Environmental Studies Program: Ongoing Studies

Study Area(s): Atlantic

Administered By: Office of Environmental Programs, Division of Environmental Assessment

Title: Quantitative Assessment of Spatially Explicit Social Values

BOEM Information Need(s) to be Addressed: This study will provide BOEM decision-makers with an enhanced understanding about the relationship between marine space use/non-use, the type and intensity of place-based attachments and value orientations in regions adjacent to WEAs, and the likelihood of local engagement in action to support or oppose renewable energy projects. The study also will help BOEM and developers understand and negotiate the varying cultural importance of areas targeted for alternative energy projects.

Total Cost: (in thousands) $400 **Period of Performance:** FY 2015-2018

Conducting Organization(s): NOAA National Ocean Service (NOS), National Centers for Coastal Ocean Science

BOEM Contact(s): Brandi Carrier

Description:

Background: Baseline information on the spatial footprint of human activities in our nation's coastal and marine environments is increasingly available. For example, the recently completed studies, "Identification of Outer Continental Shelf Renewable Energy Space-Use Conflicts and Analysis of Potential Mitigation Measures" and "Bayesian Analysis for Spatial Siting (BASS)," document the spatial footprint of ocean uses and, in the case of the BASS project, use this data to inform siting of renewable energy projects.

Findings from these and other studies have bolstered our ability to identify potential human use conflicts and mitigation measures. However, such studies remain focused on a limited range of stakeholder groups (e.g., scientists, commercial fishers, shippers, etc.), relying heavily on experts from these groups to contribute data or subjective assessments about the uses of and values for contested marine spaces. Members of smaller stakeholder groups and the general public have not been routinely or systematically engaged in the collection of human use and value data in a renewable energy context, despite the fact that these groups may also benefit or bear the externalities of such projects. Further, research to date has narrowly operationalized "value" in a spatial planning context. Objectively, value has generally been operationalized as the presence/frequency or economic value of a particular marine activity. More commonly, value has been subjectively operationalized relying on the opinion of "key" stakeholders, informants or experts. Objective data that allow for the assessment of spatially relevant, place-based social values, collected from a scientifically

drawn sample of stakeholders or the public, are lacking. The present study will fill this gap.

For this study, the term "values" represents the moral orientation or philosophical framework that shapes a person's ideals and attitudes and, more importantly, motivates behavior or action. Environmental sociologists have found that people generally fall into one of a few environmental value orientations. Knowing these moral, value and attitudinal orientations has helped researchers and resource managers anticipate the likelihood of persons to engage in individual or collective pro-environmental behaviors. In an energy context, presence of particular patterns of social values, specifically values associated with place-based attachment, have been noted as an important factor in motivating local action to oppose renewable energy projects.

The present study proposes collection of spatially-explicit, value orientation data that is relevant to areas planned for alternative energy development. The approach could be used in all regions, at multiple spatial scales, or with particular stakeholder groups. The goal of the project is to learn which value orientations are most highly correlated with particular geographies and to develop models to predict who is more likely to support and oppose renewable energy projects in the region.

Objectives: The present study includes collection of spatially-explicit, value orientation data that is relevant to areas planned for alternative energy development. The goal is to gain a better understanding about which values are most highly correlated with specific locations in a region proposed for development, and to develop models to predict who is more likely to support and oppose alternative energy projects, and why. Collection and analysis of this type of social data will allow for objective assessment of which areas across the seascape are valued by the public and/or stakeholder groups (and to what degree/intensity), how and why, along with how different areas compare both in terms of uses and values.

Methods: This project is being conducted in North Carolina, although this approach could be used in any regions, at multiple spatial scales, or with particular stakeholder groups. The data required to conduct such an analysis are:

- value profiles—identification of the environmental value typology of stakeholders, as well as the type of sociocultural value(s) attached to a place or space;
- value rankings by geographic location—the intensity of a group's attachment (i.e., level of concern) to particular areas within a given space;
- demographic profiles—the demographic and socioeconomic characteristics of focal communities or stakeholder groups; and
- use patterns—the spatial and temporal characteristics of human usage of specific areas: purpose of use, frequency of use, timing of use, etc.

Current Status: The contract was awarded 29 July 2015. The Office of Management and Budget Review provided final clearance to move forward with the project in November 2016. Sub-contracting that enabled the data collection work to begin was awarded in February 2017. Data collection / survey instrument were subject to pre-testing and final survey distribution in January 2018. Data analysis was performed July – September 2018, with the draft final report submitted to BOEM by January 31, 2019.

Final Report Due: April 30, 2019

Publications Completed: None, to date.

Affiliated WWW Sites: None, to date.

Revised Date: August 1, 2018