

## SUMMARY OF THE THIRD FISHPHYTO PROJECT SCIENCE TEAM MEETING

The third virtual meeting of the Project Science Team (PST) for the project on “Creating a phytoplankton-fishery observing program for sustaining local communities in Indonesian coastal waters” (FishPhyto), funded by the Ministry of Agriculture, Forestry and Fisheries (MAFF) of Japan, through the Fisheries Agency of Japan (JFA), was held from 10:00–12:00 JST (Japan Standard Time) on February 2, 2024 (February 1, 2024 in the Western Pacific). Participants of the meeting are listed in Addendum.

Considering information from JFA that MAFF’s funding for the project will end after completion of the first year (March 31, 2024), the sole objective of the meeting was to consider options for supporting FishPhyto-related activities. A number of confirmed and potential funding sources have been discussed:

1. Indonesian colleagues have secured funding for two projects to continue FishPhyto-related work in the Gili Matra region:
  - The Ministry of Finance’s Research and Innovation for Advanced Indonesia Program will provide ~\$40,000 CAD for a 3-year (2024–2026) project, entitled “Ciguatera Fish Poisoning and Hazardous Algae Disaster Mitigation Model Development Activities in the Gili Matra Aquatic Tourism Park (TWP) area”. This budget will allow conducting two 4-day surveys every year – in February (Wet Season) and in August (Dry Season), for collecting and processing data on water quality, water column and benthic plankton, and socioeconomics. The FishGIS and HydroColor smartphone tools and Planktoscope are expected to be widely used in these surveys, as well as the methodology developed during the previous PICES/MAFF projects for gathering socioeconomic information (on-site surveys, questionnaires, and focus group discussions).
  - The Research Organization for Electronics and Informatics under the National Research and Innovation Agency (BRIN) will fund a 1-year project on “Utilization of Oceanographic and Landsat Satellite Image Data for Monitoring Eutrophication and Abundance of Fishery Resources in the TWP area”. The budget for this activity and restrictions on the usage of these funds (normally limited to data collection and processing) have yet to be determined.
2. PICES will designate ~\$30,000 CAD the Special Project Coordination Fund to cover time/work of an individual needed for coordination of FishPhyto-related research in the next two years – April 1, 2024 to March 31, 2026.
3. The Fisheries Research and Education Agency (FRA) of Japan is considering a possibility of allocating 1,500,000 JPY (~\$14,000 CAD) from the FRA President Fund for FishPhyto-related activities for the period from April 1, 2024 to March 31, 2025 and, likely, the similar amount for the period from April 1, 2025 to March 31, 2026. If the budget is provided, there will be no restrictions on the usage of these funds.
4. FishGIS, a service that includes three components: a smartphone application (FishGIS application), a secure GIS-based cloud database (FishGIS database) and a web application for a desktop PC (FishGIS dashboard), is a product developed and refined during the previous two PICES/MAFF projects, FishGIS (2017–2020) and Ciguatera (2020–2023), and the first year of the FishPhyto project. All work on FishGIS was done by Green Front Laboratory, Inc. (GFL, Japan), contracted by PICES with funding from MAFF, and was conducted in consultations with members of the Project Science Team (Dr. Shion Takemura led this activity within the PST). According to the Project Principles documents for all PICES/MAFF projects, “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”, and this means that FishGIS, as one of outcomes of these projects, belongs to both PICES and the Government of Japan (MAFF).

Should “the intellectual property rights” issue be resolved, GFL could continue maintaining the FishGIS application and a FishGIS server in Japan under a new 3-year project between the Atmosphere and Ocean Research Institute of the University of Tokyo (AORI) and Nippon Foundation with an annual budget of 2,000,000–3,000,000 JPY. MAFF is considering to issue a document that (1) allows to modify the current version of the FishGIS application and to provide this application to other projects or businesses, including for a fee, and (2) confirms that MAFF will not claim ownership of any data collected from the use of the FishGIS application by PICES or any such projects or businesses.

A question was also raised on the accounting, considering that support for FishPhytO-related activities in the next two years might have several funding sources. It was pointed out that PICES has experience in conducting projects with several funding sources, when each source has its own rules and restrictions (examples here include [the CPR project](#) and joint symposia with numerous co-sponsors). In this situation, following the PICES Financial Regulations, an encumbered fund is normally created within the Working Capital Fund for all potential contributions.

### *Addendum*

#### **Third Project Science Team meeting participants**

##### Members

Daisuke Ambe (Japan, representing TCODE)  
Mitsutaku Makino (Co-Chair; Japan, representing HD)  
Shion Takemura (Japan, representing HD)  
Naoki Tojo (Japan, representing FIS)  
Charles Trick (Canada, representing MEQ)  
Pengbin Wang (China, representing MEQ; part of the meeting)  
Mark Wells (Co-Chair; USA, representing MEQ)

##### Other

Yutaka Hiroe (MAFF/JFA, Japan)  
Tatsuki Oshima (MAFF/JFA, Japan)  
Arief Rachman (BRIN, Indonesia)  
Suhendar I Sachoemar (BRIN and ITI, Indonesia)