



PICES Monitor Technical Committee Action Plan 2006

Mission

- Identify principal monitoring needs of the PICES region;
- Develop approaches to meet these needs, including training and capacity building;
- Serve as a forum for coordination and development of the PICES components of the Global Ocean Observing System (GOOS), including possible method development and inter-comparison workshops to facilitate calibration, standardization and harmonization of data sets;
- Serve as the senior editorial board of the North Pacific Ecosystem Status Report (NPESR), reporting to Science Board;
- Recommend interim meetings to address monitoring needs, PICES-GOOS activities, and development of the NPESR;
- Provide Annual Reports to Science Board and the PICES Secretariat on monitoring activities in relation to PICES;
- Interact with TCODE on management issues of monitoring data.

Strategy of the Monitor Technical Committee

This Action Plan was developed to guide the activities of the Monitor Technical Committee for the next three to five years. During that time, Monitor will have two major foci – publishing the next NPESR, and determining the PICES role in coordination and facilitation of Ocean Observing Systems that link the PICES member nations. Included in the NPESR goal is laying the foundation for regular production of the report in the future. Towards the end of this period, the committee will evaluate progress made on these two foci and will recommend future directions.

Theme A. Advancing scientific knowledge

Goal 1. Understand the physical, chemical, and biological functioning of marine ecosystems

The PICES scientific program is dedicated to understanding and quantifying the physical, chemical and biological processes of the North Pacific Ocean, including the oceanographic and ecological responses to climate variability. Understanding biological diversity, life histories, and trophic relationships depend on development of modern technologies for sampling the marine environment.

Action 1.1 Promote the use of the PICES North Pacific Ecosystem Status Report to understand the functioning of marine ecosystems.

Task 1.1.1 Conduct a workshop at PICES XIV to identify gaps of knowledge and find a consensus for the format and frequency of future reports.

Task 1.1.2 Decide on a process to produce the next report.

Task 1.1.3 Produce the report.

Task 1.1.4 Evaluate the report and the process used to create it.

Action 1.2 Promote the use of Global (GOOS) and regional (IOOS) Ocean Observing Systems as tools to understand the functioning of marine ecosystems.

Task 1.2.1 Briefly identify and describe the major observing systems (present and proposed) in the PICES region.

Task 1.2.2 Provide a recommendation on whether or not PICES should attempt to coordinate / facilitate communication between I-GOOS and national OOS efforts within the PICES region.

Task 1.2.3 Provide a recommendation and justification on whether or not PICES should propose a North Pacific GOOS pilot project to IGOOS.

Goal 2. Understand and quantify the impacts of human activities and climate on marine ecosystems

PICES recognizes that humans are part of the ecosystem of the North Pacific Ocean. They are affected by climate scale variability, and in turn conduct activities that impact marine ecosystems. This goal addresses the ecosystem effects of fishing, mariculture, contamination and eutrophication on the marine ecosystem, and also includes physical habitat changes and accidental introduction of non-native species.

Action 2.1 Promote the use of the PICES North Pacific Ecosystem Status Report to understand and quantify the impacts of human activities and climate on marine ecosystems.

Task 2.1.1 Actively solicit advice from member countries, scientists, and stakeholders for what type of information is needed for the report to be useful to understand and quantify impacts.

Task 2.1.2 Expand and improve the report synthesis to better explain how the ecosystem functions and the relevant evidence for impacts of human activity and climate.

Action 2.2 Promote the use of Ocean Observing Systems as one of the key elements necessary to understand and quantify the impacts of climate and human activities and marine ecosystems.

Task 2.2.1 Facilitate and integrate present PICES monitoring activities.

Task 2.2.2 Develop a strategy for promoting and funding PICES observing activities, and actively communicating their relevance and utility.

- North Pacific Continuous Plankton Recorder transects.
- North Pacific seabird and marine mammal transects.

- Task 2.2.3** Prepare a brochure for general public to explain how PICES observing will help to understand and quantify impacts of human activities and climate.

Goal 3. Provide advice on methods and tools to guide scientific activities

The quality of our science benefits from comparable methods and techniques. PICES provides workshops on, and opportunities for, inter-calibration of methodology and sampling equipment, as well as collaborative opportunities to develop new, creative methodologies.

- Action 3.1** Use PICES North Pacific Ecosystem Status Report as a forum for providing advice on methods and tools to guide scientific activities.

- Task 3.1.1** Include a chapter or section in the PICES North Pacific Ecosystem Status Report on emerging information needs and critical issues in methodology.

- Action 3.2** Use Monitor's resources and involvement in global and regional Ocean Observation Systems to provide advice on methods and guide scientific activities.

- Task 3.2.1** Propose inter-sessional workshops for 2007 and beyond to investigate and share knowledge on new technologies appropriate for ocean observing systems (e.g. workshop on development of sensors, sensor platforms, and data communications and a workshop on inter-comparison of methods to estimate primary productivity).

- Task 3.2.2** Propose (1) session or workshop each year for the annual PICES meeting to address emerging issues in ocean observation science.

Theme B. Applying scientific knowledge

Goal 4. Provide scientific advice towards wise use of the North Pacific Ocean.

PICES provides periodic reports dealing with critical issues, including a comprehensive assessment of the Status of the North Pacific Ecosystem. Information needed in support of sound utilization and sustainable development of the marine environment is a PICES priority.

- Action 4.1** Promote the use of the PICES North Pacific Ecosystem Status Report as a data resource for scientific advice on the wise use of ecosystem services from the North Pacific Ocean.

- Task 4.1.1** Identify important users groups (from each member country) and determine the type of report that best meets their needs.

- Task 4.1.2** Determine a frequency for publication of the report that will best serve the needs of the different users groups.

- Task 4.1.3** Determine the most effective ways to distribute the report to each user group (from each member country).

Action 4.2 Promote the use of Ocean Observing Systems within the PICES region as a data resource for scientific advice on the wise use of ecosystem services from the North Pacific Ocean.

Task 4.2.1 Decide on a role for PICES to help disseminate observing system knowledge for use in scientific advice (e.g. system of bulletins, alerts, NPESR).

Task 4.2.2 Provide advice on integration of NEAR-GOOS and North American regional observing systems to provide scientific advice on pan Pacific ecosystem status and trends.

Theme C. Fostering partnerships

Goal 5. Promote collaboration with organizations, scientific programs, and stakeholders that are relevant to the PICES goals

PICES develops close relationships with scientific organizations and commissions that have shared goals it also exchanges observers and carries out joint activities. Close collaboration with regional and international programs is critical to PICES success. PICES activities provide an opportunity for capacity building through internships and expediting the involvement of young scientists in PICES activities.

Action 5.1 Promote the process of creating the North Pacific Ecosystem Status Report as a way to gain collaboration among organizations, scientific programs, and stakeholders.

Task 5.1.1 Establish and maintain dialogue with organizations, programs, and stakeholders on potential ways to increase the value of the report to users. Establish a liaison from the committee with each group.

Task 5.1.2 Actively seek input from intergovernmental regulatory organizations (e.g. International Pacific Halibut Commission, IPHC; North Pacific Anadromous Fisheries Commission, NPAFC; International Tuna Commission, ITC) on the content, format, and value of the report.

Action 5.2 Promote collaboration and communication among Ocean Observing Systems internal and external to the PICES region.

Task 5.2.1 Define PICES role, assist and participate in the implementation of international programs (e.g. GOOS).

Goal 6. Promote collaboration among scientists within PICES

PICES must continue to widen the appeal of the PICES Annual Meeting, broaden the scope and readership of publications, and continually develop new partnerships to address emerging issues. PICES must be open to non-governmental scientists, and must ensure the participation of underrepresented groups.

- Action 6.1** Use the North Pacific Ecosystem Status Report as a tool or means to promote collaboration and communication among PICES scientists.
 - Task 6.1.1** Conduct collaborative workshops for the authors, whenever possible, as part of the process that creates the report.
 - Task 6.1.2** Recruit scientists from under-represented groups to participate in the writing of the report.
- Action 6.2** Use PICES involvement in Ocean Observing Systems as a means for promoting collaboration among scientists.
 - Task 6.2.1** Conduct collaborative workshops as part of the process to create a pan Pacific Ocean observing system.
 - Task 6.2.2** Recruit scientists from under-represented groups to participate in the process.

Theme D. Ensuring a modern organization in support of PICES activities

Goal 7. Provide an effective infrastructure to support PICES programs.

An effective Secretariat that supports the mission and goals of the organization is essential to its success.

- Action 7.1** Ensure that the North Pacific Ecosystem Status Report has adequate support and resources.
 - Task 7.1.1** Identify the infrastructure necessary to support consistent and timely publication of the North Pacific Ecosystem Status Report.
 - Task 7.1.2** Work with the PICES Secretariat to create this infrastructure.
- Action 7.2** Ensure that the PICES has adequate infrastructure and resources to support its efforts of facilitating and coordinating ocean observing systems.
 - Task 7.2.1** Anticipate and identify PICES infrastructure necessary to play a growing role in the coordination of North Pacific GOOS activities.

Theme E. Distributing PICES scientific information

Goal 8. Make the scientific products of PICES accessible.

PICES needs to communicate the results of its scientific activities broadly, through high quality publications, the PICES web page, and production and dissemination of educational materials. Maximize the use of electronic media as a vehicle, to allow update as new information is produced.

- Action 8.1** Publish reports and workshop proceedings on a timely basis.
- Action 8.2** Review current Monitor web page and identify new web-based products to support committee's communication with members and stakeholders.