

US EPA ARCHIVE DOCUMENT

Fishery Ecology Branch

Mission is to *"Identify and describe relationships between fishery productivity and the coastal environment."*



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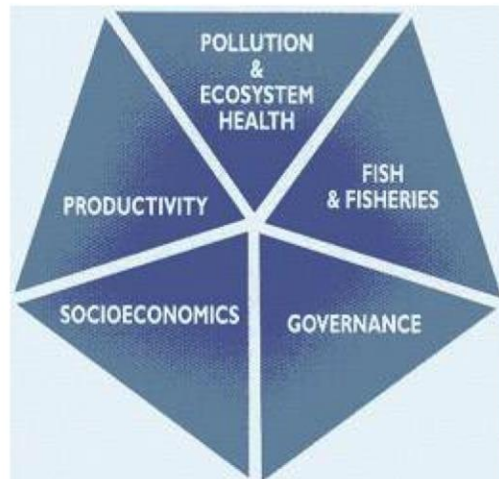


NOAAs Large Marine Ecosystem (LME) Program (Initiated by Dr. Ken Sherman)

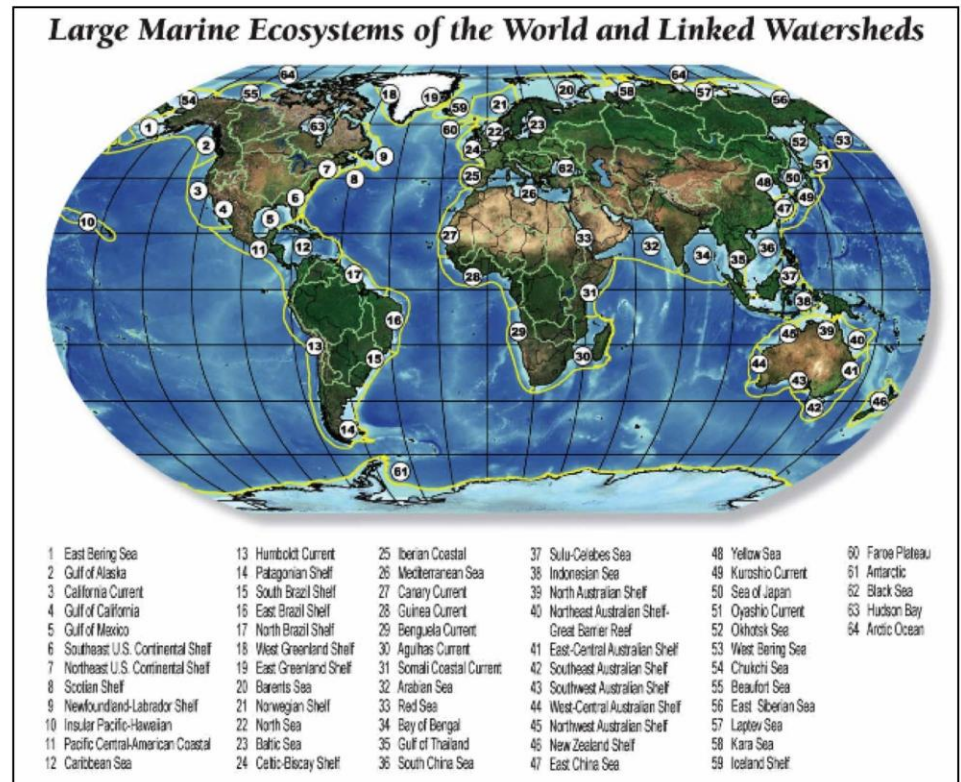
64 LMEs have been delineated based on bathymetry, hydrography, productivity, and trophic interactions.

The United Nations Industrial Development Organization (UNIDO), the United Nations Environment Program (UNEP), and the Global Environment Facility (GEF) support projects in the LMEs that develop an ecosystem approach to marine resource assessment and management

GoM Proposal Submitted
by Mexico in March 2002
Approved January 2009

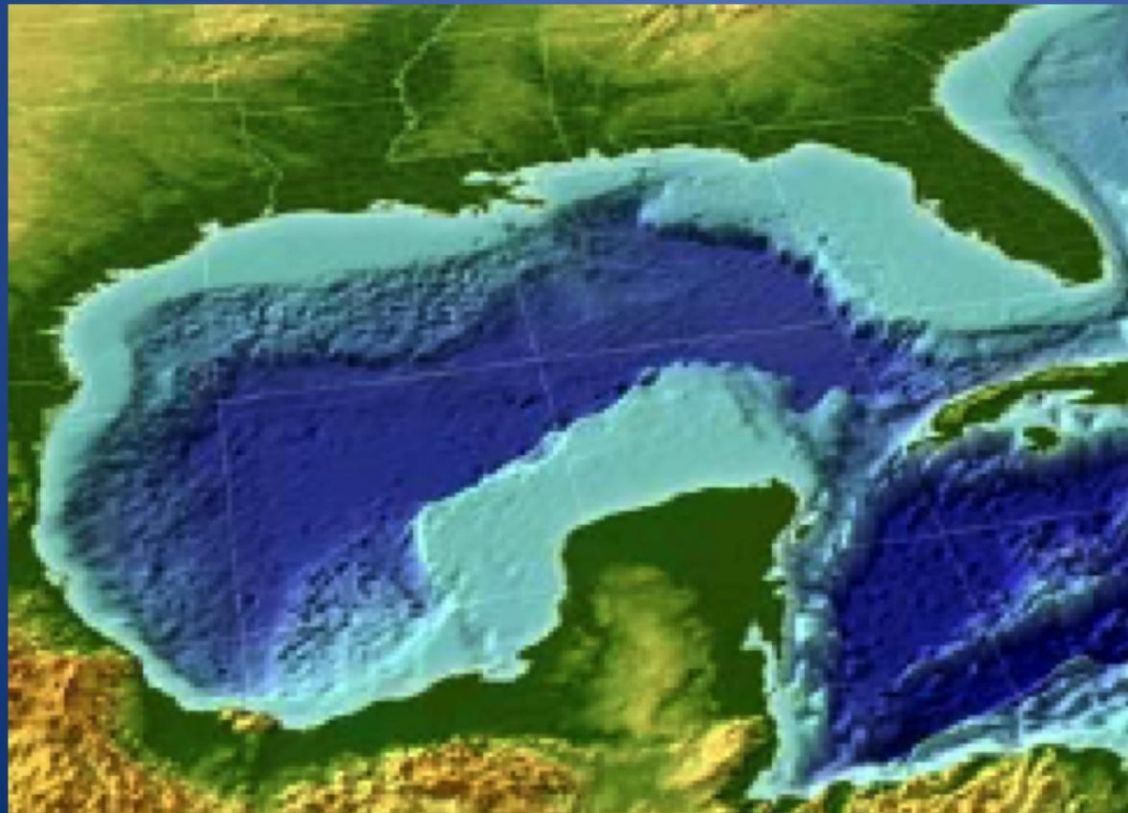


Five module approach to developing indicators of ecosystem condition to support management actions





Integrated Assessment and Management of the Gulf of Mexico Large Marine Ecosystem



Contacts:

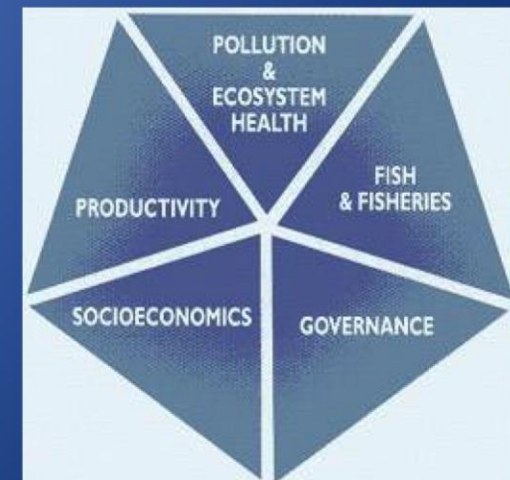
UNIDO

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Project Timeline

2009

Funding of \$4.5 m was approved for a 5 year project through the United Nations Global Environment Facility (GEF) and the United Nations Industrial Development Organization (UNIDO). While NOAA is a full partner in the program, the U.S. is not GEF eligible for funding, and NOAA participation has been funded through existing programs and in kind contributions.

Project Inception Workshop and First Steering Committee Meeting, Merida Yucatan (June). Workplan developed at second bi-national meeting between Mexico and the United States, Mexico City (November).

2010

Second Steering Committee Meeting, Miami, FL (February)

Working meeting on habitats and shrimp populations in the Terminos Lagoon region, Ciudad del Carmen, Mexico (August)

2011

Progress report and Third Steering Committee Meeting, Veracruz (March)

Transboundary Diagnostic Analysis writing workshop, Miami (July 19-21)

Gulf of Mexico LME Project Current Partners



Gulf of Mexico Large Marine Ecosystem Project Objectives

- Complete and publish Transboundary Diagnostic Analysis (TDA)
- The TDA will form the basis for a Strategic Action Program and several National Plans of Action
- Complete three pilot projects near the Terminos Lagoon (ecosystem monitoring, habitat loss, and fisheries)

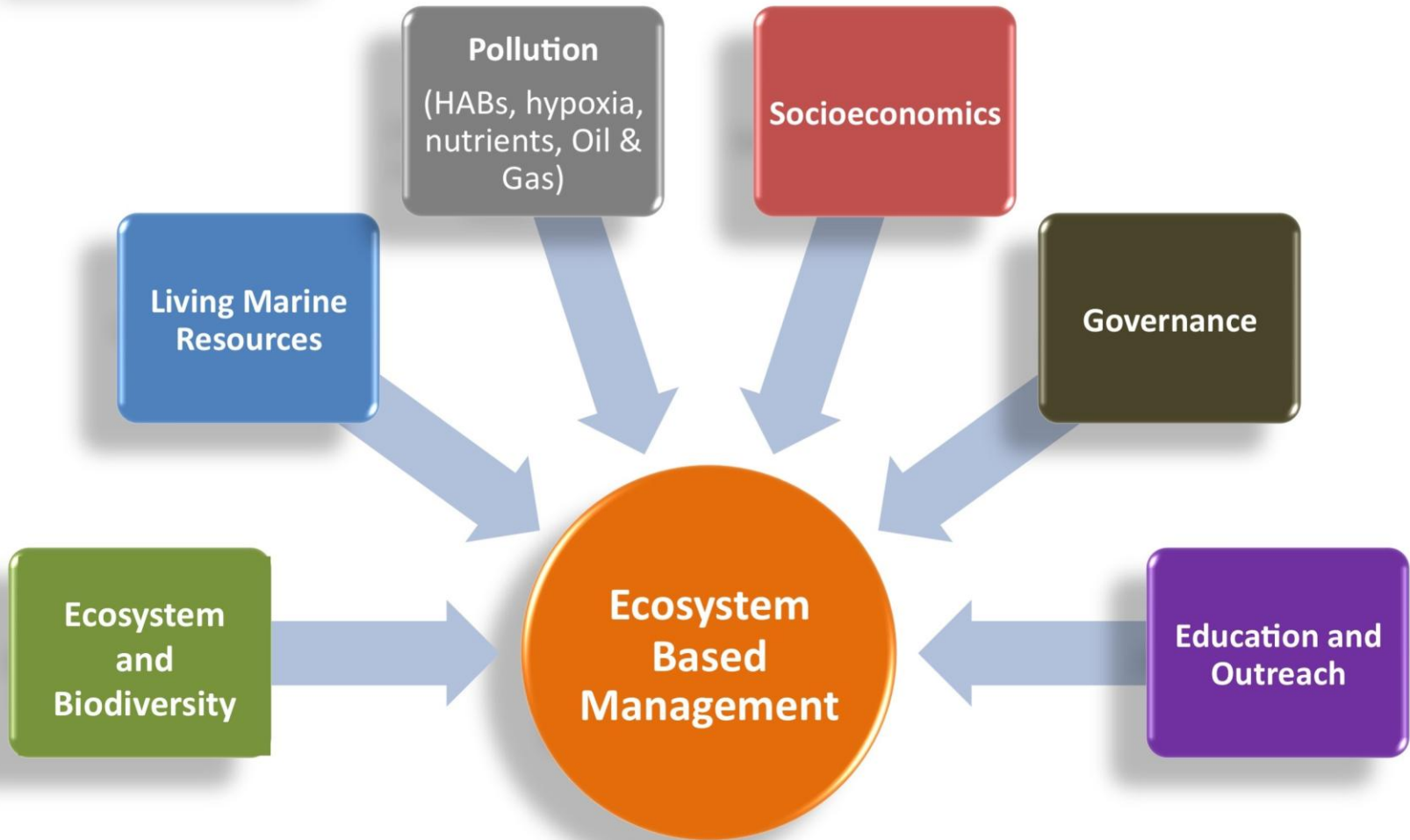
Transboundary Diagnostic Analysis

Gulf of Mexico LME

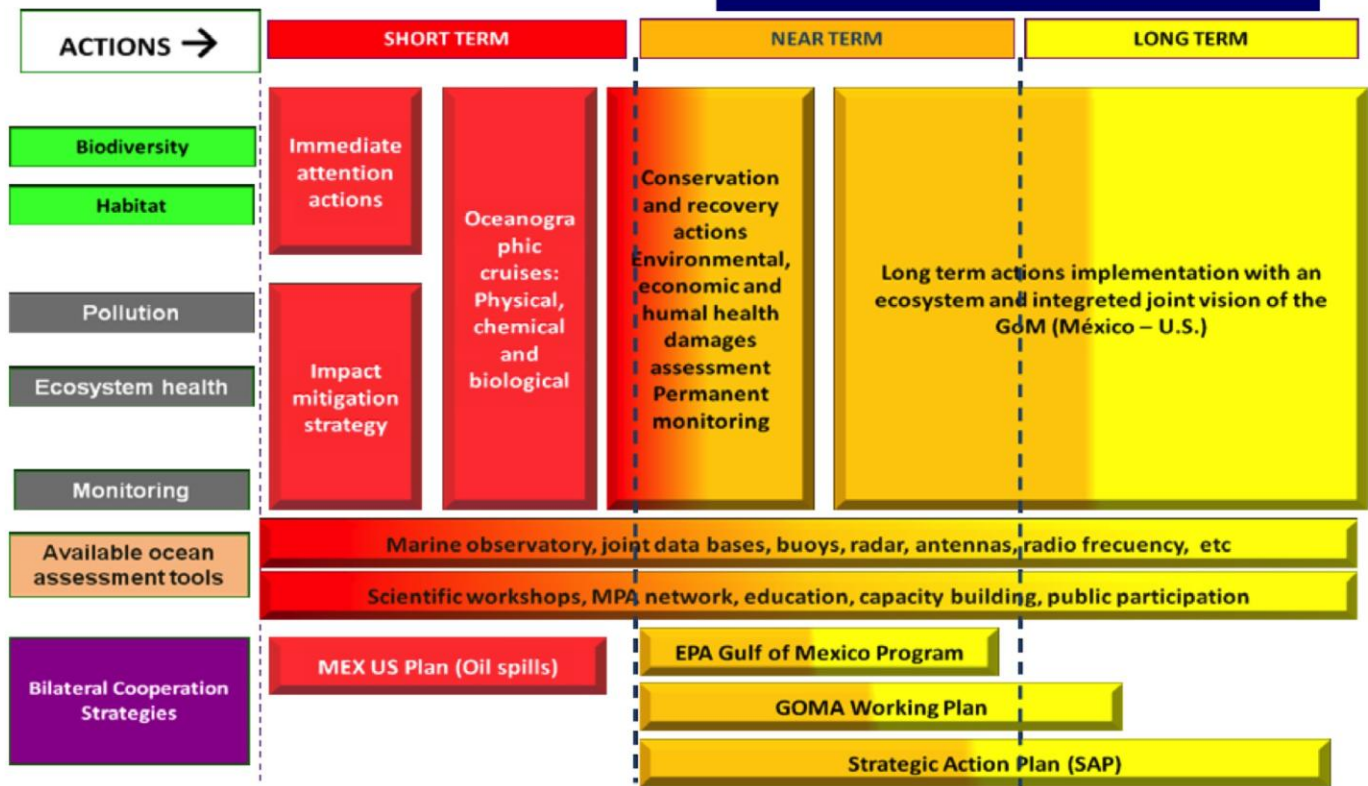
Includes assessments of:

- Biodiversity hot spots
- Fishery status and trends
- Nutrient over-enrichment
- Harmful Algal Blooms
- Climate change and sea level rise
- Governance of policy and regulatory frameworks
- Socioeconomic impacts of marine ecosystems

Economic development based on environmental sustainability



Planning the long term sustainable future of the Gulf of Mexico Large Marine Ecosystem



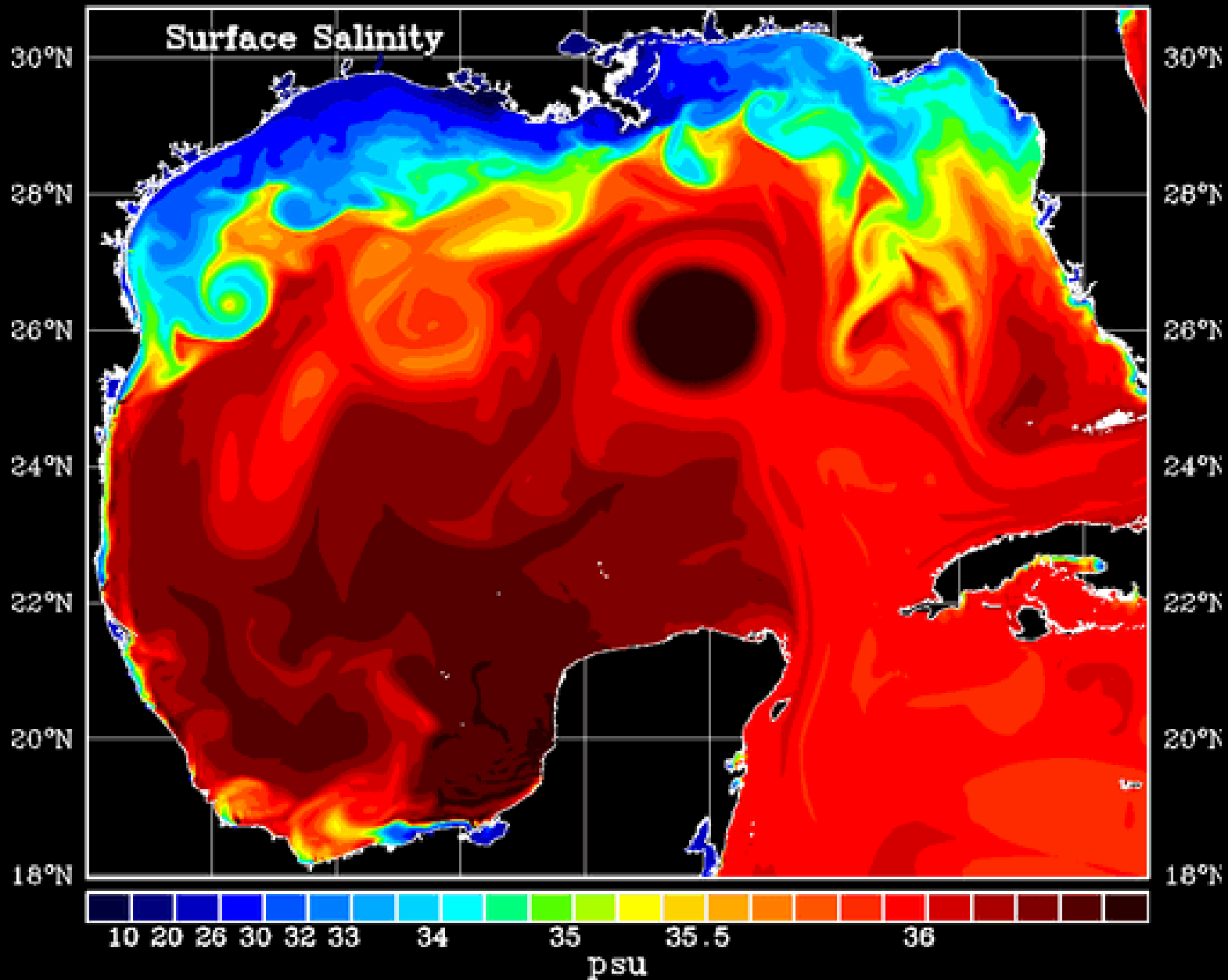
www.gulfofmexicoproject.org

96°W

92°W

88°W

84°W



Parallel Objectives between the Gulf Coast Ecosystem Restoration Task Force and the GoM LME Project

- Reduce nutrient loading from rivers that contributes to coastal hypoxia
- Develop coordinated monitoring programs for coastal ecosystems
- Develop ecosystem models that link stressors, drivers, and ecosystem services in the GoM
- Monetize ecosystem services
- Identify most important coastal habitats contributing to fishery productivity
- Identify likely impacts of climate change (sea level rise, ocean acidification, precipitation patterns, storm frequency and intensity) on GoM ecosystem

How can the Gulf Coast Ecosystem Restoration Task Force Coordinate with the GoM LME Project?

- Restoration of the Gulf of Mexico Ecosystem must be considered as an international problem
- The partnerships developed and invested in through the GoM LME can be leveraged and the program catalyzed through coordination with the Task Force
- The GoM LME program can be used as a model (or the vehicle) for international collaboration