

## Third Virtual Meeting of the Project Science Team August 30/31, 2021

The third virtual meeting of the Project Science Team (PST) for the project on “Building local warning networks for the detection and human dimension of Ciguatera fish poisoning in Indonesian communities” (hereinafter referred to as Ciguatera) funded by the Ministry of Agriculture, Forestry and Fisheries (MAFF) of Japan, through the Fisheries Agency of Japan (JFA), was held via Zoom videoconference from 16:00–18:00 Pacific Daylight Time on August 30, 2021 (August 31, 2021 in the Western Pacific).

### 1. WELCOME, INTRODUCTIONS AND ADOPTION OF THE AGENDA

The meeting was chaired by Dr. Mitsutaku Makino who called the meeting to order. Following introductions, the attendees reviewed and adopted the provisional agenda circulated prior to the meeting (*Appendices 1 and 2*). Dr. Mark Wells served as the rapporteur.



Ciguatera project meeting participants at their third virtual meeting on August 30/31, 2021. Seung Ho Baek and Vladimir Kulik missing from photo.

### 2. RECAP FROM THE SECOND VIRTUAL PST MEETING

Dr. Makino conducted a brief recap of the second PST meeting held virtually on July 13, 2021 Pacific Daylight Time (July 14 in the Western Pacific), including a summary of the project, highlighting the progress,

and lack of progress, under pandemic conditions. The main point was that the PST might have to reconsider its original plan and reorganize it according to the COVID-19 situation. He emphasized the approach using the Project Design Matrix (PDM) and Plan of Operation (PO) as a way forward.

### 3. UPDATE ON RESEARCH ETHICS ISSUES

Dr. Charles Trick informed members that you cannot publish health studies without an ethics review, though he was not sure that we needed one based on our general plan. An ethics review would slow progress, but it would be a great opportunity for the PST to understand why we are doing all the steps in the project. There are two types of community projects: a community-engaged research project (which needs an ethics approval) or community-service research project (which may or may not need ethics approval). While the Guatemala component in the previous PICES MAFF MarWeB project (<https://meetings.pices.int/projects/marweb>) was more like the first, the Ciguatera project seems more like the second, so it may not require an ethics approval. These deal with commitments of scientists and community in terms of research—the PST is not sure at this point what tack to take and will need to look into this more.

Dr. Suhendar I Sachoemar pointed out that there are ethics codes for engineering in Indonesia, and maybe for other disciplines. He has found a document describing ethical requirements for Indonesian studies (in Bahasa) and will have a translation made for the PST.

The PST should also consider having a Memorandum of Understanding that the ethical standard of the Ciguatera project is acceptable to Indonesia. An ethics review is only required for research on the health of people (*e.g.*, drug trials) in Indonesia (Ministry of Health), but if we just collect information from people, then it is not certain if ethical clearance is needed. Dr. Sachoemar and Dr. Arief Rachman will consult with BPPT and LIPI experts. The participants noted that an ethics review was not required in the past with respect to HAB studies. All they needed was permission from local government for survey work (*i.e.*, what they were doing and what were they going to do with these data). It was pointed out that for the international project, the PST should ensure that the highest level of standards is followed. We can add steps to a plan approved by the University of Toronto (for example) without having to go through the review again.

There has been a recent reorganization of many Indonesian research agencies to put them under 3 or 4 umbrella organizations, so things may be a bit different from in the past. Dr. Tojo emphasized that we need to meet the “formal” ethical requirements, but it is very important that we remember that the “community” ethical requirements are just as important, even if they are not “needed” in the formal review.

Dr. Vera Trainer commented on the importance of getting community involvement. Is it different if we ask open ended questions *vs.* specific questions? The project would be strengthened by asking open-ended questions, and these will result in different sorts of conversations. It was agreed.

Dr. Trick pointed out that we probably do not need a survey to conduct the work—there is no direct connection between what we are doing and health, other than our faith that we are adding useful information for the community. If clickers are used, we can get information in a conversational way rather than getting specific data (Do not ask “how much fish do you eat?”, but “why do not you eat more fish?”).

Dr. Shion Takemura indicated that in agreement with ABS (Nagoya Protocol on Access and Benefit-sharing) for the Ciguatera project, data are going onto a Google server in Indonesia and then transferred to a server in Japan—this does not violate ethical rules, at least for Indonesia. Dr. Daisuke Ambe commented that the project seems to be ok in the strategy with respect to data access.

It was agreed that Dr. Trick will take the lead on writing an “informal” ethics plan which will be reviewed by a colleague at the University of Toronto (or contract with a company) to get an assessment of whether a full ethical approval should be sought.

#### 4. UPDATE FROM INDONESIA

##### a) COVID-19 Situation

Dr. Sachoemar reported that COVID-19 cases have been dropping in Indonesia as has hospitalizations. Government has secured 200 million doses of vaccine and is targeting 100 million vaccinations by the end of the year. More than 96 million people have had their first dose at this point. All government officers are vaccinated. Students went back to school on August 30. Gradually conditions are getting better, but borders within Indonesia are restricted. The current vaccination rate is high and very good in Jakarta, but has not progressed as well in outlying areas—difficulties in getting vaccines dispersed. The Pandemic Lockdown has four levels in Indonesia; Jakarta is now at level 3—you can travel to other regions if you show evidence of vaccination. Bali is still at Level 4 (high levels of infection), and conditions in Lombok are not known. Indonesians who travel internationally have to quarantine for 1 week, but Dr. Sachoemar did not know whether foreign travellers are allowed into Indonesia yet.

In terms of fishing communities, Dr. Rachman stated that although there are fewer fishers going out because of less demand, and the economy is in a slump, COVID-19 is not stopping them from fishing.

The general hope is that things will be closer to normal by the end of 2021, and there may be some possibility for PST members to travel to Indonesia early next year.

b) Benthic HAB Findings Drs. Sachoemar and Rachman provided an update on progress being made using existing data on benthic HABs (bHAB) to generate a publication. They compared data on phytoplankton community structure in Jakarta Bay and Pelabuhan Ratu and found *Gambierdiscus toxicus* and other bHAB species in the Jakarta Bay water column as well as in Pelabuhan Ratu. This suggests that populations of *Gambierdiscus* and other bHAB species are present in benthic environments in these regions.

Dr. Rachman gave a summary of Pari Islands (Jakarta Bay) sampled seagrass and sandy bottom. A few corals were observed in 2013, but no coral was left (just sandy bottom) in 2019. A standardized screen was used for 2013 and 2019, but they also collected samples from substrates. In 2013, findings included *Prorocentrum* (most abundant), *Gambierdiscus* (sporadic distribution), and *Ostreopsis* (always found in macroalgae, but not always on other substrates). Cell concentrations were much higher (10×) in 2019, particularly in the seagrass beds. This change seems to coincide with a new luxury hotel that has been built on Pulau Tengah. The obvious question is whether this development is related to the increase in *Gambierdiscus*? The island and bay were mainly deserted before the resort was developed, which also has generated a lot of support infrastructure. There are water quality data from 2013, but not most recently. Dr. Rachman has a good contact (Dr. Riani Widart) at the University of Indonesia who has been doing work on bHABs over the last decade. It would be a good idea to get her involved in the project. Researchers are starting back into the field now, but travel to far islands still requires COVID tests, if staying. Questions were raised about linkages with climate change—was there a wider range of sampling sites that could rule out a broader general increase of *Gambierdiscus* in the region? Dr. Rachman said no, they only had the samples from the lagoon region. Asked for more details (*e.g.*, same persons doing the sampling, cell counts, and are the methods accepted?), Dr. Rachman explained the methods in detail (which are established methods), and confirmed that he personally had done the species counts and identifications (*i.e.*, there is no “sampler” bias in the findings).

#### 5. PROJECT DESIGN MATRIX AND PLAN OF OPERATION

Due to a shortage of time, Dr. Takemura gave only a brief summary of the Project Design Matrix (PDM) “logical framework”. He reviewed the relationship between the PDM and the specific Plan of Operation (PO), which covers the actual planned activities. There were 5 steps to developing the PDM and PO: (1) gather

thoughts about CFP issues (from PST members and Drs. Sachoemar and Rachman), (2) grouping and structuring CFP issues, (3) obtain Objective and Problem Tree, (4) identify goals, purpose, output and activities (PDM), and (5) identify detailed research activities (PO).

## 6. CLOSING

Dr. Makino closed the meeting with a discussion about the next step. It was agreed that the next virtual PST meeting would be scheduled during the week of September 13 and would be devoted to discussion of the PDM and PO. Dr. Tojo emphasized that the goal will not be to develop a rigid plan, but to think more about using it as a chance to make sure we all are on the same page with expectations. In particular, we all need to consider the expected inputs from the PST and from our Indonesian colleagues. This way, through discussion, we can come to a general consensus of what the project will comprise, and what the expected outcomes will be. Dr. Takemura offered to take on the responsibility for sending out a doodle poll to schedule the next meeting.

### *Appendix 1*

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

##### Members

Daisuke Ambe (Japan, representing TCODE)  
Seung Ho Baek (Korea)  
Alexander Bychkov (PICES, *ex officio*)  
Vladimir Kulik (Russia, representing MONITOR)  
Mitsutaku Makino (Co-Chair; Japan, representing HD)  
Shion Takemura (Japan, representing HD)  
Naoki Tojo (Japan, representing FIS)  
Vera Trainer (USA, representing MEQ)  
Charles Trick (Canada, representing MEQ)  
Pengbin Wang (China)  
Mark Wells (Co-Chair; USA, representing MEQ)

##### Other

Arief Rachman (LIPI, Indonesia)  
Suhendar I Sachoemar (BPPT, Indonesia)

### *Appendix 2*

#### **Third Project Science Team meeting agenda**

*Monday, August 30, 2021 (PDT)*

1. Welcome, introductions and adoption of the agenda
2. Recap from the second virtual PST meeting
3. Update on research ethic issues
4. Update from Indonesia
  - a) COVID-19 Situation
  - b) Benthic HAB Findings
5. Project Design Matrix and Plan of Operation
6. Closing