



Centro Para la Conservación del Paisaje, Inc.
(C.E.N. Marino)

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Research Project Design and Concept

I. Research purpose and goal: Providing the socio-economic analysis to a broader multidisciplinary research that has as its main goal informing the development of a coherent management plan for the maritime zone of the Northeast Ecological Corridor, in Puerto Rico, our research project strives to acknowledge, and understand, the perceptions of communities and interest groups within the Corridor's geographical area. Therefore, in order to illuminate the creation of a robust and more inclusive management plan for the region, a methodology that focuses on the perceptions of its main stakeholders becomes necessary. As an historical analysis of marine protected areas in Puerto Rico argues:

“Identifying the community’s perceptions about an incipient protected area is of crucial importance for facilitating the discussion between the community and government authority; accordingly, leads to the successful planning and management of marine resources. It is also imperative to understand the dynamics of resource use and perceptions and uses of the seascape or territories.” (Aguilar-Perera, Sharer, and Valdés-Pizzini, 2006)

Following this, we have decided to complement an array of qualitative techniques (interviews, focus groups, field observations, document analysis) with survey data. This combination of methodological approaches will deepen

the analysis and will produce the necessary data to describe and understand local communities', NGO's, and other main stakeholders' views, feelings, and interpretations of the present and future of the natural resources in the area. Thus, being for the most part a qualitative study, our research design needs a wider and less confining idea of "design". In this sense, we acknowledge that the study will evolve and could reformulate different strategies or questions as we advance in our data collection and analysis.

Considering the arguments above, four factors structure our research:

- Types of users and/or "stakeholders"
- Resource use dynamics
- Potential conflicts among resource users
- Local communities and stakeholders perspectives about the present and future of the maritime zone's management

Acknowledging that "local communities and natural resource user groups play a transcendental role in the [development of] management strategies, and in securing an effective compliance of the maritime reserve's environmental rules" (Torres-Abreu, 2013), our approaches permit us to apprehend local communities and user group's meanings, discourses, and practices directly related with the maritime zone of the Northeast Corridor. This is precisely what is needed, since, lately, more and more "it has become evident that NGO's, community-based organizations, and fisher associations are playing a critical role in the management of marine resources in Puerto Rico by upholding the system checks and balances shaped by bureaucratic procedures." (Aguliar-Perera et.al, 2006)

II. Developing research questions that converse with these factors; our research project will answer the following:

How do local communities and main stakeholders perceive the use and management of natural resources in the maritime zone of the North East Corridor? Are there conflicts and contradictions that emerge from different

perceptions, worldviews, and practices among different stakeholders? What proposals and perspectives on the future management of C.E.N. Marino do stakeholders hold?

III. In order to answer our main research questions we must first identify who are the “main stakeholders” in the region and what characterizes their practices. We should also differentiate among the different “social types” that form the stakeholder’s group. For example, when we refer to “fisher folks”, we are referring to an array of practices that identify a group of people as fishermen, but all fishermen do not necessarily share these practices. Different fishing practices have different effects on, and suggest a different relation to, the ecosystems. Therefore, identifying the different stakeholders also imply recognizing the differences among them, and classifying such differences. These classifications in turn will provide valuable material to describe the different fishing modalities and activities that need to be considered in any management plan. Having an idea about the actual stakeholders from previous research in the region and field observations, together with gathered interviews, we will be able to map the key actors in the region and their practices. In order to deepening this analysis we need further field observations and interviews.

Another crucial factor is whether the key stakeholders are totally aware that the Northeast Corridor has a maritime zone and reserve. How knowledgeable do stakeholders are of the existence of a natural reserve in the total region of the Northeast Corridor? Do they realize the different, and most recent, legal spheres that redefine the sea in which they work, enjoy, and live, and how these legal spheres affect their livelihoods, and/or quality of life? As Aguilar-Perera et al., suggest, “most information on management of MPAs is elusive, and the local community is not aware which government under which circumstances is responsible for a given MPA” (2006).

IV. Methods and research techniques

Convinced that it is crucial to understand people's perceptions in order to inform the development of a management plan that works, our study proposes a methodological integration of qualitative and quantitative approaches, giving the qualitative methodologies a central role. Therefore, people's images, language, words, expressions, feelings, and interpretations while describing their, and other groups', uses of natural resources, will be taken as "social facts" to be analyzed. These will be coded according to the four main categories that structure the study: 1) users/stakeholders; 2) diversity of natural resource uses; 3) potential conflicts between different uses; 4) perspectives on the present and future of CEN Marino. Through this approach we also strive to integrate people's participation in management proposals for the new plan. Theoretically, we recognize the social construction of reality, and therefore, the socio-economic dimension of all phenomena that relates to human beings. Understanding people's perceptions is part and parcel of analyzing the "social construction" of the maritime reserve, from the perspectives of its users.

We will use the following research methodologies and techniques to answer our research questions:

Semi-structured and open-ended interviews: (fishermen, NGO's representatives, and community leaders/representatives – e.g.: teachers, pastors/priests, among others, tourist guides, licensed tourist operators, DNER agents, maritime police) – The interviews will provide the core data for the investigation. While we are combining different methods and techniques, the in-depth interviews are the platform from which the information vacuums and further questions will be identified.

Document analysis (tourist, nature adventures, scuba diving, and yachts and sailing boat Marinas brochures, local newspapers, NGO's flyers and newsletters) – The document analysis will shed light on the different visual

representations and discourses used to portray an array of maritime events and practices directly related to natural resources and these representations relate with data provided by other research techniques.

Participant and field observations (meetings, events, and visits on working or 'normal' days) - The contrast between what it is said and perceived, and what it is practiced, can be analyzed through the field notes derived from participant observations.

Surveys (Marinas, licensed tourist operatives, hotels) – Fajardo has the highest concentration of private Marinas in Puerto Rico, and is home of the biggest Marina in the Caribbean, Puerto del Rey. Given the importance of such key player in the zone, and the number of private owners of boats in such Marinas, the survey is the indicated instrument to gather the necessary data for analysis. Another important presence and key stake holder in the area is the tourist industry. Both hotels and licensed tourist operatives giving maritime services (kayak trips, scuba diving, among others) might be surveyed in order to gather information and, in the case of tourist operatives, compare and contrast with data derived from semi-structured interviews.

V. Suggested Research Time-line:

Year: 2014 - 2015

January – February: analysis of interviews and data collected

February - March – research concept/design and development of a pilot questionnaire

April - May: socio-economic context of the region, and data analysis

June – November: field work (qualitative y quantitative), and data analysis

December – February: Fieldwork's data analysis

March – June: results, development and writing of the study final report (first draft):

July – second draft

August – final draft

Conclusion:

Being a month full of reflections, meetings, conceptualizations, and strategizing, during February we were able to clarify our research agenda and continue with a more focus analysis. The methodological strategy described above shall provide with enough data to develop a coherent and robust analysis of stakeholders' and local communities perceptions of, and proposals for C.E.N. Marino's management and natural resources' use.