Key Informant Interview 2

Date: 8/2/2016

Stakeholder Group: Academia/Research

Years of Experience in Occupation/Field:7 years

Community/Area/Location: All over Island but is stationed in Cabo Rojo

Speaker 1. Describe your involvement with Puerto Rican fisheries.

Speaker 2. Informant stated that as a scientist [they] serve as an interface between the government and fishing communities. [The informant’s] research focuses on using acoustics to monitor the behavior of Grouper and 4 other species. Specifically, listening for courtship calls to determine when species are aggregating to spawn. In addition [they are] also involved with coral restoration, pit tagging of tarpon, monitoring underwater habitats with drones, port sampling of fish species, and lionfish removal.

Speaker 1. In general, how would you rate Puerto Rico coastal communities’ dependency on fisheries for their livelihood?

Speaker 2. Not Dependent; At first informant stated that it depends on the fishery. Overall fishermen are not dependent except for deep water snapper/grouper fisheries.

Speaker 1. Describe (e.g. In what ways? Why do you think that is?).

Speaker 2. Informant stated that fishermen are more dependent on government subsidies/welfare. The benefits from the social system take care of the home/family expenses. Fishing is just supplemental. Fishermen are more dependent on government subsidies, welfare, and other social systems first. Fishing is then additional income.

Speaker 1. In general, how would you rate Puerto Rico coastal communities’ dependency on coral reefs for their livelihood?

1. Somewhat Dependent

Speaker 1. Describe (e.g. In what ways? Why do you think that is?).

Speaker 2. Coastal communities have both tourism and fisheries which both depend on the reefs for livelihood. There is a good deal of overlap between both. In addition, there are others who indirectly depend on the reefs – examples include those who sell ice, fix engines, provide fuel, repair boats. For these reasons, communities seem to be more dependent on the coral reefs then on fisheries.

Speaker 1. What would you say is(are) the major problem(s) facing fishing communities in Puerto Rico? (If more than one please rank them in order of importance).

Speaker 2. 1) Lack of management – No compliance, no accountability, no consequence.

Fishermen do not see the results from any research. There is no follow-up with fishermen. They are not given any information - findings are not shared. No one in government shares the data or findings – fishermen often feel they are left out of the process.

There is also a whole cloud of unlicensed fishermen. In Puerto Rico, there is no regulation for recreational fishing (Licensing of recreational fishermen did not come up in regulations, either did subsistence fishing). It is very hard to determine who is fishing for recreation and who is fishing to sell fish. Often recreational fishermen and those participating in tournaments will sell fish. Trucks will be at tournaments to buy fish. Or recreational fishermen will sell their catch even though they should not be.

2) Declining Stocks – due to pollution, warming waters, changing climate.

3) Overfishing – Fishermen blame regulations and feel government keeps adding more regulations as fish populations decline.

4) Market decentralized – There is a high dependency on the middle man which means that the fishermen make less money.

Speaker 1. Have you observed any changes to the fishery, environment, or other natural resources in Puerto Rico that you think can be attributed to climate change? Describe.

Speaker 2. 1) Stocks – Behavior of fish affected by changing temperatures. For example, spawning and larvae development are occurring at least one to three months later due to water temperatures not being cool enough (needs to be below 26 degrees Celsius).

2) Water quality – Warmer water results in more algal blooms. For example, sargassum is needed for juvenile fish and turtles but when you have excessive nutrients and large blooms it becomes a problem in the water. For fishermen, it clogs the engines of boats and makes it difficult to travel through the water.

3) Sedimentation is also a major concern (Sahara Dust)

4) Weather patterns are changing (drought one year, heavy rains the next)

5) Cold fronts have decreased – not coming in with same force

6) Coral diseases and bleaching – does not directly affect fish but has an impact on fisheries.

Speaker 1. In your opinion, are Puerto Rican fishers concerned about climate change? Why or why not?

Speaker 2. Yes – The fishermen are noticing changes but they may not be able to link it to climate change. Fishermen lack the knowledge to connect it to climate change. For example, they are aware the water is warmer but use myths to explain why events, like warming, are happening. They see changes in weather patterns. Often, they can not go out due to weather conditions. Fishermen are having to take greater risks.

Speaker 1. In your opinion, are Puerto Rico fishery manager/decision-makers/researchers concerned about climate change? Why or why not?

Speaker 2. Yes – but the issue has not become official discourse yet. There is no institutional vision for how to deal with this problem. There are so many other issues on the island that need to be considered for fishery management plans – and we can not get laws approved. There is no standard for monitoring climate change on the island. There is a sea monitoring program that samples and collects water for chemical analysis. There is also a coral reef monitoring program that takes place every two years – however these programs do not take into account all of the other variables involved in our changing climate. In addition, the government leaders are constantly changing which results in new sets of laws.

Speaker 1. Do you think people in this community can work together to solve community problems? Why or why not?

Speaker 2. The attitude among the community is that it is the government’s job to solve problems. It is out of the community’s hands. Very colonial. Very little cohesion to plan and implement mechanisms to solve problems long term.

Speaker 1. Do you think fishers could work together to solve problems in the fishery? Why or why not?

Speaker 2. Fishermen are individualists. If there is a crisis they come together to get the government to fix it and give them more money. Otherwise it is hard to get fishermen together – they have no time to find strategies.

Speaker 1. Can you think of any examples of this kind of community action occurring now in Puerto Rican fisheries? Describe.

Speaker 2. Informant felt that the cooperation/association vision is not like it was. The original intent of the associations has been corrupted. They have lost their cohesive structure. Fishermen are not vested, no interest anymore. They have no time to strategize. Only come together in a time of crisis. Lack cohesion. [They] felt the East Coast has more compliance and a better attitude, more refusals on West Coast. Puerto Rico’s fishermen are not proud, feel like second hand work. except for Vieques where there is cohesion and pride.

Speaker 1. Do you think the government and fishers could work together to solve problems in the fishery? Why or why not?

Speaker 2. Informant believes that they do not work together to solve problems.

Speaker 1. Can you think of any examples of this kind of participatory action occurring now in Puerto Rican fisheries? Describe. Speaker 2. The system is decentralized. There is no transparency in the process.

Speaker 1. Do you feel that fishery management in Puerto Rico is fair in the decisions they make? Why or why not? Be specific.

Speaker 2. No… It can not be fair. System is designed to either cut fishermen or cut fish. There is stronger compliance on the East Coast. The closures in the Virgin Islands are helping the east coast fish stocks of Puerto Rico.

Speaker 1. Do you think most fishers understand how managers make decisions? Why or why not?

Speaker 2. No – they have no clue. Fishermen believe that biologists, environmentalists, scientists, and managers are against the fishermen.

Speaker 1. In general, how would you describe the relationship between fishers and fishery managers/decision-makers?

Speaker 2. Fishermen do not care to be a part of this relationship since they feel abandoned in the decision making process. Everything gets taken away from the fishermen – turtles, red hind, grouper. Top down management approach. Fishermen often feel that their voice is not heard. Informant felt that government tends to listen to local knowledge of fishermen over the scientific voices. Biologists feel that fishers have more say with the government. For example, a local (respected) fishermen wrote an article about how the closure dates for harvesting conch needs to change since the conch spawning behavior has changed. The government responded to his article by changing the date. Informant stated that when biologists make recommendations (based on sound science, several years of research, and peer reviewed – it is not treated with the same level of consideration by the government.

Speaker 1. If they exist, how are conflicts between fishers and between fishers and managers/decision-makers resolved

Speaker 2. Informant stated that no one wants to deal with problems – blaming the system is the way it roles. The local regulations are based on good science. However, there is no compliance or enforcement. DNER enforcers do nothing. There was one NOAA ranger who was working on enforcement - but this individual felt incapacitated. Informant believes that the fishers are loners. They will take advantage of boat/gear subsidies but do not take responsibility or have a vested interested in working together. It is about getting the money now – some fishermen that are divers are drug users who are looking to sell the fish so they can get money for their next high. Not interested in long term management – Money now.

Speaker 1. Anything else?

Speaker 2.

* Fish products are always in demand.
* Recreational fishermen are not accountable for their catches which is so unfair. Will sell their catch through underground market. A truck goes to Rincon and will buy fish for weddings, and other major events around areSpeaker 2. This trade is not authorized.
* The DNER does not hold recreational fishers accountable for their actions.
* Fishermen talk about when deep water fish are caught (300 – 500 meters) the guts of the fish are warmer.
* Fishermen who dive are collecting lobster, conch, parrotfish, and hind.
* Informant said more effort on East Coast then West (most likely do to closures in the US Virgin Islands that have improved fish stocks). There was a meeting in Mayaquez to discuss closure dates.
* Confusion over what are federal and state waters. Fishermen do not understand or consider this when fishing. The only landing data is from trip tickets. We can not verify if fish were caught in state waters or federal waters. In addition, all data sent to Miami, so DNER does not have easy access.
* Informant stated that government is more united with tourism sector and agricultural sector than with commercial fishers.
* Fisheries includes: snapper, grouper, hogfish, parrotfish, triggerfish, boxfish, lobster, conch, octopus (not listed on trip ticket since not a big volume caught).
* No institutional vision of how to deal with problems. The government staff changes lead to inconsistencies.