriorates below an acceptable level.

## USE OF FUNDS

The loans will be made to an NGO on behalf of a specific fishery community. The NGOs will use the funds in two ways:

- Funds will be used to purchase catch share allotments.
- NGOs will provide funds necessary for fishery improvement projects to attain MSC sustainability certification.

The NGOs and fisheries will have aligned interests, both contractually and through residual cash flows.

## CASH FLOWS

- Interest payments and income based repayment (5-10%) once profitability is attained.
- Targeting interest rates of 5-8%** depending on the size of the fishery, potential increase for income, and scope of the fishery improvement projects required.

## CREDIT ENHANCEMENT

- The first transaction will require a credit enhancement grant from a foundation, which we see as a logical next step to furthering the sustainable fishery agendas of a number of large, thought leading foundations, such as the **Bloomberg Foundation**, which recently provided \$50mm+ in research funding for two NGOs and an asset management firm.

## COST AND FEES

- Total senior fees will be 150-200bps per annum, including: trustee fees of 50bps per annum (which will be senior to all other cash flows) and senior fees of 100-150bps per annum to contracted NGOs (for administrative purposes; incentive management payments based on residual cash flows).
- Underwriting fees will be 3% of total capital raised, paid upon closing.
- The Underwriter will also have the unique opportunity to earn revenue based on the secondary trading of this deal and future securitizations.

## PRICING CONSIDERATIONS & RESIDUAL CASH FLOWS

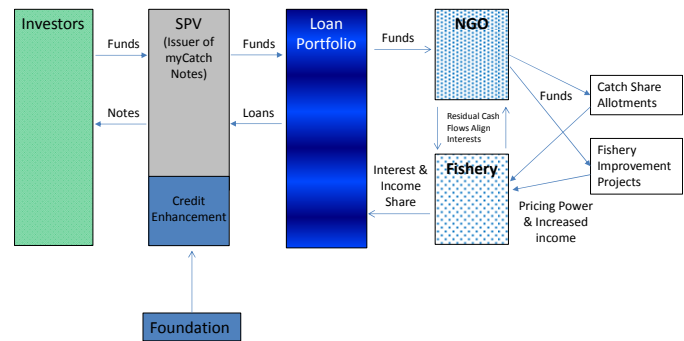
- In our first securitization, we pass through all interest and income based repayments, after senior fees, to debt investors, capped at a 10-12% return with residual cash flows being split between participating NGOs as incentive management payments and the community fishery.
- As we establish a track record of success, we anticipate that pricing on the debt tranches will fall considerably, especially as these structures eventually become rated and more broadly distributed across institutional investors.

## DEBT INVESTORS

- Our first structure will be conservative with significant credit enhancement for debt investors because of the lack of collateral available for security purposes. We are estimating default rates of 5% per annum, beginning in year 3, with a recovery of 20%. Based on these assumptions, the debt tranche will represent the senior 65-70% of the portfolio.
- Once we build up sufficient historical data, we believe that there will be the opportunities to have tranches rated, which will further increase the investor base to include a broad range of institutional investors including banks, insurance companies and ratings restricted foundations, endowments and pension funds.

Risk	Mitigation Strategy
Lack of borrower collateral	Credit enhancement grant from Foundation in the initial securitization
Default risk	Interest coverage and overcollateralization tests conducted before each payment period to restrict payment beyond the note holders in the event of that interest or loan performance deteriorates below an acceptable level
NGO management capacity	Selection of and performance-based compensation to mission-driven, credible, and competent organizations (e.g., Oceana, RARE, The Nature Conservancy)

# myCatch Investment Vehicle



## EXPANSION OPPORTUNITIES

### International Markets

- From the United States, myCatch can easily and immediately be scaled to countries (Canada, New Zealand, and Australia) with similarly secure property rights, familiar policy regime, and existing, robust catch share schemes.
- In the next five to ten years, myCatch will be able to expand to Northern Europe, Japan, parts of South America (especially Peru, Chile, and Argentina) and various regional fishery management organizations, as they adopt (as is expected) more robust catch share schemes.

### New Types of Capital - Equity Investors

- Many structured investments in the social impact space, including Social Impact Bonds, heavily rely on credit enhancement provided at no charge from Endowments and Foundations. While this credit enhancement grant will play an important role in this initial securitization, **we believe that creating investor interest in the equity tranche is crucial to the success and scalability of this project.**
- As debt pricing tightens, residual cash flows will become more appealing on a risk-adjusted basis, thus allowing us to raising additional capital in the form of an equity tranche (likely to require 15-18% IRRs).
- By opening this investment vehicle to the equity portfolios of Impact Investing firms, **we can unlock new base of capital that is directly aligned with the NGOs and fisheries** as equity investors will, in effect, be paid based on the success of the programs put in place by the NGOs. Once these NGOs have established a track record, this equity investment will be compelling to a broader investor base, including those not specifically focused on impact investments.

## THE IMPACT: Resilient fisheries and communities

### Economic

- Growth (industry-driven GDP): If adopted globally, sustainable fishing practices result in an annual increase in GDP of \$37-\$67 billion.
- Employment (number of industry-dependent jobs): Saving thousands of fishermen jobs annually just in the United States and creation of new jobs in primary and secondary industries

### Social

- Food Security (share of seafood in protein consumption mix): Sustainable and secure source of protein for growing middle class.
- Economically Resilient Communities (average salaries and number of work-related accidents): Increase in number, stability, safety, and salary of fishery-related employment opportunities.

### Environmental

- Climate Change Mitigation (avoided CO<sub>2</sub><sup>e</sup> emissions; MSC rating): Sustainable fishing practices reduce carbon emissions from water vessels and augment the carbon sequestration capabilities of marine ecosystems.
- Biodiversity Preservation (pounds of avoided by-catch; MSC rating): Preventing the overexploitation of fish stocks will protect marine species from the threat of extinction.

**References:** i/ii) <http://siteresources.worldbank.org/EXTARD/Resources/336681-1224775570533/SunkenBillionsFinal.pdf>, iii) <http://thinkprogress.org/romm/2011/12/09/385855/blue-carbon-oceans-in-climate-change/#>, iv) [http://www.oecdobserver.org/news/fullstory.php/aid/3681/An\\_emerging\\_middle\\_class.html](http://www.oecdobserver.org/news/fullstory.php/aid/3681/An_emerging_middle_class.html), v) <http://www.scientificamerican.com/article/ocean-acidification-threatens-global-fisheries/>, vi) <http://work.chron.com/average-salary-deep-sea-fisherman-4861.html>, vii) <http://nefsc.noaa.gov/publications/crd/crd1230/crd1230.pdf>, viii) <http://clients1.ibisworld.com/reports/us/industry/ata glance.aspx?entid=81>, ix/x/xi) <http://www.mantaconsultinginc.com/wp-content/uploads/Manta-BriefingPaper1.pdf>.