



Pathway to Self-Funding

A Case Study on the California Commercial Spiny Lobster Fishery

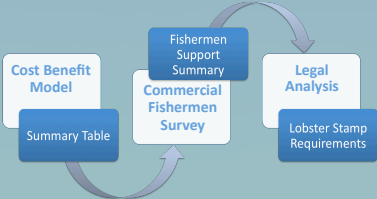
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 Client: California Lobster and Trap Fishermen's Association
 Advisor: Christopher Costello, PhD



Research Questions

1. Can the California commercial spiny lobster fishery profitably self-fund Marine Stewardship Council Sustainability Certification?
2. Is self-funding supported by the California commercial spiny lobster fishery?
3. Can successful self-funding legislation be developed?

Methods



To answer our three research questions, we developed a cost benefit model, sent a survey to every commercial lobster permit holder, and performed a legal analysis on the feasibility of lobster stamp legislation.

Background

In the summer of 2008, the California Lobster and Trap Fishermen's Association (CLTFA) voted to explore the potential for self-funding California commercial spiny lobster fishery projects through the Lobster Stamp. The Lobster Stamp is a self-funding mechanism to collect money from California spiny lobster commercial fishermen to use for projects of interest and utility to the fishery.

CLTFA also discussed pursuing MSC Sustainability Certification. MSC is the world's leading certification and eco-labeling program for sustainable seafood. It is an independent non-governmental organization that rewards sustainable fishing practices and management.

Before pursuing self-funding, CLTFA needed to determine if the entire fishery would be willing to participate in self-funding and whether self-funding fishery projects could be economically profitable and legally feasible.

We sought to calculate the political and social feasibility of creating the Lobster Stamp and the economic value of using the initial funds to pursue Marine Stewardship Council (MSC) Sustainability Certification.

Cost Benefit Model

We created a cost benefit model to determine whether the California commercial spiny lobster fishery could profitably self-fund MSC Certification. The cost benefit model evaluated the net benefits of MSC Certification per commercial fishing permit under three self-funding collection mechanisms: a flat fee of \$300, a price per pound fee, and a combination of a smaller flat fee and price per pound fee.

Cost Evaluation

We calculated the full cost of MSC Certification as the sum of costs of initial missing data collection and organization (research costs), pre-assessment, full assessment, re-assessment five years after certification, and ten years of annual audits.

Research Costs	\$70,000
Certification Costs	\$100,000
Re-assessment	\$50,000 every 5 years
Post-certification Annual Audits	\$10,000/year
Total Certification Costs	\$320,000 over 10 years

Benefit Evaluation

We found four classes of benefits of MSC Certification:

Market Benefits

- Price Premium of 5% – 10%
- Entry to new markets

Social Benefits

- Sense of pride being a participant in a fishery that has been certified as sustainable by the world's leading certification and eco-labeling seafood program.

Management Benefits

- Increased yields from better management

Political Benefits

- Relieve some top-down regulatory pressure through external validation of the fishery's sustainability



Cost Benefit Model

Each collection mechanism generates \$648,000 of Lobster Stamp revenue over 10 years. Our model utilized three potential collection mechanisms:

- A flat fee of \$300
- A \$0.095 per pound fee
- A flat fee of \$50 plus \$0.08 per pound fee

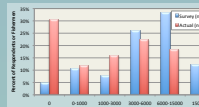
	A	B	C	D	E	F	G
Price Premium	1%	5%	5%	5%	10%	10%	10%
Price Premium Decrease per Year	0%	10%	5%	10%	5%	3%	0%
Yield Increase from Improved Management	0%	0%	1%	1%	2%	2%	3%
Cost of Certification	\$375,000	\$375,000	\$375,000	\$375,000	\$375,000	\$375,000	\$375,000
Benefits of Certification	\$770,000	\$2,507,588	\$3,890,623	\$5,835,328	\$7,843,040	\$8,414,236	\$10,241,000
Net Benefits of Certification	\$395,000	\$2,132,588	\$3,515,623	\$5,460,328	\$7,468,040	\$8,039,236	\$9,866,000
Net Benefits per License (10 years)	\$1,829	\$9,873	\$16,276	\$25,279	\$34,574	\$37,219	\$45,676

- The fishery can profitably self-fund MSC certification.
- The net benefits of certification ranged from \$1,829 to \$45,676 per fishermen after ten years.

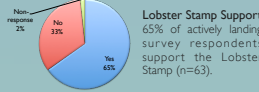
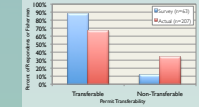
Commercial Fishermen Survey

After we found that the fishery could profitably self-fund MSC Certification, we wanted to see if the fishery would support self-funding. The mail survey assessed support for self-funding through a Lobster Stamp, collection mechanism preferences, fishery project priorities, and willingness to participate in collaborative research.

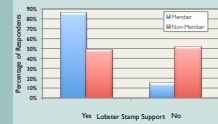
Deviation from Actual Population



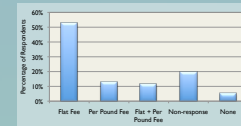
When compared to Department of Fish and Game (DFG) 2007-08 data, we found our survey respondents were skewed towards active fishermen (above) and towards transferable permit holders (below). Therefore, our results reflect the attitudes of only the active fishing population.



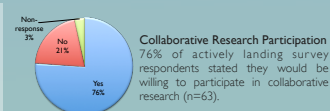
Lobster Stamp Support
65% of actively landing survey respondents support the Lobster Stamp (n=63).



Lobster Stamp & CLTFA Membership
Respondents who are CLTFA members were more likely to support the Lobster Stamp compared to non-member respondents (p=0.02).



Preferred collection mechanism
52% of active respondents preferred a \$300 flat fee. "None" represents respondents who wrote in none (n=63).



Collaborative Research Participation
76% of actively landing survey respondents stated they would be willing to participate in collaborative research (n=63).

Rank	Fishery Priority
1	Marine Stewardship Council Certification
2	Permit Buyback
3	Legal Advocate/Lobbyist
4	Impacts of Recreational Lobster Fishery
5	Marine Protected Area Monitoring

Fishery Project Priorities
Summary of respondents' self-funded fishery project priorities. Respondents' high priority for MSC Certification is in line with their strong support for certification.

- Respondents were skewed towards actively landing fishermen and transferable permit holders.
- Support for the lobster stamp (65%) and MSC Certification (78%) were high.
- The majority of respondents (58%) were willing to pay \$300 for the lobster stamp.
- The majority of respondents (52%) supported the flat fee payment method.

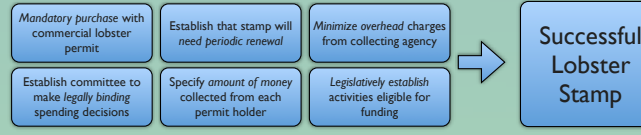
Legal Analysis

Once we determined through our cost benefit model that the California commercial spiny lobster fishery could profitably self-fund MSC Certification and found from our survey results that fishery members support self-funding, we next sought to explore the legal viability of the commercial Lobster Stamp. To determine the potential for successful self-funding legislation, we did independent research and contacted fishery leaders, DFG, NGOs and lawyers.

Self-Funded Fisheries

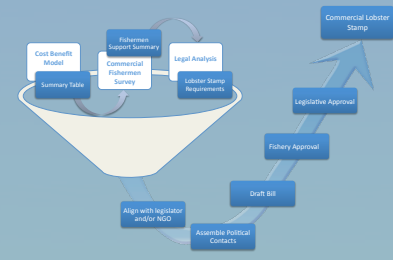
Fishery	Fee Structure	Management	Collection
California Salmon Council	Flat Fee	Advisory Committee	Stamp purchased from the California Department of Fish Game with license
California Recreational Abalone Advisory Commission			
California Sea Urchin Commission	Set Percentage	Board of Directors	Paid by processor to commission
Bristol Bay Regional Seafood Development Association			
Copper River/Prince William Sound Marketing Association			Collected by State from fish tickets

Lobster Stamp Recommendations



- Successful self-funding legislation can be developed for the California commercial spiny lobster fishery.
- All successful self-funded fisheries have a managing body whose funding decisions are legally binding.
- DFG reports that a flat fee would incur lower administrative overhead costs.

Pathway to Self-Funding



The pathway combines the results of our group project with the additional steps necessary to transform the lobster stamp into a political reality.

As of March 2009, Assembly Bill (AB) 571, which will implement the Lobster Stamp, has been referred to the Committee on Water, Parks and Wildlife for legislative review.

Conclusion

This project shows that implementing a self-funding mechanism in the California commercial spiny lobster fishery is economically, socially, and politically feasible.

The *Cost Benefit Model* demonstrates not only that the fishery could self-fund MSC Certification, but that this project could lead to net profits for the fishery.

The *Commercial Fishery Survey* results suggest that the majority of active fishermen support the Lobster Stamp and use of the collected funds for MSC Certification.

The *Legal Analysis* presents existing legislation on which to model the stamp language and establishes the legal and political feasibility of Lobster Stamp legislation.

While the pathway to the Lobster Stamp includes details specific to the California commercial spiny lobster fishery, the general procedure we present here is applicable to similar fisheries wishing to develop self-funding.

Acknowledgements

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