IOWN INTEGRAL

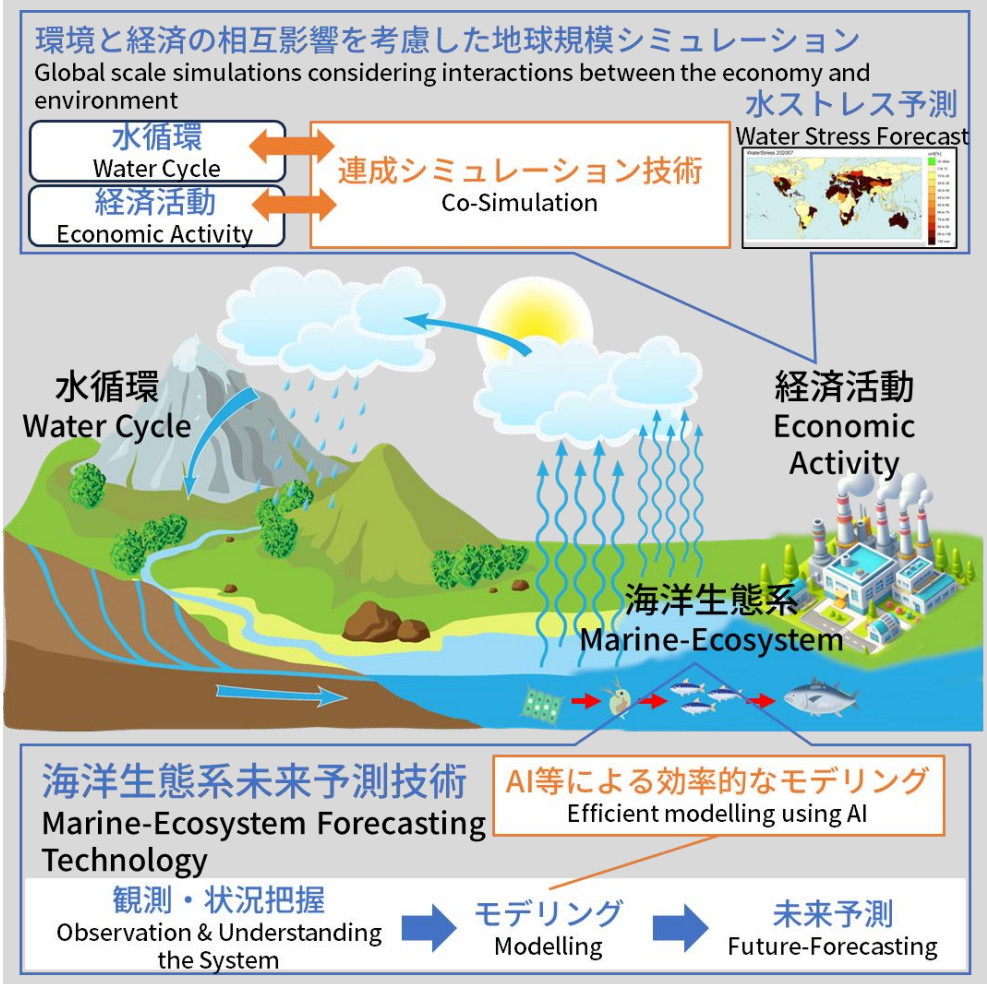
NTT R&D FORUM 2024

RESEARCH
γ 07-05

Forecasting technology considering human-environmental interactions

Policymakers and businesses can reduce environmental impacts while sustaining economic activities

#GreenTransformation #Regional Revitalization #Business Resilience



///Technical Issue

Forecasting a future of human prosperity and the coexistence of the environment requires detailed environmental data and the integration of geoscientific and economic models.

///Research Goal

Our technologies help minimize environmental impact and support sustainable human activity by integrating forecasts of multiple systems in the Earth's future.

---Technology

- Co-simulation technology integrates different subsystem models developed by experts and executes them effectively.
- Marine-ecosystem forecasting technology uses satellite data and ocean observations to simulate quantitative changes in the ecosystems affected by human activities.

---Novelty

- Enabling co-simulation and water stress forecasting for different economic regions and considering interactions between water circulation and economic activities.
- Detailed simulations based on ocean observations and data analysis to provide highly accurate forecasts.

---Applicable Business

- Nationals, local governments, and companies can assess the possible amount of economic activity globally and consider measures such as distributing economic activities across various areas to prevent water shortages and sustain economic activities (Tech. establishment: FY2027).
- In a Blue Economy, the impact of human activities on marine ecosystems can be forecast, contributing to both improving the productivity of the aquaculture industry and preserving biodiversity (Tech. establishment: FY2026).

Exhibitors= NIPPON TELEGRAPH AND TELEPHONE CORPORATION Related URL= News Release "A study on long-term environmental impacts with global scale simulation considering the interaction between the natural environment and economic activity."／ "Marine-ecosystem future-forecasting technology to support sustainable aquaculture"
Contact URL Outside Partner=The University of Tokyo (Global scale simulation)