ADVANCING ECOSYSTEM-BASED FISHERIES MANAGEMENT IN THE GULF OF MEXICO

WHO WE ARE

The Gulf of Mexico University Research Collaborative (GOMURC) is a regional alliance of university consortia (currently 78 institutions) intended to promote science and education initiatives that span state boundaries. Through advocacy and collaboration, GOMURC supports science-based policies and programs to understand, restore, protect and sustain Gulf of Mexico natural resources.

POSITION

Ecosystem-Based Fisheries Management (EBFM) treats fish and fishermen as integral parts of the ecosystem and considers the many human and natural environmental stressors that affect fisheries and wildlife and the places they live. EBFM, if successful, helps integrate stakeholders to co-manage resources, supports adaptive management, and promotes innovations to improve the lives of both fish and fishermen. Penalties from the Deepwater Horizon Oil Spill (DWHOS) in 2010 provide an opportunity to evolve EBFM for Gulf natural resources. Recommended objectives and tasks (Fig. 1) include:

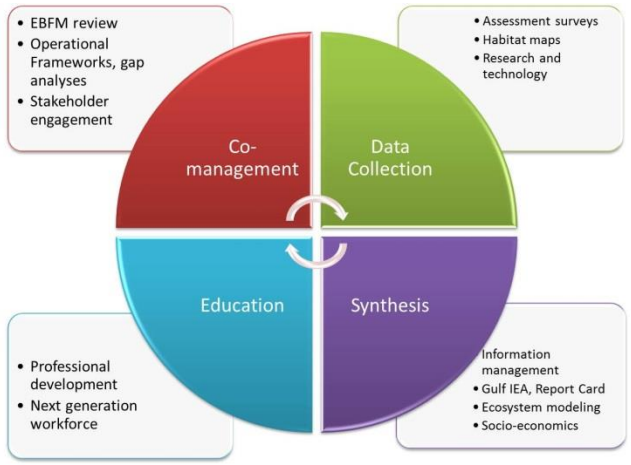

Figure 1. Recommended tasks to evolve EBFM in the Gulf of Mexico represent a science-based continuum including: planning (Obj A- Co-management); monitoring, assessment and research (Obj B- Data Collection), synthesis and products for decision-makers (Obj C- Synthesis), and ocean literacy and workforce development (Obj D- Education).

A. Promote co-management of Gulf fisheries: learn from EBFM successes in other regions; develop multi-species operational frameworks for Gulf stocks to identify science drivers and priorities, gaps in knowledge and capabilities, management priorities and desired outcomes; engage science community to ensure restoration and EBFM projects are meritorious and relevant; and engage international partners to broaden Gulf-wide benefits.

B. Collect data, conduct research, and develop technologies: based on data and information gaps identified during development of operational frameworks, fill gaps in knowledge of habitats, fish distributions, and fish ecology; expand fisheries dependent and independent surveys to support fish stock and wildlife assessments; develop and fund a Gulf-Wide observing and monitoring program; map essential fish habitats in the Gulf EEZ; conduct basic research and exploration to understand structure and function of Gulf ecosystems; develop new technologies and tools to improve and enhance non-destructive fisheries and habitat assessments, and reduce negative ecosystem impacts of fishing activities.

C. Support Information Management and Synthesis: integrate and promote access to fisheries dependent and independent data, derivative products, and research results; support a Gulf-wide Integrated Ecosystem Assessment and Gulf Report Card that informs all stakeholders about the health of Gulf natural resources; develop conceptual and mathematical ecosystem models and establish a Gulf of Mexico Ecosystem Modeling Network; and increase support for Ecosystem Services Valuation that capture non-market benefits of Gulf ecosystem goods and services.

D. Enhance education and professional development: increase training and job opportunities via for professional development in EBFM; and improve quality and access to EBFM-related curricula, building the required future science and engineering work force.