**Terms of Reference (TOR) for NMFS**

**2017 Economics & Human Dimensions Science Program Review**

# Purpose of the Review

The National Marine Fisheries Service (NMFS) is responsible for the stewardship of ocean and coastal ecosystem through science-based conservation and management aimed at sustaining the long-term use and benefits from these resources for the Nation. To ensure NMFS achieves this mission, it is appropriate to conduct periodic reviews of its economic and human dimensions science program.

Reviews of science programs at the NMFS Regional Science Centers (including associated laboratories) and, when appropriate, the Office of Science & Technology (ST), are conducted to:

* Evaluate the quality, relevance, and performance of science and research conducted in NMFS Regional Science Centers (Centers) and associated laboratories
* Strategically position the Centers and ST in planning future science and research.

# Background

The NMFS Economics & Human Dimensions Science Program conducts research and provides science advice that can be used to evaluate the consequences of management actions and to design policy that maximizes societal benefits from ocean and coastal ecosystems. Within this context, NMFS conducts economics and sociocultural research on commercial and recreational fisheries and fishing communities to provide information on the potential effects of fishery management options on people. Increasingly, this work takes into account ecosystem approaches and ecosystem based fisheries management considerations by including fishery interactions with non-target species and/or protected species as well as a changing coastal and marine environment due to climate change, eutrophication, oil spills, habitat extent and quality, severe storms, etc. In addition to supporting fisheries management, socioeconomic research undertaken by the program also informs conservation measures implemented to protect and recover marine protected species and restore habitat.

The Center and ST Programs research activities support economic and human dimensions-related needs of the NMFS Regional Offices, the Offices of Sustainable Fisheries, Protected Resources, Habitat Conservation and Aquaculture. The data and analysis done by the program is also used by Fishery Management Councils, Fisheries Management Commissions, state agencies, and nongovernmental organizations. It is also intended to inform broader policy advice governing ecosystems as well as more long-term scientific needs required by environmental drivers such as climate change and implementing ecosystem based fishery management.

# Objective

The purpose of this review is to evaluate the current ST Economics & Human Dimensions Program and its role in the national program. The objectives of the review will be to evaluate whether the ST Program is focused on the priority information needs required to fulfill the NMFS mission, assess the quality and effectiveness of these programs, and make recommendations for the future. Given ST’s national role in the program, reviewers should also consider the extent to which ST is enabling the Centers to meet their information needs.

# Overarching Questions for Reviewers

ST will present information relevant to its four focus research areas (commercial fisheries economics, recreational fisheries economics, human dimensions and ecosystem research) as well as other programmatic activities (e.g., capacity building, outreach, etc.) The reviewers will use this information (and any ensuing discussion) to evaluate the quality and relevance of the program towards meeting management needs, the overall direction of the program and ST’s ability to influence and guide the broader program. The reviewers should consider these overarching questions:

1. Does NMFS have clear goals and objectives for its economic and sociocultural science program? Are the ST economic and human dimensions focus areas appropriate (i.e., appropriate topics, program structure, mechanisms and prioritizations procedures) to advance economic and sociocultural research that will meet NMFS’s needs?
2. Is ST focused on the priority information needs required to fulfill the NMFS mission?
3. Are commercial fisheries, recreational fisheries, fishing participants, and community data collections adequate to fulfill economic and sociocultural science research and management needs? Has ST developed strategies to obtain, manage, and make data accessible and/or facilitated these activities? Are there barriers that impede data collection?
4. Is ST facilitating the development of appropriate models and research tools to analyze data and provide management advice?
5. Is ST working to ensure that information provided to managers is used and used appropriately? Are there barriers to the uptake of science provided by the Center and what steps can be taken to overcome these?
6. Are the methods and models being developed contributing to (or will they contribute to) the advancement of conservation and management approaches such as integrated ecosystem assessments (IEAs), ecosystem based fisheries management, and other emerging issues? Is ST facilitating the development of these models? Are there barriers to addressing emerging issues?
7. Are ST economic and sociocultural programs appropriately integrated with other relevant programs? Are research efforts integrated, where relevant, with efforts at the Centers, regional offices and headquarters offices?

1. Does ST use the best tools to appropriately communicate research results to various managers, partners, stakeholders and the public?

In all cases, the reviewers should note areas where the ST Economics and Human Dimensions Science Program is doing well and provide recommendations for areas that need improvement.

## Format

The ST review will be conducted after the six Science Center reviews and the duration of the meeting will be 3 days. ST will endeavor to provide access to open sessions of the review for the public and remotely located staff who are unable to attend in person. To this end, the venue will have wireless internet access, audio visual capability (e.g., overhead projector, microphone amplification). Prior to the review, a teleconference between Center leadership and the review panel will be held to discuss and clarify the charge to reviewers, the scope of the review, focus questions provided in the scope, background documents provided, and products of the review.

The review will be structured with presentations that address topics related to each ST economic and human dimensions focus area. These presentations will draw upon background material that will be provided as described in the section. A draft agenda for the review is as follows:

* September 26

o   Welcome, introductions, charge to review panel

o   Overview of ST by ST leadership

o   Overview of ST’s Economic & Human Dimensions Program

o   Commercial Fisheries Economics

o   Recreational Fisheries Economics

o   Public comment (variable)

o   Panel deliberation (closed session)

* September 27

o   Human Dimensions Program

 o Ecosystem Research

o Communications

o   Public comment (variable)

o   Panel deliberation (closed session)

      September 28

o   Preparation of panelists’ recommendations (closed session, as needed)

o   Panel and ST leadership discuss the results of the review (i.e., debrief, closed session)

Stakeholders will be invited to participate as observers and to comment during the daily public comment sessions. Stakeholders providing comment during the review public comment sessions may also submit written public comments to the point of contact listed on the Center’s program review website. These comments will be provided to the review panel. Public comments are for the reviewers' edification and will not necessarily be specifically responded to by the agency or the review panel.

At the close of the review, the panel and ST leadership will discuss the results of the review in closed session. Additional personnel (e.g. Chief Scientist, Senior Scientist for Economics, and program review coordinator) are expected to attend the closed session and this will be communicated to the panel prior to the start of the review.

## Briefing and Background materials

All background materials prepared by the Center/ST will be provided to the panel electronically through the Center/ST website no later than 2 weeks prior to the review. All presentations will be provided to the panel through the website, 1 week before the review. Briefing books may be provided at the request of the panel chair.

## Products

Each panelist will produce a succinct report detailing his or her observations of and recommendations for the themes provided within the TOR for the program review. (See Appendix 1 for template.) The chair may submit an individual report, but this is not a requirement. Individual reports are required for NMFS to comply with the Federal Advisory Committee Act (FACA, 1972). Draft reports will be submitted to the Center/ST Director at the close of the review. Final versions will be submitted by the panelists 1 week after the review concludes.

The panel chair will summarize the program review proceedings (e.g. what happened, salient issues, and recurring themes) in a report submitted to the Center/ST Director at the close of the review. The report will not represent a consensus of panelists’ observations and recommendations (FACA).

## Review Team Resources

NMFS will pay for the travel cost and per diem for all review panelists external to NMFS and a set fee for the services of non-governmental panelists. Each Center/ST will assist review panel members in making travel arrangements.

During the review the Center/ST will provide the review panel with wireless broadband services and space to convene closed working sessions. If requested in advance, the Center will, within reason, provide other items (e.g. desktop computers, printers, copiers) to assist the review panel with report preparation.

The review panel will, if needed, be provided 1 full day to write draft review reports at the conclusion of presentations by Center staff.

## Review Panel

The scientific review panel will include 4-7 independent PhD-level or equivalent scientists with demonstrated familiarity with the topic. Panels should include:

 1 scientist from NOAA Fisheries

 1 scientist from another NOAA line or staff office (optional).

 3- 5 (the majority) scientists external to NOAA.

 1 Science Center Director (optional)

NMFS requires the chair not be a NMFS employee and encourages that the chair of the panel be a federal scientist external to NOAA. The NMFS program review coordinator will attend and provide guidance to the panel on complying with FACA. To ensure a majority of independent reviewers, reviewers who are members of committees that are involved in NMFS science (e.g. science and statistical committees, science review groups) will be from a different region than the Center being reviewed, and use of recently retired and former NMFS employees will be limited. Other potential perceived or real conflicts of interest shall be avoided. The NMFS Assistant Administrator or their designee shall approve the Panel selections.

## Agency Response

The Center/ST Director will send the chair’s summary report and the panel members’ individual reports to the NMFS Chief Science Advisor when the reports are received. The Center/ST Director will also prepare a brief response, including agency actions, to the chair’s summary report within 10 weeks of receipt of the chair’s review report package by the NMFS Chief Science Advisor. The response can include clarifying information and respond to controversial points within individual reports even if not mentioned in the chair’s summary.

The NMFS Chief Science Advisor will send the package to the NMFS Assistant Administrator for clearance.

At end of 90 days after the review, all documents (chair’s summary report, director’s response, individual reviewers’ reports) will be posted on the Center/ST websites. Authorship of the individual review reports will remain anonymous to the public.

## Material to be Provided by the Office of Science & Technology

The Centers will provide presentations made by staff and background materials in order to facilitate the independent review. All materials (e.g. power point presentation, word files, pdfs) will be named such that the file names indicate the main topic the material covers. Materials will be provided in an interactive agenda format (i.e. materials will be linked to the talks listed on the agenda) and will be marked as required primary references (must read) and secondary references (optional for further detailed information).

**Appendix 1. Program Reviewer Report Templates**

**Chair’s Summary[[1]](#footnote-1) of Program Review of Economics and**

**Human Dimensions Program**

**Science Center**

**Address**

**Dates**

**Review Panel Members**

* Name, Affiliation, Chair
* Name, Affiliation, Reviewer (as many as needed)

**Background and Overview of Meeting General**

**Observations and Recommendations**

**Panel Member’s Major Recurrent Observations and Recommendations**

* **Goals and objectives**

o   Observations

o   Recommendations to address issue

* **Address priority needs**
* Data Collection & Management
* Models & Research
* Councils use information correctly

o   Observations

o   Recommendations to address issue

* **Emerging Needs (e.g, IEAs, EBFM, climate)**

o   Observations

o   Recommendations to address issue

* **Integration with relevant programs**

o   Observations

o   Recommendations to address issue

* **Communication of status and accomplishments**

o   Observations

o   Recommendations to address issue

* **Other**

 Observations

 Recommendations to address issue

* **Conclusions**

**Reviewer Report on Program Review of Economics and Human Dimensions Program**

**Science Center**

**Address**

**Dates Background**

**General Observations and Recommendation**

**Key (Specific) Findings and Recommendations (as reviewer has comments on)**

* **Goals and objectives**

o   Observations

o   Recommendations to address issue

* **Address priority needs**
* Data Collection & Management
* Models & Research
* Councils use information correctly

o   Observations

o   Recommendations to address issue

* **Emerging Needs (e.g, EBFM, climate)**

o   Observations

o   Recommendations to address issue

* **Integration with relevant programs**

o   Observations

o   Recommendations to address issue

* **Communication of status and accomplishments**

o   Observations

o   Recommendations to address issue

* **Other**

 Observations

 Recommendations to address issue

**Conclusions**

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1. Notes: This report is a summary by the chair NOT consensus. Summarized findings and recommendations should be reported as “Panel members said" NOT "Panel concluded". [↑](#footnote-ref-1)