

THE *Current*

May 28, 2025

[Sonia Fernandez](#)

Gender-sensitive data brings more depth to marine spatial planning

When considering how to use marine spaces and allocate resources to their management, policymakers would do well to take a gender-sensitive approach. So say UC Santa Barbara researchers and their collaborators in a study [published in the journal Marine Policy](#). According to their findings, globally, men and women tend to use the ocean in different ways, with implications for how marine spaces are used and valued.

“Obviously, gender can come into any facet of life, but marine spatial planning is not often looked at through that lens,” said Abigail Vath Meyer, a geospatial developer in the Will McClintock Lab at UCSB’s [National Center for Ecological Analysis and Synthesis](#), and lead author of the study. Marine spatial planning is a stakeholder-centric process by which a country’s marine areas, both on and offshore, are assessed and allocated for the purpose of meeting environmental, social and economic objectives.

However, while collecting ocean use data as part of efforts to conduct marine spatial planning around the world, Meyer and fellow researchers noted patterns in ocean area use by gender — patterns that were relevant to equitable marine planning and governance. They note their findings across three case studies in the Maldives, the Azores and Belize. The data was gathered using the marine spatial planning application [SeaSketch](#), developed in the McClintock Lab.

“We found women on average were using the ocean closer to shore than men,” Meyer said of the results. This tendency has been found in fisheries research before, she explained, but the effect was found also in other sectors, economic/noneconomic and extractive/non-extractive. Gender differences with regard to ocean use exist in some form throughout the world, in both developed and developing countries, and in fact frameworks for marine spatial planning efforts, such as the EU’s marine spatial planning directives call for consideration of gender based differences in planning, McClintock added, “but the key thing is that geospatial information that shows specifically where in the oceans that occurs is scant to nonexistent.”

Indeed, generally speaking, women in the countries studied had less formal participation in the fishing economy or other maritime industries, which was dominated by their male counterparts, according to the study. They were far more active in indirect ways, such as gear prep and catch processing, as well as in less formal subsistence, artisanal and recreational fishing. As a result, in selecting the zones they value, women tended to place the most value on areas that were onshore or just offshore, and not just for fishing — some of these areas are also valued culturally as community spaces and as safe zones for their children. Because informal uses are harder to capture than more official and commercial uses that come with documentation, women’s ocean uses tend to be invisible, leading, the study says, “to an undervaluation of their roles in the maritime and blue economy.”

“If you’re not looking at these nearshore or onshore-related stakeholders, you can miss out on this larger perspective and a lot of the value that people place on the ocean,” Meyer said. “If you’re not identifying all of the ocean users, you can leave people out of the process.” This is especially important in the realm of marine spatial planning, where planners have to, with input from the communities, try to make sure the values that users ascribe to certain marine spaces are compatible with their assigned uses, while also meeting economic, social and environmental goals for a country’s marine areas. For instance, Meyer said, a marine area that users value for noneconomic benefits, such as culture and community, could be more easily compatible with a marine protected area designation, whereas an area that is heavily commercially used would “lead to a more difficult conversation about marine protection in that area.”

In the three countries studied, men dominate the data — they are the most intense and the most represented users of the ocean. However, this new focus on gender

equitable marine spatial planning has led at least one country — Belize — to take a second look at their ocean use data.

“After this research was done, they ended up conducting a second round of ocean use surveys,” Meyer said. “One of the things they were striving for was more female representation in the survey.” Another finding Meyer and team saw was that female recreational fishers around Santa Maria Island in the Azores tended to demonstrate more awareness of, and compliance with marine protected areas — places from which no or limited amounts of catch can be taken, to preserve habitat and fish stocks — than their male counterparts. “That’s incredibly useful in terms of being able to engage more with those fishers, to increase compliance or build a partnership there around the existing marine protected area network,” Meyer said.

Specific gender roles with regard to ocean use, according to the authors, “are highly variable between regions” throughout the globe, “and intersect with marital status, wealth and nationality,” meaning that ocean use surveys in marine spatial planning ought to avoid a “gender-blind” approach, lest planners, stakeholders and governments miss valuable opportunities to enhance livelihoods and solve problems while meeting their shared goals. “Our study shows the spatial patterns of gender uses and values, while demonstrating a technique that could be extended to all coastal nations, developed or developing,” McClintock said.

“One of the main takeaways is that gender-disaggregated data can be very useful and if possible, other places that are doing marine spatial planning should be trying to look through this lens and should be attempting to collect some of this data so women aren’t being unintentionally excluded from the process,” Meyer said. “If planners can see how and where different demographic groups use the ocean, they have the data to make marine plans more equitable for the communities they support.”

Research in this paper was also conducted by Peter Menzies at NCEAS, Marinez Scherer (co-lead author) at University of Santa Catarina in Brazil; Jamani Balderamos and Nidia Chacon at The Nature Conservancy, Belize; Brooke Dixon, Andrew Estep, Shaistha Mohamed, Fathimath Nistharan, Matthew Pauvfe at the Waitt Institute and Adriano Quintela at Blue Azores, Portugal.

Tags

[Diversity, Equity and Inclusion](#)

[Ocean and Beaches](#)

Media Contact

Sonia Fernandez

Senior Science Writer

(805) 893-4765

sonia.fernandez@ucsb.edu

About UC Santa Barbara

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.