



Science Advisory Board

2020-2021 Work Plan

AN OVERVIEW FOR DISCUSSION

Presented to the NOAA Science Advisory Board
December 2019

Background

- The SAB has been working toward completion of the 2018-2019 work plan.
- Some topics from that plan may carry over to the next work plan.
- In the spring and summer of 2019, the SAB began discussions of potential work plan topics. The standing working groups contributed ideas for new topics.
- The July 2019 SAB Meeting helped to identify topics to pursue in the next round of discussions.



Process for the 2020-2021 Work Plan

Initial priorities and topics will be identified by the SAB.

SAB will work closely with NOAA to set priorities. (An experts panel could help.)

A document will be drafted.

The draft Work Plan will be vetted by NOAA.

SAB will revise the plan based on NOAA input.

Priorities and topics from the 2018-2019 work plan

PRIORITY 1: **REDUCE THE IMPACTS OF EXTREME WEATHER AND WATER EVENTS.**

- Topic 1:** Oversee Development and Implementation of the Environmental Information Services Working Group Work (list from WRFIA) (ongoing)
- Topic 2:** Review the Use of Observing System Simulation Experiments (OSSEs) (completed)
- Topic 3:** Enhance Strategic Investment and Use of Unmanned and Autonomous Systems (ongoing)
- Topic 4:** Review Improving Data Collection, Management, Dissemination and Decision Support, and Leveraging New Approaches such as those encompassed in the domain of Artificial Intelligence (AI) and Data Science (anticipated completion at end of 2019)
- Topic 5:** Social Sciences and Decision Support in NOAA (relevant both to Priorities 1 & 2) (on hold)

Priorities and topics from 2018-2019 plan continued

PRIORITY 2: INCREASE THE SUSTAINABLE ECONOMIC CONTRIBUTIONS OF OUR FISHERY AND OCEAN RESOURCES (BLUE ECONOMY)

Topic 6: Sustainable Marine Aquaculture (completed)

Topic 7: Evaluating NOAA Coastal Sciences (pending NOAA decision; not pursued by the SAB)

Topic 8: Coastal and Marine Transportation and Support Infrastructure (decision to stand down on this topic after discussion with relevant programs in NOS)

Topic 9: New Technologies for Fisheries Stock Assessments (completion at the end of 2019; ESMWG is presenting their draft report at this December SAB meeting.)

General themes discussed in July

Enhancing innovation

- SAB could examine NOAA's approach to innovation by thinking of a more structured pathway to innovation

NOS relevant issues

- NOS has not seen itself in the past plan. How can the SAB incorporate more of the NOS needs into the next plan?

Social sciences

- How can the next work plan address the social sciences and weaving them into emerging technologies better?

Partnerships and innovation

- Can or should partnerships be emphasized more in the new Work Plan?

Topics presented by the working groups

Environmental Information Services Working Group

Proposed: An assessment of NOAA's progress toward meeting the sub-seasonal and seasonal forecasting requirements.

Climate Working Group

Proposed: *S2S2D - A Pathway to Improved Predictions* (CWG has moved forward with S2S2D and is presenting their report at this December SAB meeting.)

Ecosystem Sciences Management Working Group

Proposed (first two garnered strong interest from the SAB at the meeting):

- Practical Methods for Adaptive Risk Management & Decision-Making under Uncertainty
- Aquaculture and Ecosystems in the 21st Century
- Socio-Economic Dimensions of Integrated Ecosystem Assessments (IEAs)

NOAA Science and Technology Focus Areas

- ❑ Artificial Intelligence
- ❑ Unmanned Systems
- ❑ 'Omics and eDNA
- ❑ Cloud Computing

Next steps

1

Reach consensus today on priorities. Determine how the SAB will match topics to priorities.

2

An SAB subcommittee might pursue fine-tuning the priorities and work plan topics.

3

Have at least an outline of a work plan ready for the February 2020 SAB telecon meeting.