Exploring Innovative Management Strategies for the Red Spiny Lobster in the Galápagos Islands

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Background

- Islands are valued for their biodiversity.
- Lobster is the most important species harvested in Galápagos, and fishermen rely on the stability of this resource for their income.
- Lobster is an integral role in the health of the marine ecosystem.

Problem Statement

Lobster landings have been declining over the past decade. If the lobster stock crashes, fishermen will lose their income, and the prized marine ecosystem of the Galápagos archipelago could be at risk.

Project Objectives

1. Determine the status of the lobster stock
2. Assess feasibility of two management solutions that could:
   - Ensure the stability of the lobster population
   - Maintain income for fishermen

Methods

- Data-Poor Assessments (DPAs)
  - Criteria analysis to compare multiple models
  - Run best models with data from Galápagos National Park (GNP) to determine if overfishing is occurring

- Territorial Use Rights Fisheries (TURF)
  - Develop a framework to assess feasibility
  - Apply framework to Galápagos lobster fishery

- Market-Based Solution
  - Evaluate current local demand for lobster
  - Project potential local demand and methods to achieve it

- Biological

- Legal

- Economic

- Social

- Geographic

Discussion

Barriers to the implementation of a TURF exist; however, there is enough support for a small-scale TURF, which could prove its effectiveness and eventually overturn the existing barriers.

Overall Recommendations

- GNP should reduce the lobster quota to address overfishing, taking the amount of unreported catch into consideration.
- A small-scale, pilot TURF project should be implemented.
- A marketing campaign directed at tourists should be developed to increase local lobster demand.
- GNP should use the DPA each year to determine the status of the fishery and adjust the quota accordingly.
- Monitoring and enforcement should be improved.

Future Work

- Convert data-poor assessment into an easy-to-use format
- Create standardized data collection sheet for GNP
- Develop marketing campaign to promote local lobster demand

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