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SEAFDEC convenes the Teleconference Session of the 52nd Meeting of the SEAFDEC Council



The SEAFDEC Council during the Teleconference Session of the 52nd Meeting

EDITORIAL

The current COVID-19 pandemic prompted the SEAFDEC Secretariat to facilitate the conduct of the “Fifty-second Meeting of SEAFDEC Council” through teleconference on 19 May 2020 and *Ad Referendum* Session thereafter. After taking note of the progress of activities and achievements of SEAFDEC in 2019, the SEAFDEC Council approved the proposed programs of activities to be undertaken by SEAFDEC in 2020, and endorsed the Draft Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030. The said Resolution and Plan of Action was subsequently endorsed by the 28th Meeting of ASEAN Sectoral Working Group on Fisheries organized online on 24 June 2020, for submission to the higher authorities under the ASEAN mechanism.

The COVID-19 outbreak which has caused widespread restrictions on travel, abruptly called for the indefinite postponement of most of SEAFDEC’s workplan, and as a result, several essential activities in this quarter were carried out on online platform. These included the

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The Fifty-second Meeting of the Council of SEAFDEC, hosted by the Government of Japan and originally scheduled to be convened in Fukuoka, Japan in April 2020, had been postponed due to the current crisis brought about by the coronavirus pandemic. Nevertheless, the urgency of some agenda items for this Meeting necessitated the SEAFDEC Council’s immediate consideration and approval to enable SEAFDEC to proceed with the corresponding activities in 2020. The SEAFDEC Secretariat therefore facilitated the conduct of the Teleconference Session of the 52nd Meeting of the SEAFDEC Council on 19 May 2020.

In attendance at the Teleconference Session were the Council Directors and delegations from the SEAFDEC Member Countries, namely: Brunei Darussalam, Cambodia, Indonesia, Japan, Lao PDR, Malaysia, Philippines, Singapore, Thailand, and Viet Nam, as well as officials of the SEAFDEC

Secretariat and Departments. The Session unanimously elected the Council Director for Japan, *Mr. Shingo Ota* as the Chairperson of the SEAFDEC Council for the Year 2020-2021, succeeding, *Mr. Nilanto Perbowo*, SEAFDEC Council Director for Indonesia who served as the Chairperson of the SEAFDEC Council for the Year 2019-2020.

After taking note of the progress and achievements of SEAFDEC in 2019, the Council also approved the proposed program of activities to be undertaken by SEAFDEC in 2020. The Council also endorsed the latest version of the Draft Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030 for submission to the ASEAN mechanism.

While the Teleconference Session initially focused on the agenda items that require urgent consideration of the Council, there are still remaining

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EDITORIAL

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“Teleseminar on Effective Methods to Promote Fisheries Resources Management in Small-scale Fisheries” which highlighted the sharing of information and experiences on approaches to fisheries resources management in small-scale fisheries in Southeast Asia; and the “SEAFDEC-Sweden Project Final Review Meeting” which discussed the achievements as well as the challenges and lessons learned from the Project that focus on strengthening the capacity of the concerned Southeast Asian countries on the management of fisheries and habitats, management of fishing capacity, and combating IUU fishing. Notwithstanding the current situation and for the management of SEAFDEC activities to be carried out online, the “Inter-Departmental Meeting on Online Training Course” was organized focusing on the basics of online training, module development, training processes as well as the hardware and software needed for the success of the online-orchestrated activities of SEAFDEC.

Nevertheless, in view of their necessities, some activities had to be conducted by the Departments face-to-face, such as the “Workshop on Analysis of Sharks and Rays Landing Data for Determination of the Maximum Sustainable Yield” organized by MFRDMD; and the “Workshop on the Development the Ecosystem Approach to Fisheries Management (EAFM) Plan” organized by TD. Furthermore, the preliminary inspection of the fish passage constructed with assistance from TD was carried out to evaluate its performance as an effective pathway during the upstream migration of economically important freshwater fishes.

During the second quarter of 2020, the baton of the IFRDMD Deputy Chief was passed on from *Dr. Takuro Shibuno* after serving from 2018 to 2020, to *Mr. Toshiya Suzuki* starting March 2020. In addition, the term of assignment of AQD Deputy Chief, *Dr. Koh-ichiro Mori*, was completed after more than two years. ❖

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SEAFDEC convenes the Teleconference Session of the 52nd Meeting of the SEAFDEC Council

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agenda items for the 52nd Meeting of the SEAFDEC Council that would need *ad referendum* directives from the SEAFDEC Council. In this regard, the SEAFDEC Secretariat would communicate with the Council to obtain their views and consideration on such agenda items. Moreover, the Meeting also agreed that SEAFDEC would organize another Teleconference Session for the Special Meeting of SEAFDEC Council at a later date, for the SEAFDEC Secretary-General and Head Delegates from the SEAFDEC Member Countries to discuss the future

direction of SEAFDEC and other priority emerging issues that might arise thereat.

At the closing of the Fifty-second Meeting of the SEAFDEC Council, the Council extended the appreciation to the Chairperson for the excellent management of the Teleconference Session of the 52nd SEAFDEC Council Meeting. The Council then announced that the Fifty-third Meeting of the SEAFDEC Council in 2021 would be hosted by the Government of Lao People’s Democratic Republic. ❖

SEAFDEC seeks ways to expand online training courses



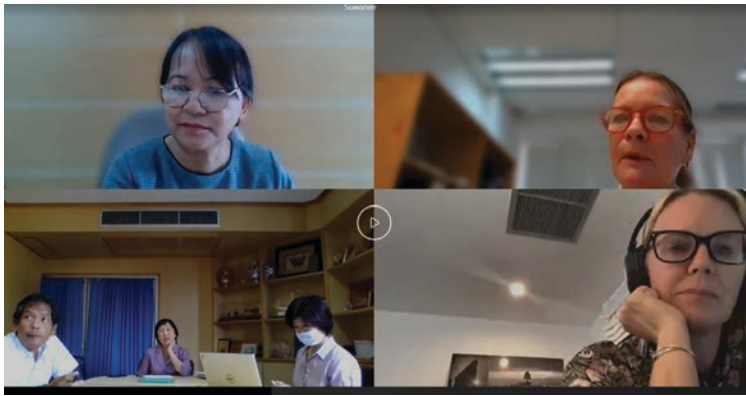
SEAFDEC Secretariat staff during the online training course via teleconference

Several activities of SEAFDEC scheduled in 2020 had to be postponed due to the COVID-19 pandemic. In order to ensure that essential activities could be continued, SEAFDEC Secretariat encouraged all Departments to mobilize online platform in conducting future activities, particularly training courses.

In this connection, the “SEAFDEC Inter-Departmental Teleconference Meeting on Online Training Course” was arranged on 5 May 2020. The session was attended by the SEAFDEC Secretary-General, Deputy Secretary-General, Department Chiefs and Deputy Chiefs, senior officials, and

relevant officers from SEAFDEC Secretariat and Departments. The session mobilized resource persons from AQD, comprising module specialists, course officer, training coordinator, and IT administrator to share their experiences and lessons learned on the establishment of online training courses at AQD. The participants were able to understand the basics of online training courses, module development, training process as well as hardware, software, and other facility requirements. The expansion of online training courses in all SEAFDEC Departments is expected to contribute to the works of SEAFDEC notwithstanding the current situation and in the future. ❖

SEAFDEC-Sweden Project Final Review Meeting convened through teleconference



Participants during the SEAFDEC-Sweden Project Final Review Meeting

Representatives from SEAFDEC and the Embassy of Sweden in Bangkok, Thailand met through teleconferencing for the “SEAFDEC-Sweden Project Final Review Meeting” on 23 April 2020. The Meeting started with the welcome statements by the SEAFDEC Secretary-General, *Ms. Malinee Smithrithee*, and by the Head of Development Cooperation

Regional Asia and the Pacific, Embassy of Sweden, *Ms. Åsa Hedén*. The Meeting was aimed at presenting the achievements as well as the challenges and lessons learned from the Project during its whole period of implementation from 2013 to 2019. The Meeting highlighted on the deliverable results in line with the Project’s objectives which focused

on strengthening capacity among the ASEAN Member States (AMSs) on the management of fisheries and habitats, management of fishing capacity, and combating IUU fishing through regional and sub-regional cooperation (*i.e.*, sub-regions of the Andaman Sea, Gulf of Thailand, and Mekong River Basin).

Through the funding support from the Government of Sweden to SEAFDEC, the Project strengthened the capacity of SEAFDEC, AMSs, and local communities to address several cross-cutting issues including social well-being, human rights, livelihood, and gender integration in small-scale fisheries. Several activities of the Project would be continued by SEAFDEC such as on transboundary fisheries resources, combating IUU fishing, gender equality, and sub-regional cooperation. ✦

SEAFDEC joins the 12AFCF and 28ASWGF via virtual meetings



Participants during the 28ASWGF

SEAFDEC, led by the SEAFDEC Secretary-General *Ms. Malinee Smithrithee*, joined the 12th Meeting of ASEAN Fisheries Consultative Forum (12AFCF) and the 28th Meeting of ASEAN Sectoral Working Group on Fisheries (28ASWGF). Chaired by Brunei Darussalam, the Meetings were organized *via* video conference on 23 and 24 June 2020, respectively.

The aim of the 12AFCF was to update on the progress of implementation of the activities undertaken by the ASEAN Member States (AMSs) under priority

areas, namely: fishing capacity and zoning system, securing sustainable small-scale fisheries, resource rehabilitation and enhancements, impacts of climate change on fisheries, combating IUU fishing, and traceability of fisheries and aquaculture products. During the 12AFCF, SEAFDEC reported the progress of its relevant activities, such as the outcomes of the Experts Consultation Workshop on Guidance to Monitoring and Evaluation Gender Equity and Social Well-being in Fisheries Communities held on 8-10 August 2018 in Bangkok, Thailand, and the progress of the Project

on Establishment and Operation of a Regional System of Fisheries *Refugia* in the South China Sea and the Gulf of Thailand.

Subsequently, during the 28ASWGF, SEAFDEC reported the results of the 22nd Meeting of the Fisheries Consultative Group of the ASEAN-SEAFDEC Strategic Partnership (22FCG/ASSP), including the progress of projects implemented under the FCG/ASSP mechanism in 2019, comprising 23 ongoing projects, of which 20 projects were completed in 2019, and three projects would be continued in 2020; the 13 new projects which would commence in 2020; and five Pipeline Projects which are still being discussed with prospective donors. During the Meeting, the 28ASWGF also took note of the progress on the development of the Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030 (RES&POA-2030), and endorsed the document for submission to higher authorities under the ASEAN mechanism. ✦

DEPARTMENTAL ACTIVITIES

AQD renews call for students to do research; use labs and services



A chemist of AQD conducts a crude fat analysis that is part of the proximate analysis, one of the most requested analyses by academic institutions in Western Visayas, Philippines

AQD again opened the doors of its laboratory facilities to students by encouraging them to pursue research in aquaculture and avail of its analytical services at the Laboratory Facilities for Advanced Aquaculture Technologies

(LFAAT). AQD has always been providing different analytical and diagnostic services to the public. Between 2017 and 2019, 91 percent of the requests for analyses received by AQD came from the academe while the rest came from the private sector. It is hoped that opening the analytical services of AQD to academe would enable the academic institutions to conduct better research in response to the call of the Philippine Government's Department of Agriculture for demand-driven and market-oriented research, not only in fisheries but also in the agriculture sector.

The laboratory's capabilities range from proximate analyses for feeds and experimental animals, soil and water analyses, fatty acid profiling, microbiological analyses, and electron microscopy. For supervised use on a per-hour rate, freeze dryer and rotary evaporator are also available. The

laboratory also recently acquired an atomic absorption spectrophotometer for detecting heavy metals and metallic elements, a detection kit for *E. coli* and coliform bacteria, and a continuous flow analyzer to analyze the total ammonia-nitrogen in water samples. Moreover, a fish health laboratory at AQD is also capable of PCR-based diagnosis of various shrimp and fish pathogens, bacterial counts and identification, and histopathology or the microscopic examination of wet mounts or tissue smears.

Recently, the Centralized Analytical Laboratory was granted the Certificate of Authority to Operate by the Professional Regulatory Board of Chemistry in compliance with the Chemistry Law of the Philippines. Also, LFAAT is preparing for ISO certification that will ensure that laboratory processes are consistent with established international standards. ❖

Crab farmers warned against “fake” king crablets

Farmers prefer to culture king crab because it grows bigger and faster compared to other species. Unfortunately, some crab farmers in the Philippines experienced huge losses which were traced to the very low survival of crablets that were misidentified as the popular king crab. A group of pond operators in Pontevedra, Capiz, Philippines imported crablets that were wrongly advertised as a cross breed between king crab (*Scylla serrata*) and another crab *Scylla olivacea*. A few crablets survived but they produced low quality market-sized crabs that ended up being sold for a very cheap price.

Based on the crab samples sent by the farmers to AQD, it was confirmed that they were not cross-bred but a different crab species. It was identified to be *Scylla paramamosain* or green crab, a crab



Female green crab (Scylla paramamosain) specimen, sent by farmers from Capiz, Philippines to AQD for identification, weighs only 260 g after five months of pond culture

species that is not commonly found in the Philippines. Visual identification of crab seeds is difficult, especially during the juvenile stages of crabs. To solve this problem, the smartphone app “Crabifier” can help in identifying mangrove crab species at an early juvenile stage using image analysis. The application was developed by the De La Salle University

Manila and can be freely downloaded to Android devices.

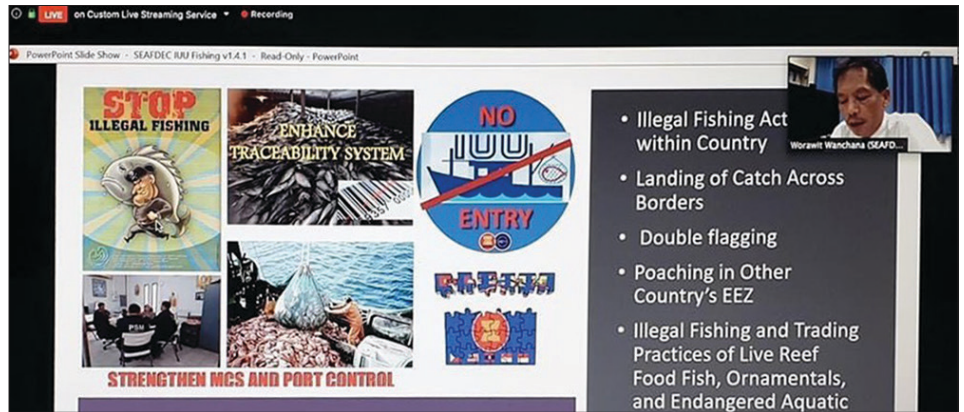
Moreover, AQD stressed that sourcing crab seeds from trusted and reliable suppliers is still the best way to ensure the quality and identity of crablets.



SEAFDEC joins the 12th International Forum on IUU Fishing

SEAFDEC Secretariat Policy and Program Coordinator, *Dr. Worawit Wanchana* was one of the Session Panelists during the 12th International Forum on IUU Fishing convened on 18-22 May 2020 as a webinar organized by Chatham House, London, UK. The Forum was composed of six Sessions, namely: 1) International cooperation to end IUU fishing; 2) Gender and IUU Fishing; 3) Subsidies and IUU Fishing; 4) Regional Perspective: IUU Fishing in Southeast Asia; 5) New Technologies and IUU Fishing; and 6) Transparency and IUU fishing.

In Session 4, *Dr. Worawit* presented the regional initiatives of SEAFDEC in providing technical assistance to the ASEAN Member States to combat IUU



Presentation of Dr. Worawit Wanchana at the 12th International Forum on IUU Fishing

fishing, including the promotion of the ASEAN Guidelines for Preventing the Entry of Fish and Fishery Products from IUU Fishing Activities into the Supply Chain; establishing the Regional Fishing Vessels Record; and supporting the implementation of the Port State

Measures. The Session 4 was chaired by the Director of Asia-Pacific Programme of Chatham House, *Dr. Champa Patel*, while the other panelists were *Dr. Sophie Benbow* from Fauna & Flora International and *Dr. Gina Green* from Tetra Tech.



AQD genetics expert joins regional workshop on aquatic genetic resources registry development

Representing AQD, *Dr. Maria Rowena Eguia*, a genetics expert, participated in the “Regional Workshop on the Development of an Aquatic Genetic Resources Registry” held from 8 to 12 June 2020. The Workshop, which was done through teleconferencing, was organized by the Food and Agriculture Organization of the United Nations (FAO) to address the need to create a registry of farmed types which is a key component of a global information system on aquatic genetic resources for food and agriculture. Four regional organizations including SEAFDEC and representatives from nine Member Countries of FAO from the Asia-Pacific region were tapped to take part in the Workshop to gather perspectives on the prototype of the Aquatic Genetic Resources Registry as well as the proposed global plan of action for the Registry.

As discussed during the Workshop, the Registry would be a searchable database based on a standardized terminology, nomenclature, and descriptions of aquatic genetic resources that is accessible to



AQD genetics expert Dr. Maria Rowena Eguia (2nd from top left) with some of the participants of the FAO virtual Regional Workshop on the Development of an Aquatic Genetic Resources Registry during the closing session on 22 June 2020

national and international stakeholders. Entries will be limited to farmed types representing at least 10 percent of the national production of a certain species.

The 25 participants of the Workshop, including *Dr. Eguia*, joined the break-out group discussions on the proposed global plan of action for the FAO-led Aquatic Genetic Resources Registry. Through these group discussions, the participants were able to identify regionally relevant

information and priorities for the global plan of action for the Registry.

Outputs of the virtual Workshop include the identification of the key stakeholders in the information system on aquatic genetic resources in the region, evaluation of the structure and the key information for the Registry, and identification of the challenges on the development of the Registry.



SPECIAL REPORT

Acceleration of Online Training Course Development at AQD

by SEAFDEC/AQD

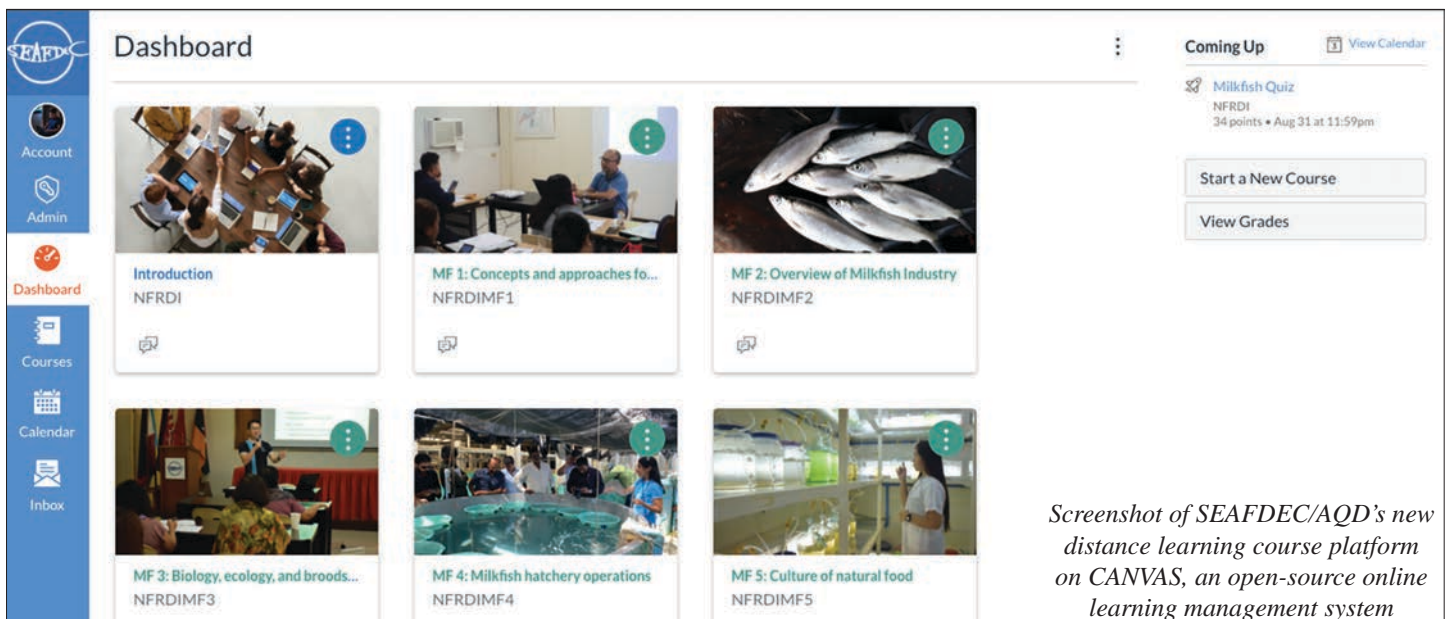
For the past 46 years, SEAFDEC/AQD has hosted over 12,000 trainees from all over the world who took part in hands-on training courses that the Department organized as part of AQD's mandate to promote human resource development in aquaculture through training. However, the outbreak of COVID-19 which was declared a pandemic in March 2020, led to widespread restrictions on travel and mass gatherings which abruptly called for the indefinite postponement of most of AQD's scheduled training courses. With disruptions brought about by COVID-19 and the growing demand for human resource development in food production sectors, the need to develop additional and better online training courses has been brought to light. Underscoring the advantage and potentials of leveraging on the Internet to deliver information and developing human resources, AQD's distance learning courses will proceed as scheduled.

The AquaHealth Online, AQD's first distance learning course, was offered in 2002 in response to shrinking fellowship and travel funds at the time. It was developed in collaboration with the University of the Philippines Open University to train a large pool of geographically dispersed participants at minimum cost. The first offering of AquaHealth Online had 25 enrollees from 10 countries who underwent 12 learning modules in four units. These were supplemented by online discussion boards that were presided by module specialists. Prior to this, from 1988 to 2002, AQD already conducted over 14 sessions of face-to-face training on Fish Health Management. The materials used during the face-to-face trainings were adapted, enhanced, and reformulated for online delivery. The development of AquaNutrition Online, the second online course, soon followed. To date, the two online courses were attended by over 300 participants from different parts of the world including Nigeria, Singapore, Thailand, United Kingdom, United States of America, Zimbabwe, and many others.



A training course officer at AQD prepares modules and lecture notes on Canvas, a learning management platform for online training courses

The AquaHealth Online and AquaNutrition Online courses are being hosted by the Department's computer servers and



Screenshot of SEAFDEC/AQD's new distance learning course platform on CANVAS, an open-source online learning management system

powered by the eFront online learning management system. While the eFront platform is straightforward, user-friendly, and customizable, AQD is currently developing the next courses using the Canvas platform, a cloud-based open-source learning management system. Using cloud servers are seen to improve accessibility to ensure that participants can access all information, materials, and resources on the platform at any time. Online discussion boards, an inbox system, and live chat are available to encourage interaction among participants. Online examinations may also be given to evaluate the knowledge gained by participants. The new platform can also host high-quality videos that will be essential in online training courses.

Furthermore, video production has become a major component of online training courses to complement the lack of demonstrations and hands-on exercises which are central to learning the details of farming fish, crabs, shrimp, seaweeds, and the like. Face-to-face training courses at AQD are known

to offer substantial hands-on experience, with practical exercises comprising 70 percent of the training schedule. To make up for this, AQD is currently producing video tours of its aquaculture facilities as well as instructional videos of certain procedures. These go alongside recorded lectures which feature AQD's experts presenting and discussing their slideshows.

AQD's first in-station course to transition to an online platform is scheduled to be held in August 2020. The online training, requested by the National Fisheries Research and Development Institute (NFRDI) would cover aquaculture technologies for milkfish and mangrove crab and would be participated in by the staff of the Bureau of Fisheries and Aquatic Resources from different regions of the Philippines. In this regard, AQD is also studying the possibility of subsequently developing online alternatives to other in-station courses even after the pandemic.



Training staff at AQD set up a studio where recording of lecture videos are done



AQD mangrove crab expert narrates a video tour of the crab hatchery facilities

Other SEAFDEC Departments are likewise considering to adopt AQD's strategy of online training courses to sustain and accelerate information sharing. In an Inter-Departmental Teleconference Meeting on Online Training Course organized on 5 May 2020, AQD staff shared their experience on how to develop modules, hardware and software requirements, and other processes needed to conduct a smooth and successful online training course.

By taking advantage of the available technologies, AQD is expanding its online training courses to ensure that the institution upholds its mandates of developing and strengthening the capacities of the aquaculture sector through training and information dissemination. Meanwhile, the Department is still hopeful to continue in-station and even on-site training courses when the situation improves for the benefit of fish farmers who do not have online access.

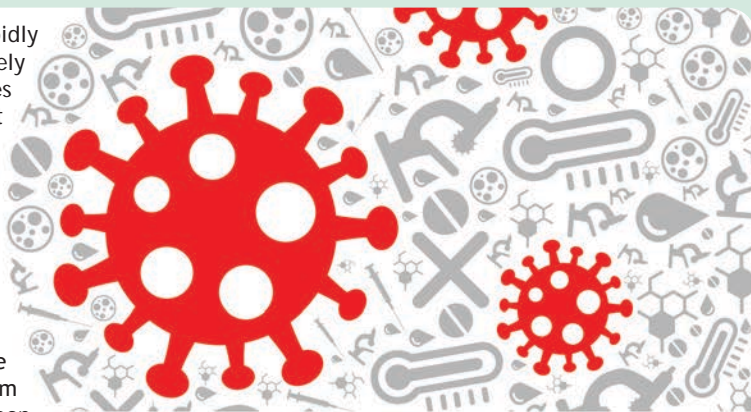


SPECIAL REPORT

Assessing the Impacts of the COVID-19 on Fisheries and Aquaculture in Southeast Asia by SEAFDEC Secretariat

The Corona Virus 2019 (COVID-19) pandemic has rapidly spread throughout the globe since early 2020 impacting severely not only on the lives of people but also on the economies of the countries around the world. It has also brought unprecedented challenges to all development sectors, as business worldwide has been practically shut down because of countries' lockdown measures, disruptions in all modes of transportation, and tourism restrictions affecting the foodservices systems, especially fisheries. Specifically, the crisis has brought severe impacts on the fisheries sector of the Southeast Asian countries as the major producers of fish and fishery products and major suppliers of fish to the global market. Fishing operations encounter difficulties due to national lockdown measures that prohibit the fishers from going out to sea to fish. Meanwhile, fish farmers have been

restricted from working outside of their homes to halt any further spread of the virus. In order to assess the severity of the impacts of the COVID-19 pandemic on the fisheries and aquaculture in Southeast Asia, the SEAFDEC Secretariat has planned to organize the Webinar on the "Impacts of COVID-19 on Fisheries and Aquaculture in Southeast Asia" on 2-3 July 2020 in Bangkok, Thailand, with the main objectives of discussing and assessing the impacts, and sharing how the private sector make immediate responses to address the issues as well as the medium-term mitigation of the impacts established by some countries.



General Perspectives

Countries around the world have undertaken various national measures to curb any further transmission of COVID-19 (e.g. social distancing, lockdowns, curfew, temporary closure of businesses, various modes of quarantine). The fisheries industry is most affected as the COVID-19 pandemic disrupts the whole food supply chain, impacting on international and national fisheries trade. Recently, FAO published several policy recommendations aimed at assisting

the fisheries sector [1,2] cope with the impacts of COVID-19 at global and regional levels. Nonetheless, the Southeast Asian countries bear the brunt of the effects of the COVID-19 pandemic, especially capture fisheries because of the reduced demand for fish and fishery products from hotel, retail and catering (HORECA) services, restricted movements of people, closure of fishing ports, and strict regulations on human biosecurity and fishing vessel supplies. Aquaculture on the other hand, suffer from the restrictions on people's movement and dwindling demand for fish that led to postponement of harvesting the cultured stocks, resulting in high maintenance costs for keeping the stocks. In general, the seafood supply chain is disarrayed due to transport restrictions and shortage of workers not only in fish production but also in processing.

¹ FAO. 2020. The effect of COVID-19 on fisheries and aquaculture in Asia. Retrieved 8th July 2020 [<http://www.fao.org/3/ca9545en/CA9545EN.pdf>]

² FAO. 2020. Measures for supporting wholesale food markets during COVID-19. Retrieved 8th July 2020 [<http://www.fao.org/3/ca9552en/CA9552EN.pdf>]



During the time of the pandemic, the countries continue to implement precautionary approaches for the sustainable management of the fishery resources, following the international fisheries-related policies and instruments with respect to fisheries resources management, such as the FAO Code of Conduct for Responsible Fisheries (CCRF), Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines), Port State Measures Agreement (PSMA), Catch Documentation Schemes (CDS). The implementation of the Sustainable Development Goals (SDGs) to reach the targets (SDG14, SDG 5, etc.) is maintained even considering that the target set in 2020 would be hampered.

National measures such as curfew could increase the incidence of IUU fishing as surveillance is limited because of reduced number of personnel. Therefore, the countries are adjusting their respective national MCS systems through the use of on-line communications and electronic systems. To monitor the status of the fish stocks, remote sensing technology in stock assessment had been adopted, the results of which is used to control production. In Thailand for example, although national measures such as lockdown and curfew

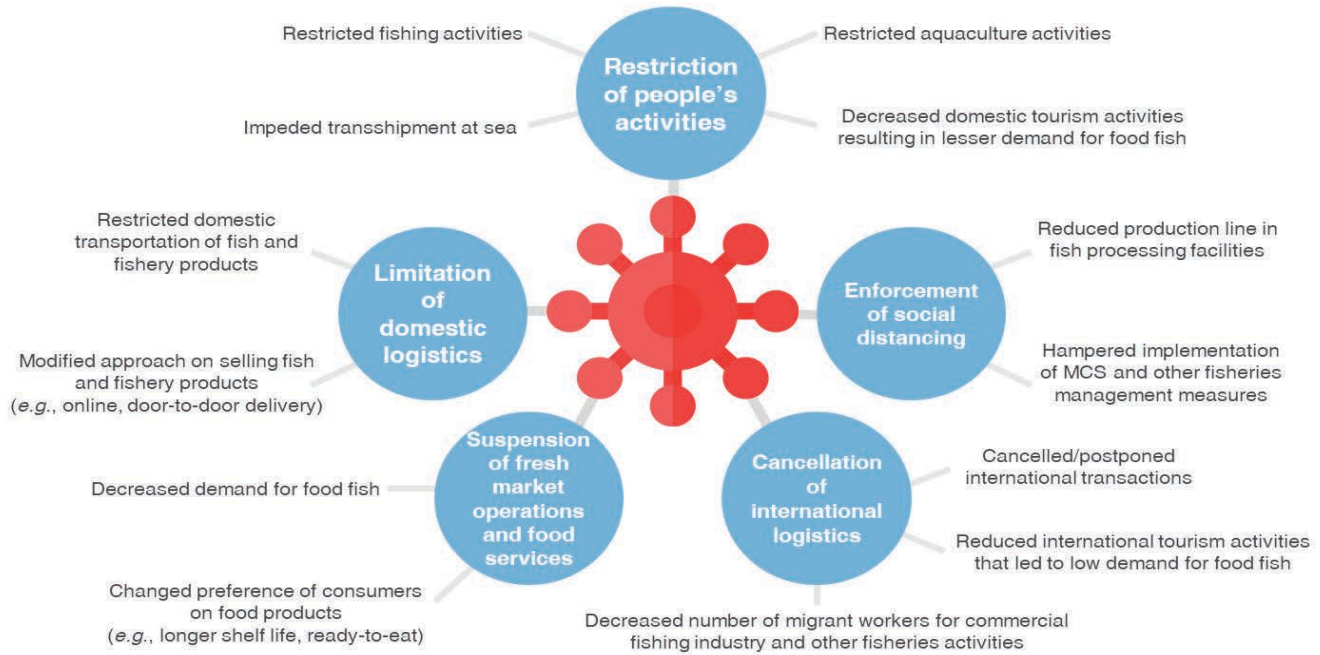
are being imposed, fishing operations at sea during the night had been allowed following certain restrictions. Through the Department of Fisheries, operations of fishing vessels are monitored by the responsible units, *i.e.* Fisheries Monitoring Center (FMC), Port-in Port-Out (PIPO), and Port State Measures (PSM) implementation, using electronic systems and on-line communication. The procedures for controlling IUU fishing have been carried out as before the lockdown but following social distancing. The assigned officers monitor from the equipment on land and report using the applications notwithstanding the reduced number and restricted movements of personnel. Thailand has also developed the national mitigation plans for the fisheries sector that include the extension of seaman's book of foreign crew of fishing vessels until 31 December 2020.

Addressing the Impacts of COVID-19 Pandemic on Fish Trade, Marketing, and Food Security

On the safety of fish and fishery products, there has been no evidence to associate seafood with the spread of COVID-19 or to insinuate that COVID-19 could contaminate

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Possible Impacts of the COVID-19 Pandemic on Fisheries and Aquaculture in the Southeast Asian Region



Box 1. Roles of stakeholders in addressing the impacts of COVID-19

Stakeholders	Anticipated actions to address the impacts of COVID-19
Governments, development organizations and donors	Develop relief packages that support local organizations in their efforts to enhance social and economic resilience; protect local and migrant workers from COVID-19 contamination in workplaces; encourage purchase of seafood for institutional use such as hospitals, and schools; promote domestic and online sales of seafood products
NGOs and civil societies	Facilitate and coordinate activities to support coastal communities and monitor the impacts of COVID-19 at the local level
Private sector	Ensure the health and safety of workers including fishers and fish farmers by endorsing the healthy and safety COVID-19-free procedures along the supply chain
Researchers and the academe	Identify short-term solutions on the impacts of COVID-19 pandemic and long-term strategies for effective and appropriate policy development
Fisher and fish farmer communities	Enhance their networks for acquiring relevant information, e.g. supply and demand, to improve their access to markets especially domestic, online and direct sales, and also explore the possibility of seeking assistance from governments and relevant agencies for the establishment of insurance scheme or other means to secure their livelihoods should disasters like this current pandemic occur in the future

fresh fish, thus, it is important to develop through advocacy, the trust of consumers that seafood is safe from COVID-19 infection. Nevertheless, the impacts of COVID-19 on trade and marketing of fish and fishery products, focusing on the experience of Thailand in its tuna industry, surimi and surimi-based products, fresh seafood from small-scale fisheries, frozen seafood, and the pangasius industry of Viet Nam, would also be assessed during the Webinar. It is expected that the ways and means of addressing the impacts of COVID-19 pandemic on the market and trade of fish and fish products could be established during the webinar.

Ways Forward

All concerned stakeholders are encouraged to play their respective roles in controlling the transmission of COVID-19 at national level, and to ensure that the impacts of the virus are addressed in the most sustainable way (**Box 1**). So that when the market will hopefully be restored in the coming few months and food services systems resume operations, fish trade could speed up and prices could stabilize as the demand for fish heightens. Then, the seafood business would attain speedy recovery and the region's fisheries industry would survive.



DEPARTMENTAL ACTIVITIES

Inspection of fish passage in Udonthani Province, Thailand



Fish passage in Udonthani Province, Thailand

SEAFDEC Training Department conducted a preliminary inspection of the fish passage construction at the Hauy Wang Chang Weir in Sangkom District, Udonthani Province, Thailand from 12 to 15 June 2020. The fish passage was constructed under the project “Implementing the Lower Mekong Fish Passage Initiative in Cambodia, Thailand, and Viet Nam” supported by the United States Agency for

International Development and the U.S. Department of the Interior (USAID-DOI). The inspection was intended to evaluate the performance of the fish passage during the rainy season right after it was constructed. The performance of the fish passage was observed including water flow, endurance of crushed stone bottom of the exit channel, and efficiency to allow fish to migrate upstream. Moreover, the crushed stone bottom

was firmly fixed and did not sink or slid away from the original layout. Even though it was only an initial observation, the performance of seven fish species sampled for two days (*i.e. Labriobarbus siamensis, Trichohodus pectoralis, Mystus mysticetus, Esomus longimana, Rasbora spilocerca, Channa striata, and Rasbora aurotaenia*) indicated the efficiency of the fish passage. Nevertheless, the waterway beside the fish passage that serves as a ramp for small fishes should be improved.

(Continued on Page 16)



SEAFDEC staff during the inspection of the fish passage

Workshop to develop EAFM plan for Phrea Province, Thailand organized

SEAFDEC/TD in collaboration with the Department of Fisheries of Thailand, conducted the “Workshop to Develop the Ecosystem Approach to Fisheries Management (EAFM) Plan for Wang Chin District, Phrea Province” on 24-25 June 2020 in Baan Pang Ngun, Wang Chin District, Phrea Province, Thailand. The Workshop was attended by 35 participants who are fishers, government officers from the Fisheries Provincial Office, Inland Fisheries Patrol Northern Regional Center (Phitsanulok), Phrae Provincial Agricultural Extension Office, Sub-District Administrative Organization as well as representatives from local fishers organization.

During the Workshop, TD provided technical support in applying the problem tree analysis to identify the problems/issues in the area and develop



Participants during the Workshop to develop EAFM plan for Phrea Province

the EAFM plan. The main problems/issues that were identified include environmental degradation, weak law enforcement, and low income of the fishing communities. In order to deal with these problems/issues, the EAFM plan was developed with the vision “Abundant forest areas and water resources and enhanced human well-



being based on the sufficiency economy philosophy through the participation of fishing communities and relevant sectors.” Moreover, the EAFM plan also included goals, objectives, indicators and benchmarks, and management actions to address the identified problems/issues in the area. ✕

IFRDMD supports two webinars on writing scientific papers



Dr. Dina Muthmainnah during the webinar on Scientific Writing

Researcher from SEAFDEC/IFRDMD, *Dr. Dina Muthmainnah*, was invited as one of the resource persons during two webinars on writing scientific papers. The webinars were organized by the Indonesian Fisheries Extension Association of Bengkulu

Province and the Indonesian Fisheries Extension Association of Lampung Province on 12 June 2020 and 17 June 2020, respectively. Both webinars were organized in collaboration with the Research Institute for Inland Fisheries and Extension. Using the Zoom meeting

application and YouTube live broadcast, the webinars were joined by more than 1,000 participants including fisheries extension officers, researchers, and university students from all over the country.

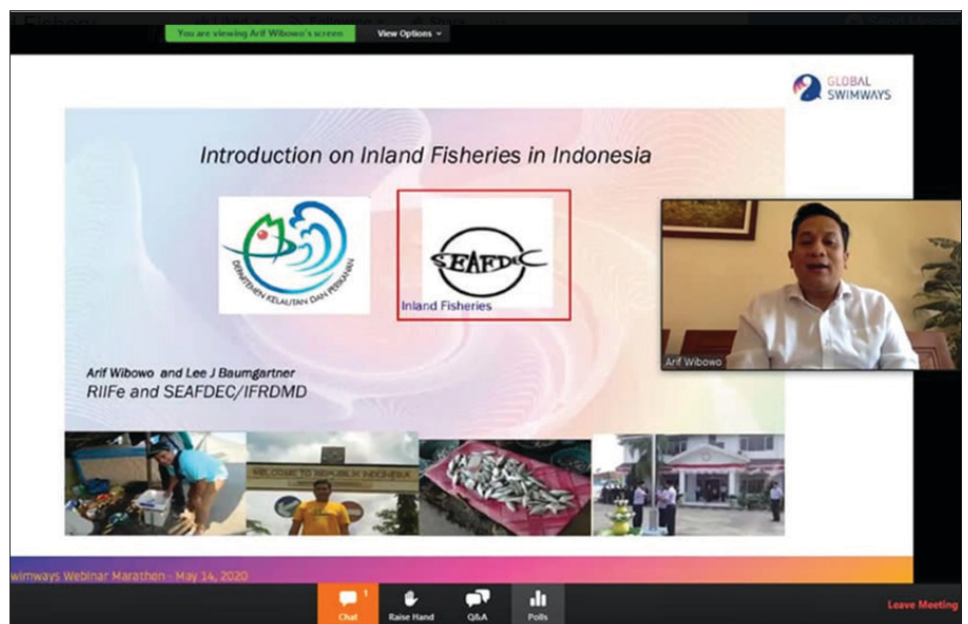
The webinars were opened by the IFRDMD Chief, *Dr. Arif Wibowo*, who emphasized that these webinars are capacity building activities to improve the competency of human resources. Moreover, he hoped that, in particular, the fisheries extension officers would become more productive in publishing scientific articles.

In order to encourage the participants to write, IFRDMD presented quizzes and gave books as awards for the winners during the webinars. The participants were pleased to join the webinars during the COVID-19 pandemic which enhanced their knowledge even if they only worked from home. ☒

IFRDMD Chief participates in the global swimways webinar marathon

The Chief of SEAFDEC/IFRDMD, *Dr. Arif Wibowo*, was one of the speakers during the “Global Swimways Webinar Marathon” as part of the World Fish Migration Day celebration to create awareness of open rivers and migratory fish. The Webinar was organized by the World Fish Migration Foundation on 14 May 2020 with a total of 59 participants that comprise researchers, fisheries officers, and fisheries and irrigation stakeholders from different academic institutions and organizations around the world. To accommodate the participants from different time zones and continents, the Webinar was divided into nine sessions and lasted for 22 hours.

During the Webinar, the speakers shared information about the global swimways, current status of fish stocks, and trends of inland capture fisheries. The presentation of *Dr. Arif* on “Introduction of Inland Fisheries in Indonesia” included the studies on



The Chief of SEAFDEC/IFRDMD, *Dr. Arif Wibowo* during his presentation at the Global Swimways Webinar Marathon

freshwater fish biodiversities conducted by the Research Institute for Inland Fisheries and Extension, Ministry of Marine Affairs and Fisheries of

Indonesia. He also mentioned the challenges in ensuring the sustainability of inland fisheries. ☒

REGIONAL PROGRAMS

Sharing the effective methods to promote fisheries resources management in small-scale fisheries through teleseminar



Participants at TD during the teleseminar on promotion of fisheries resources management in small-scale fisheries

SEAFDEC/TD organized the “Teleseminar on Effective Methods to Promote Fisheries Resources Management in Small-scale Fisheries” on 29 June 2020, with a total of 67 participants

joining from the SEAFDEC Secretariat, TD, MFRDMD, and IFRDMD, as well as representatives from the SEAFDEC Member Countries and officers from the Department of Fisheries of Thailand.

With the objective of sharing information and experience on effective approaches to fisheries resources management in small-scale fisheries in Southeast Asia for the effective implementation of similar projects in the future, the Teleseminar discussed the results and outputs of two projects, namely: 1) Promotion of Sustainable Fisheries Resource Enhancement in Critical Habitat/fishing ground in Southeast Asia, implemented in Cambodia; and 2) Facilitating Fisheries Activity Information Gathering through Introduction of Community-based Resources Management/Co-management, implemented in Lao PDR, as presented by researchers from TD.

Supported by the Japanese Trust Fund, the Projects implemented various activities in pilot sites in Cambodia and

(Continued on Page 15)

Workshop on Analysis of Sharks and Rays Landing Data for Determination of the MSY



SEAFDEC/MFRDMD staff during the Workshop on sharks and rays

SEAFDEC/MFRDMD organized the “Workshop on Analysis of Sharks and Rays Landing Data for Determination of the “Maximum Sustainable Yield” (MSY)” on 24 June 2020 in Kuala Terengganu, Malaysia.

A total of 11 participants including nine MFRDMD staff and two research

officers from the Fishery Research Institute in Kampung Acheh, Perak attended the Workshop. The Head of Faculty of Fisheries and Aquaculture, Universiti Malaysia Terengganu, *Dr. Rumeaida Mat Piah*, served as the resource person to share her expertise in fish stock assessment. During the Workshop, the data analysis models



Participants of the Workshop on sharks and rays

(Schaefer and Fox) and theory of MSY estimation were introduced. For the practical session, the participants were trained to analyze landing data of sharks and rays, and in determining the MSY using the 2017, 2018, and 2019 landing data from Larut Matang, Perak, and Kota Kinabalu, Sabah, Malaysia.

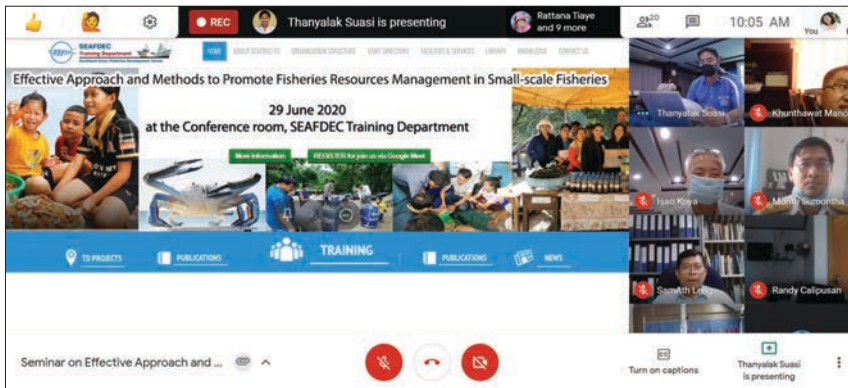


FUTURE ACTIVITIES

Date	Venue	Title	Organizer(s)
2020			
2-3 July 14:30-16:30 hrs.	Webinar	Webinar on Impact of the COVID-19 on Fisheries and Aquaculture in Southeast Asia	Secretariat
14-17 July	Ranong Province, Thailand	Consultation Meeting and Preliminary Survey on Appropriate Fisheries Management Unit (FMU) in Ranong Province, Thailand	TD
20-24 July	Online Workshop	SEAFDEC/NOAA Capacity Building Workshop on EAFM Management Tools	TD
3-7 August	Online Training	Online Regional Training of Trainers (TOT) on Fish Handling Techniques Onboard Fishing Vessels	TD
5 August	Virtual Meeting	Special Senior Officials' Meeting of the 41 st Meeting of the ASEAN Ministers on Agriculture and Forestry	ASEAN
6-7 August	Teleworkshop	Inter-Departmental Workshop on Preparation for SEASOFIA2022	Secretariat
20 August	Teleconference	Regional Consultation Workshop on the Utilization of Fisheries Geographic Information System (FGIS) and Remote Sensing (RS) to Improve Fisheries Management in Southeast Asia (Teleconference)	TD
24-26 August	Teleseminar	Teleseminar on Way Forward for Combating IUU Fishing in Southeast Asia	TD
27-28 August	Teleworkshop	Teleworkshop on Development and Improvement of Regional Tools (RFVR and PSM) for Combating IUU fishing in the Southeast Asia	TD
27-28 August	Teleworkshop	Gulf of Thailand Sub-regional Consultation Workshop on Developing a Plan of Activity for Transboundary Fisheries Resources	TD
31 Aug - 4 Sep	Online Training	On-line Regional Training Course on Sampling Gear Design for Onboard Fisheries Resource Survey	TD
1-4 September	Virtual Meeting	35 th Session of the FAO Regional Conference for Asia and the Pacific	FAO/RAP
2-3 September	Online Training	Online training on the use of eACDS application for Brunei Darussalam	TD
10-11 September	Online Training	Online training on the use of eACDS application for Malaysia	TD
29-30 September	Online practical workshop	Online practical workshop on the use of eACDS application for Myanmar	TD
10-30 September	Distance Seminar	Distance Seminar on the 2018 Collaborative Research Survey on Marine Fisheries Resources and Environment in the Gulf of Thailand by M.V. SEAFDEC 2	TD
21 and 28 Sep	Online Meeting	Online Regional Technical Meeting on Reducing Negative Impact to Ecosystem, Optimizing Energy and Fuel Consumption, and Enhancing Safety in Fishing Practices in Southeast Asia	TD
21 Sep - 20 Dec	Online Course	Distance Learning Course: Principles of Aquaculture Nutrition	AQD
23-24 September	Webinar	Webinar on Fisheries Subsidies: Southeast Asian Region Perspectives	Secretariat
September (tentative)	Webinar	Webinar on Traceability System for Fish and Fisheries Products in Southeast Asia	Secretariat
September (Tentative)	Online course	Training Course on AquaNutrition Online	AQD
6-9 October (Tentative)	Virtual Meeting	Inception Workshop for MFRD Project	MFRD
21 October	Virtual Meeting	42 nd Meeting of the ASEAN Ministers on Agriculture and Forestry	ASEAN
28 October	Virtual Meeting	Technical Meeting on Regional Plan of Action for the Management of Fishing Capacity (RPOA Capacity)	MFRDMD
9 Nov 2020 - 20 Feb 2021	Online Course	Distance Learning Course: Basic Principles of Health Management in Aquaculture	AQD
October (Tentative)	Virtual Meeting	21 st Meeting of SEAFDEC Information Staff (ISP) Meeting	Secretariat
10-11 November (Tentative)	Virtual Meeting	43 rd Meeting of the SEAFDEC Program Committee Meeting (PCM)	Secretariat
17-18 November (Tentative)	Virtual Meeting	23 rd Meeting of the Fisheries Consultative Group of the ASEAN-SEAFDEC Strategic Partnership (FCG/ASSP)	Secretariat


Sharing the effective methods to promote fisheries resources management in small-scale fisheries through teleseminar

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Lao PDR to strengthen the capacity of the fishing communities in managing their respective fishery resources. The activities of the Projects include awareness building; promotion of activities through information, education and communication materials; study tours; and practical workshops.

In the pilot site in Cambodia, the achievements include the revival of crab bank scheme and establishment of conservation area for blue swimming crab, seagrass, and other important resources. In Lao PDR, the accomplishments include the establishment of the Fisheries Management Committee (FMC) and designation of the fishery conservation zone, where the fishers recognized the benefits from their participation in the FMC. Moreover, in the pilot sites, the fishers acknowledged the importance of their participation in the development of local fisheries regulations and appreciated the introduction of alternative livelihoods such as fish processing and aquaculture as these had opened opportunities for them to improve their incomes.

Furthermore, results of the activities carried out in the pilot sites had given rise to universal aspects that include: 1) effective utilization and conservation of regional resources; 2) improved valuation of the regional resources; 3) sustainable management of the resources by the fishers' groups themselves; 4) strengthened cooperation of all stakeholders; 5) step-by-step adaptive management of the fishery resources for sustainability; and 6) enhanced support from central/local government in the implementation of legal instrument/regulations on fishery management by fishers. These universal aspects and the experiences from the pilot sites could be adapted to other sites/countries for the promotion of effective fishery resources management in the region. Nonetheless, based on the achievements of the Projects, SEAFDEC would emphasize on the importance of CBRM/Co-management and Fisheries Resource Enhancement in the development of regional fisheries policy frameworks. 

Note for contributors

The SEAFDEC Newsletter publishes quarterly news on all aspects of fisheries in Southeast Asia. The Editors reserve the right to accept and/or abridge articles based on available space. Anyone wishing to submit an article to the SEAFDEC Newsletter is requested to send it to the Editor in Chief or Editors at the given addresses.

Information in this Newsletter may be quoted only if reference is made to SEAFDEC.

SEAFDEC ADDRESSES

SECRETARIAT

P.O. Box 1046, Kasetsart Post Office,
Chatuchak, Bangkok 10903, Thailand
Tel: +66 2940 6326 Fax: +66 2940 6336
E-mail: secretariat@seafdec.org
<http://www.seafdec.org>

TRAINING DEPARTMENT (TD)

P.O. Box 97, Phrasamutchedi,
Samut Prakan 10290, Thailand
Tel: +66 2425 6100 Fax: +66 2425 6110 to 11
E-mail: td@seafdec.org
<http://www.seafdec.or.th>

MARINE FISHERIES RESEARCH DEPARTMENT (MFRD)

52, Jurong Gateway Road,
##14-01, Singapore 608550
Tel: +65 9046 4787; Fax: +65 6334 1831
E-mail: Ong_Yihang@sfa.gov.sg
<http://www.seafdec.org>

AQUACULTURE DEPARTMENT (AQD)

Main Office: Tigbauan, 5021 Iloilo, Philippines
Tel: +63 33 330 7000, 511 9170
Fax: +63 33 330 7002

Manila Office: Rm 102 G/F Philippine Social
Science Center (PSSC) Commonwealth Avenue, Diliman,
Quezon City 1101, Philippines
E-mail: aqchief@seafdec.org.ph
<http://www.seafdec.org.ph>

MARINE FISHERY RESOURCES DEVELOPMENT AND MANAGEMENT DEPARTMENT (MFRDMD)

Taman Perikanan, Chendering
21080 Kuala Terengganu, Malaysia
Tel: +609 617 5940, 617 1543
Fax: +609 617 5136, 617 4042
E-mail: mfrdmd@seafdec.org.my
<http://www.seafdec.org.my>

INLAND FISHERY RESOURCES DEVELOPMENT AND MANAGEMENT DEPARTMENT (IFRDMD)

Jl. Gub. HA. Bastari No.08 Rt.29 Rw.07 Kel.Silaberanti Kec.
Seberang Ulu I-Jakabaring, Palembang 30252
South Sumatra, Indonesia
Tel: +62 711 5649600; Fax: +62 711 5649601
E-mail: ifrdmd@seafdec.id
<http://www.seafdec.id>

Advisory Board:

Malinee Smithrithee,
Secretary-General and TD Chief
Akito Sato,
Deputy Secretary-General and TD Deputy Chief
Ong Yihang, *MFRD Chief*
Dan D. Baliao, *AQD Chief*
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IFRDMD has new Deputy Chief

Mr. Toshiya Suzuki as the new Deputy Chief and Japanese Trust Fund Co-Manager of the SEAFDEC/IFRDMD, started his term of duty on 1 April 2020. *Mr. Suzuki* was appointed by the Government of Japan to succeed *Dr. Takuro Shibuno*, whose term of duty at IFRDMD ended in March 2020.

Mr. Suzuki began his career as a researcher at the Hokkaido National Fisheries Research Institute, Japan Fisheries Research and Education Agency in 1989. Prior to moving to IFRDMD, he served as the Director of Shibushi Laboratory, National Research Institute of Aquaculture, Japan Fisheries Research and Education Agency since 2018. His knowledge and expertise in fish ecology would contribute significantly to the implementation of programs and activities of IFRDMD.

However, due to the COVID-19 situation, *Mr. Suzuki* was welcomed



Mr. Toshiya Suzuki is the new Deputy Chief and Japanese Trust Fund Co-Manager of the SEAFDEC/IFRDMD

by IFRDMD officer and staff through a teleconference as he is working from Japan since the beginning of his term. *Mr. Suzuki* said that he understands that IFRDMD's roles include conducting activities to support the sustainable development and management of inland capture fisheries in the Southeast Asian region and providing scientific basis for the development and management of inland fisheries.

Inspection of fish passage in Udonthani Province, Thailand

(Continued from Page 11)

Fish passage, also known as a fish ladder fishway, or fish steps, is a structure on or around artificial and natural barriers (such as dams, locks, and waterfalls) to facilitate diadromous fishes' natural migration as well as movements of potamodromous species. Most fishways enable fish to pass around the barriers by swimming and leaping up a series of relatively low steps (hence the term ladder) into the waters on the other side. The velocity of water falling over the steps has to be great enough to attract the fish to the ladder, but it cannot be so great to wash the fish back downstream or exhaust them to the point of being unable to continue their journey upstream.



Dr. Mori completes term as AQD Deputy Chief



Dr. Koh-ichiro Mori wraps up his stint as the outgoing Deputy Chief of the AQD after serving for two years and three months.

During his brief stay with AQD, *Dr. Mori* spearheaded new research projects on the culture of mackerel tuna, shortfin scad, and lobster which were supported by the Government of Japan Trust Fund. Moreover, during his term, production of information on aquatic health management through research was continued. Some of these information emanated from studies that included the development of improved diagnostic

techniques in identifying diseases as well as setting countermeasures against parasites in aquatic species. Results of these studies were disseminated through trainings and capacity-building projects on sustainable aquaculture. Additionally, *Dr. Mori* was instrumental in allocating funding support for the training courses on technical writing and research methodology for selected science high school teachers in Iloilo,

Philippines with the aim of enhancing the teachers' capacity in making doable and simple research proposals.

AQD Chief *Mr. Dan Baliao* commended this effort, hailing this as one of the legacies that shaped *Dr. Mori's* term. *Mr. Baliao* also expressed his gratitude to *Dr. Mori* for his support to AQD's activities and operations.



Dr. Koh-ichiro Mori (left) receives a token from AQD Chief Dan Baliao (right) and Research Division Head Dr. Leobert de la Peña (in blue) during the send-off for Dr. Mori on 18 June 2020 at AQD's Training and Information Division Conference Room