

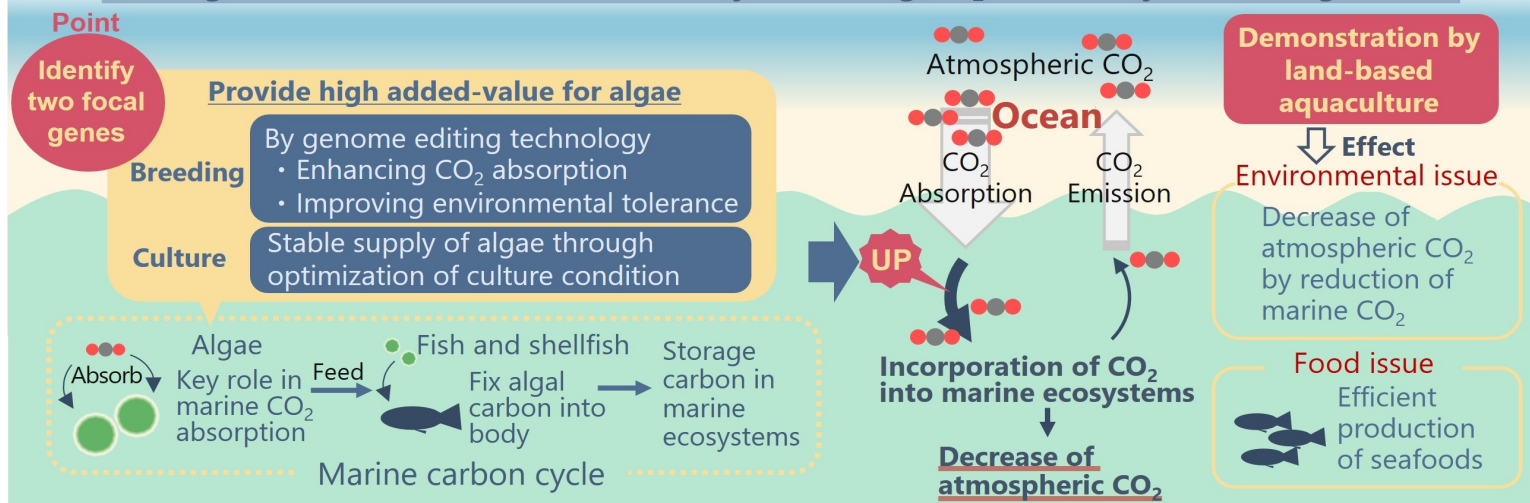
Background

The amount of CO₂ absorbed by the ocean is about seven times larger than that of CO₂ emitted by human activities. Since algae primarily absorbs CO₂ in the ocean, enhancing their CO₂ absorption could lead to reducing CO₂ in the ocean. However, such technology has not been established.

Summary

- 1: By applying genome editing to algae, we identified the genes with the potential to significantly increase CO₂ absorption.
- 2: To clarify culture conditions required for maximizing CO₂ absorption by algae, we started mass cultivation experiments in outdoor environments.

Solving environmental and food issues by enhancing CO₂ fixation by marine organisms!



Features

- Enhancing CO₂ absorption by algae through genome-editing technology
- Stable supply of algae through optimizing culture conditions

Future_benefits

Expanding the amount of CO₂ fixed into marine organisms will contribute to carbon neutrality and primary industries, such as seafood production.

Collaboration partners

Regional Fish Institute, Ltd.

Exhibiting Company

NIPPON TELEGRAPH AND TELEPHONE CORPORATION

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