



## Commentary 12 to the Manifesto for the Marine Social Sciences: theory development

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### Empirical research: an embattled space

The notion of the “Marine Social Sciences” depicts social science research and teaching that empirically focuses on societal interactions with the ocean and its resources. This ranges from the governance of biological and mineral resources from the ocean, as well as oceanic and coastal spaces to living with coastal change processes such as coastal settlement, land subsidence and flooding, sea-level change or the coastal squeeze, and future imaginaries of the ocean ranging from floating cities to underwater dump sites. It is thus an interdisciplinary field of research defined by its research themes and geographic foci rather than by disciplinarily defined theoretical and methodological schools. Its scientific strength lies in the empirical study of society-ocean-coast interdependencies and mutually negotiated sense-making of a highly internationalized, cross-border space of our planet that is increasingly regarded as area of expansion for human activity, becomes technologically accessible, and is so far legally underregulated. Marine Social Sciences thus address substantially understudied fields of human-nature interaction of increasing political and societal relevance.

The Manifesto for the Marine Social Sciences underlines this empirical, international, local level nature of marine social science research with a clear focus on sectors such as fisheries, marine spatial planning, and the blue economy. Further examples for understudied and at the same time societally pressing thematic areas are, for instance, the ongoing legal negotiations on the level of the United Nations regarding biodiversity

protection in the area beyond national jurisdiction, the medialization of marine litter, or developments with regard to seabed mining, sea steading, or the construction of floating cities as an attempt to mitigate urban pressures and adapt to coastal changes. The list of thematic fields and objects of empirical scrutiny in regionally diverse locations and on multiple scale levels is, with increasing societal interest in our ocean and its coastal waters, constantly expanding. The manifesto (MMSS 1.1.3; 1.1.4) argues for further research in these fields by pointing to societal urgency and emphasizes the value of social science research for improving governance thereof. Theory production is briefly mentioned at the end of the manifesto (MMSS 3.7), yet without further elaboration.

### From empirics to theory production: deterrestrialising the academy

Drawing on the history of science, we are reminded of the trilogy of (a) concrete empirical phenomena found in the social world that are to be studied, (b) methods as tools of data collection and data processing, as well as (c) concepts and theories that inspire the analysis of the data, by putting the concrete, context-specific cases that make up a social phenomenon in a certain social, geographic, and temporal setting into dialogue with others identifying common patterns of similarity or difference. Knowledge of different theoretical schools and concepts used for explaining particular social phenomena thus is of crucial relevance for lifting the analysis of social science data from a descriptive level to a higher level of abstraction, identifying patterns of social behavior beyond the level of concrete singular case studies only. The Marine Social Sciences offer rich empirical insight into largely understudied coastal conditions worldwide. Yet, theory production in the social sciences dominantly has been based on terrestrial, land-based, and focused empiricism. Social theories and concepts developed based on the empirical realities and particularities of coastal and marine contexts until today form the exception.

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Academically making sense of the social world in coastal and marine contexts thus until today runs the risk of being guided by terrestrially biased theories and concepts—a bias that potentially translates into analyses that lack the in-depth understanding of the particularities of coastal life. The research insights, governance models, and real-life “solutions” potentially proposed run the risk of a lack of fit to the contexts they are supposed to address.

Our world ocean is increasingly under pressure to serve human wants, needs, and technological advancements for conquering the ocean as resource hub and area of further expansion. The need to “understand” in the sense of Max Weber (1973), the interaction between humans and the ocean better, and as basis for a sustainable co-existence of both, is bigger than ever before. The Marine Social Sciences play a, maybe the, crucial part in this. Risking that our analyses are flawed because the analytical tools used for achieving them are based on social realities, social worlds, and distant and estranged from ocean and coastal lives is not an option. Instead, concept and theory production based on coastal and marine empiricism is required. Following Robert Merton’s concept of “middle-range theory” (1949), it is the task of the Marine Social Sciences to analyze the empirical data on human-ocean interactions and interdependencies and capture the abstractions, patterns, and inherent logics of interaction that emerge from

the data in the form of mid-range concepts that help to explain oceanic and coastal lifeworlds.

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