

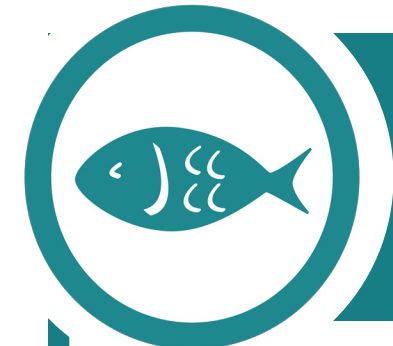
Fishing for Benefits

Tradeoffs of implementing Fair Trade USA in small-scale fisheries

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Client: Conservation International Costa Rica



Seafood Certifications & Small-Scale Fisheries

Challenges for small-scale fisheries

Seafood certification programs are market-based incentives that encourage sustainable fishing practices through price premiums. These programs, such as the Marine Stewardship Council, the dominant global seafood certification, have stringent biological standards and effort-intensive requirements that small-scale fisheries in developing countries struggle to meet. As a reaction to these challenges, fishery improvement projects (FIPs) were created. The multi-stakeholder partnerships between fisheries and industry were designed to obtain the MSC certification through a step-wise process of continual improvement.



Fair Trade USA capture fisheries

FTUSA is fundamentally different from the MSC and FIPs. It was created to certify products from developing countries with an emphasis on social criteria. Best known for products like coffee and chocolate, FTUSA expanded to certify seafood in 2014 through its Capture Fisheries Standard. FTUSA also employs a unique model to ensure the premium price paid by consumers moves directly to fishers, accumulating in a Community Development Premium.

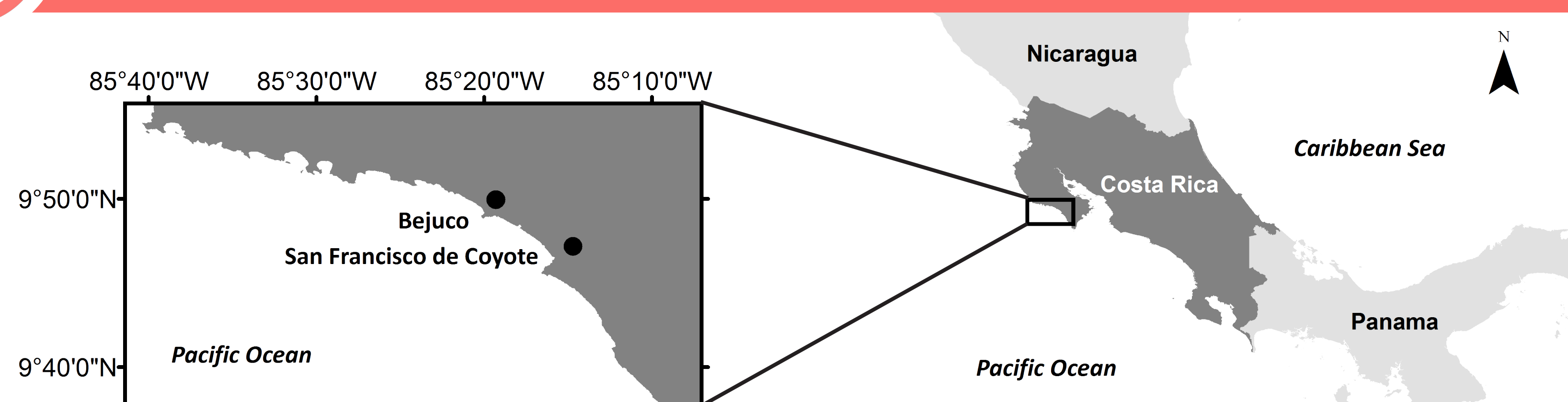


Project Objectives

- 1 Compare Fair Trade USA Capture Fisheries Standard to two existing seafood programs: the Marine Stewardship Council (MSC) and fishery improvement projects (FIPs).
- 2 Assemble a detailed systems map of the biological, economic, and social components of a fishery supply chain and assess how Fair Trade USA would alter the system.
- 3 Model the biological consequences for the fish stock and economic benefits to the fishing community if Fair Trade USA would be implemented in a small-scale fishery.



Case Study: Costa Rican Snapper

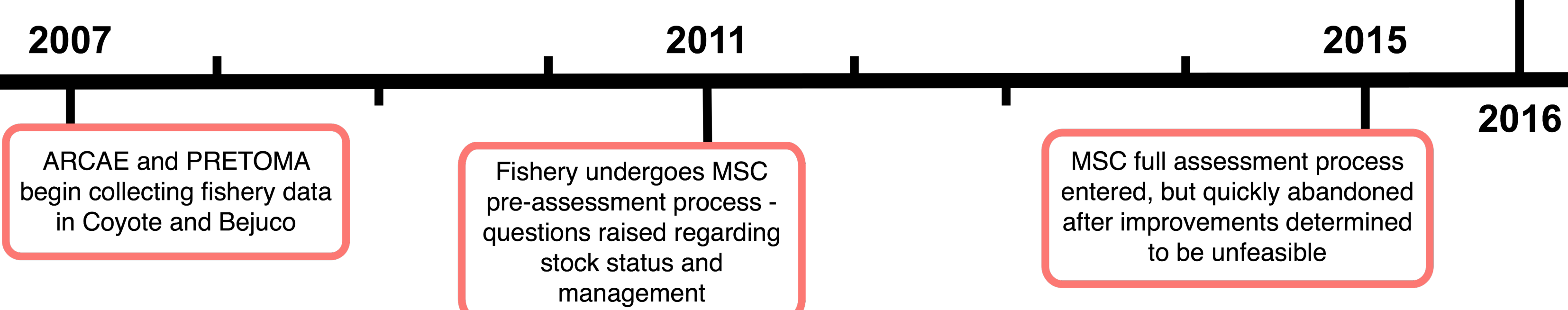


San Francisco de Coyote and Bejuco

These two small-scale fishing communities, located on the north Pacific coast of Costa Rica, target spotted rose snapper (*Lutjanus guttatus*) using bottom longlines. They exemplify the struggle faced by small-scale fisheries attempting certification.

Fair Trade USA pursued as an alternative to the MSC and FIP programs

History with seafood certification programs



The small-scale snapper fishery in Costa Rica

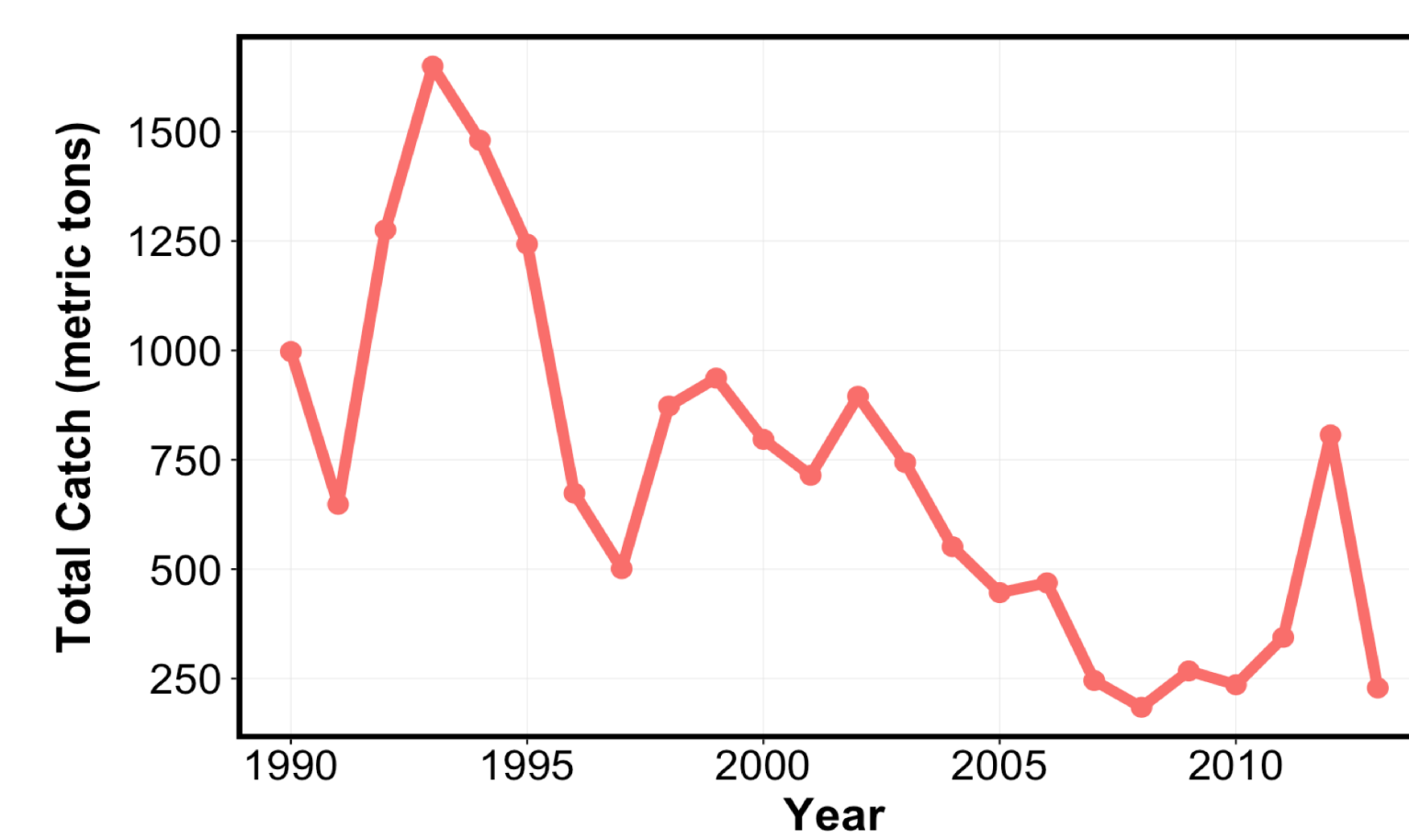


Figure 1. Spotted rose snapper (*Lutjanus guttatus*) from the north Pacific region of Costa Rica. Source: Andy Bystrom, ARCAE.

Figure 2. Total reported annual landings for snapper in the Guanacaste region corrected by a factor of 2.6 to account for unreported catches. Source: INCOPECSA, 2015.



Assessing Impacts of Fair Trade USA

1 Certification Comparison

Comparison framework

Micheli et al. (2014) proposed a comprehensive seafood assessment program with 30 performance indicators spread across three categories: 1) governance, 2) socioeconomic, and 3) ecological. We evaluated each certification standard against these proposed indicators using a stoplight system (green, yellow, red) based on how the standard addressed each indicator.

Applying the framework

	Governance	Socioeconomic	Ecological
CERTIFIED SEAFOOD MSC			
Sustainable Fisheries Partnership			
FAIR TRADE CERTIFIED			

Color Key:

- Standard explicitly addresses criteria
- Standard addresses criteria as an option
- Standard does not explicitly address criteria

Figure 3. Results of framework analysis of the MSC, FIP, and FTUSA Capture Fisheries standards based on 10 indicators in each of three categories: 1) governance, 2) socioeconomic, and 3) ecological.

Takeaway

If seafood certification programs for small-scale fisheries must include both socioeconomic and ecological criteria to be successful, then Fair Trade USA is a better fit.

2 Supply Chain Mapping

Systems thinking

A causal loop diagram was developed to represent the ecological, economic, and social components of the Costa Rican small-scale snapper fishery. Fair Trade USA was then introduced to the system to visualize changes that would likely occur.

The effect of Fair Trade USA

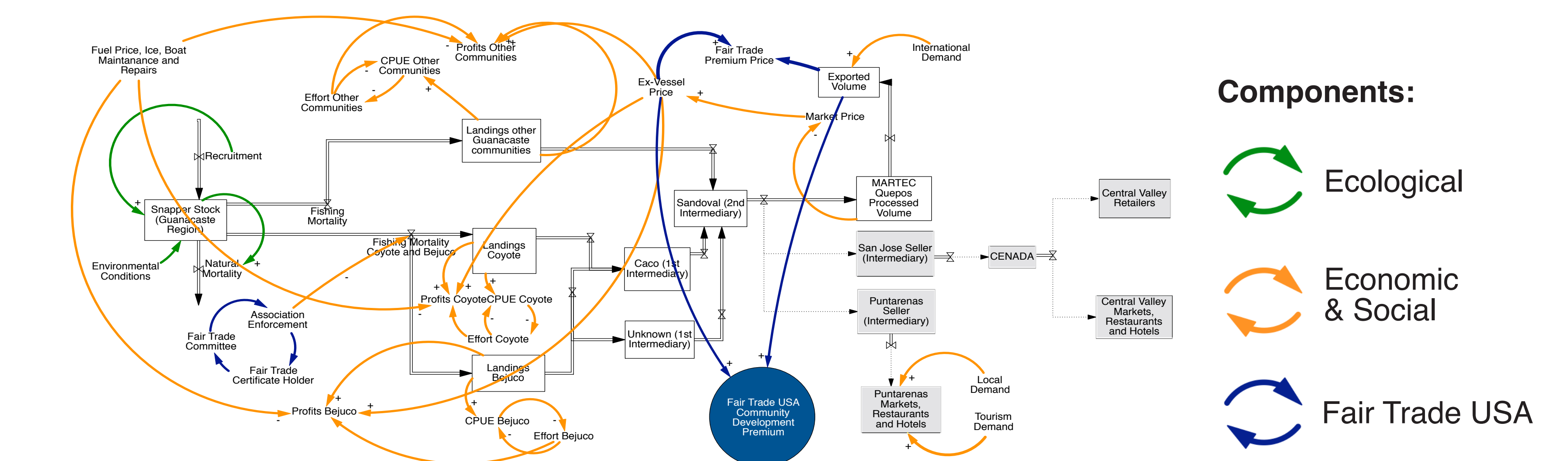


Figure 4. Coyote and Bejuco snapper fishery system if Fair Trade USA was implemented. Causal loops show different key ecological (green) and economic & social (orange) components of the fishery. The key components of Fair Trade USA are also shown (blue). Positive (+) arrows indicate a change in the same direction while negative (-) arrows indicate a change in the opposite direction.

Takeaway

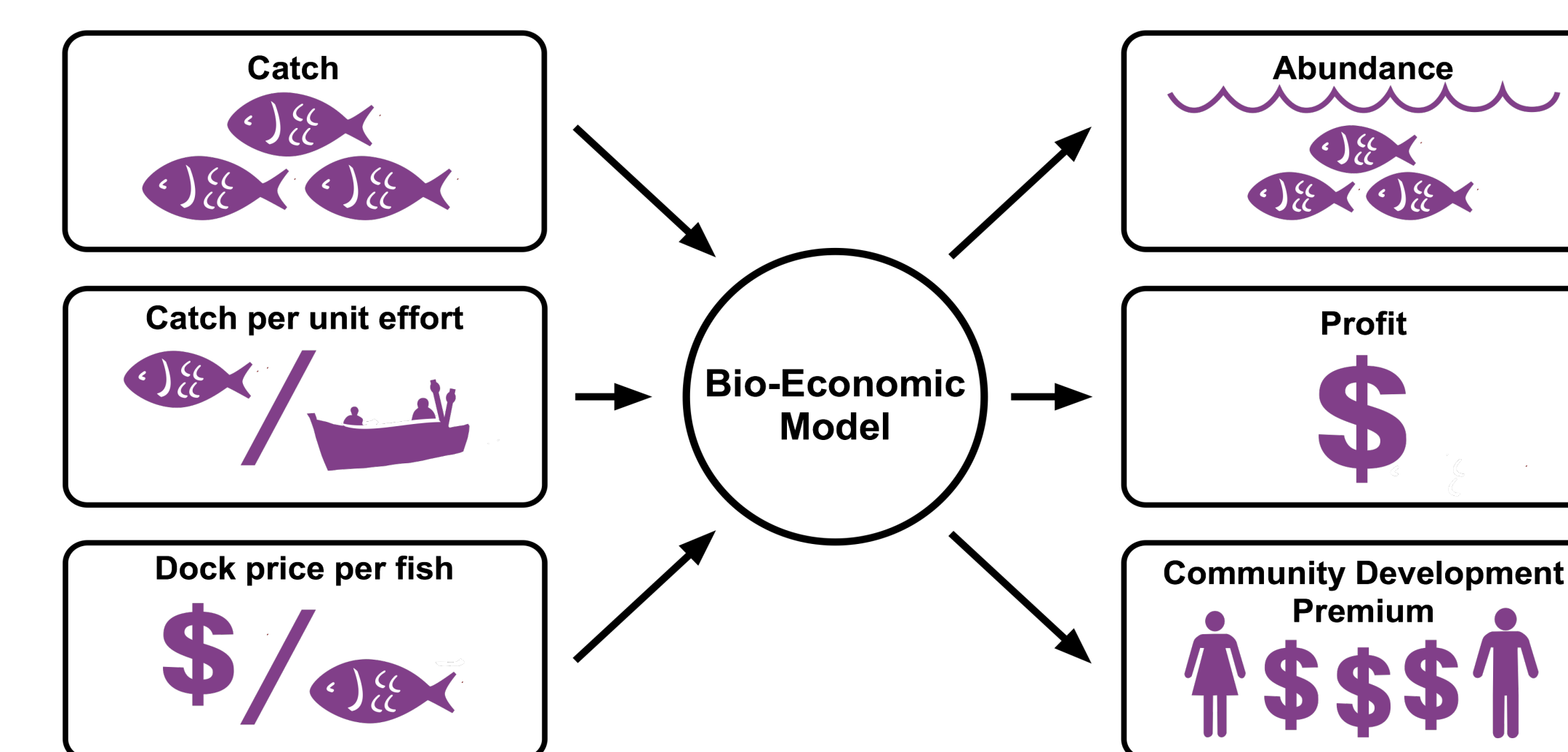
Fair Trade USA changes the system by introducing a Fair Trade Community Development Premium fund managed by the Fair Trade Committee, and reducing the existing domestic market for snapper.

3

Bio-Economic Model

Model design

We used a surplus production model to simulate the future of the Costa Rican snapper fishery under different scenarios of Fair Trade USA implementation. These scenarios explored different combinations of fishing effort, percentage of certified fishers in the region, mixing of the snapper stock, and Fair Trade USA premium percentage.



Predicted ecological impacts of Fair Trade USA

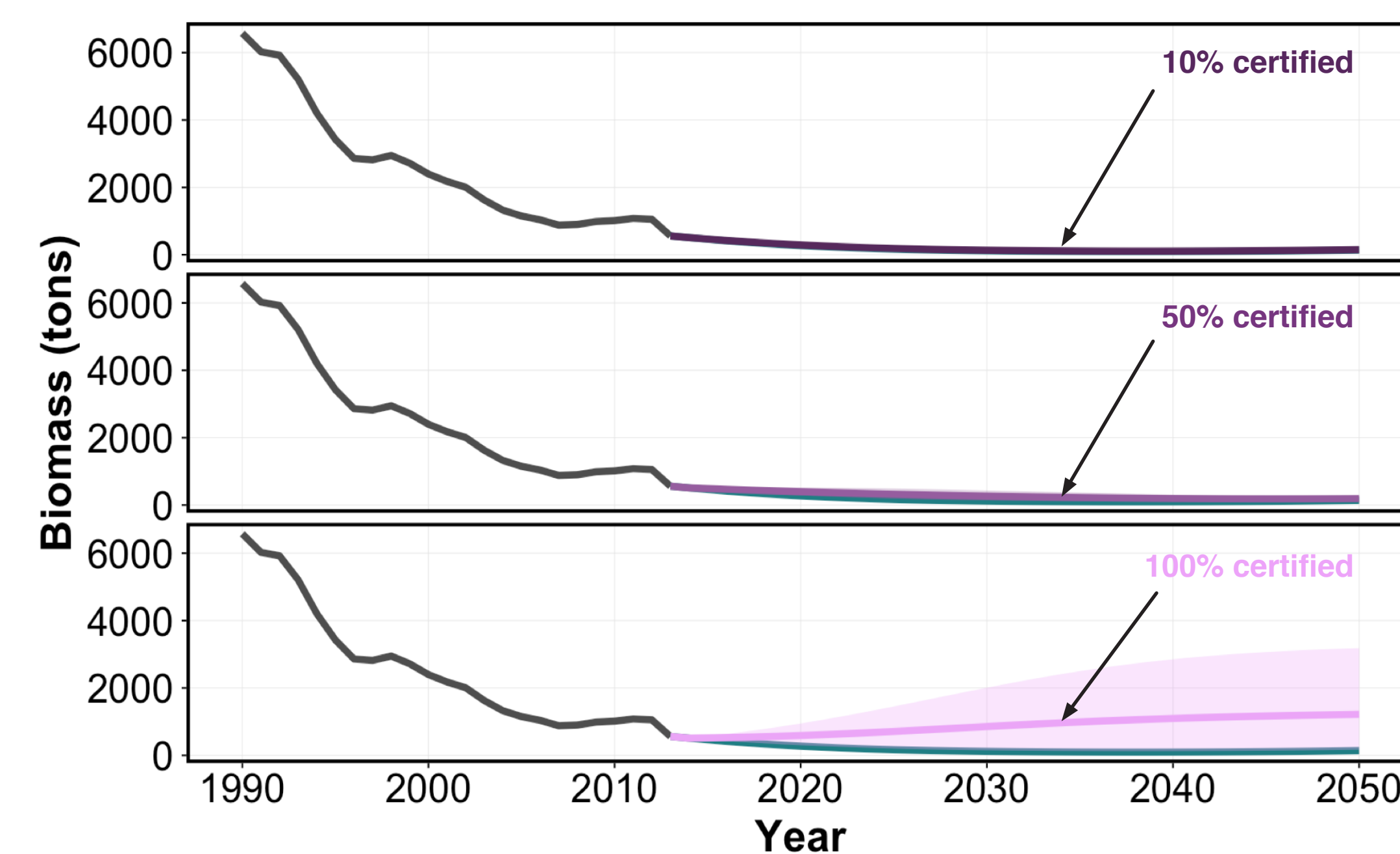


Figure 5. Model projections of snapper biomass for different percentages of the region under an effort reduction strategy (2014 - 2050). Effort reduction strategies encompassed reductions of current effort by 0 - 50%. Presented outcomes represent a snapper stock with nearly perfect mixing.

Ecological vs. economic benefits

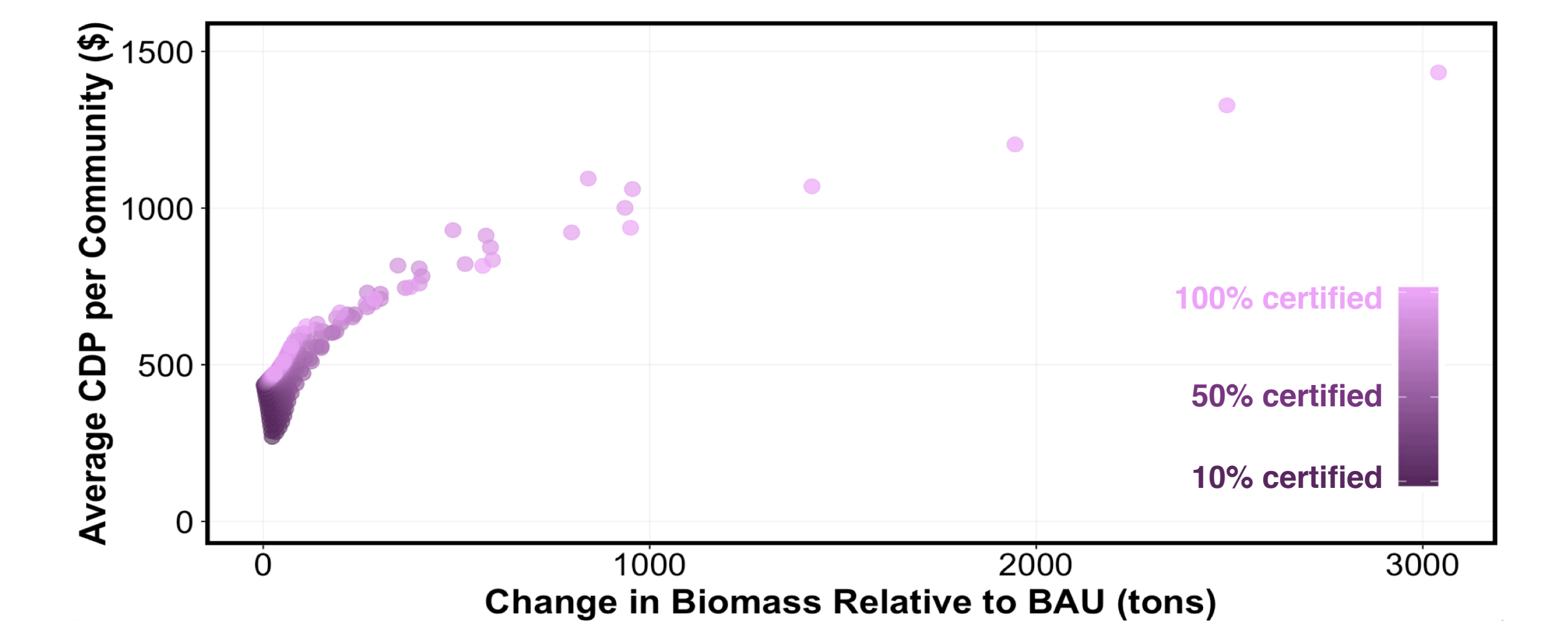


Figure 6. Community Development Premium (\$) and biomass (tons) in 2050 relative to business as usual for different Fair Trade USA scenarios. Presented outcomes represent a snapper stock with nearly perfect mixing.

Takeaway

If snapper in the Guanacaste region are a single, well-mixed population, Fair Trade USA certification of Coyote and Bejuco is unlikely to have a noticeable ecological impact.



Conclusions: Fair Trade USA in Small-Scale Fisheries

The Fair Trade USA Capture Fisheries Standard has a comprehensive socioeconomic focus, targeted at developing country fisheries. While this program may be most applicable to small-scale fisheries in developing countries, tradeoffs exist between ecological and social benefits. As demonstrated by the Costa Rican snapper case study, small-scale fisheries certified by Fair Trade USA may receive community benefits, but still experience challenges in ecological sustainability if the fishery is part of a larger stock.



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Moving Forward

Seafood certification programs face challenges when working with small-scale fisheries. We identified three areas that necessitate further research.

- 1) What is the incentive for middlemen to continue to participate in Fair Trade USA?
- 2) How will seafood certifications adjust to incorporate small-scale fisheries in the future?
- 3) What are the domestic consequences of exporting certified, sustainable seafood?

