
Host institutions : IRD, UMR MARBEC (Montpellier) & IFREMER, UMR AMURE (Brest)

Funding organization: The French Priority Research Program (PPR) "Ocean and Climate"

Start and duration of the contract: January 2025 (or before) for 3 years

Context

It is increasingly recognized that research on marine social-ecological systems (SES) needs to engage stakeholders (*sensu largo*, from business and economic sectors to citizens) to take into account their knowledge, perceptions and preferences, and thus improve the effective use of scientific outcomes for decision-making. In the fields of environmental and sustainability sciences, particularly in management-oriented studies, the number of publications using participatory approaches has increased dramatically over the last 20 years. The aim of active stakeholder engagement (SkE) is to ensure that research questions and expected outcomes are relevant and in line with both environmental challenges and societal expectations, and that the co-produced knowledge is perceived to be relevant, and is taken up and used in decision-making processes.

In the context of societal challenges related to biodiversity conservation and the sustainability of marine SES, participatory approaches are key methods in research involving action and decision-making. However, there are many gaps and shortcomings in the practical, conceptual and ethical ways in which stakeholders have been involved in scientific research. In order to strengthen and improve the relevance of SkE processes in research projects, there is a need to review and assess the existing scientific corpus on the topic.

Objectives

A systematic literature review on SkE in research on marine SES will be conducted by the postdoc in collaboration with an expert team. The objective is to draw up the first comprehensive overview of how SkE has developed since 1945. The scope of the systematic review will be international, but with a clear focus on French territories. By answering the question "How has SkE in marine SES research evolved over the last decades?", the systematic review will help identify best practices, successful interventions and effective methodologies in France and elsewhere.

The activities will comprise three successive actions: (1) a systematic mapping of knowledge on participatory research (year 1), (2) a critical assessment of knowledge, leading to the production of a synthesis for scientists and decision-makers (year 2), and (3) the exploration of key related questions, identified with the systematic mapping, by meta-analysis (years 2 and 3).

The main goals of the postdoctoral project will be to provide an exhaustive panorama of the level of SkE related to research projects, the types of marine SES management concerns addressed, the type of intention for declared stakeholder participation, the approaches and tools used, as well as the lessons learned and future prospects. Questions addressed will include:

- What were the general contexts, topics, and research questions that required SkE?
- What were the geographical locations and the SES types where SkE approaches were conducted?
- What were the categories of stakeholders involved, the stated objectives for such engagement and the methods used to determine which stakeholders to engage?
- Which methods were implemented and data collected to evaluate the effectiveness of the SkE?
- What were the main outcomes of the SkE?
- What potential knowledge gaps, best practices, and future methodological, scientific and societal challenges can be identified, to effectively and actively engage stakeholders in research projects on marine SES?

Method

A systematic map approach is well suited to deal with a wide and diverse range of evidence, especially when the available literature spans different disciplines, methodologies and contexts. By categorizing and characterizing studies according to their methodologies, themes and geographical locations, a systematic map provides a comprehensive overview of the existing evidence. The method used to produce the systematic map will be consistent with the [Collaboration for Environmental Evidence \(CEE\) Guidelines and Standards for Evidence Synthesis in Environmental Management \(Collaboration for Environmental Evidence, 2022\)](#). From this method we will be able to build a literature database on SkE in marine SES research, and extract key data. Context and methodological references as well as further details of the planned methodology were fully described in Chevallier et al. (2024).

The next step will be based on the systematic map to refine the above list of questions and hypotheses on participatory approaches, to be addressed through two complementary research avenues: (i) by exploring these refined questions based on the literature identified in the systematic

map; and (ii) by carrying out a survey of researchers and stakeholders having participated in SkE-based research projects, to review their experience, identify key lessons learned and best practice, report effective (planned and unexpected) impacts of SkE, as well as strategic areas for future research. The first research avenue will be pursued by the post-doctoral researcher in collaboration with the expert team. The second avenue of work will be developed in collaboration with a second post-doctoral position that will be initiated in November 2025.

The systematic literature review and the survey will be conducted in close collaboration with an interdisciplinary team of 15-20 experts covering marine environmental and sustainability sciences.

References

- Chevallier, A., Balti, H., Gourguet, S., Macher, C., Shin, Y.-J., & Moullec, F. (2024). Stakeholder engagement in participatory research in French marine and freshwater social-ecological systems: A systematic map protocol. *Ecological Solutions and Evidence*, 5, e12304. <https://doi.org/10.1002/2688-8319.12304>
- Collaboration for Environmental Evidence. (2022). Guidelines and standards for evidence synthesis in environmental management. Version 5.1 (A. S. Pullin, G. K. Frampton, B. Livoreil, & G. Petrokofsky, Eds.). www.environmentalevidence.org/information-for-authors

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Requirements

- Interest in interdisciplinary and transdisciplinary research
- Proficiency in statistical and programming tools using R or Python for data analysis
- Meticulous work habits (protocol follow-up, reporting, data sourcing)
- PhD in marine science and knowledge of marine social-ecological systems would be welcome
- Prior experience with systematic reviews would be welcome
- Prior publishing activity
- Excellent written and spoken English is required
- Fluent French is welcome

POSTDOCTORAL POSITION
Systematic Literature Review
Participatory research in marine social-
ecological systems

Supervision: This work will be supervised by Olivier Thébaud (IFREMER) and Yunne Shin (IRD) who are members of the scientific advisory board of the PPR “Ocean & Climate”.

How to apply

Candidates should send a curriculum vitae (no more than 3 pages, including the name and email addresses of three reference scientists), a short (1 page) summary of previous research, a short letter (less than 1 page) stating on why she/he finds this offer attractive. The application (a single pdf document, in English) should be sent to celine.degremont@ifremer.fr **before October 30, 2024**. Interviews of the short-listed candidates will take place during the period 1-15th November 2024.