Ethical research and the roles of the mCDR researcher: Interdisciplinary approaches towards deconstructing and addressing biases

(Dr Sandy Avrutin, Geomar Helmholz-Zentrum für Ozeanforschung; Dr Javier Marmol, University of Southampton)

Summary: This workshop explores the influence of researchers' roles and perspectives on Marine Carbon Dioxide Removal (mCDR) research. By examining four scientist archetypes—pure scientist, science arbiter, honest broker, and issue advocate—the session addresses unconscious biases and agendas. Participants will contextualise these archetypes within mCDR research, focusing on ethical considerations, stakeholder engagement, and the impact of national policy contexts.

Marine Carbon Dioxide Removal (mCDR) research is advancing quickly, with calls for accelerated research to fill gaps in understanding of its efficacy and environmental appropriacy (Nawaz and Lezaun, 2024). It is important to recognise that the localised perspectives of mCDR researchers impact the direction of mCDR research, and that these perspectives are often fuelled by the urgency of solving the climate crisis, which manifests in individual and politically-situated contexts. Understanding the roles that researchers play in shaping and conducting research, and the perspectives and urgencies that influence them, is necessary to ensure that research is not accelerated at the expense of ethics or awareness of impact.

We invite natural and social scientists (from academic and non-academic mCDR research backgrounds) with expertise spanning earth science, technology, media studies, linguistics, politics, ethics, psychology, international business, policy analysis and implementation, and climate justice. The workshop will particularly benefit from participants with experience in research ethics. Participants will contribute to the session with their subject-matter expertise and familiarity with the processes involved in mCDR research and stakeholder engagement.

The session will take the four archetypal roles of scientist outlined in Pielke (2007) as a starting point: pure scientist, science arbiter, honest broker of policy alternatives and issue advocate. Understanding the nature and interactions of these roles, and how this shapes mCDR research, is an important part of assessing unconscious biases or agendas in mCDR research. We will discuss and analyse scientist archetypes and (re)formulate processes to identify them, employing the methods and lived experiences of participants. Participants will work interdisciplinarily to contextualise these archetypes in the landscape of mCDR research, assessing the drivers and biases of each ‘persona’. The workshop is open to global participants, so an important consideration is national mCDR policy context. We will therefore also discuss how different policy contexts impact each archetype. We propose to produce a perspective piece contextualising the roles of scientists in mCDR research, within and outside academia. We will emphasise the dynamic, context-dependent nature of such roles and the importance of being aware of them to maintain ethical research.