Developments of risk assessment and impact assessment for marine organisms on offshore wind farm project

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The offshore wind farm project in South Korea progressed and is targeted to reach more than 2,000 MW for developing a large-scale complex. The project could have influences such as physical, chemical, geological and biological effect on marine environment. The various impact factors such as noise, vibration and electromagnetic-fields are known to be major influencing factors on fisheries resources and marine organisms. Since the relationship between influential factors – the environmental impacts has not been clarified, difficulties in the acceptability of residents and the process of assessing the sea area utilization. There are no methods for biological impacts and risk assessment to noise, vibration and electromagnetic fields on the offshore wind farm project. While the developed countries assess various impacts on individual organisms, there is limit to interpreting results and determining risks. This study aims to propose bioassay methods and risk assessment methods suitable for Korean offshore wind farm projects. We will develop bioassay methods for field organism in the project area and prepare a risk assessment system to improve the acceptance of residents. Through the developed bioassay methods and risk assessment methods, we expect that this project will be carried out scientifically and systematically and become a project that residents empathize with.

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