

Multiple ecosystem services of blue carbon ecosystems

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Blue carbon ecosystems, such as seagrass beds and tidal flats in coastal areas not only reduce global warming but also enrich biodiversity and human life. This research will help quantify the multiple ecosystem services and promote the conservation and restoration of blue carbon ecosystems.

Social background and issues

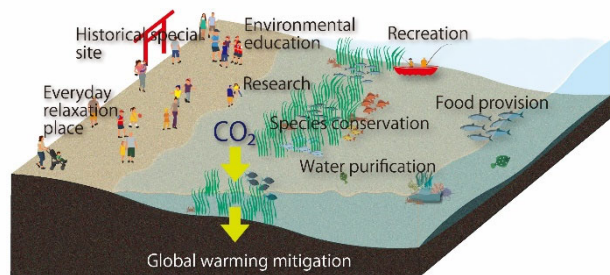
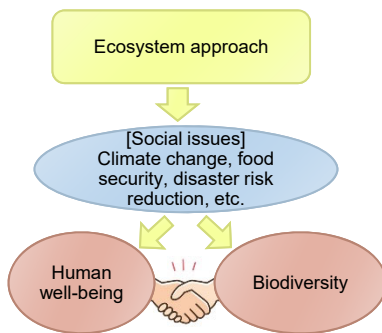
- In recent years, global warming and climate change have become major environmental problems worldwide.
- There are measures to mitigate this global warming using the power of nature. Mitigation measures using the power of natural processes will benefit biodiversity and human well-being.
- In coastal areas, blue carbon using coastal ecosystems, such as seagrass beds and tidal flats is garnering attention.
- Quantitative assessment of the multiple ecosystem services of blue carbon ecosystems to support and promote conservation and restoration of blue carbon ecosystems depleted by past coastal development.

Research content

Approaches to and ecosystem services of mitigation measures using the natural processes

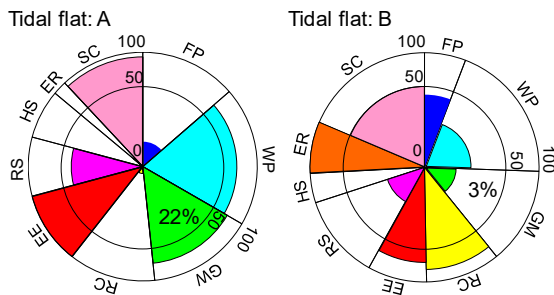
Benefits of solutions using the natural processes

Multiple ecosystem services of blue carbon ecosystems



Quantifying the ecosystem services of blue carbon ecosystems

Example (pie area shows the economic value of each service)



- The balance of ecosystem services differs depending on the tidal flat
- The percentage of the service of mitigating global warming to the total value is 22% for tidal flat A and 3% for tidal flat B.
- Co-benefit
Tidal flat A: 78%, Tidal flat B: 97%

Point

1. Various ecosystem services of blue carbon ecosystems were quantified.
2. In the tidal flats assessed in this study, more than 70% of the ecosystem services were values other than mitigating global warming.
3. The restoration of blue carbon ecosystems will contribute to the development of coastal areas that reduce global warming, enhance biodiversity (species conservation) and enrich people's lives (food provision, water purification, recreation, environmental education, everyday relaxation place, etc.).

Curbing global warming and creating coastal areas that enrich people's lives

Scan for related articles

- National Institute for Land and Infrastructure Management YouTube Channel: Blue carbon and the value of coastal environments

