I. Introduction

Effective fisheries management in the South Atlantic region requires not only robust biological data but also a comprehensive understanding of the human dimensions of fisheries. This Social and Economic Research and Monitoring Plan outlines strategies to improve the collection, integration, and application of human dimension data to support adaptive and inclusive management decisions.

II. Goals and Objectives

Goal 1: Improve understanding of the social and economic dynamics of South Atlantic fisheries.
Goal 2: Integrate social and economic data into the fishery management processes.
Goal 3: Enhance stakeholder engagement through inclusive, community-based research and citizen science.
Goal 4: Maximize social and economic sustainable yield and support resilience in coastal fishing communities.

III. Priority Research Areas

A. Economic Research Priorities

1. **Fishery Dependence and Revenue Flow**
   - Track changes in commercial and for-hire revenues by species, gear, and port.
   - Examine fishery dependence among communities and regions.
2. **Cost and Earnings Data**
   - Expand cost-earnings surveys for the commercial and for-hire sectors.
   - Assess profitability, input costs, and financial risks.
3. **Market Dynamics and Value Chains**
   - Study domestic and export seafood market trends.
   - Analyze seafood price variability, value-added processing, and supply chains.
4. **Economic Impact and Contribution**
   - Update input-output models (e.g., IMPLAN) to estimate regional economic contributions of fishing activity.
   - Evaluate the cumulative economic effects of regulations and environmental events (e.g. hurricanes, algal blooms, upwelling events)
     1. Develop methods to understand the economic effects or value of managed areas developed by SAFMC.

B. Social Research Priorities

1. **Fishing Community Profiles**

- o Work with NMFS to update comprehensive community profiles using census, fishery, and local data.
- o Highlight cultural, demographic, and occupational characteristics.
2. **Governance and Perceptions**
   - o Assess stakeholder perceptions of management measures, enforcement, equity, and trust.
   - o Study how social science is used in the decision-making process and what motivates stakeholders to participate.
3. **Social Vulnerability and Resilience**
   - o Work to expand available indicators of social vulnerability to include fishing community specific exposures to risks, such as loss of working waterfronts, species shifts, etc.
   - o Continue to map indicators of social vulnerability, adaptive capacity, and exposure to risks.
   - o Identify communities vulnerable to climate change, habitat loss, and species and regulatory shifts.
4. **Human Well-being and Quality of Life**
   - o Measure impacts of fishery participation on mental, physical, and economic well-being.
   - o Monitor the effects of closures, access changes, and natural disasters on fishing communities.
   - o Develop methods to understand the social impact and cultural value of managed areas developed by SAFMC.

IV. Data Collection and Monitoring

A. Existing Data Sources to Leverage

- NOAA Fisheries Social Indicators Portal
- NOAA Fisheries Community Profiles
- NOAA Fisheries Voices Oral History Archive
- Fisheries Economics of the U.S. (FEUS) reports
- SEFSC cost-earnings surveys
- National Fishermen and Vessel Registries
- U.S. Census and American Community Survey
- Atlantic Coastal Cooperative Statistics Program (ACCSP)

B. New or Enhanced Data Needs

- Real-time or near-real-time social and economic data streams
- Socioeconomic logbooks or add-ons for existing reporting
- Ethnographic fieldwork and oral history programs
- Local Ecological Knowledge (LEK) documentation
- Develop methods to inform long-term optimum yield in fisheries
- Impact of changing geographic fish distribution
- Potential impacts to fishing community due to flood and storm damage

- Observations and predictions on species distribution changes
  - Better linkage between the Greater Atlantic and South Atlantic regions.
- Improved communication with stakeholders to better understand stakeholder management needs and fishery observations.

C. Monitoring Strategies

- Review socioeconomic status reports every 5 years
- 5-year community trend assessments
- Periodic policy impact evaluations
- Continuous feedback loops with stakeholders
- Integrate more social and economic data in the Stock Assessment and Fishery Evaluation (SAFE) biannual reports for each fishery management plan.

V. Collaboration and Partnerships

- **Federal:** NOAA Fisheries (SEFSC and SERO), NMFS Office of Science & Technology
- **State Agencies:** FL, GA, SC, NC marine resource divisions
- **Academic Institutions:** Regional Sea Grant programs, universities with coastal sociology/economics programs
- **Community Partners:** Fishing cooperatives, harbor authorities, tribal organizations
- **NGOs and Private Sector:** Market analysts, processors, ecotourism operators

VI. Application in Management

- Continue to incorporate social and economic data into fishery management plan amendments and expand the current available sources and quality of data.
  - Develop Social Impact Assessments (SIA), Regulatory Impact Review (RIR), and Regulatory Flexibility Act (RFA) for all major actions.
- Use participatory modeling, scenario planning, and citizen science to engage stakeholders in the research and management processes.
- Support adaptive management

VII. Economic and Social Science Priorities by FMP

- All Finfish Fisheries
  - Provide regularly updated estimates of recreational economic values for Council managed species.
    - Develop methods that allow economic value information to be updated on a regular basis.
    - Develop or expand economic value estimates that focus on angler opportunity in additional to realized harvest (abundance, catch rates, opportunity to harvest a given bag limit, etc.).

- o Provide information on how changes in allocation or species availability influence recreational and commercial net benefit estimates.
  - o Develop estimates or models for the response of angler behavior to regulation changes for Council managed species.
  - o Develop a social and economic profile and an economic impact model for the South Atlantic headboat component of the for-hire sector.
  - o Develop net revenue estimates generated for seafood dealers from the sale of Council managed species.
  - o Develop a study to quantify current and baseline access to fishing infrastructure throughout the South Atlantic region to evaluate community dependance and cultural importance of fishing activities.
  - o Develop a social and economic profile of commercial and recreational participants involved in Council managed fisheries (commercial captain and crew, for-hire captain and crew, private, charter, or headboat anglers, etc.).
  - o Explore management alternatives that would facilitate overlapping open harvest seasons to allow commercial boats to maximize net revenue.
- Snapper Grouper
  - o Evaluate the cumulative economic and social implications of existing regulations on the multi-species Snapper Grouper fishery in the South Atlantic.
  - o Describe the impact of the limited entry system on underserved communities.
  - o Conduct an economic analysis on the capacity of the commercial Snapper Grouper fishery.
- Coastal Migratory Pelagic
  - o Describe how management regulations such as state and federal regulations may limit access to fisheries based on changes in species distribution in temporally or spatially (particularly Spanish Mackerel).
  - o Investigate social and economic effects on the commercial fishery due to trips limits.
  - o Track secondary, wholesale, and retails prices to better understand the value of the commercial fishery.
  - o Investigate changes in price due to recreational tournaments.
  - o Has importance of CMP species changed in private recreational or for-hire fisheries as other fishery regulations or abundance changed?
- Dolphin Wahoo
  - o Improve the description of fishery preferences for stakeholders in private and for-hire components of the recreational sector for Dolphin and Wahoo along the coast.
  - o Describe social and economic effects of hurricanes and warming surface ocean water on the Dolphin and Wahoo fishery
- Shrimp
  - o Describe impact of imports on shrimp fisheries
  - o Track market trends and fleet profitability.
  - o Continue monitoring fisheries north of North Carolina.
  - o Assess regulatory and environmental risks to fleet and shore-based infrastructure.
  - o Describe fleet characteristics to understand how the fleet has changed over the past 20 years.
  - o Describe demographics in the fishery
    - ▪ Have programs to train new participants benefited the fishery?

- Spiny Lobster
  - Describe how the value of spiny lobster has changed north of Florida
  - Develop a description of the usage of tailing permits by state or area of landing
  - Describe social and economic impacts of environmental events (e.g. hurricanes, algal bloom) on fisheries
- Golden Crab
  - Develop social and economic indicators for the Stock Assessment and Fishery Evaluation Report
  - Review effects of current regulations on fishermen and processors
- Coral
  - Update the National Coral Reef Monitoring Program Socioeconomic Monitoring for South Florida
  - Develop a social and economic monitoring program for deep water coral in the region
  - Continue research on social and economic effects of extreme ocean temperatures, coral bleaching, and stony coral tissue loss disease on dive fisheries in the South Atlantic region
- Sargassum
  - Describe demand for sargassum (current quota is 5,000 lbs in federal waters and seasonally limited)
  - Describe social and economic costs associated with sargassum inundation on beach and reefs