

NORTH PACIFIC MARINE SCIENCE ORGANIZATION (PICES)
PROJECT ON “*BUILDING CAPACITY FOR COASTAL MONITORING BY LOCAL SMALL-SCALE FISHERS*”

WORKPLAN AND BUDGET FOR YEAR 1 (ENDING MARCH 31, 2018)

1. PROJECT GOAL AND KEY QUESTIONS

PICES member countries have significant resources for monitoring environmental conditions and fisheries in coastal waters, while developing nations are far more limited in their capacity for collecting data needed to improve their management practices. Citizen-based monitoring is an approach designed to improve the efficiency and effectiveness of monitoring efforts when technical and financial resources are not sufficient. There are successful examples of citizen-based monitoring in developed countries, however this approach has not been widely applied yet to the collection of environmental and fisheries data in developing nations.

The overall goal of the project entitled “*Building capacity for coastal monitoring by local small-scale fishers*”, funded by the Ministry of Agriculture, Forestry and Fisheries of Japan (MAFF), through the Fisheries Agency of Japan (JFA), is to enhance the capacity of local small-scale fishers to monitor coastal ecosystems and coastal fisheries in Pacific Rim developing countries.

The project key questions are:

- (a) How do global changes in climate and economy affect coastal ecosystems? and
- (b) How may enhanced capacity for monitoring activities by local fishers help to improve fisheries management in coastal areas?

The project is proposed to focus on two major initiatives:

1. Coastal ecosystem monitoring activities by local small-scale fishers to detect ecosystems changes (*e.g.*, deviations in water quality and the changes in community composition);
2. Coastal fisheries monitoring activities by local small-scale fishers to improve coastal fisheries management (*e.g.*, information about fishing operation or species composition on the market).

These two initiatives will be supported by a capacity building workshop or by a series of workshops, with participation of scientists from PICES member countries.

2. INTEGRATION WITH EXISTING PICES ACTIVITIES

The project is expected to interact with, and support relevant activities of PICES Scientific Committees on Human Dimension (HD) and Fishery Science (FIS), PICES Technical Committee on Monitoring (MONITOR), and PICES FUTURE (Forecasting and Understanding Trends, Uncertainty and Responses of North Pacific Ecosystems) Program (specifically, Research Theme 3 on “*How do human activities affect coastal ecosystems and how are societies affected by changes in these ecosystems?*”).

3. PROJECT ORGANIZATION AND MANAGEMENT

The maximum project lifetime is 3 years, from the starting date of the project in 2017 to March 31, 2020.

The project will be directed by a Project Science Team (PST), with membership from within or outside of PICES Committees and expert groups, as deemed appropriate. All groups mentioned under Section 2 are expected to be represented on PST, to be co-chaired by Drs. Mitsutaku Makino (Fisheries Research and Education Agency, Japan; mmakino@affrc.go.jp) and Mark Wells (University of Maine, USA; mlwells@marine.edu). The PST is responsible for the detailed planning and execution of the project, and annual reporting on scientific progress to MAFF/JFA and to PICES Science Board through the HD

Committee. The report to MAFF/JFA should be submitted within 90 days after the close of each project year ending March 31, and include a summary of the activities carried out in the year, with an evaluation on the progress made, and a workplan for the following year. Within PICES, Science Board takes the responsibility for reporting to Governing Council on the progress and achievements of the project.

The PICES Executive Secretary, or a person designated by the Executive Secretary, is responsible for the management of the fund and annual reporting on its disposition to MAFF/JFA and PICES Finance and Administration Committee. The report to MAFF/JFA should be submitted within 90 days after the close of each project year ending March 31. Within PICES, the Finance and Administration Committee takes the responsibility for reporting to Governing Council on the financial and management aspects of the project.

4. WORKPLAN AND BUDGET FOR YEAR 1

Project Science Team formation

- Establish a Project Science Team to direct the project
The initial PST membership will be drawn from various PICES Committees and expert groups. The members of PST are to be recommended by Science Board, with the agreement of relevant Committees, and confirmed by Contracting Parties. If a Contracting Party does not have a member on the PST via Science Board, it may appoint a suitably qualified member.
- Organize the first PST meeting
The purposes of the first meeting are to (1) discuss the overall strategy and general directions for the project and develop timelines for project activities and deliverables, (2) review and refine the workplan for Year 1, and (3) draft the workplan for Year 2.

Case study site selection

Indonesia was chosen as a developing Pacific Rim country to implement the project. Fisheries catches in this country have been declining, while demand for seafood protein is increasing. The importance of having more effective fisheries management practices is widely recognized in Indonesia, and this leads to support by the government and the willingness of stakeholders to consider new approaches such as development and implementation of a fisherman/citizen-based observation system, linked with fisheries scientists and managers. In addition, one of the first, and strongest, lessons learned from the previous PICES/MAFF projects is the importance of connecting with organizations in each country which could facilitate and advance the project. This organization and the key people are needed to understand the project/approach, and to translate it into the local context. In Indonesia, the Agency for the Assessment and Application of Technology (BPPT) was the ideal partner for the PICES/MAFF project on “*Marine ecosystem health and human well-being*” (2012–2017).

The strategy during Year 1 of the project is to:

- Introduce the project to Indonesian colleagues at BPPT and get their advice on the best potential places for case studies;
- Gather information for discussion of potential case study sites by the PST;
- Visit of PICES experts to suggested case study sites to (1) finalize the selection of sites and (2) identify the key local individuals who will participate in the project, the type of capacity building needed, and the logistics for providing this training;
- Initiate preparations for a capacity building workshop to be held in Year 2.

Analytical tools and knowledge bases preparation

The extensive use of smart phones in developing countries, offers a creative potential for implementing two major project initiatives through a mobile-phone-based monitoring system used by local fishers that could help to (1) inform fisheries managers on the near real-time spatial catch data and fishing intensity, and (2) monitor useful water quality parameters.

The tasks for Year 1 are:

- Development of the mobile-phone-based monitoring system to be applied for case studies;
- Search for and selection of analytical software and instruments (to be connected to mobile phone) for estimation of chlorophyll concentrations and analysis of phytoplankton species composition.

The MAFF contribution for Year 1 of the project (ending March 31, 2018) is \$96,385, and the proposed allocations for each budget category are shown in Table 1. More details are provided in Table 2.

Table 1 Proposed budget breakdown for Year 1 (ending March 31, 2018)

Travel/meetings	Contracts	Equipment	Miscellaneous	Overhead	Total
56,000	25,000	2,000	855	12,530	96,385

Table 2 Potential expenses for Year 1 activities

Activities	Allocation
<p>Meetings and travel</p> <p>Meeting to review the project summary and principles and discuss potential activities for Year 1 of the project (September 21, 2017, Vladivostok, Russia, immediately prior to the 2017 PICES Annual Meeting)</p> <p>Visit of two PICES experts to Indonesia to (1) discuss the project with Indonesian colleagues led by Prof. Suhendar Sachoemar (BPPT) and get their advice on the best potential places for case studies, and (2) attend the National Seminar on Marine Tourism and Fourth International Sato-umi Workshop , where aspects of the project were discussed further (October 4–7, 2017, Jakarta and Karawang, Indonesia)</p> <p>First PST meeting to (1) discuss the overall project strategy and develop timelines for project activities and products, (2) review and refine the workplan for Year 1, and (3) draft the workplan for Year 2 (week of January 15, 2018, Yokohama, Japan)</p> <p>Visit of PICES experts (PST members and consultants) to suggested case study sites in Indonesia to (1) finalize the selection of sites and (2) identify the key local individuals who will participate in the project, the type of capacity building needed, and the logistics for providing this training (February–March, 2018, Jakarta, Indonesia)</p> <p>Preparations for a Year 2 capacity building workshop</p>	56,000
<p>Contracts</p> <p>Development of the mobile-phone-based monitoring system</p>	25,000
<p>Equipment and supplies</p> <p>Analytical software and instruments (to be connected to mobile phone) for estimation of chlorophyll concentrations and analysis of phytoplankton species composition</p>	2,000
<p>Miscellaneous (mailing/communication, bank fees)</p>	855
<p>Overhead to PICES</p>	12,530
<p>Total</p>	96,385