

Environmental Studies Program: Studies Development Plan | FY 2025–2026

Field	Study Information
Title	Gulf of Mexico Environmental Justice Fact Book: Coastal Communities Affected by Activities on the Outer Continental Shelf (GM-25-01)
Administered by	Gulf of Mexico Region
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Procurement Type(s)	Contract or Cooperative Agreement
Performance Period	FY 2025–2028
Final Report Due	TBD
Date Revised	April 3, 2024
Problem	Currently there is no comprehensive resource for the identification and characterization of Gulf of Mexico (GOM) environmental justice (EJ) communities as they relate to BOEM-adjacent activities and resource management, or region-wide analyses of whether these communities may be disproportionately impacted from agency activities.
Intervention	A study that uses mixed methods to identify and characterize GOM EJ communities of particular interest to BOEM, especially as they relate to environmental impact analyses conducted by BOEM.
Comparison	Capture the demographic assemblages and impacts for EJ analyses and outreach efforts related to the oil and gas program, and could subsequently be used for marine mineral, renewable energy, and carbon sequestration programs in the region.
Outcome	Help BOEM address environmental justice considerations raised by recent Executive Orders, cooperating agencies, and litigants within NEPA analyses and in conducting engagement and outreach more effectively to those communities through the creation of an all-in-one regional EJ Fact Book.
Context	Western GOM, Central GOM, Eastern GOM

BOEM Information Need(s): Multiple vulnerable communities exist across the GOM region that are classified as EJ communities based on national legislation and related policies and efforts. Previous BOEM-sponsored EJ-related studies in the GOM have focused mostly on specific locales, and have not taken a holistic, systematic view of the region. BOEM requires a clearer and more thorough understanding of these communities to better inform Bureau decision makers, as mandated by the National Environmental Policy Act (NEPA), the Outer Continental Shelf Lands Act (OCSLA) and various Executive Orders (EOs; 12898, 13985, 14008, 14096). Particularly, BOEM needs a better understanding of which EJ communities are most impacted by BOEM-related actions and what sorts of cumulative stressors exist within those communities. A systematic analysis (rather than piecemeal studies) is needed so that BOEM can identify if EJ communities are *disproportionately* impacted by its programs—something that cannot be done in NEPA analyses for lease sales for the oil and gas (O&G) program because of a variety of constraints (such as onshore locations for activities being largely unknown at the time of a lease sale). Addressing whether agency actions have disproportionate impacts (including

indirect and cumulative impacts) is a main component of EJ-related EOs. Further, this data would be an important resource in strengthening BOEM outreach and engagement activities across the region. As part of the Environmental Justice Technical Workshops for the GOM Region (GM-21-x03) this proposed study was recognized by a team of external experts as one of the most pressing data needs for BOEM's GOM EJ analyses and activities, as well as being an appropriate way to capture that data.

Background: Regionally, BOEM has sponsored a handful of EJ-specific studies in limited geographies (e.g., Hemmerling and Colten 2003; 2017) and a larger number of ethnographic studies that touch on EJ concerns (e.g., Austin et al. 2014; Regis and Walton 2022). The GOM has also been the focus of many academic studies on EJ, including Bullard's (1990) landmark *Dumping in Dixie*. Some of these studies have highlighted the connection between O&G development and EJ concerns. For example, one study (which this proposed study would build from) found EJ populations in coastal Louisiana communities to be "increasingly disproportionately impacted by the development of the offshore oil and gas industry," and thus represent a pressing informational need for BOEM's EJ analysis (Hemmerling et al. 2021, 134). This increased impact stems from the fact that these populations (increasingly, members of Native American communities) are sited around upstream and downstream O&G infrastructure and participate in oil and gas-related economic activities (Hemmerling et al. 2021; Laska et al. 2005). As future renewable energy and carbon capture and storage (CCS) development in the region could utilize and build from the established oil and gas infrastructure and workforce, many of these communities will also be included in future NEPA and EJ BOEM analyses for those programs.

EJ communities often have compounding stressors impacting them, such as air quality, environmental degradation, weather events, economic stress, etc. For example, weather-related oil and gas spills, such as the onshore Murphy Oil refinery spill following Hurricane Katrina, have negatively impacted EJ communities and this is compounded by increasingly worsening hurricanes. Further compounding impacts to the integrity of oil and gas infrastructure (and subsequent human impacts), a study looking at the modeled effects of a 100-year storm on demographics in Louisiana's coastal region showed that the effects would be felt disproportionately among Asian and Hispanic populations overall and among particular community clusters of African Americans and Native Americans within the region, and also, that much of the affected Native American population will not receive the same level of protection from the state's ongoing plans for coastal protection and restoration (Dalbom et al. 2014). Thus, it can be seen how some GOM EJ communities are impacted by the compounding effects of global climate, local environmental deterioration, O&Gs procurement and refining, and local and national policies.

Objective(s): BOEM requires a better understanding of how to systematically and programmatically identify and characterize EJ communities of concern and existing stressors within those communities (e.g., air quality) that contribute to cumulative impacts. This identification will make use of existing and forthcoming resources, such as the GOM Infrastructures Fact Book (GM-14-03-09). Also, BOEM seeks a strategy to identify organizational capacity and existing leadership within those communities so that BOEM can more effectively execute outreach and/or engagement efforts.

Methods: This study will use a mix of methods due to its multiple goals and issues about data availability. This mixed-methods study will incorporate literature review, desktop analyses of geospatially-linked quantitative and qualitative data, unstructured phone and/or videoconferencing calls, and short-term ethnographic fieldwork. Literature review of existing research will both refine the methodology of the subsequent desktop analysis as well as provide information for community profiles in the final product. This method can take advantage of BOEM's concluding "Digital Curation:

Streamlining Access to Research Across Gulf of Mexico Communities” study (GM-17-11), which has qualitatively coded BOEM reports and academic literature using MAXQDA software for this purpose.

Desktop analyses will use existing datasets, such as the Census Bureau’s American Community Survey (ACS) and/or the decennial census, existing tools, such as EPA’s EJScreen and NOAA NMFS’ Social Indicator Tool, as well as BOEM datasets, such as onshore infrastructure connected to OCS development captured in the existing and upcoming GOM Infrastructure Fact Books (e.g., GM-14-03-09). The specifics of these desktop analyses will be informed by efforts from past GOM EJ study efforts, the concluding Environmental Justice Technical Workshops for the GOM Region (GM-21-x03), and BOEM’s national EJ Best Practices work, the Characterization of EJ Communities pilot study (NT-23-05), and the Health Impacts to EJ Populations literature review (NT-23-08). For example, part of the desktop analysis could be to focus on infrastructure identified in the GOM Infrastructure Fact Book and then use EJ tools to scope surrounding communities for cumulative burdens (such as captured in EJScreen).

Unstructured phone and/or videoconferencing interviews with community leaders and EJ-related organizations will enhance information collected about EJ communities during the desktop analysis phase. The lower cost of remote interviews through telephone calls or videoconferencing calls allows for a greater spread of effort across the region. Short-term ethnographic fieldwork (such as rapid ethnographic assessment methods) will be used for communities which are deemed as particularly important to BOEM’s EJ considerations through the previous methods. These on-the-ground assessments are also productive for communities where existing data (such as the ACS) is of low reliability (which can be expected for many small, rural communities across the region).

Specific Research Question(s):

1. How should “EJ communities” be conceptualized for this project to best augment BOEM’s NEPA analyses and outreach efforts? Does existing data favor particular ways of defining and identifying EJ communities? How might disparate data sources be best synthesized within the overarching project?
2. Are there potentially disproportionately impacted EJ communities when the region is analyzed as a whole? In what ways can we prioritize focus to specific communities to efficiently use BOEM resources?
3. What are the characteristics of identified EJ communities? These characteristics could include, for example, demographic data, short histories, economic information, language considerations, etc. What existing stressors exist in these communities which past, current, and reasonably foreseeable BOEM actions could interact with?
4. What leadership and organizational capacity exists within these communities that BOEM could draw upon for informational needs, information dissemination, and communication/outreach?

Current Status: N/A

Publications Completed: N/A

Affiliated WWW Sites: N/A

References:

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