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

FINANCIAL REPORT FOR YEAR 2 (ENDING MARCH 31, 2019)

1. BACKGROUND

Natural and anthropogenic pressures are generating changes in the marine ecological system, and the effects of these changes on the well-being of people living in coastal areas are difficult to predict because of the lack of understanding and many uncertainties in social and ecological systems. Therefore, one of the most important tasks for marine researchers is to scientifically assist coastal communities in adapting to social and ecological changes for their sustainable livelihood and better well-being. This was the rationale for a PICES project entitled "Building capacity for coastal monitoring by local small-scale fishers (acronym FishGIS; https://meetings.pices.int/projects/FishGIS) and funded by the Ministry of Agriculture, Forestry and Fisheries (MAFF) of Japan, through the Fisheries Agency of Japan (JFA), from the Official Development Assistance (ODA) Fund. The request to implement the project was accepted by the PICES Governing Council in November 2017, and the ending date of the project is set as March 31, 2020.

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 these 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 FishGIS project is to enhance the capacity of local small-scale fishers to monitor coastal ecosystems and coastal fisheries in Pacific Rim developing countries. The extensive use of smartphones in these countries offers a creative potential for implementing the project through a smartphone-based monitoring system to be used by local fishers and fish farmers.

Indonesia was chosen as a developing Pacific Rim country to implement the project. The importance of having more effective fisheries management practices is widely recognized in Indonesia, and this has led to support by the government and the willingness of local communities and stakeholders to consider new approaches, such as development and implementation of a citizen (fisher)-based observation system, linked with fisheries scientists and managers.

The **key questions** of the project 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 **major initiatives** of the project include:

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

3. Coastal and estuarine water monitoring activities by local small-scale aquaculture fishers to measure the effects of government clean water initiatives on water quality for aquaculture operations.

These initiatives are to be supported by a series of training/capacity building workshops led by scientists from PICES member countries.

In accordance with the organizational principles agreed to by MAFF/JFA and PICES, the project is being directed by a Project Science Team (PST), co-chaired by Dr. Mitsutaku Makino (earlier at the Japan Fisheries Research and Education Agency; mmakino@affrc.go.jp; now at the Center for International Collaboration, Atmosphere and Ocean Research Institute, The University of Tokyo; mmakino@aori.u-tokyo.ac.jp) and Dr. Mark Wells (University of Maine, USA; mlwells@marine.edu). The PST Co-Chairmen are 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 Human Dimension Committee. The report to MAFF/JFA should be submitted within 90 days after the close of each project year ending March 31. Within PICES, Science Board takes the responsibility for reporting to Governing Council on the progress and achievements of the project. The Year 1 progress report was provided on June 29, 2018, and the Year 2 progress report will be completed by June 30, 2019.

2. FINANCIAL PRINCIPLES

The following financial principles (see Project Principle 4), agreed to by MAFF/JFA and PICES, apply to the project:

- A separate bank account shall be established to deposit the remitted funds.
- The PICES Executive Secretary or a Project Coordinator designated by the Executive Secretary is responsible for the management of the fund and annual reporting on its disposition to MAFF/JFA and to PICES Governing Council through the Finance and Administration Committee (Dr. Alexander Bychkov was appointed and is serving as the Project Coordinator). 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. The Year 1 financial report to MAFF/JFA was submitted on June 18, 2018.
- The main elements of the budget are organized into the following categories:
 - o *Travel and meetings* this category covers travel costs associated with project activities such as field studies, organizational trips, project meetings, workshops, scientific sessions and public events.
 - O Contracts this category covers grants/fees to be paid to consultants and experts employed to implement the project. Tasks and deliverables for contractors are to be determined by the PST Co-Chairmen. To support the objectives of the project and to ensure that its activities have minimal impact on the workload of the existing staff of the PICES Secretariat, the Project Coordinator can employ additional staff as required.
 - o *Publications* this category covers costs associated with publishing findings of the project in special issues of peer-reviewed journals, reports and brochures, and dissemination of these materials.
 - o *Equipment* this category covers purchases and shipment of equipment for laboratory/field data/sampling processing/analysis, computer hardware/software for the development of database(s) and the project website.
 - o *Miscellaneous* this category covers expenses associated with the project (mail and phone charges, bank charges, *etc.*) and includes contingencies such as fluctuations in currency exchange rates.
- Transfers of up to 10% of allocations between the budget categories are allowed based solely on the decision by the PICES Executive Secretary or a Projects Coordinator. In special cases, transfers up to 20% between the budget categories can be authorized by JFA. All transfers shall be reported at the end of the fiscal year.

- A 13% overhead on the annual budget shall be retained by PICES to offset expenses related to the Secretariat's involvement in the project.
- The interest earned by the fund shall be credited to the project and used in consultation with JFA.
- Any funds remaining after the completion of every fiscal year of the project shall be reported and disposed of in consultation with JFA.

3. PROJECT BANK ACCOUNT AND PAYMENT HISTORY

The special account for the project was established at the bank used by PICES:

Bank name: TD Canada Trust

Bank number: 004 Branch number: 00721

Branch address: 2406 Beacon Avenue, Sidney, BC, Canada V8L 1X4

SWIFT Code: TDOMCATTTOR

Account number: 07210-004-8479-5225152 (operational starting 27.11.2017)

Account holder: North Pacific Marine Science Organization (PICES)

Account holder address: 9860 West Saanich Road, Sidney, B.C., Canada, V8L 4B2

- The set of documents requesting funding for Year 1 (FY 2017, ending March 31, 2018) was sent to the Consulate General of Japan in Vancouver (Canada) on November 23, 2017, and funds in the amount of \$96,385 were transferred to the PICES/MAFF bank account on December 21, 2017.
- The set of documents requesting funding for Year 2 (FY 2018, ending March 31, 2019) was sent to the Consulate General of Japan in Vancouver (Canada) on May 24, 2018, and funds in the amount of \$96,383 were transferred to the PICES/MAFF bank account on July 24, 2018.

4. BUDGET EXECUTION FOR FISCAL YEAR 2

The MAFF contribution for Year 2 of the project was \$96,383. Allocations and actual expenses for each budget category are shown in Table 1. Table 2 provides more details on expenses for specific activities.

Category Year 2 Allocations **Year 2 Expenses** Difference Travel and meetings 46,500 51,030 (4,530)35,000 29,481 5,519 Contracts Equipment and supplies 1,800 2,148 (348)Miscellaneous 553 1,392 (839)Overhead 12,530 12,530 0 96,581 (198)Total 96,383 Interest on the account 198 Year-end account balance 0

Table 1 Allocations and expenses for Year 2

Table 2 Expenses for various budget categories for Year 2

Activities	Allocations
Travel and meetings	51,030
■ Training/capacity building workshops (July 9–13, 2018, Jakarta, Muara Gembong and Indramyu District, Indonesia)	27,860
Participation of Prof. Suhendar Sachoemar in the 5th World Conference on Climate Change to present a paper on "Development of sustainable aquaculture on the base of Sato-Umi to anticipate the environment and climate change in the coastal area of Indonesia" and information on the project (October 4-6, 2018, London, UK)	2,000
 Second PST meeting to (1) review the overall project strategy and timelines for project activities and products, (2) examine on-going data collection and reporting activities in Muara Gembong and Indramyu District, (3) discuss options for a third case study site, and (4) draft the Year 3 workplan (November 2, 2018, Yokohama, Japan; in conjunction with PICES-2018) 	9,973
Project Coordinator visit to the Consulate General of Japan in Vancouver (November 2018)	37
 Visit of PICES experts to finalize selection of a third case study site and initiate preparations for a Year 3 training/capacity building workshops (February 3-8, 2019, Jakarta, Banten and Pelabuhan Ratu, Indonesia) 	11,160
Contracts	29,481
 Modification of the existing HydroColor smartphone application for water quality assessment 	2,306
 Local arrangements for a December 2018 visit of a PICES/HU team for developing instructive video manual for citizen-science base surveys for fishers and fish farmers 	3,213
 Local arrangements for a February 2019 visit to finalize selection of additional case study sites and initiate preparations for a Year 3 training/capacity building workshops 	6,787
Modification and refinement of a GIS-based fisheries data smartphone application	16,000
Fund management and preparation of annual reports	1,175
Equipment and supplies	2,148
Analytical software and instruments for estimation of chlorophyll concentrations and analysis of phytoplankton species composition	2,148
Miscellaneous (mailing/communication, bank fees)	1,392
Overhead to PICES	12,530
Total	96,581

5. ACCOUNT AUDIT

For the period prior to December 31, 2018, the status of the MAFF (FishGIS) account was assessed during the regular external audit for PICES' FY 2018 (January 1 – December 31, 2018). In the auditor's opinion, the financial statements present fairly, in all material respects, the financial position of the North Pacific Marine Science Organization as at December 31, 2018, and the results of its operations and changes in fund balances for the year then ended. The financial statements for the rest of Year 2 (January 1 – March 31, 2019) will be evaluated during the regular audit for PICES' FY 2019 (January 1 – December 31, 2019).