

A BUSINESS CASE TO INCENTIVIZE A REDUCTION IN BILLFISH MORTALITY

Investing in Grenada's Yellowfin Tuna Exports



Drivers of Increased Value

- **Improving stock health** — leads to a more abundant resource that supports higher long-term yields and makes fish less costly to find and to catch
- **Increasing operational efficiency** — reduces the cost of fishing and delivering fish through the supply chain, improving profit margins and thus improving the returns from fishing as a whole
- **Increasing market value** — through improved market access, certification, branding and long-term partnerships returns more value to fishers



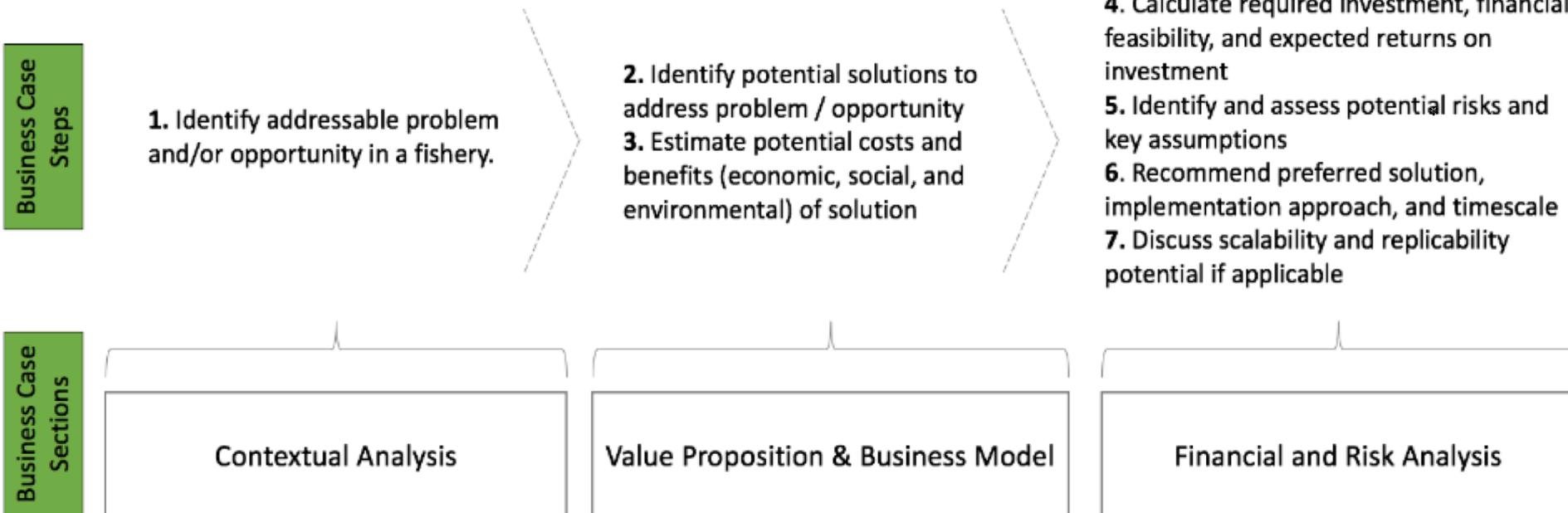
Holmes, L., Strauss, C. K., de Vos, K., Bonzon, K. (2014). Towards investment in sustainable fisheries: A framework for financing the transition. Environmental Defense Fund and The Prince of Wales's International Sustainability Unit.

Key Requirements for Transition

- ❑ **A clear business case for the transition**
- ❑ **Investable entities**
- ❑ **Mechanisms for capturing return**
- ❑ **Risk management**

Minimum Criteria & Business Case Sections

Fishery business cases should describe an attractive business opportunity for investment that inherently improves the environmental, economic and/or social performance of the fishery.



**Note that the business cases should describe a clear potential to generate acceptable financial, environmental and social returns over the project time horizon, including mechanisms for generating project cash flows and capturing investment returns*

DISCLAIMER

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CIA, <http://www.lib.utexas.edu/maps/americas.html>

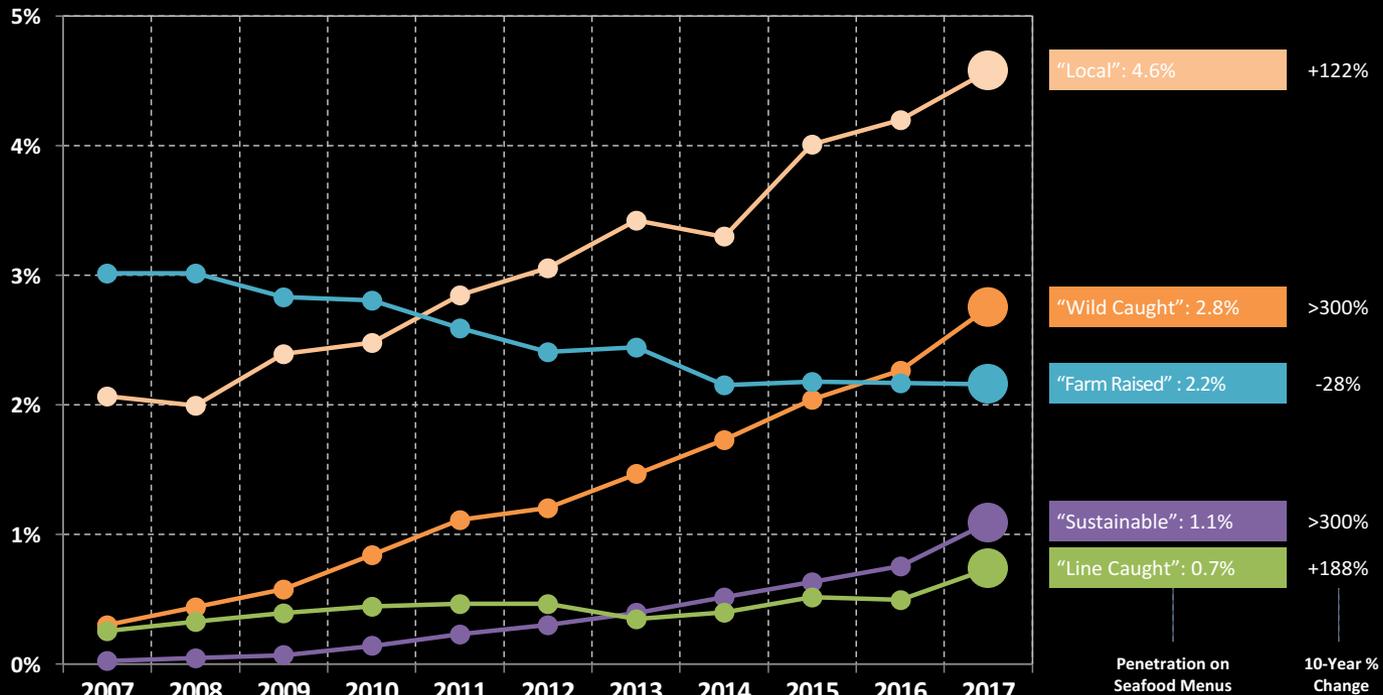


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Key US Consumer Market Dynamics

Wild Caught, Sustainable and Line Caught are the fastest growing terms used on menus to describe fish quality, but are not yet commonly used.

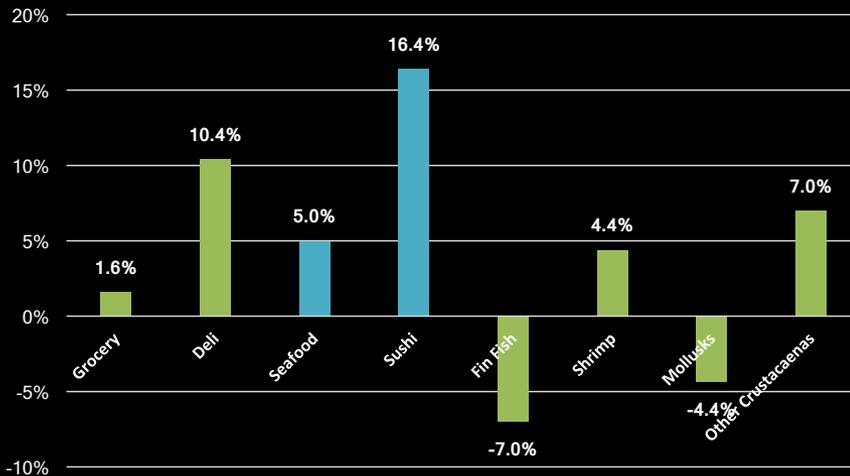
Seafood Sustainability Term Menu Penetration Time Trend



Value now increasingly created by the use of small amounts of whole muscle fish and seafood, mostly in raw, seared and cured formats.

Grocery Annual Growth, Overall and Select Categories

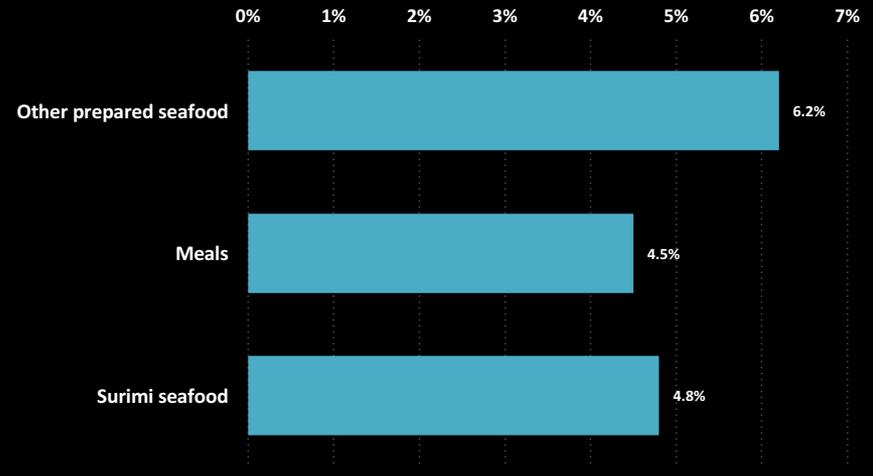
US Dollar Sales Change YoY 2015-16



Sales of Seafood are increasing faster than overall grocery sales, with Sushi driving growth. Traditional fin fish sales are declining substantially.

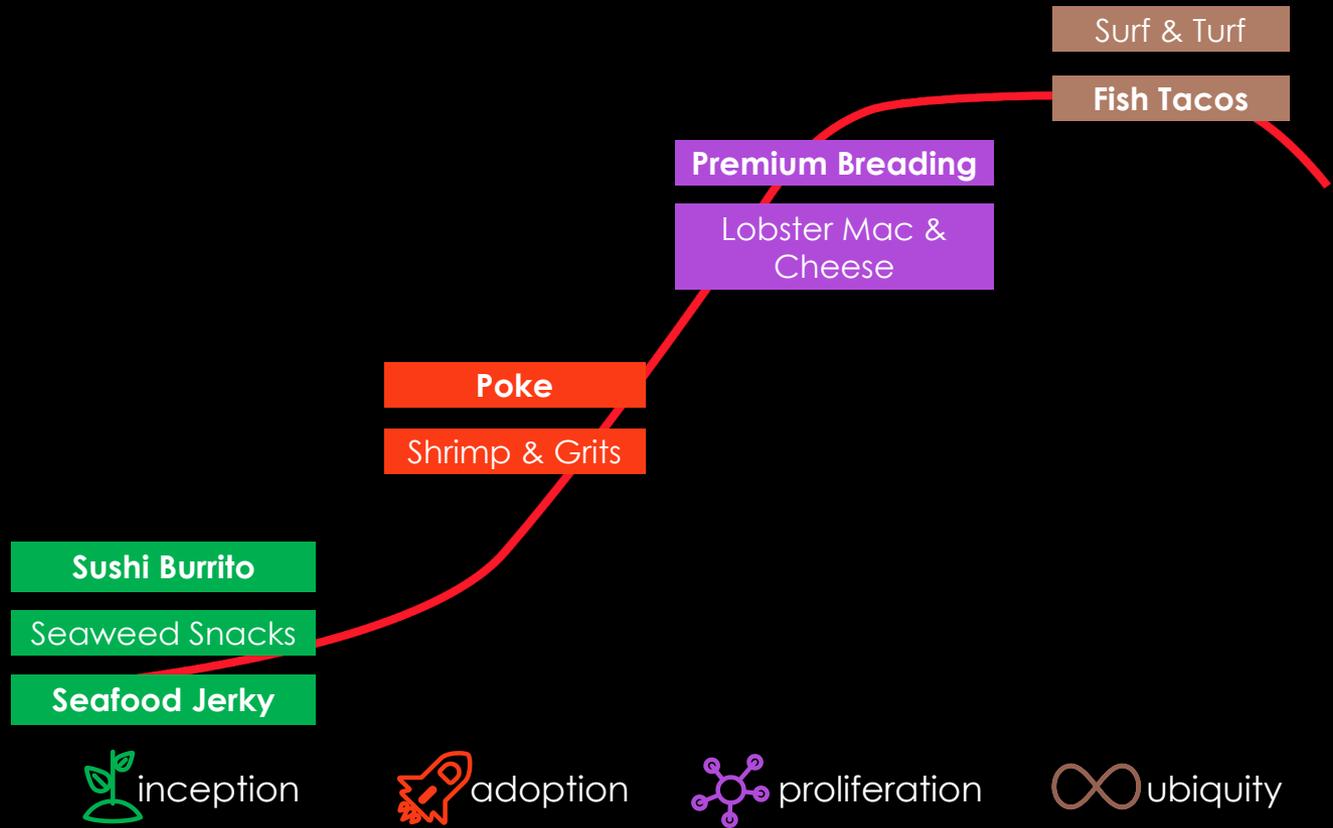
Grocery Fish Counter Sales Change, Select Items

US Dollar Sales Change YoY 2015-2016



In Grocery Fish Cases, items containing relatively small amounts of fish are growing rapidly, driving overall growth while traditional finfish sales decline.

Newer and Increasingly Popular Fish and Seafood Preparations favor the use of fresh and frozen whole muscle tuna.



 inception

 adoption

 proliferation

 ubiquity

Seafood Megatrends | Menu Adoption Cycle

SUSHI BURRITO

XXL sushi roll designed to be portable and eminently photogenic

5% of operators who menu fish currently offer*

42% of consumers are familiar; 21% love

Though recipes vary, this Instagram darling usually contains rice, raw fish, and a number of other trendy ingredients wrapped in seaweed.



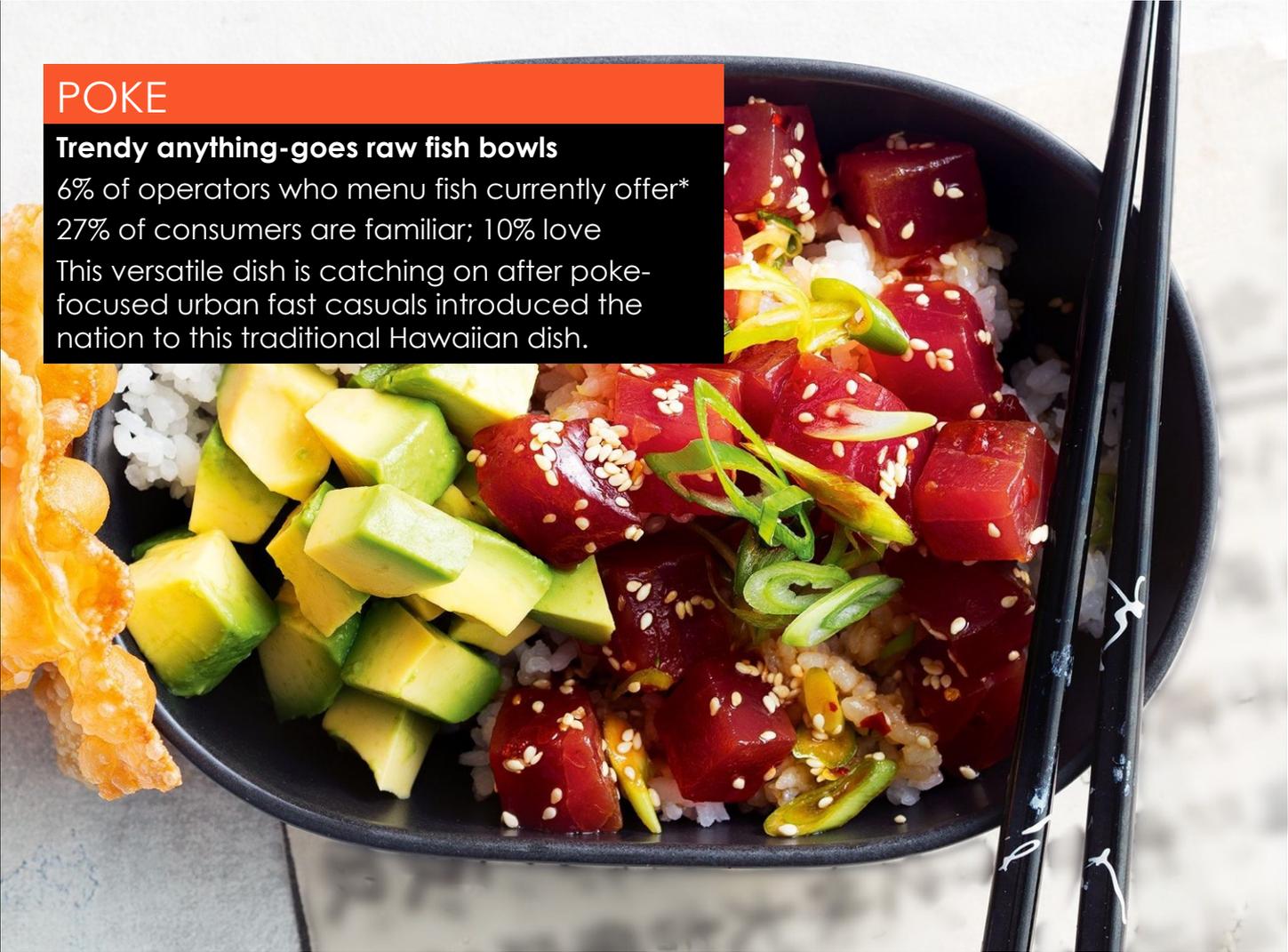
POKE

Trendy anything-goes raw fish bowls

6% of operators who menu fish currently offer*

27% of consumers are familiar; 10% love

This versatile dish is catching on after poke-focused urban fast casuals introduced the nation to this traditional Hawaiian dish.



Improving the Sustainability of Grenada Tuna and Billfish Fisheries

AREA

Grenada Exclusive Economic Zone (EEZ) — 26,000km²

FISHERY

Yellowfin tuna longline fleet

CONSERVATION IMPACT

Reduce mortality of blue and white marlin
Improve fisheries management
Support MPAs

SOCIAL IMPACT

Increase incomes for up to 500 fishers

PROBLEM

- Lack of financial and social incentives to reduce threatened billfish mortality drives overfishing
- Poor Yellow Fin Tuna values at the harvester level are incentivizing the increased mortality of blue and white marlin.
- Poor data impacts ICATT national commitments and quota

Grenada Pilot – implementing a scalable model

AREA

Grenada Exclusive Economic Zone (EEZ) — 26,000km²

FISHERY

Yellowfin tuna longline fleet

PROPOSED INVESTMENT

US \$362,500

INVESTMENT TERM

5 years

INTEREST RATE

7%

ROYALTY RATE

1% of export value

EXPECTED FINANCIAL RETURNS

28% internal rate of return

INVESTMENT OPPORTUNITY

Investment in an industry supported special purpose vehicle to improve the export value of sustainably sourced headed and gutted yellowfin tuna landed by small-scale longline commercial fishers.

Support sustainable and profitable tuna fishing in Grenada while cost effectively reducing fishing mortality of blue marlin and white marlin, helping to protect these threatened billfishes from further overfishing.

CONSERVATION IMPACT

Reduce mortality of blue and white marlin
Improved fisheries data
Improved fisheries management

SOCIAL IMPACT

Increase incomes for up to 500 fishers

Financial analysis - Grenada

Proposed Investment: US \$362,500

Fishery management

- \$50,000 Fishery Improvement Project (FIP)

Data

- \$100,000 Vessel Monitoring System (VMS)
- \$37,500 to install VMS systems on 150 participating vessels

Infrastructure

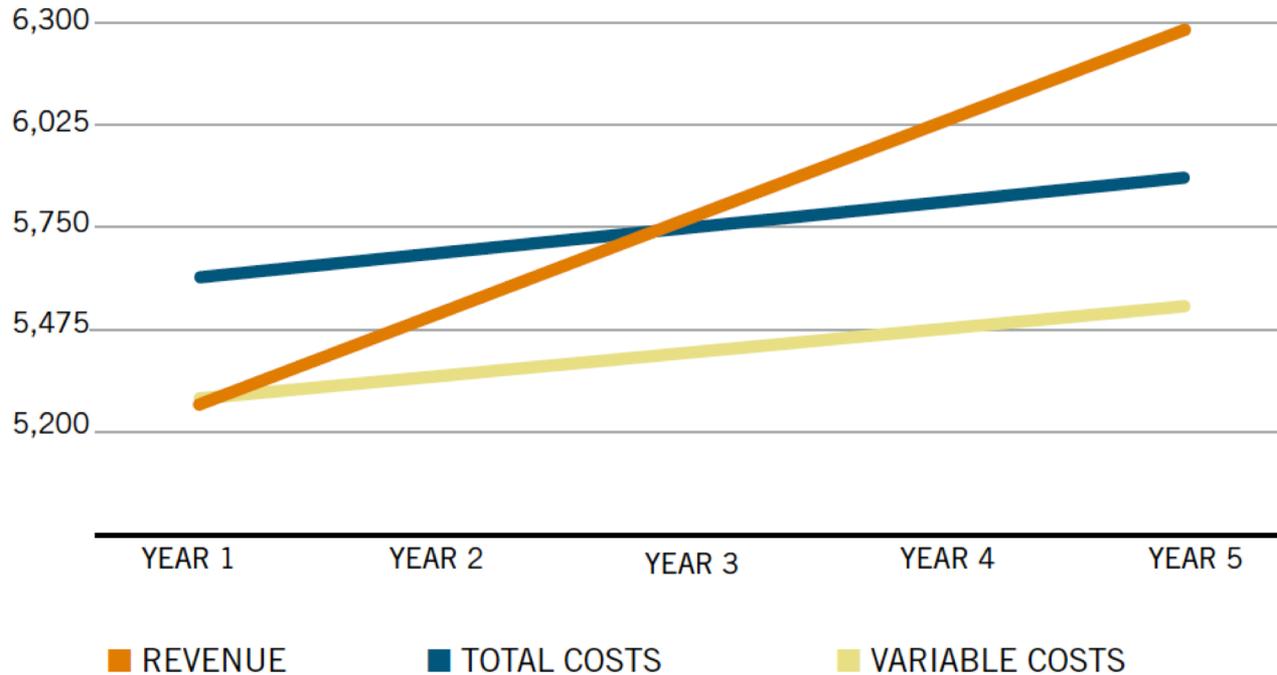
- \$150,000 cold storage improvements
- \$25,000 cold storage truck

Summary Financial

FIGURE 11: SCENARIO 2 BASE-CASE, COST AND PROFIT GRAPH

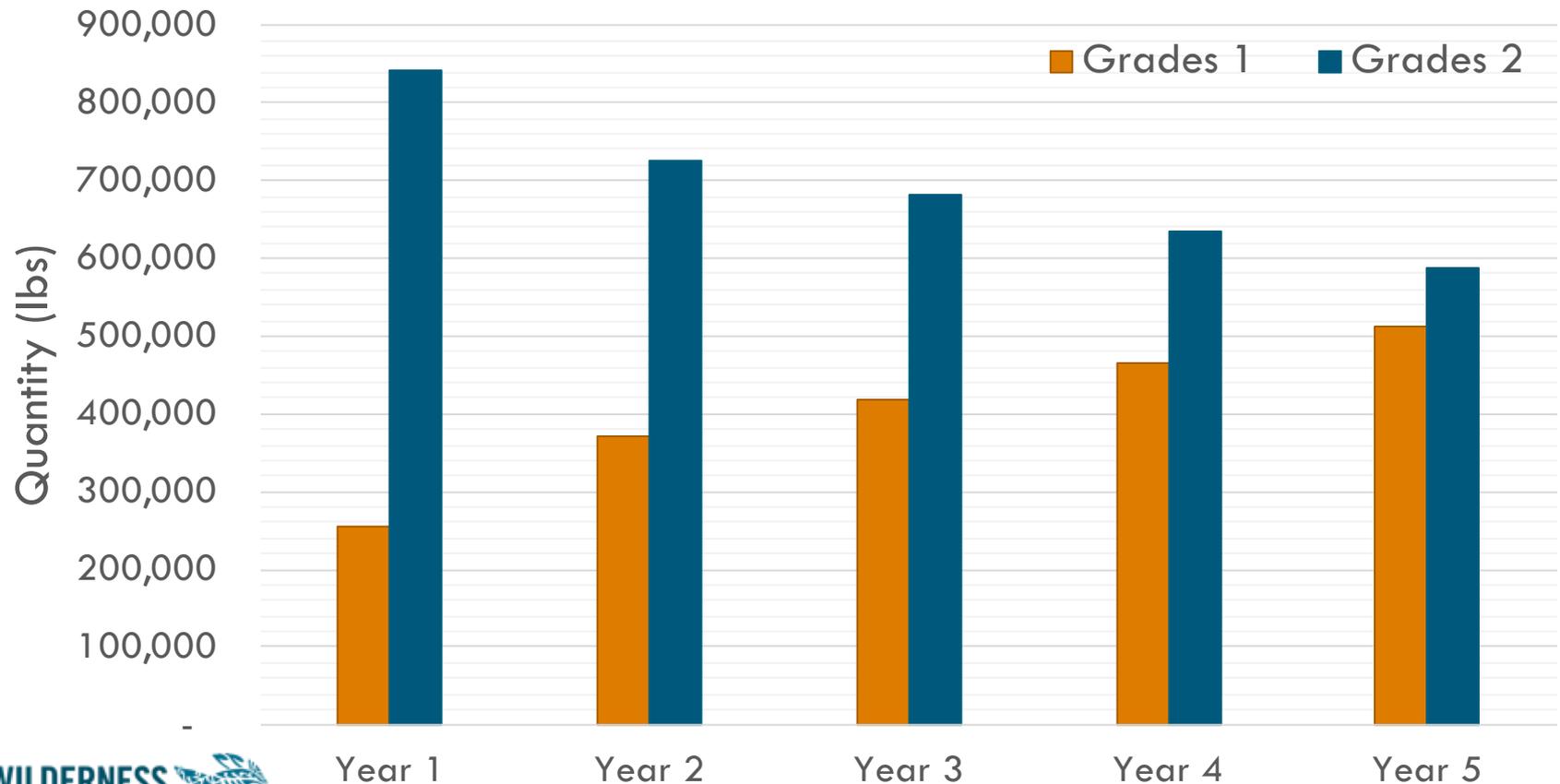
GRENADA YFT CAPTURE PRODUCTION AND EXPORTS

\$ THOUSANDS



Grenada Tuna Grades

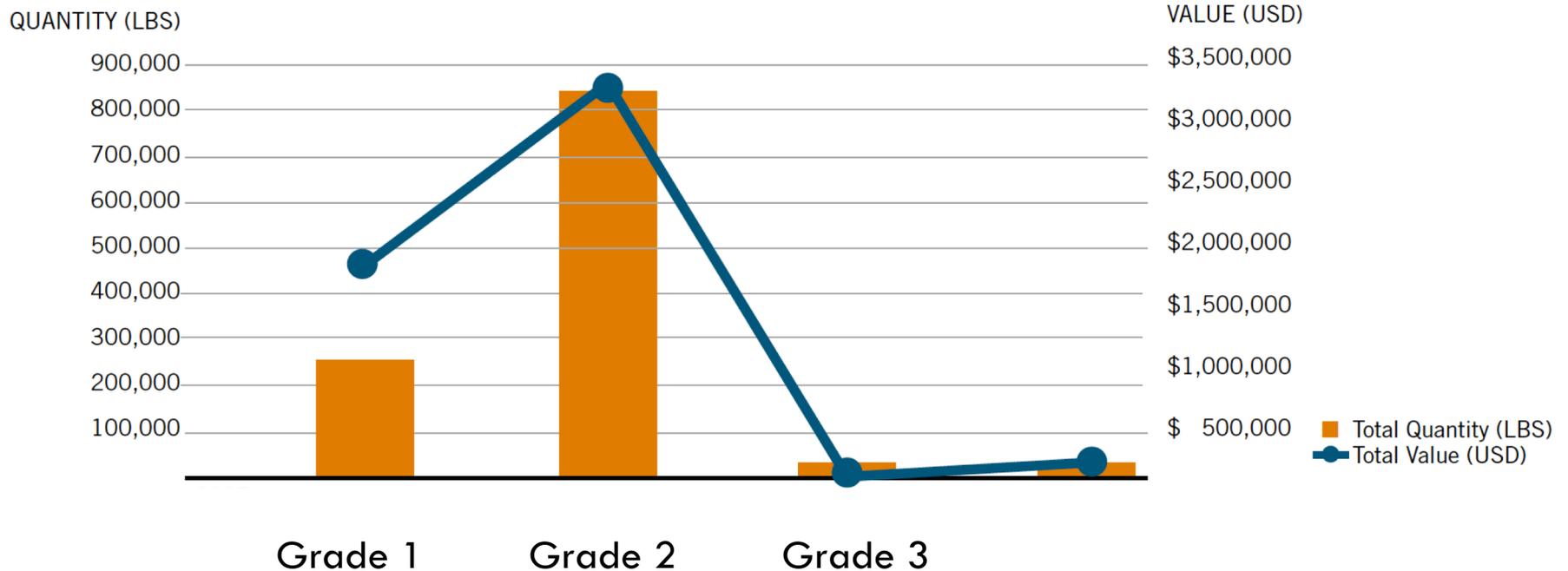
Targeted change in tuna grades



Current Situation

FIGURE 8: GRENADA YELLOWFIN TUNA EXPORTS BY TOTAL QUANTITY AND VALUE ³⁰

GRENADA YFT EXPORTS BY GRADE CATEGORY, 2016



Regional US Import Price Comparison

Country	3 Year Volume	Price per lb
St. Vincent	291,810	\$5.56
Trinidad and Tobago	6,356,411	\$4.95
Guyana	563,615	\$4.85
Barbados	1,073,715	\$4.14
Grenada	4,514,454	\$3.55

Improving the Sustainability of Grenada Tuna and Billfish Fisheries

CORE INVESTMENTS

Fishery management

- Fishery Improvement Project (FIP) for Tuna — an industry led, comprehensive FIP is proposed within the investment package. The investment budgets \$50,000 in the first year, and \$25,000 per year for the following 4 years for a total of \$150,000 to develop, implement and monitor the FIP.
- Support enforcement of non-take MPA's
- Conservation Agreements & Harvester / Fisher Registration

Data

- Traceability Platform and Software — \$100,000 is included in the first year for the deployment of appropriate traceability software and equipment at the respective landing sites. It also assumes a further \$25,000 per year in annual management, monitoring and upgrade costs, for a total of \$200,000.
- Vessel Monitoring System — \$37,500 is estimated for the first year to install VMS systems on 150 participating vessels. It also includes an ongoing budget of \$15,000 per year to address the annual costs of monitoring, repairs and upgrades.
- Harvester / Fisher – registration system for payments and landing records (included in data systems)

Infrastructure

- Cold Storage & Cold Storage Truck — (\$175,000)

Improving the Sustainability of Grenada Tuna and Billfish Fisheries

TARGETED ENVIRONMENTAL RETURNS

Protecting and Restoring Blue and White Marlin

Increasing the fishing depth of longline hooks and transitioning to circle hooks will decrease the number of hooked blue and white marlins and increase their post-release survival.

The relatively high incidence of billfish mortality in Grenadian fishing landings and the overall poor health of billfish stocks demonstrates a need for an urgent reduction in incidental billfish landings and mortality.

Improve Fisheries Data

- Improved management of fisheries
- Meet ICATT contributions and quota

Improve MPA management

TARGETED SOCIAL AND ECONOMIC RETURNS:

Supporting Fishing Livelihoods

Pay fishers a price premium of US \$0.20 per pound (7% increase to market prices) for higher quality and for compliance with proposed changes in gear and practices to successfully achieve a reduction in billfish landings, increasing aggregate fisher income by US \$1.1 million over the investment period.

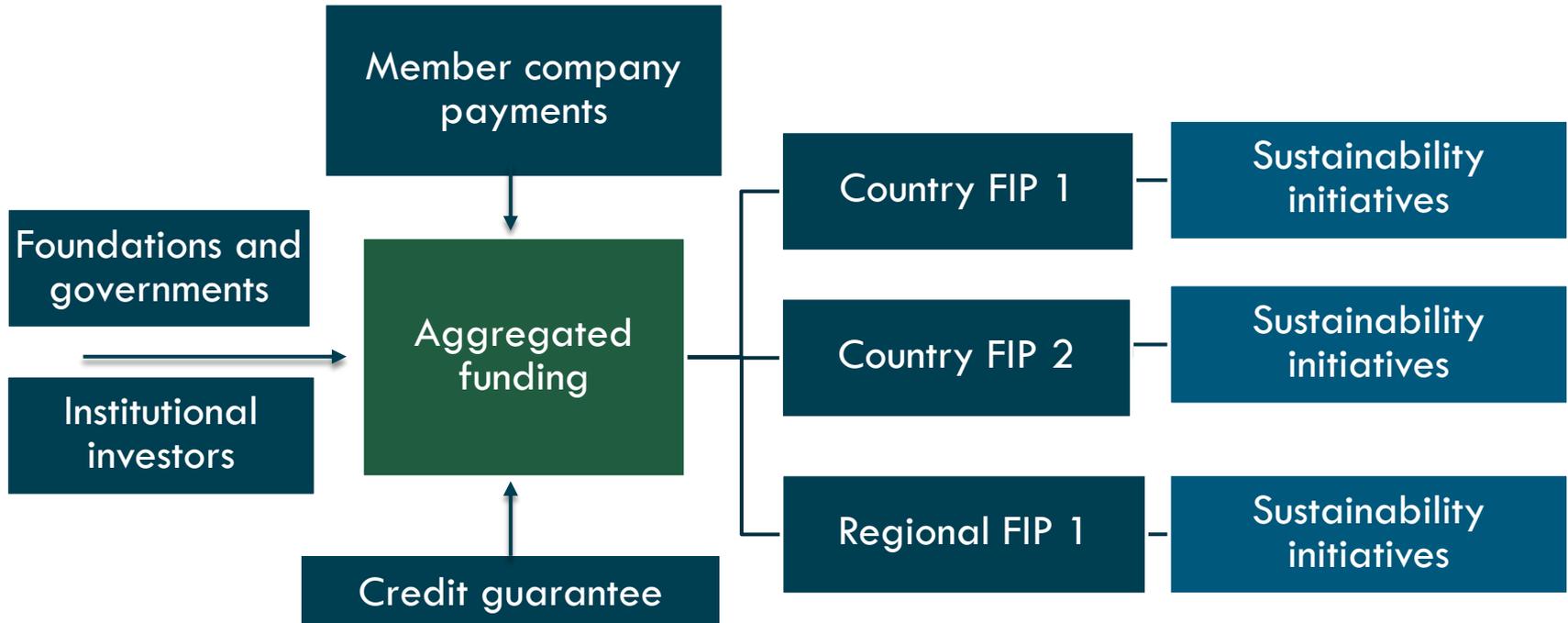
Improved billfish sustainability and increased incomes in Grenada may serve as a model for other nations.

As billfish mortality from tuna fishing is reduced, it may support a recreational fishing industry through enhanced billfish abundance.

POTENTIAL IMPACT METRICS

- ⬇️ Number of billfish landed
- ⬆️ Per pound price to fishers
- ⬆️ Pounds of tuna exported
- ↔️ Percent of grade 1 yellowfin tuna exports

Private Sector Model



Investment Next Steps

- Industry per lb commitments on exports (1%) (under negotiation)
- \$250,000 first loss facility for investment vehicle
- Grenada Pilot then regional
- Key High Value Species - Lobster, Conch, Tuna

Stakeholders

- Blue Innovation Institute in Grenada
- Grenada Development Bank
- GEF-funded, World Bank-implemented Ocean Partnerships for sustainable fisheries and biodiversity conservation (OPP), a sub-project of the Common Oceans ABNJ Program led by FAO.

Thank You!



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