



SUPREME

SUstainability, Predictability and REsilience of Marine Ecosystems

SUPREME Team

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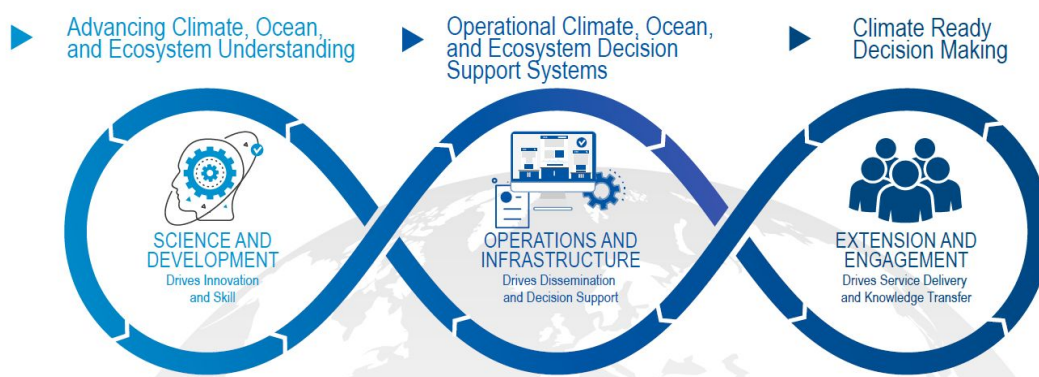
Summary

Climate-driven changes in ocean conditions are impacting the distribution and abundance of many species, with significant implications for fisheries, protected resources, coastal communities and food security. The [SUPREME programme](#) will convene global partners through knowledge networks to share information and support the production of robust ocean forecasts, predictions, and projections to guide effective marine ecosystem management and adaptation strategies in a changing climate. The overall goal of this effort is to advance the modeling tools needed to reduce risks and increase resilience of marine/coastal resources and the people who depend on them. The Programme will draw from existing efforts such as NOAA's [Climate, Ecosystems, and Fisheries Initiative](#) (CEFI) designed to build a national ocean modeling and decision support system needed to reduce impacts, increase resilience and help marine resources and resource users adapt to changing ocean conditions. By sharing information on this and similar efforts, the SUPREME Programme will help advance the end-to-end decision support systems needed to provide decision makers with actionable information and capacity to prepare for and respond to changing conditions today, next year and for decades to come.

Partners



CEFI Integrated Ocean Modeling and Decision Support System



Expected outcomes

Provide an improved understanding of marine ecosystem dynamics and a suite of decision support tools available to a broad range of stakeholders. Primary outcomes:

- Robust climate and ocean-related forecasts, predictions, and projections to inform risk assessments and resource management options
- Adaptation strategies that reduce risks and increase resilience of marine/coastal resources and the people who depend on them.

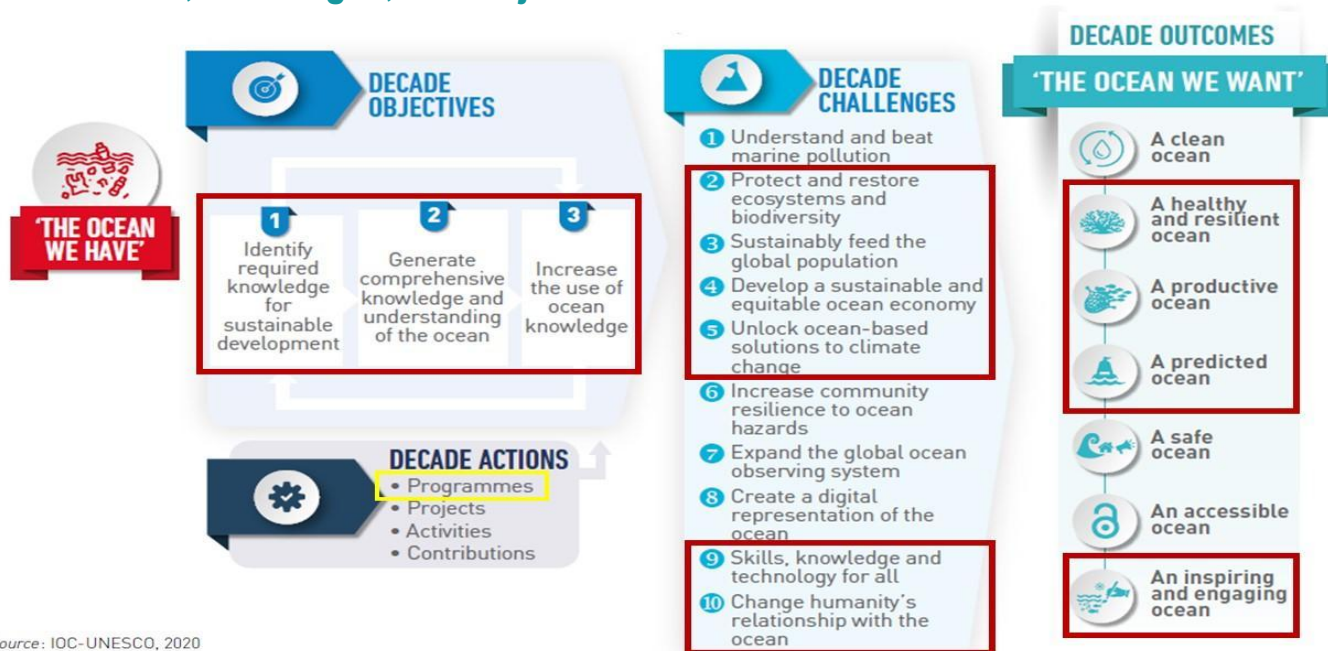
High-level objectives

- Support the development of global infrastructure for improving marine ecosystem predictability which will deliver and support regional hindcasts, nowcasts, forecasts, and projections needed across the temporal (near-real-time, subseasonal-to-seasonal, seasonal-to-decadal, and multi-decadal) and spatial (coastal and ocean ecosystems) scales required to effectively manage and sustain resilient marine ecosystems.
- Improve climate-ready ecosystem-based management and dynamic ocean management frameworks, and provide a suite of decision support tools to multiple stakeholders.
- Contribute global capacity development in marine ecosystem predictability and management.
- Engage and inform a broad user base from research to marine resource management, including stakeholders within local communities.
- Significantly expand existing knowledge networks and create new resourcing opportunities.

Key Activities

- Enhance the utility of existing climate information
- Develop common modeling frameworks and advance regional modeling systems
- Establish regional teams and a community of practice
- Fuel innovation and co-development of applications and fisheries management tools
- Provide timely and accessible information delivery to a wide range of stakeholders, and promote international capacity development and gender, generational and geographic diversity.

Decade outcomes, challenges, and objectives SUPREME will contribute to



Source: IOC-UNESCO, 2020

Opportunities to participate and engage in SUPREME

Interested partners can join SUPREME and engage in discussions focused on advancing the development of ocean modeling and decision support systems through sharing lessons learned and illustrating potential paths forward for partners who have yet to create ocean modeling and decision support systems but are interested in doing so. Proposed forums for engagement in SUPREME include:

- [Workshop at ECCWO-5](#) (Effects of Climate Change on the World's Ocean) - Bergen, Norway
- **SUPREME partners meeting** (multiple TBS; 1 will be on the margins of ECCWO-5)
- Bilateral or multilateral meetings with NOAA
- United Nations Decade of Ocean Science for Sustainable Development (UNDOS) Communities of Practice, including 'Ocean-Climate Nexus', 'Predicted Ocean'
- Side events at ICES/PICES Annual Meetings, Workshops, etc.
- SUPREME Network
- SUPREME International Steering Committee (*to be developed*)

