

Filling gaps between shelf and offshore areas: a collaborative study of marine science and consensus building

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The increasing socioeconomic demands are enhancing diverse use of marine areas, expanding offshore. For the sustainable use of marine resources, it is necessary to achieve consensus of ecosystem-based use of marine areas among different socioeconomic activities that would be under potential conflicts of interests. An important pathway in building the consensus is implementing Marine Spatial Planning (MSP), a public process among stakeholders allocating activities onto marine areas. In Japan, however, inclusive MSPs covering various interests have not been introduced. Marine ecosystems around Japan yields rich and diverse sea foods, which is formed along gradient of the environment from inner shelf to oceanographic (offshore) areas. Nevertheless, there are gaps between shelf and offshore areas, both in marine science and social/political framework of sea area use. In order to fill the gaps in both aspects and contribute to the MSP implementation, we recently launched a collaborative project of natural and social sciences focusing on transition zones between coastal marine and oceanographic areas of Japan. A feasibility study was started in a Sanriku coastal area. In this area, a sharp gradient of marine environment is often observed, where various sea foods are harvested. As various needs of sea area use, such as offshore wind farms, are emerging in addition to the fisheries, consensus building has been proceeded among stakeholders, while environmental variability in the target areas remains not well-understood. Therefore, we have been made observations on both physical/biogeochemical/biological variability in marine areas, and consensus building processes and potential conflicts in the local community. In the presentation, we also discuss another gap between frontier and established sciences that should interact to form best available sciences.

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