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

FINANCIAL REPORT FOR YEAR 3 (ENDING MARCH 31, 2020)/FINAL FINANCIAL REPORT

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 end date of the project was 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 the data needed to advance 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 was to enhance the capacity of local small-scale fishers and fish farmers to monitor coastal ecosystems and coastal fisheries in Pacific Rim developing countries. The extensive use of smartphones in these countries offers a potential for creating smartphone-based monitoring tools to be used by local coastal communities.

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 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 were:

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

The **major initiatives** of the project included:

- 1. Coastal ecosystem monitoring activities by local small-scale fishers to detect ecosystems changes (*e.g.*, changes in water quality and 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 in the market);
- 3. Coastal and estuarine water monitoring activities by local small-scale aquaculture farmers to measure the effects of government clean water initiatives on water quality for aquaculture operations.

These initiatives were supported by a series of training/capacity building workshops led by scientists from PICES member countries, in collaboration with the Indonesian Agency for the Assessment and Application of Technology (BPPT) and the Indonesian Institute of Sciences (LIPI).

2. ORGANIZATIONAL AND FINANCIAL PRINCIPLES

The organizational principles agreed to by MAFF/JFA and PICES are listed in Section 3 of *Appendix 1*. In accordance with these principles, the project was directed by a Project Science Team (PST) formed in December 2017 based on principles and procedures detailed in the PICES Policy for approval and management of special projects (Decision 2017/A/7; https://meetings.pices.int/publications/annual-reports/2017/2017-GC-Decisions-Vladivostok.pdf). All PICES member countries and relevant Scientific and Technical Committees were represented on the PST, co-chaired by Drs. 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 Mark Wells (University of Maine, USA; mlwells@marine.edu). The PST Co-Chairmen were responsible for the detailed planning and execution of the project, and annual reporting on scientific progress to MAFF/JFA (within 90 days after the close of each project year ending March 31) and to PICES Science Board through the Human Dimension Committee. In PICES, Science Board took 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 was submitted on June 29, 2019. A final scientific report is expected to be completed by June 30, 2020.

The financial principles agreed to by MAFF/JFA and PICES are listed in Section 4 of *Appendix 1*. According to these principles, Dr. Alexander Bychkov was appointed by the PICES Executive Secretary to serve as the Project Coordinator and was responsible for the management of the fund and annual reporting on its disposition to MAFF/JFA (within 90 days after the close of each project year ending March 31) and to PICES Governing Council through the Finance and Administration Committee. In PICES, the Finance and Administration Committee took 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 provided on June 18, 2018. The Year 2 financial report to MAFF/JFA was submitted on May 17, 2019. For Year 3 see Section 4 of this report.

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 November 27, 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.
- The set of documents requesting funding for Year 3 (FY 2019, ending March 31, 2020) was sent to the Consulate General of Japan in Vancouver (Canada) on May 22, 2019, and funds in the amount of \$96,383 were transferred to the PICES/MAFF bank account on July 10, 2019.

4. BUDGET EXECUTION FOR FISCAL YEAR 3

The MAFF contribution for Year 3 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. Table 3 summarizes income and expenses for the entire 3-year project lifetime. The allocated funding was completely spent by March 31, 2020.

Table 1 Allocations and expenses for Year 3

Category	Year 3 Allocations, CAD	Year 3 Expenses, CAD	Difference, CAD
Travel and meetings	42,000	40,083	1,917
Contracts	39,000	42,470	(3,470)
Equipment and supplies	1,500	0	1,500
Miscellaneous	1,353	1,300	53
Overhead	12,530	12,530	0
Total	96,383	96,383	0

Table 2 Expenses for various budget categories for Year 3

Activities	Expenses, CAD
Travel and meetings	40,083
 Training/capacity building workshop (July 2019, Banten, Indonesia) Third PST meeting to (1) examine the results of the July 2019 training workshop and on-going data collection and reporting activities from the communities, (2) review the timelines for project products/outcomes, and (3) develop the framework for the post-project assessment (October 2019, Victoria, Canada; in conjunction with PICES-2019) 	12,242 8,431
 Visit of PICES experts to assess the project outcomes and the fourth PST meeting (February 2020, Jakarta / Banten / Pelabuhan Ratu, Indonesia) Project coordinator travel to discuss expected products and reporting for the project 	13,108 6,302
Contracts	42,470
 Local arrangements for the July 2019 training workshop and visits of PICES experts 	22,000
 Modification and refinement of a GIS-based fisheries data smartphone application 	14,000
 BPPT Technical Assistance Agreement for data collection to support the algorithm development for the water quality assessment application HydroColor 	5,000
Fund management and preparation of annual/final reports	1,470
Miscellaneous (mailing/communication, bank fees)	1,300
Overhead to PICES	12,530
Total	96,383

Table 3 Income and expenses for the project from April 1, 2017 – March 31, 2020

	Year 1 (FY 2017)	Year 2 (FY 2018)	Year 3 (FY 2019)	Total
	CAD	CAD	CAD	CAD
Revenue				
MAFF Contribution	96,385	96,383	96,383	289,151
Interest		198		198
Total	96,385	96,581	96,383	289,349
Expenses				
Travel and meetings	42,656	51,030	40,083	133,769
Contracts	40,000	29,481	42,470	111,951
Equipment and supplies	600	2,148	0	2,748
Miscellaneous	599	1,392	1,300	3,291
Overhead	12,530	12,530	12,530	37,590
Total	96,385	96,581	96,383	289,349
Revenue less Expenses	0	0	0	0

5. ACCOUNT AUDIT

For the period prior to December 31, 2019 (from the start of the project until the first nine months in Year 3), the status of the MAFF (FishGIS) account was assessed during the regular external audits for PICES FY 2017 (January 1 – December 31, 2017), PICES FY 2018 (January 1 – December 31, 2018) and PICES FY 2019 (January 1 – December 31, 2019). In the auditor's opinion, for these years "the financial statements present fairly, in all material respects, the financial position of the North Pacific Marine Science Organization and the results of its operations and changes in fund balances for the years then ended." The financial statements for the rest of Year 3 (January 1 – March 31, 2020) will be evaluated during the external audit for PICES FY 2020 (January 1 – December 31, 2020), to be conducted in the spring of 2021.

PROJECT PRINCIPLES

- 1. 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 can enhanced capacity for monitoring activities by local fishers help to improve fisheries management in coastal areas (e.g., increase fish stocks or implement sustainable fisheries)? The project is also intended to foster partnerships with non-PICES member countries and related international programs and organizations. The MAFF contribution is from the Official Development Assistance (ODA) Fund and therefore, involvement of developing countries in project activities is required.
- 2. The maximum duration of the project is 3 years, with the ending date set as March 31, 2020.
- 3. The following organizational principles agreed to by MAFF/JFA and PICES apply to the project:
 - The project will interact with, and support relevant activities of, PICES Scientific Committees on Human Dimension (HD) and Fishery Science (FIS), PICES Technical Committees on Data Exchange (TCODE) and on Monitoring (MONITOR), and PICES FUTURE (Forecasting and Understanding Trends, Uncertainty and Responses of North Pacific Marine Ecosystems) Science Program (Research Theme 3 on "How do human activities affect coastal ecosystems and how are societies affected by changes in these ecosystems?").
 - 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 above mentioned groups are expected to be represented on PST.
 - The PST will be co-chaired by PICES members, with one of Co-Chairmen being from Japan Dr. Mitsutaku Makino (earlier at the Japan Fisheries Research and Education Agency (FRA); mmakino@affrc.go.jp; now at the Center for International Collaboration, Atmosphere and Ocean Research Institute (AORI), The University of Tokyo; mmakino@aori.u-tokyo.ac.jp). The PST Co-Chairmen are responsible for the scientific implementation of the project and annual reporting to MAFF 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 for the year, with an evaluation on the progress made, and a workplan for the following year.
- 4. The following financial principles 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 will be responsible for the management of the fund and annual reporting on its disposition to MAFF/JFA and PICES Governing Council through the 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.
 - The main elements of the budget are organized into the following categories:
 - 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.

- 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.
- 5. Ownership of the outcomes of the project, including materials, data, copyright and intellectual property rights, will be vested to PICES and the Government of Japan. Either Party may use those outcomes, but will give full credit to their source.