

Bridging the Gap Between Local Fishery Culture and Management Strategies

in Puerto Rico

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Results

Overall, 25 fishermen and one policy maker were interviewed. The interviews of the fishermen were conducted in Old San Juan, Cataño, Guayama, Patillas, Las Croabas, Los Machos, Naguabo, Puerto Real, La Mela, Pole Ojea, Boquerón, and El Combate.

Introduction

The commercial fisheries in Puerto Rico are considered small scale or artisanal fisheries (Garcia-Quijano 2009; 2007, Matos-Caraballo 2004). Because of its lesser size, there is a strong cultural tie into how fishing is locally preserved. Being an island territory, the majority of their food sources are harvested from the ocean. Marine harvest is also used to strengthen ties between the people in the culture. Due to this, there is great pride in being a fisherman in Puerto Rico. Unfortunately, the cultural aspect of commercial fishing in Puerto Rico, does not successfully correspond with the management strategies being implemented (Matos-Caraballo 2008, 2004, 1988-2008; Garcia-Quijano 2007; Agrawal 1995).

The licensing process has made it difficult for local fishermen to legally be considered full time commercial fishermen. To be a full time in Puerto Rico, 50 percent or more of one's income tax must derive from fishing profits as well as the fishermen submitting their landings statistics to the Department of Natural and Environmental Resources (DNER) (Matos-Caraballo 2008; DNER 2004). This license is valid for up to four years. The other commercial license available is a part time license. To hold one of these, 25-49 percent of one's income tax must derive from fishing profits as well as submitting their landings statistics to the DNER. Another type of license available is the apprentice license (Matos-Caraballo 2008; DNER 2004). This is a one-year license that statistics are not needed to be submitted to obtain. After that one year of having an apprentice license, you can apply for a full time license, in which you do need to show your statistics and income tax to receive it.

As stated above, the fisheries in Puerto Rico are considered small scale and many of the fishermen partake in several different jobs to make ends meet. Because of this occupational multiplicity seen there, it can be very hard to meet the 50 percent or more baseline for the full time license.

Another issue that has arose due to the licensing system in Puerto Rico, is that there is no license present for recreational fishermen. A problem that stems from this is that culturally one may be accepted as a fisherman who provides and sells their catch to the local communities, but legally are not labeled as such. Because of the lack of recreational licenses, there is no way to document how many recreational fishermen are out there and what is being caught. This has also opened doors for illegal selling of recreational landings. Due to this and a lack of commercial landings being recorded, Puerto Rico's landings data and fish stock assessments become skewed (Matos-Caraballo 2001-2004) This research looked into how the actions of recreational fishermen have effected commercial fishermen and how cultural perceptions of commercial fishermen vary from what management has defined it as and how they regulate it.

Methods

fishermen, and a policy maker. The interviews took place at various locations around Puerto Rico including various villas pesqueras on the north, south, east, and west coast. They were held using semi structured interview method. The questions asked to the fishermen pertained to the interactions that occur between recreational and commercial fishermen, whether they were negative or not, and how they perceive one another, as well as demographic questions (Table 1; Table 2). The questions that the policy maker was asked pertained to the different laws and regulations implanted on fisheries licensing, levels of compliance to these implementations, how they interact with the fishermen, and demographics (Table 3). The data was analyzed qualitatively using Atlas.ti.

Table 1. Questions asked to the commercial fishermen who were interviewed.

Table 1

What is your age?

How many years have you been fishing?

what type of fisher do you target primarily?

How would you describe your fishing activity?

Do you interact with recreational fishermen? Do you know if recreational fishermen sell fish to local markets?

IF YESS...Does this affect your business?

What is your personal opinion on this issue?

This research was implemented by the collection of qualitative data conducted through various interviews and focus groups of commercial fishermen, recreational

Table 2. Questions asked to the recreational fishermen who were interviewed.

Table 2

What is your age? How long have you been fishing? What type of fish do you target primarily? How would you describe your fishing activity?

Would you prefer to be a commercial fisher? IF YES... Why are you not a commercial fisher?

What is your primary occupation? Do you have any other occupations? IF YES... What are your other occupations?

Table 3. Questions asked to the policy maker who was interviewed.

Table 3

What is your job title?

What is a general desrciption of your job?

Do you interact with fishermen? How?

What are the current license regulations for fishermen in Puerto Rico?

How would you describe the level of compliance with these policies among Puerto Rico fishers? Examples? IF ANY ISSUES ARE RAISED BY RESPONDENT..

Is the government doing anything to address any of these issues?

Do these issues affect your job? How?

Do these issues affect managing shish stocks? How?

Fishers' Perception on Fisheries Management

The majority of fishermen shared similar feelings toward the Puerto Rican government's management strategies. There were counts of them stating that the "fishermen always come last" and "are never taken into account." Some stated that they "often ask for assistance, but never get any." One fisherman said "the government takes all of our information and then stabs us in the back." The same fisherman expressed that they are willing to provide the government with data, but feels nothing is done with it.

During a focus group with three fishermen from San Juan, they expressed their opinions about regulations implemented on the Puerto Rican fisheries. One fishermen during this focus group stated that it is difficult working with the government because there are too many regulations that change so often. During the interview process, several other fishermen mentioned how often the regulations change, making it difficult to keep up with the updates. Figure 1 shows the different perceptions of the fishers on the management and

Commercial Fishermen's Perception on Recreational Fishing

Many fishermen expressed that they encounter issues with recreational fishermen selling their catches illegally. Since there is no license for recreational fishermen, it is considered poaching if they do sell their catch. Many commercial fishermen stated that the recreational fishermen will sell their catch at a lower price, therefore making it hard for commercial fishermen to compete. One commercial fishermen explained the negative impacts that it has on his industry. He then stated that if the recreational fishermen sold it to the villa pesquera, then he would be more accepting of it, but because they do not, it takes away from commercial fishermen's profits.

Several fishermen mentioned how it is hard to keep up with the low prices because recreational fishermen do not have fees to pay, unlike the commercial fishermen, therefore can afford to sell at lower prices. Other fishermen expressed that they do not mind if it is a poor person selling the fish because they need the money more. Another fisherman stated that he does not mind if recreational fishermen sell their catch, as long as it is not at a lower cost. Overall there was a relationship between commercial fishermen's concerns about recreational fishermen selling their catch illegally and at a lower price. In one instance, a commercial fishermen expressed his concern about these relationships and how it relates to recreational fishermen not needing a license. seen between the perception of commercial fishermen on how they feel about recreational fishermen selling their catch which is shown in Figure 2.

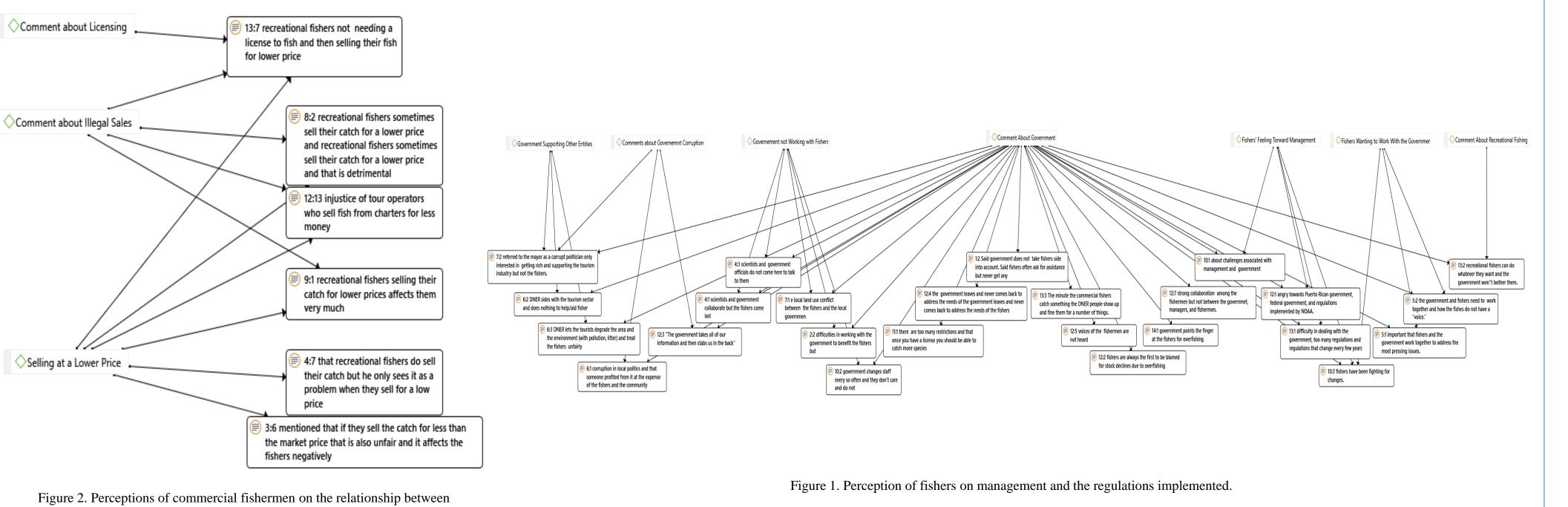
Fishermen's Perception on the Licensing Process

During the interview process it became clear that there was confusion on the licensing process and much discontent with it as well. Based on the interviews, it was apparent that there may be a conflict between being able to participate in multiple occupations and keep their fulltime commercial fisherman status. It was also discussed how they believe there to be too much paperwork involved to obtain the license. Many fishermen stated that they do not like the process of the apprentice license either. One fisherman stated that he has been a commercial fisherman for more than 20 years and now has an apprentice license, which he considers to be an "humiliated". Many fishermen also expressed how they believe recreational fishermen should have a license.

Interview with Policy Maker

The general attitude from this policy maker about commercial fishermen was negative. He did not believe that the were fishing sustainably and had a strong opinion about the need for them to stop harvesting as a whole. He even showed a newspaper article that had a picture of one fishermen building his own trap and explained that the gear is illegal and that this one, very well-known fisherman, did not have a license. Earlier the same fishermen showed the same article during his interview and was proud of his work. These two moments demonstrate the disconnect between the policy makers and the fishermen.

The policy maker also stressed the importance and need for licenses for recreational fishermen and a new type of commercial license for fishermen who are informally considered recreational because their sales are less than 25% of their income tax. He followed his statement explaining his concern about implementing such a regulation because of the underlying conflict between management strategies and local culture. Due to his important position in Puerto Rico's Natural Resource Division, I believe his perceptions most likely represent others' opinions in the fisheries management field.



recreational fishermen selling their catch illegally and at a lower cost as well as recreational fishermen not needing a license.







Conclusion

The findings of this study suggests that there is a disconnect between the local Puerto Rican fisheries culture and management strategies implemented to manage fishery resources. Many of the fishermen are considered to be "recreational" because they do not hold a commercial license but they fish to supplement their income and/or for subsistence. However, culturally, they could be considered commercial or subsistence fishermen. By not having a commercial license for fishermen whose income tax from their fishing profits is less than 25% or for those who sell their catch on occasion, the system thus categorizes them as "recreational" fishermen. This system, therefore, creates an incentive for illegal activity, discourages collaboration between fishermen and government, and results in poor data being generated for management purposes.

As expressed by many of the fishermen, their stories and concerns are not being heard by the government. There is little communication between the two stakeholders. This study provides information that could be useful to implement several management strategies. First, create a commercial fishing license that allows for limited sales of their catch which can be used by those whose gains from fishing are less than 25% of their income and those who sell their catch on occasion. This will decrease the amount of illegal activity happening in Puerto Rico as well as create a defined separation between commercial and recreational fishermen, i.e. those who fish for pleasure. It would also help level the market price and lower the competition between commercial and "recreational" fishermen who sell their catch. Second, implement a data system in which all recreational fishermen have to record their landings. In time and with more studies on Puerto Rico's fishery culture, maybe one day the gap between the management and the culture will lessen and they will find a way to work together.

Works Cited

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